

**VASCULAR FLORA OF THE OWYHEE REGION
OF SOUTHEASTERN OREGON, SOUTHWESTERN IDAHO
AND NORTH-CENTRAL NEVADA**

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ABSTRACT

This vouchered vascular flora covers the watersheds of the Owyhee and Bruneau Rivers and smaller creeks between them in southwestern Idaho, southeastern Oregon and north-central Nevada between the hydrologic Great Basin to the south and the Snake River to the north. The region lies between N 41.6° and 43.6° and W 115.1° and 118.1°, covering 39,500 km² ranging in elevation from 667 m to 3241 m. Though most of the substrates are of Miocene volcanic rhyolites and associated basalts, ashes and tuffaceous sediments, both Cretaceous granitic intrusion and Precambrian to early Paleozoic carbonate rocks occur in some of the mountains. Annual precipitation in this region ranges from 180 mm to 1125 mm. More than 25,000 collections have been made since the earliest around the turn of the 20th century. I have used my collections of the past 36 years along with those of many other collectors to produce a vouchered checklist of this region totalling 1629 terminal taxa representing 115 families and 563 genera, of which 1593 are angiosperms, 12 are gymnosperms and 24 are ferns and their allies. Of these 13.3% are exotics and 46 are endemic to this region, either narrowly so (32) or more regionally so (14), with ranges extending into neighboring climatically and edaphically similar environments. 179 taxa (11% of the flora) are currently ranked as critically imperilled to vulnerable in at least one of the states within the flora boundary. The largest three families and genera are Asteraceae, Poaceae, and Brassicaceae and *Carex*, *Astragalus*, and *Eriogonum*, respectively.

The vascular flora of the Owyhee region of southeastern Oregon, southwestern Idaho and north-central Nevada, hereafter referred to as the Greater Owyhee flora, includes vascular plants in the watersheds of the Owyhee and Bruneau Rivers and the smaller creeks between them in the geographic region between the hydrologic Great Basin to the south and the Snake River to the north (Figure 1). This Greater Owyhee region includes nearly all of Owyhee Co., Idaho, most of the southern 2/3 of Malheur Co., Oregon, the mountainous region of the northwestern part of Elko Co., Nevada, and a tiny corner of the northeastern part of Humboldt Co., Nevada.

The Greater Owyhee region is one of the last large areas within the Continental United States to have been explored botanically. While early Oregon botanists such as John Leiberger and William Cusick explored widely during the latter two decades of the 19th century neither collected more than a few plants in southern Malheur Co. in the region of this flora. Similarly, notable late-19th century Idaho botanist Louis F. Henderson likely did not collect in Owyhee Co., Idaho. The earliest collections in this region began in 1910 in Idaho by J. Francis Macbride, graduate student of Aven Nelson at University of Wyoming, and in Oregon by Morten Peck, long-time professor at Willamette University. Other collectors, including Peck, Nevada collectors including Art Holmgren and Percy Train, and Idaho collector John Henry Christ, botanist for the U.S. Soil Conservation Service, continued to collect sporadically throughout the region accumulating perhaps at most a few thousand specimens before the mid 20th century. In the 1950s more earnest botanical exploration began with, for example, William Hudson Baker, a professor at University of Idaho exploring the Silver City Range and eastern portions of Owyhee Co., and Milton Dean, a Masters degree student at Oregon State University, exploring the

The Owyhee Flora area (Figure 1) lies between the Great Basin and the Snake River. It includes the complete watershed basins of the Owyhee and Bruneau Rivers and the tributaries of the Snake River lying between the confluence of the Bruneau and Owyhee Rivers with the Snake River (the Owyhee Front). The area includes most of Owyhee Co., Idaho, most of the southern two thirds of Malheur Co., Oregon, the northern highlands of northwestern Elko Co., Nevada, and the small northeast corner of Humboldt Co., Nevada. The area of this region is 39,500 km², or nearly 4 million hectares, and covers much of the area lying between N 41.6° and 43.6° and W 115.1° and 118.1°.

The areas omitted include these: the Snake River Plain to the north and east of the Snake River; Salmon Falls Creek watershed to the east of the Bruneau R. watershed; the Humboldt R. watershed to the south and southwest of the Bruneau and East and South Forks of the Owyhee watersheds; the Quinn River watershed to the southwest of the West Little and Little Owyhee Rivers; and the Trout Creek Mountains to the west. The area to the west of US Highway 95 and Burns Junction, Oregon, including the Alvord basin (1235 m) and the east face of Steens Mountain may actually drain subterraneously into Crooked Creek (an Owyhee River tributary), a perennial stream whose source is the Crooked Creek spring (1195 m). The groundwater source of that spring is likely the Alvord basin fed by waters from the east slopes of Steens Mountain. Thus, despite generally being considered part of the Great Basin, the Alvord and eastern Steens regions may more technically (hydrologically) be part of the Owyhee River drainage! However, the floristic account area excludes the Alvord and Steens Mountain regions, treating them customarily as part of the Great Basin (Mansfield 2000). This flora includes the Coyote Playa west of Hwy 95 but does not extend west beyond the divide between that basin and the Alvord basin to the west. It also includes the Barren Valley, Crowley, and Dry Creek, all of which lies in the Owyhee watershed. The Malheur River watershed to the northwest of the lower Owyhee River is also omitted from this flora. A few taxa have been included on the presumption of presence in this flora when, for example, documented within approximately 200 m along the opposite (northeast) shore of the Snake River or on the south slope (Humboldt River watershed) of a Jarbidge Range mountain peak, when many similar but unexplored exposures lie within the Bruneau River watershed.

METHODS

During the past 36 years I have explored by vehicles, foot, and watercraft as much of the Greater Owyhee region as possible, collecting and preserving by standard herbarium protocols all vascular plants at each of more than 650 collection localities, including at least 303 in Malheur Co., Oregon, 273 in Owyhee Co., Idaho, 95 in Elko Co., Nevada, and 2 in Humboldt Co., Nevada. I collected more than 15,000 specimens deposited at CIC (acronyms from Thiers 2024) and available on-line through the Consortium of Pacific Northwest Herbaria portal (<<https://www.pnwherbaria.org/>>). When combined with specimens from the same region contributed by other collectors I examined over 25,000 populations represented by herbarium sheets and/or on-line images from either the Consortium of Pacific Northwest Herbaria portal (<<https://www.pnwherbaria.org/>>) or the Southwest Biodiversity portal (<<https://swbiodiversity.org/seinet/>>) from herbaria including CIC, SRP, OSC, WILLU, ID, IDS, UTC, RENO, WTU, WS, and others. Examination of these collections led to parsing of taxa for this flora, including description of taxa new to science, such as *Lomatium ravenii* var. *paiutense*, *Lomatium bentonitum*, *Lepidium montanum* var. *owyheense*, *Monardella angustifolia*, and *Potentilla gracilis* var. *owyheense* (Carlson et al. 2011a, 2011b; Elvin et al. 2014; Ertter & Mansfield 2007; Mansfield & Barbour 2020). A variety of resources were used to verify specimen identification, including Intermountain Flora (Barneby 1990; Cronquist 1994, 1972; Cronquist et al. 1977, 1994, 1997; Holmgren et al. 2005, 2012; Holmgren & Holmgren 2017), Flora of North America, (Flora of North America Editorial Committee 1993+), Sedges of the Pacific Northwest (Wilson et al 2008), The Jepson Manual (Baldwin et al. 2012), Oregon Flora Vols 1 & 2 (Meyers et al. 2015, 2020), Flora of the Pacific Northwest (Hitchcock & Cronquist 2018), Grasses of the Intermountain Region (Anderton & Barkworth 2009), Field Guide to Grasses of the Oregon and Washington (Roché et al. 2019), and primary literature as cited below in the checklist. Family taxonomy follows APG IV (2016).

Nomenclatural disagreement often existed — when I had no opinion, I generally referred to the nomenclature of the Flora of the Pacific Northwest (Hitchcock & Cronquist 2018). A vouchered checklist of the Oregon portion of this entire watershed was reported earlier (Mansfield 2010).

RESULTS AND DISCUSSION

Floristic units of the Greater Owyhee region

The Greater Owyhee region is at the intersection of many larger physiographic provinces variously referred to as the Great Basin (Basin and Range), the Columbia River Plateau, High Lava Plains, the Snake River Plain, or the Northern Rocky Mountains (Hitchcock & Cronquist 2018, Holmgren 1972, McLaughlin 1989, Meyers *et al.* 2015, Omernick and Gallant 1986). Many species in the Owyhee region have their affinities in those adjacent floristic regions, yet this area is quite diverse floristically as a result of abiotic variation in elevation, precipitation, and geological substrate, and areas within the Greater Owyhee region often have unique floristic features that reflect their distinct histories, including differences in species composition, species richness, endemism, rarity etc. Based on these unique features, the Greater Owyhee region (Figure 1) may be divided into six floristic units as shown in Figure 2. It is useful to consider Cronquist's (1978) deliberations on floristic units: "It is helpful to think in terms of floristic groups, but we should keep it constantly in mind that each species has its own limits of ecological tolerance, its own means of migration, and its own evolutionary potentialities." Nonetheless, I propose six physiographic/floristic units which, like those proposed for Idaho by Ertter and Moseley (1992), largely represent a "synthesis of unpublished personal knowledge, [and] the realization that field botanists develop that they're someplace different." Each taxon in this flora occurs in one to several of these floristic units as described below. These six floristic units are described here to provide a brief synopsis of the location, climatic features, geology, ecology, endemism, and floristic features of each.

Owyhee Front (OF). This unit is approximately 2,800 km² and lies almost entirely within the state of Idaho. It includes everything below about 1050 m between the Snake River lying to the northeast and the Owyhee Mountains (Silver City Range) to the southwest (Figure 2). The Owyhee Front lies between the confluence of the Bruneau River to the southeast and the Succor Creek drainage (roughly the Oregon border) to the northwest. Plants from these lower elevations in the vicinity of Bruneau Dunes State Park are considered in the Owyhee Front also. This unit corresponds approximately to the Lake Bed Unit of the Lower Snake River Plain Floristic Division of Ertter and Moseley (1992). Note: The Bruneau River canyon bottom rises for a considerable distance up the canyon before rising to 1050 m. The boundary of the OF is approximately along a line connecting the 1050 m contour lines on the top of the plateau (or foothills of the Owyhee mountains) on either side of a canyon, NOT rising up the canyons to the 1050 m elevation along the river. That is, I'm considering the portions of the canyon bottoms as part of the Plateaus or Mountains even though they may be less than 1050 m.

The Owyhee Front lies in the rain shadow of the Owyhee Mountains lying to the southwest. The precipitation in this Unit (at Oreana) is 180 to 200 mm per year, the driest of the Greater Owyhee region (Western Regional Climate Center 2024; Table 1).

The Owyhee Front lies primarily on lakebed sediments of the Idaho Group (paleo "Lake Idaho"), which includes principally the Miocene Chalk Hills Formation and, to a lesser extent at the western end, the Pliocene/Pleistocene Glens Ferry Formation. These lacustrine and fluvial sediments are interbedded with volcanic (rhyolitic, siliceous) ashes formed from melting continental crust and minor basalts (from deep plumes below the crust) that form much of the western Snake River Plain (Link *et al.* 2021; Ertter & Moseley 1992; Kimmel 1979; Swirydczuk 1977; Swirydczuk *et al.* 1982). The larger basalt flows of the western Snake River Plain lie more to the north of the Snake River beyond the border of this flora. Lake Idaho was shallow in the southeastern end of what is now the Owyhee Front, forming oolitic limestones along the margins that are more calcium-rich than those at the

northwestern end of the western Snake River Plain. This region of the Owyhee Front is home to many of the rare vascular plants of southwestern Idaho (Brown & Mansfield 2017).

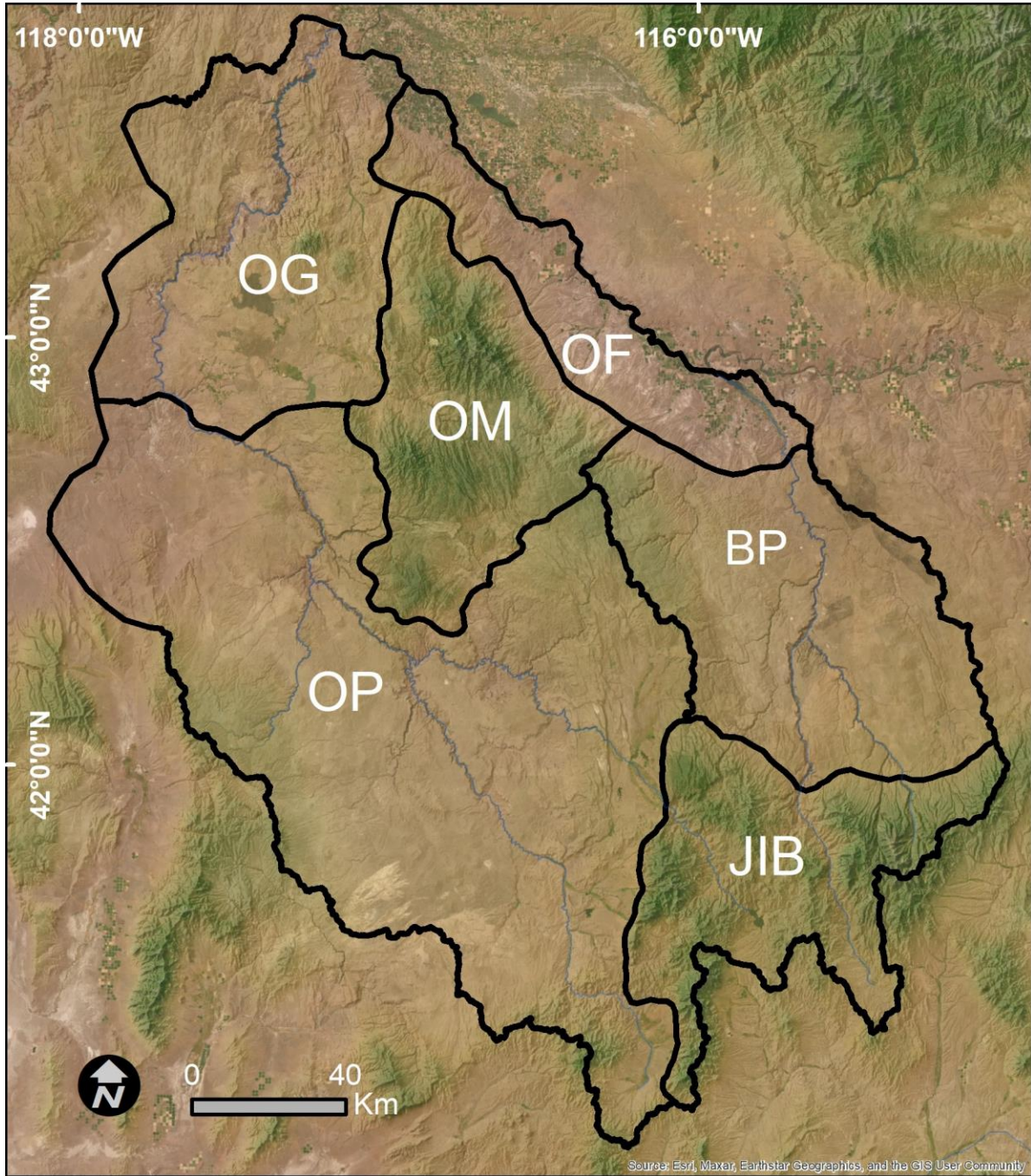


Figure 2. The floristic units within the Greater Owyhee Flora region. BP is the Bruneau Plateau. JIB is the Jarbidge, Independence and Bull Run Mountains. OF is the Owyhee Front. OG is the Owyhee Graben. OM is the Owyhee Mountains. OP is the Owyhee Plateau.

Table 1. Western Regional Climate Center (2024) climate data for the Greater Owyhee Region.

Station	Elevation (m)	Unit	Temperature (°C)		Precipitation (mm)	
			mean max	mean min	mean annual	mean annual snow
Grandview, Idaho	718	OF	19.4	2.8	180	147
Homedale, Idaho	680	OF	18.9	2.3	200	112
Grasmere, Idaho	1551	BP	16.0	-0.0	211	292
Mountain City, Nevada	1710	JIB	15.4	-4.4	325	716
Jarbidge, Nevada	1195	JIB	14.8	-1.1	490	2720
IL Ranch, Nevada	1586	OP	16.8	-13.8	320	770
Rome, Oregon	1033	OP	18.7	0.5	211	203
Owyhee Dam, Oregon	815	OG	18.8	3.4	231	244
Rockville, Oregon	1207	OG	17.0	-0.3	292	447
Silver City, Idaho	1880	OM	13.0	1.9	561	2372
Reynolds, Idaho	1200	OM	16.2	1.5	267	218

Like the entire region, the Owyhee Front includes both upland and riparian plant communities (Mansfield 2010). Much of the upland area, particularly in the southeastern portion of the Owyhee Front is dominated by ash outcrops having very low plant cover in a mosaic of mostly xeric scrub communities, dominated by either *Atriplex confertifolia* in the more rocky sites, or to a much lesser extent *Sarcobatus vermiculatus* in the alkaline flats with higher water tables. Mixed scrub communities with varying combinations of *Atriplex canescens*, *Tetradymia* spp., *Salvia doreii*, *Ericameria nauseosa*, *Chrysothamnus viscidiflorus*, *Purshia tridentata*, *Picrothamnus desertorum*, *Grayia spinosa*, or *Krasheninnikovia lanata* are also common throughout the Owyhee Front. And many communities are dominated by either Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) with bunchgrasses such as bluebunch wheatgrass (*Pseudoroegneria spicata*) or Sandberg's bluegrass (*Poa secunda* ssp. *secunda*) on the slopes or Basin big sagebrush (*Artemisia tridentata* ssp. *tridentata*) often with basin wild rye (*Leymus cinereus*) on benches near the streams. In areas where either flood- or wind-deposited sands are common such as Bruneau Sand dunes, communities are often dominated by grasses such as needle and thread (*Hesperostipa comata*) and Indian rice grass (*Eriocoma hymenoides*). As a result of recent wildfires, such as the Soda Fire in summer of 2015, large upland areas of the Owyhee Front are losing many plant populations and are being converted to annual grasslands dominated by cheatgrass (*Bromus tectorum*) or, in more clay-rich sites, medusahead (*Taeniatherum caput-medusae*). Aquatic and riparian communities in the Owyhee Front are well developed, with the Snake River and lower reaches of the Bruneau River offering expanses of low-elevation and low-flow

habitats, but with dams upriver, the Snake River flood plain is managed and lacks some habitat diversity found along the Owyhee River above the Owyhee Reservoir.

484 taxa are present in the Owyhee Front (30% of this regional flora). Forty three of the taxa of the Greater Owyhee region are represented only in the OF floristic unit (8.9% of the Owyhee Front flora). Roughly a third of these are rare, native disjuncts separated from the valleys of the Great Basin by the Jarbidge Mountains. Such Great Basin disjuncts found in our flora only in the Owyhee Front include *Eriogonum palmerianum*, *Gilia brecciarium*, *Ipomopsis polycladon*, *Psthyrotes annua*, *Eurphorbia ocellata* ssp. *arenicola*, *Phacelia ivesiana*, *Juniperus osteosperma*, *Eriogonum shockleyi*, *Penstemon janishiae*, *Blepharidachne kingii*, *Peteria thompsoniae*, *Enceliopsis nudicaulis*, *Langloisia setosissima* var. *punctata* and *Astragalus mollissimus* var. *thompsonii*. Four taxa are relatively narrowly endemic to the Chalk Hills Formation or other unique volcanic or lacustrine sediments of the Owyhee Front and/or nearby areas, including *Eriogonum calcareum* var. *sceptrum*, *Mentzelia torreyi* var. *acerosa*, *Astragalus camptopus* and *Astragalus purshii* var. *ophiogenes* (Table 2). Many of the Owyhee taxa restricted to the Owyhee Front are warm climate adventives, including the tamarisks (*Tamarix chinensis* and *Tamarix parviflora*), many rarely encountered grasses (e.g. *Cenchrus longispicus*, *Chloris verticellata*, *Panicum millaceum*, *Setaria pumila*, *Bromus rubens*) and other weedy noxious species (e.g. *Bryonia alba* and *Solanum rostratum*). Several are widespread wetland or aquatic species that follow major rivers and seem restricted to the Snake River in our flora, not moving upriver in Owyhee or Bruneau systems, such as *Bolboschoenus maritimus* var. *paludosus*, *Persicaria hydropiper*, *Najas marina*, *Erigeron strigosus* and *Helenium autumnale*. Many are just generally restricted to lower elevations, whether approaching us from arid areas to the east, such as *Abronia mellifera* var. *mellifera*, *Astragalus kentrophyta* var. *jessiae* and *Elymus canadensis*, or from the Columbia Plateau to the northwest, such as *Astragalus caricinus* and *Opuntia xcolumbiana*, or from multiple directions but just patchy in distribution, such as *Peritoma serrulata*, *Opuntia fragilis*, *Elymus multisetus*, and *Pseudognaphthodium stramineum*.

Bruneau Plateau (BP). This unit is approximately 5,850 km² and includes the entire Bruneau/Jarbidge river canyons and plateaus up to about 1800 m, with the Jarbidge/Independence/Bull Run Mountains being everything above 1800 m. The border between the Bruneau Plateau and the Owyhee Mountains is the approximate boundary of the divide between Little Jacks Creek (in BP) and Castle Creek (in OM)—that is, roughly Mud Flat Rd. And to the south the boundary between the BP and OP is the approximate boundary between upper drainages of Bruneau (e.g. Sheep Ck.) and upper northern drainages of E. Fk. Owyhee (e.g. Blue Ck.)—that is, roughly 11 miles west of Grasmere along Hwy 51.

Table 2. Taxa endemic to the greater Owyhee region. Floristic units in which the taxon is located are noted by the “*”. BP=Bruneau Plateau; JIB=Jarbidge, Independence and Bull Run Mountains; OF=Owyhee Front; OG=Owyhee Graben; OM=Owyhee Mountains; OP=Owyhee Plateau. The extent of a taxon’s endemism is considered strict (S) if the taxon is found only within the boundaries of this flora or nearly strict when fewer than 5 collections have been recorded beyond the immediate borders of this flora. Taxa are considered regional endemics (R) when their distribution is primarily centered in the region of the flora and if more than 5 collections have been noted beyond the immediate borders of this flora.

Taxon	Extent (R/S)	BP	JIB	OF	OG	OM	OP
<i>Abronia mellifera</i> var. <i>nov. ined.</i>	S			*			
<i>Artemisia packardiae</i>	S	*	*		*	*	*
<i>Artemisia papposa</i>	R						*

<i>Astragalus atratus</i> var. <i>owyheensis</i>	R		*		
<i>Astragalus camptopus</i>	S		*		
<i>Astragalus kentrophyta</i> var. <i>jessiae</i>	S		*		*
<i>Astragalus mulfordiaea</i>	R		*	*	
<i>Astragalus nudisiliquus</i>	R		*	*	*
<i>Astragalus purshii</i> var. <i>ophiogenes</i>	R		*		
<i>Astragalus solitarius</i>	R			*	*
<i>Astragalus sterilis</i>	S			*	
<i>Astragalus toanus</i>	R		*		
<i>Astragalus yoder-williamsii</i>	S				* *
<i>Chaenactis cusickii</i>	R		*	*	*
<i>Collomia renacta</i>	S				*
<i>Cymopterus glomeratus</i> var. <i>greeleyorus</i>	S		*	*	
<i>Delphinium</i> sp. nov. <i>ined.</i>	R	*			*
<i>Diplocus cusickii</i>	S		*	*	*
<i>Downingia insignis</i>	R				*
<i>Erigeron latus</i>	S	*	*		*
<i>Eriogonum calcareum</i> var. <i>sceptrum</i>	S		*		
<i>Eriogonum chrysops</i>	S			*	
<i>Eriogonum douglasii</i> var. <i>elkoense</i>	S		*		
<i>Eriogonum lewisii</i>	S		*		
<i>Eriogonum "ertterae" ined.</i>	S				*
<i>Eriogonum novonudum</i>	S		*	*	
<i>Eriogonum salicornioides</i>	R				
<i>Hackelia ophiobia</i>	S				*
<i>Lathyrus grimesii</i>	S		*		
<i>Lepidium davisii</i>	S				*
<i>Lepidium montanum</i> var. <i>owyheense</i>	S	*			
<i>Linanthus glaber</i>	S	*			*
<i>Lomatium bentonitum</i>	S			*	
<i>Lupinus argenteus</i> var. nov. <i>ined.</i>	S				*
<i>Mentzellia mollis</i>	S			*	
<i>Mentzellia packardiae</i>	S			*	
<i>Mentzellia torreyi</i> var. <i>acerosa</i>	R		*		
<i>Monardella angustifolia</i>	S			*	
<i>Oreocarya propria</i>	R		*	*	*
<i>Penstemon miser</i>	R		*	*	*
<i>Phacelia lutea</i> var. <i>calva</i>	S			*	*
<i>Phacelia lutea</i> var. <i>mackenzieorum</i>	S			*	
<i>Pyrrocoma linearis</i>	S				*
<i>Senecio ertterae</i>	S			*	
<i>Trifolium leibergii</i>	S		*		*
<i>Trifolium owyheense</i>	S			*	

The Bruneau Plateau, like the Owyhee Front lies in the rain shadow of the Owyhee Mountains to the west. The mean annual precipitation in this Unit (at Grasmere) is 211 mm (Western Regional Climate Center 2024; Table 1).

Bruneau-Jarbidge volcanic field was a super volcano linked to the Yellowstone Hotspot, erupting between 10 and 12 million years ago, creating a wide circular caldera encompassing the majority of the Bruneau Plateau (Bonnichsen 1982). Today the caldera is completely infilled. Possibly seven “super eruptions” spread thick blankets of rhyolitic ash. One event blew east to Nebraska, where it covered the Ashfall Fossil Beds. Superheated ash cooling into welded tuff formations (e.g. Couger Point Tuff) traveled as far north and west as Wenas Lake in south-central Washington. Tephra layers, predominantly from the Snake River Plain volcanic centers are found in southern Nevada, the Mojave Desert, and Lompoc, California. (Knott et.al. 2022)

437 vascular plant taxa are present in the Bruneau Plateau (27% of this regional flora). Only six of the taxa of the Greater Owyhee region are represented solely in the BP floristic unit (1% of the Bruneau Plateau Flora). Of these six, two are narrowly endemic to this area (*Linanthus glaber* and *Lepidium montanum* var. *owyheense*—Table 2) and two are at the western extent of their ranges or disjunct here (*Ericameria obovata* and *Penstemon cyaneus*). This very low portion of unique plants in the BP unit may be, in part, due to somewhat limited sampling. In addition, endogenous factors also likely contribute: the BP unit is in the rain shadow of the Owyhee Mountains and drier than the Owyhee Plateau, yet has much more homogenous geology than the Owyhee Front and has less habitat diversity than either OP or OF.

Owyhee Mountains (OM). This unit is approximately 4,400 km² and lies almost entirely within the state of Idaho including the Silver City Range (Hayden Peak at 2651 m), South Mountain at 2378 m, and Juniper Mountain at 2047 m. Its boundaries between the Bruneau Plateau, Owyhee Plateau and Owyhee Graben are approximate. The OM unit includes areas above about 1050 m to the southwest of where it borders the Owyhee Front. At the eastern end of the Owyhee Mountains, the border with the Bruneau Plateau becomes floristically ambiguous. It generally follows up Poison Creek and Mud Flat Road, placing all tributaries of Little and Big Jacks Creeks and the Bruneau River into the Bruneau Plateau. At approximately Summit Flat at 1850 m the boundary between Owyhee Mountains and Owyhee Plateau follows in a southwesterly direction following Pole Creek down to approximately 1500 to 1600 m around the south end of Juniper Mountain and north between approximately 1500 and 1600 m and approximately along the Oregon/Idaho border to 43.15° N at the divide between Cow Creek and Succor Creek east of Hwy 95. Here the Owyhee Mountains share a border with the Owyhee Graben to the west, following north to the east of Succor Creek and Macbride Creek around northwesterly to Pole Creek top, where the boundary then descends to the junction with the Owyhee Front around 1050 m.

Weather stations in the Owyhee Mountains are sparse and variable. The Natural Resources Conservation Service maintains Snotel data (USDA NRCS Snotel, 2024) for higher elevation locations in Owyhee, Jarbidge and Independence Mountains. Mud Flat station at 1750 m records a median annual precipitation of 415 mm per year. At South Mountain station (400 m below the South Mountain summit) the median annual precipitation is 807 mm. On the northeast slopes of the Silver City Range in the Reynolds Ck. drainage, the Agricultural Research Service has maintained precipitation measurement stations at elevations ranging from 1184 m to 2169 m, where annual precipitation has averaged between 239 mm and 1124 mm, respectively (Nayak et al. 2010). Both increases in temperature and decreases in proportion of snow to rain, most notably at low and middle elevations, during the latter half of the 20th and beginning of 21st century (Nayak et al. 2010) will most certainly alter the distributions of plants in this mountain range in coming decades as climate change progresses.

The Owyhee Mountains are mainly comprised of rhyolitic flows from Miocene eruption centers in southwestern Idaho and southeastern Oregon with some smaller Oligocene basaltic and andesitic

extrusives in the western Silver City Range. Much of the higher Silver City Range is comprised of granodiorite and related Cretaceous intrusives that form a southern extension of the Idaho batholith (Link et al. 2021). Minor outcrops of Jurassic and Eocene intrusives are on the southwest side of South Mountain (USGS 2024) and rare outcrops of basalt may be evident in the western side of the range.

Upland and riparian plant communities both can be found throughout the Owyhee Mountains. At the highest elevations in Silver City Range windswept, barren rocky ridges support populations of low shrubs such as *Ericameria discoidea*, *Ribes montigenum*, and *Ericameria greenei*, low, often tufted forbs, such as *Eriogonum cespitosum*, *Phacelia sericea*, *Eriogonum umbellatum* var. *desereticum*, *Erigeron compositus*, *Antennaria microphylla*, *Stenotus acaulis*, and graminoids such as *Elymus elymoides* and rarely, *Trisetum spicatum*, but no true tundra habitats nor alpine vegetation.

Like many of the Great Basin isolated ranges, the Owyhee Mountains have unusual conifer distributions. Only two forest species occur in the Silver City Range and South Mountain—*Abies lasiocarpa* and *Pseudotsuga menziesii*. Neither *Pinus contorta* nor *Pinus albicaulis* is present in the Owyhee Mountains. *Pinus ponderosa*, dominant in montane forests north of the Snake River, is largely absent in the Owyhee Mountains. Exceptions are in areas where single, non-reproductive trees can be found (e.g. near Toy Pass, in Wildcat canyon) as waifs. One *P. ponderosa* stand in vicinity of Mahogany Mountain (in the Owyhee Graben adjacent to the Owyhee Mountains) is reproductive (Packard 1970; McKee & Knutson 1987) and possibly relictual. *Pinus flexilis* occurs in the Owyhee Mountains as a single known individual on War Eagle Mountain. In mesic sites mixed mountain shrub communities may be represented by any of *Ceanothus velutinus*, *Artemisia tridentata* ssp. *vaseyana*, *Amelanchier alnifolia*, *Sorbus scopulina*, *Symphoricarpos rotundifolius* var. *vaccinioides*, *Prunus emarginata*, *Prunus virginiana*, or any of several other shrub species.

Interspersed in the subalpine fir forests are wet meadows. In comparison to the abundance of similar meadows in ranges north of the Snake River, these floristically rich meadows are sparse in the Owyhee Mountains—mainly in the Silver City Range. Gradients of moisture largely determine community compositions. For example, the meadows tend to be dominated by willows (mainly *Salix boothii*), often *Veratrum californicum* or various graminoids, including *Juncus mertensianus*, *Eleocharis palustris*, or *Carex nebrascensis*. Common forbs include *Bistorta bistortoides*, *Micranthes odontoloma*, *Epilobium glandulosum*, *Arnica mollis*, *Veronica americana*, *Erythranthe moschatus*, *Viola palustris*, and *Hypericum anagalloides*. A comparison of a survey of one such series of meadows at Sawpit Gulch done in the early 1950s by Wm. Baker and in 2017 by Beth Corbin and the author revealed an apparent loss of at least some species of *Juncus*, *Carex*, and *Luzula* among some species of forbs during the intervening 65 or so years (Mansfield, unpublished data).

Large stands of *Cercocarpus ledifolius* are present on rocky outcrops and ridges throughout the Owyhee Mountain unit, and with *Juniperus occidentalis* (western juniper) — the sole woodland conifer forming stands — occupy much of the southern Owyhee Mountains between ca. 1400 and 2000 m, though are much less common on the northeastern slopes of the Silver City Range. Grassland and shrubland communities dominate much of the Owyhee Mountains landscape in this same elevation range. As in much of its northwestern USA range, this juniper woodland has been encroaching on mountain big sagebrush communities during the past century (Strand & Bunting 2023; Miller & Rose 1995). Many of the communities in the unforested landscapes of the Owyhee Mountains in the elevations between 1600 and 2300 m often form a rich and complex mosaic of either scablands often dominated by low sagebrush (*Artemisia arbuscula*), high elevation shrub-steppe dominated by mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), or mountain grasslands, dominated by Idaho fescue (*Festuca idahoensis*), bluebunch wheatgrass (*Pseudoroegneria spicata*), bluegrass (*Poa secunda*), or needlegrasses (*Eriocoma* spp.). These upland communities are interspersed by a network of riparian communities dominated mostly by *Salix* spp. and graminoids, largely *Carex* spp.

896 taxa are present in the Owyhee Mountains floristic unit (55% of this regional flora). 50 taxa of the Greater Owyhee region are represented solely in the OM floristic unit (6% of the Owyhee Mountains Flora). Of these, two are endemic to this general area (*Eriogonum ertterae* and *Astragalus yoder-williamsii*—Table 2), the latter has two known disjunct populations to the south in the Owyhee Plateau and in the Humboldt River drainage. The former is restricted to War Eagle Mountain on both granitic and rhyolitic substrates, but remains unpublished since recognized by Reveal (p. 294 in Intermountain Flora 2012, Vol. 2A). Most of these 50 species are more common in the Rocky Mountains, or more generally the western cordillera, and barely make a presence in the OM unit. It is possible that some or all of them may also be present in the JIB unit upon further exploration. Included among this group found only in OM within the Greater Owyhee region are taxa such as *Myriopteris gracillima*, *Sambucus racemosus* var. *microbotrys*, *Cryptantha echinella*, *Boechnera suffrutescens*, *Stellaria borealis* var. *sitchana*, *Carex cordillerana*, *Pyrola asarifolia*, *Goodyera oblongifolia*, *Swertia perennis*, *Luzula multiflora*, *Neottia convallarioides*, *Pedicularis contorta*, *Penstemon fruticosus*, *Collomia tinctoria*, *Phlox viscida*, *Aconogonon phytolacacea*, *Rubus parviflorus*, and *Salix commutata*. Some taxa found only in the OM unit of this flora are disjunct from more southern distributions (e.g. *Carex occidentalis*). At least one (*Erigeron disparipilus*) is restricted to granite and thus only found in our region on the granitic outcrops of the Silver City Range (though may inhabit unexplored portions of the granitic outcrops on South Mountain).

Jarbidge/Independence/Bull Run Mountains (JIB). This unit is approximately 4,400 km² and forms the high elevation headwaters of both the Bruneau/Jarbidge River system and the E. Fork and eastern portion of the South Fork Owyhee River. Its southern border is the divide between the Owyhee/Bruneau watersheds to the north and west and the Great Basin (Humboldt River and its tributaries) to the southeast. The major floristic transition between this mountainous region and the Owyhee Plateau to the west and the Bruneau Plateau to the north occurs around 1800 m. Thus, the JIB floristic unit includes the west slope of the Elk Mountains and the southeastern corner of Owyhee County to the east, the northern and western portion of the Jarbidge Mountains, the Mahoganies, and the upper reaches of Sheep Creek and Rough Mountain above Duck Valley to the northwest. It includes the Bull Run Mountains and the west slope of the Independence Mountains. It includes some areas slightly below 1800 m due to the general outline of those ranges, but the area is largely above 1800 m rising to the maximal elevation of 3241 m at Jarbidge Peak.

Like in the Owyhee Mountains, weather stations in JIB are sparse and variable. Two higher elevation Snotel locations in the Jarbidge Mountains, one at 2450 m at Bear Creak summit on the windward side of the range and the other at 2550 m at Pole Creek station on the leeward side report median annual precipitation of 860 mm and 530 mm per year, respectively (USDA NRCS Snotel 2024). The lower elevation townsite of Jarbidge at 1890 m records mean annual precipitation of 490 mm per year. (Western Regional Climate Center 2024; Table 1).

The geology of the Jarbidge, Independence, and Bull Run Mountain region is more complex than that of the Owyhee Mountains. Most of the Jarbidge Mountains are similar to the Owyhee in that there are expansive Miocene rhyolites. However, significant portions of the region from the Copper Mountains and Tennessee Mountain to the Bull Run and Independence Mountains include rocks from Precambrian through early Paleozoic with substantial carbonates, which may support unique floras. For example, Lime Mountain at the south end of the Bull Run Mountains supports the only known populations of *Petrophytum caespitosum* in the region.

The plant communities of the Jarbidge, Independence, and Bull Run Mountains are largely unstudied. Unlike the Owyhee Mountains, the mountains of northern Nevada have a richer alpine and subalpine flora as noted below. And the subalpine forests in these ranges include *Pinus albicaulis*—a species missing from the Owyhee Mountains. Though compositionally somewhat different, the mosaic of high elevation shrub-steppe and grassland communities resembles that of the Owyhee Mountains.

120 of the taxa of the Greater Owyhee region are found only in the JIB floristic unit. Of these, 37 are species that occupy high ridges, talus, fellfields, or other rocky alpine habitats (> ca. 2600 m) that do not occur elsewhere in the Greater Owyhee region, for example: *Draba densifolia*, *Draba sphaeroides*, *Carex phaeocephala*, *C. albonigra*, *Claytonia megarhiza*, *Collomia debilis*, *Erigeron leiomeris*, *E. untermanii*, *E. watsonii*, *Hulsea algida*, *Leucopoa kingii*, *Senecio fremontii*, *Boechera divaricarpa*, *B. lemmonii*, *B. lyallii*, *Selaginella watsonii*, *Pellaea breweri*, *Oreostemma alpigena*, *Packera dimorphopylla*, and *P. wernerifolia*. These species have an affinity to the Northern Rocky Mountain ranges of Central Idaho to the north of the Snake River. Similarly, the subalpine wetland habitats are more extensive in the Jarbidge Mountains than in the Owyhee Mountains, resulting in at least 40 taxa of subalpine wet meadows, streams, and seeps restricted in our region to mostly the Jarbidge Mountains, including *Kalmia microphylla*, *Pyrola chlorantha*, *Rhododendron neoglandulosum*, *Gentiana calycosa*, *Gentianella amarella* ssp. *acuta*, *Luzula parviflora*, *L. spicata*, *Anticlea elegans*, *Spiranthes romanzoffiana*, *Pedicularis groenlandica*, *Erythranthe tilingii*, *Polygonum minimum*, *Primula tetrandra*, *Caltha chionophilla*, *Salix eastwoodii*, *S. planifolia*, *Stellaria umbellata*, *Epilobium anagallidifolium*, *E. lactiflorum* and many high elevation wetland sedges including *Carex limosa*, *C. neurophora*, *C. jonesii*, *C. illota*, *C. lasiocarpa*, and *C. praeceptorum*. These subalpine meadow floras are also floristically similar to those in the mountains of Central Idaho north of the Snake River.

Several forest species in our region are restricted to the aspen and coniferous forest zones of the JIB floristic unit. Among these are *Pinus albicaulis*, *Prosartes trachycarpa*, *Cinna latifolia*, *Delphinium occidentale*, *Kelloggia galioides*, *Lepidium virginicum* var. *menziesii*, *Antennaria anaphylloides*, and *Solidago simplex* ssp. *simplex*. Three taxa are endemic to the JIB floristic unit—*Eriogonum lewisii*, *E. douglasii* var. *elkoensis*, and *Lathyrus grimesii* (Table 2).

Owyhee Graben (OG). This floristic unit is approximately 6,150 km² and is roughly equivalent to what is geologically known as the Oregon/Idaho Graben (Cummings et al. 2000), but here defined floristically rather than geologically. The area includes tributary watersheds of the Owyhee River drainage north of about latitude 43.02° and the Succor Creek and Cow Creek drainages (below about 1450 m where they border the Owyhee Mountains).

Climate data in the region of Leslie Gulch, Succor Creek, and the general region of the Owyhee Graben north of Jordan Craters can be approximated from three stations---the Owyhee dam forming the Owyhee Reservoir at the north end of the OG unit, Rockville in the Succor Creek drainage, and Rome, which lies south of the Owyhee Graben and south of Jordan Craters, where Hwy 95 crosses the Owyhee River. Annual precipitation is 231 mm, 292 mm and 211 mm per year at those three stations, respectively.

The geology of the OG unit consists of Miocene extrusive volcanic rhyolites, basalts and explosive rhyolitic ashes and tuffs. Commencing about 16 million years ago the hot spot, which now underlies Yellowstone, Wyoming, generated a series of eruptions as it moved east northeast from the vicinity of McDermitt, Nevada, across this region to the lower Bruneau region and then across the Snake River Plain (Benson et al. 2017). In a few places (e.g. Leslie Gulch) following eruptions, the eruptive centers collapsed forming calderas, which subsequently filled with sediments. Much of the viscous, rapidly flowing volcanic ash from these explosive flows welded to form the reddish, brown rhyolite common in this region or tuffs. Ash settled from more distant eruptions, often forming less consolidated rocks such as those in Chalk Basin or the Owyhee Breaks. The origins of many of the rocks in our area have not been traced to specific eruptive centers, but several have been described and dated (Ekren et al. 1982; Baldwin 1964; Wood & Clemens 2001; Jackson 2021). Many of the higher elevation rhyolites emerged from the Juniper Mountain volcanic center about 14 million years ago (Ekren et al. 1982). Of the rocks in the Owyhee canyon, the oldest—those of the Sucker Creek Formation—are in the lower canyon (Baldwin 1964). These include a variety of consolidated ashes,

such as the Leslie Gulch ash tuff. These rocks form the substrate for many of our present day endemic plant species from Leslie Gulch including *Trifolium owyheense*, *Senecio ertterae*, *Mentzelia packardiae*, and *Monardella angustifolia* (Table 2)

The Sucker Creek Formation also includes unconsolidated rocks from aerial ash that fell over the landscape between about 13 and 15 million years ago, often forming pockets or lenses during deposition in topographically low areas, such as lakes. Taxa of oaks, maples, birches, chestnuts, walnuts, laurels, pines, and elms became fossilized forming the legendary Miocene Sucker Creek Flora (Fields 1996; Kittleman 1973; Reveal 1979). Due to the rapid weathering of these soft sediments and the mosaic nature of the deposits, the habitats that these rocks create for extant plant species are both ephemeral and isolated. These characteristics combine to make such deposits ideal locations for plant speciation. Thus, not surprisingly several of the Sucker Creek endemics are located in these habitats, including *Astragalus sterilis*, *Lomatium bentonitum*, *Chaenactis cusickii*, *Cymopterus glomeratus* var. *greeleyorus*, and *Phacelia lutea* var. *calva*. Later, roughly 13 million years ago, basalt flows such as the Owyhee Basalt in the vicinity of the Owyhee Reservoir emerged from fissures (Kittleman 1967, 1973; Cummings et al. 2000; Swirydczuk 1977; Kimmel 1979; Izett 1981). Detailed analyses of the chemical contents of these highly variable ash formations have barely begun (Grimes 1984; Brokaw et al. 2022).

820 taxa are present in the Owyhee Graben unit (50% of this regional flora). 59 of the taxa of the Greater Owyhee region are represented only in the OG floristic unit (7% of the Owyhee Graben flora). Thirteen of these are either narrowly endemic to this unit or nearly so (Table 2; see also Table 1 in Brown and Mansfield 2017). Ten of these thirteen are narrow endemics in either the volcanic ashes of the Sucker Creek Formation in Sucker Creek and vicinity (*Phacelia lutea* var. *calva*, *Lomatium bentonitum*, *Cymopterus glomeratus* var. *greeleyorus*), in Leslie Gulch ash tuff (*Senecio ertterae*, *Trifolium owyheensis*, *Diplocus cusickii*, *Phacelia lutea* var. *mackenzieorum*, *Mentzelia packardiae*), or both (*Astragalus sterilis* and *Monardella angustifolia*). One (*Eriogonum chrysops*) is on ash barrens of unknown origin in Dry Creek. And two others are nearly endemic, having disjunct populations in either the Black Rock desert of northern Nevada (*Mentzelia mollis*) or the Owyhee Front (*Eriogonum novonudum*). The disjunct populations of *M. mollis* in the Black Rock desert, however, may represent a taxon of different hybrid origin than those in the Sucker Creek watershed (Brokaw et al. 2022).

Owyhee Plateau (OP). This unit is approximately 15,750 km² and is defined by unusual geological features that differ from BP, OM, and JIB (Shoemaker 2004) It includes all regions below 1800 m drained by the Owyhee River south of the OG, including the region of ashes around Rome, down to the Tuscurora Mountains and up to the border of the OM and JIB units to the east. Some areas above 1800 m that lie outside of the OM or JIB units are included in this unit, such as the headwaters of the W. Little Owyhee, Little Owyhee and South Fork Owyhee Rivers.

Mean annual precipitation on the Owyhee Plateau ranges in vicinity of 211 mm at Rome (elevation 1033 m) to 320 mm at IL Ranch (elevation 1586 m).

The Owyhee Plateau is comprised mainly of Miocene and Pliocene basalts, andesites, rhyolites and ash-flow tuffs (Geological Map of Oregon 2024), and thus appears much like the substrates in the OG, and BP units. Pierce and Morgan (1992) considered the northeastward progression of rhyolitic volcanism [Yellowstone Hotspot] to have begun with the McDermitt volcanic field at ca. 16–15 Ma and to include an “Owyhee-Humboldt volcanic field” of ca. 14 Ma (Christiansen et al. 2002). The centers of volcanism are in the vicinity of, if not within, the southern OP unit of this study. Most of the area has not been mapped in detail geologically (Evans 1987; Ferns et al. 1993). However, compositionally these volcanic eruptions are somewhat different than those of the surrounding OG, BP units (Shoemaker 2004). Floristically the region is quite different than that of the more homogenous

BP at a comparable elevation, which may be in part attributable to the largely unstudied differences in substrata.

The plant communities of the OP unit resemble communities of the other units. For example, at the highest elevations in the vicinity of the headwaters of the West Little Owyhee or the South Fork Owyhee River, there are aspen communities, riparian communities and meadows ranging across the hydrological spectrum, much like those of the OM or JIB units. Additionally, however there are many playas in this unit that are largely absent from most of the other units, with the exception of some, though fewer, in the BP unit. Habitats that are much more abundant in the OP unit than in any other units include gravelly canyon benches, canyon walls, low sage scablands, and low-flowrate riverine aquatic communities, notably along the Owyhee River. Furthermore, much of the Owyhee River above the Owyhee Reservoir in the OG unit lacks major impoundments (with the exception of Wildhorse dam) and thus experiences much unimpeded flooding.

1053 taxa are present in the Owyhee Plateau (65% of this regional flora). 125 of the taxa of the Greater Owyhee region are represented solely in the OP floristic unit (11.9% of the Owyhee Plateau flora). Two of these are narrow endemics (*Collomia renacta* and *Hackelia ophiobia*, the latter with a disjunct population in the Little Humboldt River, just beyond this flora's border—Table 2). The Owyhee Plateau, more than any other floristic unit in the Greater Owyhee region, is diverse in its aquatic and wetland habitats including the Owyhee River, Batch Lake, Duck Valley marsh, ponds, oxbow lakes and other cut-off river channels, marshes, and many diverse riparian woodlands, meadows, and playas. A third of the the Greater Owyhee region taxa found only in the OP unit reside in these habitats. For example, aquatic taxa of this flora found only in the OP unit include emergents, such as *Alisma gramineum*, *Damasonium californicum*, *Eryngium alismifolium*, *Carex vulpinoidea*, *Eleocharis engelmannii*, and *Sparganium eurycarpum* and submergents such as several members of Hydrocharitaceae and Potamogetonaceae. Others in this group include species of drying playas, such as *Psilocarphus* spp., *Rumex* spp., *Downingia* spp., *Pogogyne serpylloides*, and *Phacelia inundata*. Many of the upland species found only in the OP unit are Great Basin species, which reach the northern extent of their distributions here, such as *Lomatium fimbriatum*, *Chaenactis xantiana*, *Chaetodelpha wheeleri*, *Caulanthus major*, *Symphoricarpos longiflorus*, *Mentzelia congesta*, *Calyptridium roseum*, *Penstemon kingii*, *Eriogonum brachycarpum*, and *Ivesia shockleyi* var. *shockleyi*. Unlike the species of OF which likely came from the Great Basin from the lower elevations east of the Owyhee and Jarbidge Mountains, this suite of plants just entering our area from the southwest, likely are connected through lowlands west of the Jarbidge, Independence, and Bull Run Mountains and either east or west of the Santa Rosa Mountains. Similarly some of the taxa found only in the OP unit are disjunct from populations to the west or northwest, such as *Crepis barbiger*, *Uropappus lindleyi*, *Plagiobothrys mollis*, and *Glyceria leptostachya*.

Floristic summary

The region of the Greater Owyhee flora includes 1629 terminal taxa representing 115 families and 563 genera, of which 1593 are angiosperms, 12 are gymnosperms and 24 are ferns and their allies (Table 3). Table 4 shows the largest families and genera in the region of the Greater Owyhee flora. Of these terminal taxa 218 (13.3% of flora) are introduced to the region as denoted by "*" in the vouchered checklist. Of these exotic taxa, 36 are listed as noxious weeds (Table 5) in either Idaho (ISPI 2024), Nevada (NDA 2024) or Oregon (ONW 2024).

Table 3. Floristic summary of the flora of the Greater Owyhee region.

Number of Families	
Ferns and Allies	12
Gymnosperms	3
Angiosperms	100
Total	115
Number of Genera	
Ferns and Allies	14
Gymnosperms	5
Angiosperms	544
Total	563
Number of Species	
Ferns and Allies	24
Gymnosperms	11
Angiosperms	1497
Total	1533
Number of Terminal Taxa	
Ferns and Allies	24
Gymnosperms	12
Angiosperms	1593
Total	1629

Table 4. Largest families and genera in the region of the Greater Owyhee flora.

Largest 12 families (with total number of terminal taxa):

Asteraceae	250
Poaceae	182
Brassicaceae	105
Fabaceae	98
Cyperaceae	70
Polygonaceae	68
Boraginaceae	56
Plantaginaceae	55
Rosaceae	53
Amaranthaceae	50
Onagraceae	46
Polemoniaceae	45

Largest genera (with total number of terminal taxa):

<i>Carex</i>	49
<i>Astragalus</i>	42
<i>Eriogonum</i>	36
<i>Erigeron</i>	25
<i>Phacelia</i>	23
<i>Artemisia</i>	22
<i>Juncus</i>	21
<i>Lupinus</i>	19
<i>Bochera</i>	18
<i>Poa</i>	16

Table 5. Noxious weeds of the Greater Owyhee region. Family acronyms follow Weber (1982). Common names are from local lore and USDA Plants (2024)

Scientific Name	Family	Common name
<i>Aegilops cylindrica</i>	POA	jointed goatgrass
<i>Bryonia alba</i>	CUC	white bryony
<i>Carduus nutans</i>	AST	nodding plumeless thistle
<i>Centaurea diffusa</i>	AST	diffuse knapweed
<i>Centaurea solstitialis</i>	AST	yellow starthistle
<i>Centaurea stoebe</i> ssp. <i>australis</i>	AST	spotted knapweed
<i>Chondrilla juncea</i>	AST	rush skeletonweed
<i>Cirsium arvense</i>	AST	Canada thistle
<i>Cirsium vulgare</i>	AST	bull thistle
<i>Conium maculatum</i>	API	poison hellock
<i>Convolvulus arvensis</i>	CON	bindweed
<i>Cynoglossum officinale</i>	BOR	hound's tongue/gypsyflower
<i>Euphorbia virgata</i>	EUP	Russian leafy spurge
<i>Halogeton glomeratus</i>	AMA	sheepweed, saltlover
<i>Hyoscyamus niger</i>	SOL	black henbane
<i>Hypericum perforatum</i>	HYP	common St. John's wort
<i>Lepidium appleianum</i>	BRA	hairy whitetop
<i>Lepidium chalapense</i>	BRA	lenspod whitetop
<i>Lepidium draba</i> ssp. <i>draba</i>	BRA	whitetop
<i>Lepidium latifolium</i>	BRA	broadleaved pepperweed
<i>Leucanthemum vulgare</i>	AST	oxeyedaisy
<i>Linaria dalmatica</i>	PLT	bastard toadflax
<i>Lythrum salicaria</i>	LYT	purple loosestrife
<i>Onopordum acanthium</i> ssp. <i>acanthium</i>	AST	Scotch thistle, Scotch cottonthistle
<i>Phalaris arundinacea</i>	POA	reed canarygrass
<i>Potamogeton crispus</i>	POT	curly pondweed
<i>Potentilla recta</i>	ROS	sulfur cinquefoil
<i>Rhaponticum repens</i>	AST	hardheads
<i>Rosa canina</i>	ROS	dog rose
<i>Rosa rubiginosa</i> var. <i>rubiginosa</i>	ROS	sweetbriar rose
<i>Solanum rostratum</i>	SOL	buffalobur nightshade
<i>Sonchus arvensis</i>	AST	field sowthistle
<i>Taeniatherum caput-medusae</i>	POA	medusahead
<i>Tamarix ramosissima</i>	TAM	saltcedar
<i>Tribulus terrestris</i>	TAM	puncturevine
<i>Ventenata dubia</i>	POA	North Africa grass

Endemism

Table 2 lists the taxa endemic to this region. Among those 46 taxa listed four are *ined.* (not published) and require investigation. Thirty two are entirely (or nearly so) restricted to the Greater Owyhee region—"strict" endemics (S). Among these 32 "strict" endemics 18 have no known populations beyond the flora border. Of the other 14 taxa, all have fewer than 5 known populations outside of the main distribution within the flora border. Of those 14, 10 barely extend beyond the flora border and are thus considered here to be nearly "strict" endemics. Of this group most are endemic to the ash outcrops of the Owyhee Front or Owyhee Graben, and outcrops of those same formations (e.g. Chalk Hills or Deer Butte) either northeast of the Snake River and into Elmore and/or Twin Fall Counties or to the northwest into the Harper-Westfall region of Malheur County. The remaining four (*Astragalus kentrophyta* var. *jessiae*, *Mentzelia mollis*, *Pyrrocoma linearis*, and *Trifolium leibergii*) have few populations outside of their main distribution in the Greater Owyhee region, but those populations are disjunct by up to a few hundred km. The reasons for these disjunctions are unclear but they may result from independent hybrid origin in at least the case of *Mentzelia mollis*, a polyploid species with populations restricted to the Sucker Creek Formation ash outcrops with disjuncts in the Black Rock desert of N. Nevada. The table includes taxa that have their centers of distribution in this region though with populations extending sporadically beyond our borders.

Rarity, range extensions and conservation status of Owyhee flora

Assessing rarity and conservation status of taxa in this flora poses a challenge. Table 6 shows 179 taxa (ca. 11% of the flora) that have been ranked as S1 to S3 (critically imperilled, imperilled or vulnerable (NatureServe 2024a) in at least one of the three states with jurisdiction in the Greater Owyhee region. The number is at least 206 when considering taxa that are not yet ranked or may appear at present to be secure, that is, S4 or S5 (INPS 2023, ORBIC 2023; NDNH 2023). However, because the flora region spans 3 states, there are some taxa that are more secure in the flora than may appear in Table 6. Some of the taxa listed in Table 6 occur in both the OP and OF floristic units and are much more common in one than the other unit. For example, *Astragalus purshii* var. *lagopinus*, *Eremothera boothii* ssp. *boothii*, *Eriogonum novonudum*, and *Thelypodium flexuosum* barely reach Idaho and are ranked rare in that state, though are commonly seen in Oregon. Conversely, *Penstemon perpulcher* and *Eriogonum salicornioides* are more commonly seen in Idaho than Oregon within the flora region.

226 of the taxa in this flora are known from only one or two locations within the Greater Owyhee flora region. This number does not include plants that have been naturalized on any homesteads or ranches (approximately 10; mostly tree species). Though this number (14 % of our flora) may seem to be a good measure of indigenous rarity, it is not! In many cases the number of taxa known from one or two locations represents an underestimate of rarity. Many plants in our area, especially those known to be endemic to our region, are known to be rare (ranked as critically imperilled, imperilled or vulnerable) by NatureServe criteria (NatureServe 2024b) and shown in Table 6, yet, as a consequence of intensive surveys (e.g. Murphy et al. 2003) are known to occur in several to many populations here. For example, the following plants are some of the rare plants ranked as S1 (critically imperilled within the state) in either Idaho (INPS 2023), Oregon (ORBIC 2023) or Nevada (NDNH 2023), yet all of these are known from three or more populations in our region: *Abronia mellifera*, *Abronia turbinata*, *Allium macrum*, *Angelica kingii*, *Argemone munita*, *Astragalus calycosus*, *Astragalus mollisimus* var. *thompsonii*, *Astragalus solitarius*, *Astragalus tetrapterus*, *Astragalus yoder-williamsii*, *Chenactis cusickii*, *Cleomella plocasperma*, *Collomia renacta*, *Downingia insignis*, *Erigeron latus*, *Eriogonum novonudum*, *Hackelia ophiobia*, *Heteranthera dubia*, *Juncus hemiendytus* var. *abjectus*, *Juncus tiehmii*, *Lepidium davisii*, *Malacothrix sonchoides*, *Melica stricta*, *Monardella angustifolia*, *Phacelia lutea* var. *mackenzieorum*, *Phacelia minutissima*, *Potamogeton diversifolius*, *Rumex salicifolius* var. *lacustris*, and *Stuckenia striata*.

Alternatively, the number of rarely collected plants or plants ranked as rare for the state by NatureServe (NatureServe 2024a) in Idaho, Nevada, or Oregon may represent an overestimate of rarity simply because an enormous proportion of the area of this region remains unexplored botanically. I estimate at least 76 taxa are likely to be more common but undercollected rather than truly rare in this region. And, of course taxa rare in this flora may not be rare by NatureServe ranking in one or more of the state floras due to their greater abundance elsewhere in Idaho, Oregon, and/or Nevada.

Some of the historic collections known from only one or two locations in our flora (19 made before 1970) represent additional examples of taxa that are likely present, though rare, but not yet rediscovered, for example, *Stellaria media*, *Swertia perennis*, *Botrychium* species, *Carex stipata*, *Polygonum ramosissimum*, *Claytonia cordifolia*, *Plantago eriopoda*, *Hippuris vulgaris*, *Gymnosteris parvula*, and *Alisma gramineum*. Some may, however, represent populations that have become locally extinct, for example *Juniperus osteosperma*, known only historically from a location where it has not been seen in several decades despite thorough searches.

Several plant species known from only one or two locations may be waifs, entering the area from elsewhere using vectors as diverse as people, ATV tires, cattle, and the like, yet not able to establish a reproductive population (examples are *Pinus ponderosa*, *Trifolium variegatum* var. *major*, and *Lomatium* aff. *rollinsii* (20293—but not listed in the vouchered checklist below due to uncertain identity).

Alternatively, many (perhaps approximately 60) taxa that seem to be rare here are very well represented in neighboring regions, so are sparse at the edge of their range. More than a dozen enter from the southwest or west, including these: *Eremocarya micrantha*, *Amsinckiopsis kingii* var. *kingii*, *Descurainia californica*, *Astragalus alvordensis*, *Lathyrus rigidus*, *Lupinus polyphyllus* var. *burkei*, *Heliotropium curassavicum* var. *obovatum*, *Erigeron breweri* var. *porpyreticus*, *Penstemon kingii*, *Plagiobothrys mollis*, *Centaureum tenuiflorum*, *Phacelia ramosissimum* var. *subglabra*, *Phacelia ramosissima* var. *ramosissima*, and *Phacelia tetramera*. Similarly more than a dozen also enter from the northwest or north but have few populations in our area, including these: *Oreocarya glomerata*, *Astragalus cusickii*, *Philadelphus lewisii*, *Nemophila kirtleyi*, *Allium macrum*, *Castilleja pilosa* var. *pilosa*, *Castilleja pilosa* var. *steenensis*, *Cryptantha intermedia*, *Pectocarya penicillata*, *Lomatium donnellii*, *Lupinus lepidus* var. *sellulus*, *Lupinus polyphyllus* var. *burkei*, *Trifolium dubium*, *Hydrophyllum capitatum* var. *capitatum*, *Vaccinium scoparium*, and *Boechera polyantha*.

Another suite of taxa enters from the south from either the higher elevation montane regions of the Great Basin or the basins of the Great Basin. The former include *Oreocarya alpicola* and *Allium atrorubens*. The latter do not appear in the southern end of our region in the higher elevations of the Owyhee and Bruneau drainages, but rather they “hop over” the mountains to the Owyhee Front or Owyhee Graben. This group includes annuals, most of which are very rare and may not occur in all years, such as *Eriogonum palmerianum*, *Gilia brecciarium*, *Ipomopsis polycladon*, *Prenanthes exiguua*, *Psthyrotes annua*, *Eurphorbia ocellata* ssp. *arenicola*, *Phacelia ivesiana*, and *Eriogonum hookeri* and also perennials, including *Juniperus osteosperma*, *Townsendia scapigera*, *Caulanthus crassicaulis*, *Ivesia shockleyi*, *Eriogonum shockleyi*, *Penstemon janishiae*, *Blepharidachne kingii*, *Peteria thompsoniae*, and *Astragalus mollisimus* var. *thompsonii*, most of which are also rare in our flora. This group of Great Basin species along with some other more common species such as *Enceliopsis nudicaulis* and *Langloisia setosissima* ssp. *punctata*, often also occur in the valleys of East Central Idaho, such as the Lost River, Pashimeroi, and Lemhi, as noted earlier by Reveal (1979) and Ertter & Moseley (1992).

Another suite of scarce species barely reaches the western extent of their range in Greater Owyhee flora. Those entering from more easterly or southeasterly directions include *Oreocarya interrupta*, *Physaria obdeltata*, *Sphaeralcea coccinea*, *Carex occidentalis*, *Astragalus cibarius*, and

Eriogonum obovata. Those reaching the region from the northeast across the Snake River Plain include such taxa as *Allium textile*, *Draba reptans*, *Lupinus argenteus* var. *rubricaulis*, *Calochortus eurycarpus*, *Penstemon cyaneus*, and *Prosartes trachycarpum*.

Table 6. Sensitive plant species from the Greater Owyhee Flora Region. Conservation status is based on the NatureServe Conservation Status Ranks (NatureServe 2024b), where global (G) and state (S) ranks for Idaho (INPS 2023), Oregon (ORBIC 2023) or Nevada (NDNH 2023) are: 1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure. “NR” means “not ranked”; “T” indicates “subspecific rank”; “H” indicates “historical”; “LT” means “listed threatened” by US Fish and Wildlife Service; “LE” means “listed endangered”. “?” denotes inexact numeric rank. “Q” denotes questionable taxonomy. Only plants ranked as S1 to S3 or SH (or otherwise considered rare) in at least one of the states of the region or are included. Family acronyms follow Weber (1982).

Scientific Name	Family	Conservation Status
<i>Abronia mellifera</i> var. <i>mellifera</i>	NYC	G4 IDS1S2 ORSNR
<i>Abronia turbinata</i>	NYC	G5 ORS1
<i>Allium anceps</i>	AMY	G4 IDS2S3
<i>Allium macrum</i>	AMY	G4G5 IDS1
<i>Ammannia robusta</i>	LYT	G5 IDS1S2 ORSNR
<i>Angelica kingii</i>	API	G4 IDS1
<i>Antennaria arcuata</i>	AST	G2 IDS1 NVS1
<i>Argemone munita</i> ssp. <i>rotundata</i>	FUM	G4T4 ID-S1
<i>Artemisia packardiae</i>	AST	G3 ORS3
<i>Artemisia papposa</i>	AST	G4 NVS2 ORS2
<i>Astragalus anserinus</i>	FAB	G2 IDS1 NVS2
<i>Astragalus atratus</i> var. <i>owyheensis</i>	FAB	G4G5T3 IDS3 ORS3
<i>Astragalus calycosus</i>	FAB	G5 ORS1
<i>Astragalus camptopus</i>	FAB	G3 IDS3
<i>Astragalus conjunctus</i> var. <i>conjunctus</i>	FAB	G4TNR IDS3 ORSNR
<i>Astragalus geyeri</i> var. <i>geyeri</i>	FAB	G4T4 ORS2
<i>Astragalus mollissimus</i> var. <i>thompsonii</i>	FAB	G5T4, IDS1
<i>Astragalus mulfordiae</i>	FAB	G2 IDS2 ORS1 LE
<i>Astragalus multiflorus</i>	FAB	G5 ORS1?
<i>Astragalus purshii</i> var. <i>lagopinus</i>	FAB	G5T2T4 IDS1
<i>Astragalus purshii</i> var. <i>ophiogenes</i>	FAB	G5T3 IDS3
<i>Astragalus solitarius</i>	FAB	G3 NVS1
<i>Astragalus sterilis</i>	FAB	G5T2 IDS1 ORS2
<i>Astragalus tetrapterus</i>	FAB	G4G5 IDS1
<i>Astragalus yoder-williamsii</i>	FAB	G3 IDS1S2 NVS1
<i>Bergia texana</i>	ELT	G5 ORS3?
<i>Blepharidachne kingii</i>	POA	G4 IDS1
<i>Calyptridium roseum</i>	MON	G5 IDS2 ORS1
<i>Calystegia sepium</i>	CNV	G5T5 IDS2
<i>Camissonia parvula</i>	ONA	G5 ORS2
<i>Camissonia pusilla</i>	ONA	G3G4 ORS2

<i>Carex abrupta</i>	CYP	G5 IDS3 ORS3
<i>Carex atherodes</i>	CYP	G5 ORS3
<i>Carex canescens</i> var. <i>canescens</i>	CYP	G4 IDS2 ORS2
<i>Carex cordillerana</i>	CYP	G3G4 IDS2
<i>Carex heteroneura</i> var. <i>heteroneura</i>	CYP	G5 ORS3
<i>Carex occidentalis</i>	CYP	G4 IDS2
<i>Carex pelocarpa</i>	CYP	G4G5 ORS1
<i>Carex praeceptorum</i>	CYP	G4G5 ORS3
<i>Castilleja oresbia</i>	ORO	G3G4 ORS3
<i>Castilleja peckiana</i>	ORO	G4G5 IDS2
<i>Caulanthus major</i>	BRA	G4 ORS1
<i>Caulanthus pilosus</i>	BRA	G4 ORS2
<i>Chaenactis cusickii</i>	AST	G3 IDS1S2 ORS3
<i>Chaenactis macrantha</i>	AST	G4 ORS3
<i>Chaenactis stevioides</i>	AST	G5 IDS2
<i>Chaenactis xantiana</i>	AST	G4G5 ORS1?
<i>Chaetadelpha wheeleri</i>	AST	G4 ORS2
<i>Cleomella hillmanii</i> var. <i>hillmanii</i>	CLE	G4G5 T4 IDS2
<i>Cleomella plocasperma</i>	CLE	G4 IDS1
<i>Collomia renacta</i>	PLM	G1 NVS1 ORS1
<i>Crassula solieri</i>	CRS	G4G5 ORS1?
<i>Cryptantha gracilis</i>	BOR	G5 ORS2
<i>Cymopterus glomeratus</i> var. <i>greeleyorus</i>	API	G5T2 IDS2
<i>Cymopterus ibapensis</i>	API	G4 IDS2 ORS2
<i>Damosonium californicum</i>	ALI	G4 S2S3
<i>Dimeresia howellii</i>	AST	G4? IDS2
<i>Downingia bacigalupii</i>	CAM	G4 IDS2
<i>Downingia insignis</i>	CAM	G4 IDS1S2
<i>Eatonella nivea</i>	AST	G4G5 IDS3 ORS3
<i>Elatine brachysperma</i>	ELT	G5 ORS1
<i>Eleocharis bolanderi</i>	CYP	G4 ORS2
<i>Epipactis gigantea</i>	ORC	G3G4 IDS3
<i>Eremothera boothii</i> ssp. <i>boothii</i>	ONA	G5T4 IDS2
<i>Ericameria discoidea</i>	AST	G4 ORS3?
<i>Ericameria obovata</i>	AST	G3G4 IDS1
<i>Erigeron disparipalus</i>	AST	G5 ORS2
<i>Erigeron latus</i>	AST	G3 NVS1 ORS1
<i>Erigeron tener</i>	AST	G4 ORS2?
<i>Erigeron watsonii</i>	AST	G3G4 IDS1
<i>Eriocoma nevadensis</i>	POA	G4 ORS2
<i>Eriocoma pinetorum</i>	POA	G4 ORS3
<i>Eriocoma webberii</i>	POA	G4 ORS3
<i>Eriogonum brachyanthum</i>	PLG	G5 ORS1
<i>Eriogonum chrysops</i>	PLG	G2 ORS2 LT

<i>Eriogonum crosbyae</i> var. <i>mystrium</i>	PLG	G4T2T3 IDS1 NVS1 ORS2 LT
<i>Eriogonum douglasii</i> var. <i>elkoense</i>	PLG	G5T1 NVS1
<i>Eriogonum hookeri</i>	PLG	G5 IDS1 ORS1
<i>Eriogonum lewisii</i>	PLG	G3, NVS3
<i>Eriogonum novonudum</i>	PLG	G4 IDS1
<i>Eriogonum palmerianum</i>	PLG	G4 IDS1
<i>Eriogonum salicornioides</i>	PLG	G3G4 ORS2
<i>Eriogonum shockleyi</i> var. <i>shockleyi</i>	PLG	G5 IDS3
<i>Eryngium alismifolium</i>	API	G4 IDS1S2
<i>Erythranthe inflatula</i>	PHR	G3 IDSH ORS2
<i>Glyptopleura marginata</i>	AST	G4G5 IDS3 ORS3
<i>Hackelia ophiobia</i>	BOR	G3 IDS2 ORS1
<i>Hackelia patens</i>	BOR	G5 ORS3
<i>Heliotropium curassavicum</i> var. <i>obovatum</i>	HEL	G5 ORS2
<i>Heteranthera dubia</i>	PON	G5 IDS1
<i>Hulsea algida</i>	AST	G4G5 ORS3
<i>Ipomopsis polycladon</i>	PLM	G4 IDS2
<i>Ivesia rhypara</i> var. <i>rhypara</i>	ROS	G2T2 ORS1 LE
<i>Ivesia shockleyi</i> var. <i>shockleyi</i>	ROS	G3G4 ORS1
<i>Juncus bryoides</i>	JUN	G4 IDS2 ORS2
<i>Juncus hemiendytus</i> var. <i>abjectus</i>	JUN	G5T5 IDS1S2 ORS2?
<i>Juncus hemiendytus</i> var. <i>hemiendytus</i>	JUN	G5T5 IDS2
<i>Juncus tiehmii</i>	JUL	G4 IDS1 ORS1?
<i>Langloisia setosissima</i> ssp. <i>punctata</i>	PLM	G4G5T3T5 ORSNR
<i>Lathrocasis tenerrima</i>	PLM	G5 ORSNR
<i>Lathyrus grimesii</i>	FAB	G2 NVS2
<i>Lepidium davisii</i>	BRA	G3 IDS3 ORS1 LT
<i>Lepidium montanum</i> var. <i>owyheense</i>	BRA	G1 IDSNR LT
<i>Leymus flavescens</i>	POA	G3 ORS1?
<i>Linanthus glaber</i>	PLM	G2 IDS2
<i>Lomatium bentonitum</i>	API	G1G2 ORS1
<i>Lomatium fimbriatum</i>	API	G5T2T4 ORS1
<i>Lomatium packardiae</i>	API	G2 IDS2 ORSNR
<i>Lomatium ravenii</i> var. <i>paiutense</i>	API	G4T4 IDS3 ORS3
<i>Lupinus polyphyllus</i> var. <i>humicola</i>	FAB	G3 ORS3
<i>Lupinus uncialis</i>	FAB	G4 IDS3
<i>Lysimachia thyrsoiflora</i>	MYR	G5 IDS3
<i>Malacothrix sonchoides</i>	AST	G5 ORS1
<i>Melica stricta</i> var. <i>stricta</i>	POA	G4 IDS1 ORS3
<i>Mentzelia congesta</i>	LOA	G5 IDS1 ORS1
<i>Mentzelia mollis</i>	LOA	G2 IDS2S3 NVS1 ORS2 LE
<i>Mentzelia packardiae</i>	LOA	G2 ORS2 LT
<i>Mirabilis laevis</i> var. <i>retrorsa</i>	NYC	G4G5T4 ORS3
<i>Monardella angustifolia</i>	LAM	G1 IDS1 ORS1

<i>Muhlenbergia minutissima</i>	POA	G5 ORS2
<i>Myriophyllum sibiricum</i>	HAL	G5 ORS3
<i>Nemacladus rigidus</i>	CAM	G4 IDS2
<i>Oreocarya propria</i>	BOR	G4 IDS2
<i>Pediocactus nigrispinus</i> var. <i>beastonii</i>	CAC	G4 IDS3 ORS4
<i>Pediocactus simpsonii</i>	CAC	G5 IDS3
<i>Penstemon janishae</i>	PLT	G4 IDS2 ORSNR
<i>Penstemon miser</i>	PLT	G3 IDS2 ORS3
<i>Penstemon perpulcher</i>	PLT	G3? ORS1
<i>Penstemon seorsus</i>	PLT	G4? IDS2 ORS3
<i>Peteria thompsonii</i>	FAB	G4 IDS2
<i>Phacelia gymnoclada</i>	HYD	G4 ORS3
<i>Phacelia inundata</i>	HYD	G3 ORS2
<i>Phacelia lutea</i> var. <i>calva</i>	HYD	G4T3 IDS3 ORS2
<i>Phacelia lutea</i> var. <i>mackenzieorum</i>	HYD	G4T1T2 ORS1 SOC
<i>Phacelia minutissima</i>	HYD	G3 IDS2 ORS1
<i>Phacelia tetramera</i>	HYD	G4 ORS2
<i>Phacelia thermalis</i>	HYD	G3G4 IDS1 ORSNR
<i>Physaria chambersii</i>	BRA	G5 ORS2
<i>Physaria kingii</i> var. <i>cobrensis</i>	BRA	G5T3T4 IDS3 ORS2
<i>Physaria obdeltata</i>	BRA	G2 IDS2
<i>Pinus albicaulis</i>	PIN	G3G4 IDS3 NVS3 LT
<i>Piptatheropsis exigua</i>	POA	G4G5 ORS2?
<i>Plantago eriopoda</i>	PLT	G5 IDS1S2 ORSNR
<i>Poa fendleriana</i>	POA	G5 ORS2?;
<i>Pogogyne serpylloides</i>	LAM	G5 IDS1 ORS1
<i>Polanisia dodecandra</i> ssp. <i>trachysperma</i>	CLE	G5T5 ORSNR
<i>Porterella carnosula</i>	CAM	G4 IDS2
<i>Potamogeton berchtoldii</i>	POT	G5 ORS3?
<i>Potamogeton diversifolius</i>	POT	G5 IDS2 ORS1
<i>Potamogeton fibrillosus</i>	POT	G2 ORS2 LT
<i>Potentilla gracilis</i> var. <i>owyheense</i>	ROS	G5TNR IDS2
<i>Prenanthes exigua</i>	AST	G5 IDS2 ORS1
<i>Primula cusickiana</i> var. <i>cusickiana</i>	PRM	G4 ORS2
<i>Psilocarphus oregonus</i>	AST	G4 ORSNR
<i>Pyrrocoma linearis</i>	AST	G4 IDS3 ORS4
<i>Rumex salicifolius</i> var. <i>lacustris</i>	PLG	G5TNR ORS1?
<i>Sairocarpus kingii</i>	PLT	G4 IDS1 ORS2
<i>Sedum debile</i>	CRS	G4G5 ORS4
<i>Selaginella watsonii</i>	SEL	G4 ORS4
<i>Senecio ertterae</i>	AST	G2 ORS2
<i>Sidalcea neomexicana</i>	MAL	G4 ORSNR
<i>Stanleya confertiflora</i>	BRA	G2 IDS1 ORS2.
<i>Stanleya viridiflora</i>	BRA	G4 ORSNR

<i>Stephanomeria paniculata</i>	AST	G5 IDS1S2
<i>Streptanthus cordatus</i> var. <i>cordatus</i>	BRA	G5T4T5 ORSNR
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	POT	G5T5- ORS2?
<i>Stuckenia filiformis</i> ssp. <i>occidentalis</i>	POT	G5T5 ORS3
<i>Stuckenia striata</i>	POT	G3G4Q ORS1?
<i>Stylocline psilocarphoides</i>	AST	G4 ORSH
<i>Swertia perennis</i>	GEN	G5 ORS2
<i>Symphoricarpos longiflorus</i>	CPR	G5 ORS2
<i>Teucrium canadense</i> var. <i>occidentale</i>	LAM	G5T5? IDS2
<i>Thelypodium flexuosum</i>	BRA	G5 IDS1
<i>Townsendia parryi</i>	AST	G4 ORS1
<i>Townsendia scapigera</i>	AST	G4G5 ORS2
<i>Trifolium leibergii</i>	FAB	G3 NVS2 ORS2
<i>Trifolium owyheense</i>	FAB	G2G3 IDS1 ORS2S3
<i>Triglochin scilloides</i>	JCG	G5 IDS3 ORS3?

CONCLUSIONS

Though botanical exploration of the Greater Owyhee region has continued sporadically for 115 years resulting in more than 25,000 unique collections, vast areas remain botanically unexplored or surveyed. This vouchered flora provides a baseline floristic inventory for future, more exhaustive botanical study of the Greater Owyhee Region between the Snake River Plain to the northeast and the Great Basin to the south.

VOUCHERED CHECKLIST OF VASCULAR PLANTS IN THE GREATER OWYHEE REGION

Collection numbers of vouchers are noted with each taxon listed. Numbers with no preceding name are those of the author, with the exception of numbers that begin 2002..., which are collections of Holly Nielsen's. And all those collections are housed at CIC. Otherwise collector names precede collection numbers. Those collections are housed at one or more of the following herbaria: CIC, SRP, OSC, WILLU, ID, IDS, UTC, RENO, WTU, or WS. Not all available collections are listed for many taxa, especially more commonly collected plants. Non-native species (USDA Plants 2024) are denoted with "*". Noxious species (Table 5) listed in either Idaho (ISDA 2024), Nevada (NDA 2024) or Oregon (ONW 2024). are denoted with "N". Abundance, habitat and distribution within the Greater Owyhee region are noted. Abundance (common, locally common, occasional, uncommon or rare) is based on both vouchered and unvouchered field observations in the floristic unit(s) where present, in which *common*=broadly distributed and commonly observed, *locally common*=narrowly distributed but commonly observed, *occasional*=variably distributed, infrequently observed, *uncommon*=narrowly distributed, seldom observed and *rare*=rarely observed. Taxonomic, morphologic or ecologic notes are included. Synonyms are only included if in widespread use in recent floras or literature. All floristic units in which each taxon is found are noted (BP, JIB, OF, OG, OM, OP; see Figure 2). Conservation status (Table 6) is noted for each taxon that is considered imperiled/vulnerable by any of the three states of the study area (INPS 2023; ORBIC 2023; NDNH 2023). The numbers after global (G) and state (S) ranks are: 1=critically imperiled, 2=imperiled, 3=vulnerable, 4=apparently secure, 5=secure. State ranks are shown for each of the states (Oregon (OR), Idaho (ID) or Nevada (NV)) in which conservation status has been ranked. NR=not ranked. The checklist is arranged alphabetically by family in order of Pteridophytes, Gymnosperms then Angiosperms.

Example Entry:

Taxon, Authority. “*” if non-native, “N” if Noxious weed. Collector and collection # of voucher specimen(s). Abundance, habitat, distribution, elevation in meters. (*Synonym(s)* Authority). Taxonomic notes. Floristic units occupied. NatureServe ranking, if relevant.

PTERIDOPHYTES**ASPLENIACEAE**

Asplenium trichomanes L. var. *trichomanes*. Otto 1. In rocks in Jordan Craters. Rarely encountered between Cascades and Rockies south of Washington. OP.

ATHYRIACEAE

Athyrium distentifolium Tausch ex Opiz ssp. *americanum* (Butters) Hultén. 01-279. Rare in our area. One collection in shaded cliffs in N. Fork Owyhee River canyon. OP.

Athyrium filix-femina (L.) Roth ssp. *cyclosporum* (Rupr.) C. Chr. 02-766, Rosentreter 2370, 02-898, Irwin 9096, Irwin 9178, A. Holmgren 695. Uncommon along shaded canyons of N. Fork Owyhee, Jarbidge, Bruneau Rivers and Jacks Ck. in Independence Mountains. JIB, OM.

AZOLLACEAE

Azolla microphyla Kaulf. Glad 74-142a. Known only in Batch Lake. (*Azolla mexicana* Presl.). OP.

CYSTOPTERIDACEAE

Cystopteris fragilis (L.) Benth. 2002140, 2002339, 2002500, 02-825, 02-839. Common in rock crevices at upper elevations throughout our range. JIB, OG, OM, OP.

DENNSTAEDTIACEAE

Pteridium aquilinum (L.) Kuhn var. *pubescens* Underw. Piper & Beattie. Train 845. Only one historical collection. Jarbidge canyon 1 mile south of Jarbidge, though other unvouchered reports. JIB.

DRYOPTERIDACEAE

Dryopteris filix-mas (L.) Schott. Glad 74-148, Glad 74-152, Twitchell 82-20, Packard 78-218, Grimes 1294, 06-95. Uncommon in rocks in Jordan Craters and likely Owyhee Breaks and Leslie Gulch. OG, OP. G5 ORS3.

Polystichum lonchitis (L.) Roth. Tiehm 11882. Known from one collection on Cougar Peak in Jarbidge Mountains. JIB.

Polystichum munitum (Kaulf.) C. Presl. Luce 7, Twitchell 82-22, 82-23, 82-24. In rocks at Jordan Craters. OP.

Polystichum scopulinum (D. C. Eaton) Maxon. Glad 74-151, Grimes 1300, Ertter 185, Tiehm 11882, Charlet 376. Uncommon in rock crevices of Owyhee Breaks and Leslie Gulch area and Cougar Peak in Jarbidge Mountains. JIB, OG, OP.

EQUISETACEAE

Equisetum arvense L. Train 892, 02-095, Bratz 524-36, Glad 72-63, Shield 72-25, Packard 71-95, Molsee sn, Otting 1002. Occasional in seeps below Rome, Silver City area, and Jarbidge River. BP, JIB, OF, OG, OM, OP.

Equisetum hyemale L. ssp. *affine* (Engelm.) A.A. Eaton. Richards 31, 01-188b, 06-205, Heckendorn 16. Occasional in sandy seeps in tributaries and along main Owyhee and Jarbidge Rivers at middle to lower elevations. BP, JIB, OF, OG, OP.

Equisetum laevigatum A. Braun. 01-80, 2002641, 02-154, 02-835, 02-722, 05-516, 06-205, Lytjen 81, 05-123, 03-099, 03-124B. Common in seeps, creeks, meadows, and shores across the region at all but the highest elevations. BP, JIB, OF, OG, OM, OP.

Equisetum variegatum Schleich. ssp. *variegatum*. GDS 72. Known from only one record. Swan Falls on Snake River. OF.

Equisetum xferrissii Clute. 01-188b, 01-203, 03099, 2002106. Occasional to common in seeps along the main Owyhee River. OP.

MARSILIACEAE

Marsilea oligospora Gooding. Lytjen 131, Kotter 74-29, 08-543, Prentice 6098, Lytjen 66, Otting 2348, Prentice 6098, Brainerd 2348, 12-123, 21403. Occasional in ephemeral stream channels, reservoir margins, and pond margins. (*Marsilea vestita* Hook. & Grev. var. *oligospora* (Gooding) Dorn), OG, OP.

Marsilea vestita Hook. & Grev. Packard 76-160, Ertter 537, 99-105, Dean 157, Kotter 74-5, Crowley 7, 21402, Sanford 476, Joyal 780. Occasional to common at reservoir margins and along the Owyhee River as floods subside, generally at lower elevations. OG, OP. G5 ORSNR.

OPHIOGLOSSACEAE

Botrychium lunaria (L.) Sw. Harper 1973-120. One record in wet meadow along road south of Jarbidge at 2500 m. JIB. G5 ORS2.

Botrychium pinnatum St. John. Maguire 2238. One record from Coon Creek Snow Cabin in Jarbidge Mtns. JIB. G5 ORS3.

Botrychium simplex E. Hitchc. Maguire 22313. One historical record at Bear Creek meadows. Not seen there since (in past decade of searching). JIB.

PTERIDACEAE

Myriopteris gracillima (D.C. Eat.) J. Sm. Corbin 1591. Rare here; Boone Peak in Silver City range. More common north of Snake River. (*Cheilanthes gracillima* D.C. Eat.). OM.

Pellaea breweri D.C. Eat. 09172, Holmgren 6282, 18490b. In rocks in Bull Run Mountains (Porter Peak), Independence Mtns and high Jarbidge ridges. JIB.

SELAGINELLACEAE

Selaginella watsonii Underw. Holmgren 713, Tiehm 10039. In cliff cracks in Jacks Ck. in Independence Mountains and NE of Gods Pocket Peak in Jarbidge Mountains. JIB. G4 ORS4.

WOODSIACEAE

Woodsia oregana D. C. Eaton ssp. *oregana*. 02-048, 02-448, 02-678, 03-384, 20051094. Occasional in rock crevices from headwaters of West Little Owyhee to Dry Creek and in Deep Creek on Main Owyhee River in Idaho. OG, OP.

GYMNOSPERMS

CUPRESSACEAE

Juniperus communis L. var. *depressa* Pursh. Charlet 453 Charlet 308, Charlet 2278, 18491, Train 654, 09410, 08424. Silver City range and Independence and Jarbidge Mountains around 2400 m. Most of our material is intermediate between *J. communis* var. *depressa* and *J. communis* var. *kelleysii* R.P. Adams with stomatal strip width from 1.5 to 2.5 X width of green margin. JIB, OM.

Juniperus occidentalis Hook. 02-332, Macbride 449, 13-158. Very common in uplands near lower Owyhee River in western Owyhee and east central Malheur Co. Sporadic in canyons mostly at middle elevations, less common in Bruneau. BP, JIB, OG, OM, OP.

Juniperus osteosperma (Torr.) Little. Molsee M1674. Rare. Known from only one historical collection near Bruneau Hot Falls and likely locally extinct (as that stream has perished from lowering of regional water table), disjunct to the NW of normal distribution. OF.

Juniperus scopulorum Sarg. Boyce 45, Packard 72-46, Smithman 564. Occasional to common from Jarbidge to Bruneau Canyon; uncommon to Silver City. BP, JIB, OM.

EPHEDRACEAE

Ephedra nevadensis S. Watson. Corbin 1534. Naturalized in Reynolds Ck, about 2 miles N of cemetery, otherwise absent from this flora. Not native on this site (near an ARS monitoring site). OM.

PINACEAE

- Abies lasiocarpa* (Hook.) Nutt. ssp. *bifolia* (A. Murray bis) Silba. .Packard 73-172, Packard 74-173, Glad 74-133, 18662. Locally common in coniferous forests at highest elevation on Silver City range, Jarbidge, Independence, and Bull Run Mountains. (*Abies bifolia* A. Murray). JIB, OM.
- Pinus albicaulis* Engelm. Davis sn, Grimes 2111, 18423, 18574b. In both the Jarbidge and Independence Mountains. JIB. G3G4 NVS3 LT.
- Pinus contorta* Douglas ex Louden var. *latifolia* Engelm. Smith 12087, Williams 2017-24, Pinzl 10175. Uncommon in N. Nevada at Big Bend and Wildhorse campgrounds. Not forming large stands. Possibly introduced there. Not in Owyhee Mountains. JIB.
- Pinus flexilis* E. James. Richie 91-6, 08-382, Packard 80-150, Grimes sn., Holmgren 6077. Uncommon on exposed ridges of War Eagle Peak of Silver City Range to Independence and Jarbidge Mountains. JIB, OM.
- Pinus ponderosa* Douglas ex Lawson & C. Lawson var. *ponderosa*. * Charlet 4012, Williams 2017-27. West Fork Jarbidge and Wildhorse Crossing Campground. These plants did not originate in these locations. Being near cultivation (former) and in a campground (latter) the source material is unknown but likely from Cascadia. JIB, OM.
- Pinus ponderosa* Douglas ex Lawson & C. Lawson var. *scopulorum* Engelm. Grimes 1250, Williams 2017-27, Irwin 9277, 20091. Only one likely relictual stand is in our region—a disjunct stand north of Mahogany Mountain in Dago Gulch. This is the only known population between the Northern Rocky Mountains and Blue/Wallowa Mountains north of the Snake River Plain and in southeastern Nevada/Colorado Plateau. (Single trees—waifs—have been seen elsewhere only in sterile form—near Toy Pass and Wildcat Canyon along Owyhee Front, and Wildhorse Campground in N. Nevada. Probably all waifs are *P. ponderosa* var. *ponderosa*. See above.) OG.
- Pseudotsuga menziesii* (Mirbel) Franco var. *glauca* (Mayr) Franco. Packard 71-341, 71-308, Nichols 373, Nichols 453, Smith 10962. Common in Owyhee mountains (Silver City Range and South Mountain) and Bull Run Mountains to Merrit Mountain. Not yet known from Jarbidge Mountains. JIB, OM.

ANGIOSPERMS

ACERACEAE (considered also SAPINDACEAE)

- Acer glabrum* Torr. var. *diffusum* (Greene) Smiley. 02-833, 02-827, Klott 452. Sparse tree of rocky slopes in canyons from Leslie Gulch up into higher elevation Owyhee and Bruneau River tributaries. BP, JIB, OG, OM, OP.
- Acer glabrum* Torr. var. *glabrum*. Packard 73-302, Packard 73-39, Bunn 1847, Baker 8034, Christ 14286. Known in our area from Dago Gulch and Mud Springs in Leslie Gulch across Mahogany Mountain to near Silver City and South to Juniper Mountain and on Bruneau River. The varieties of this species intergrade and are not readily distinguishable from one another in the north end of the Owyhee range, where some of these vouchers are often referred to as *Acer glabrum* Torr. var. *douglasii* (Hook.) Dippel, when larger (6 cm) leaves are only cut to less than half the distance to the midrib. BP, OG, OM, OP.
- Acer negundo* L. * 02-010, Chavez 033. Sporadic along colonized parts of the Owyhee River below Rome, and rare in Owyhee Front. OF, OG, OP.

ADOXACEAE (including some former CAPRIFOLIACEAE, considered also VIBURNACEAE)

- Sambucus nigra* L. ssp. *cerulea* (Raf.) R. Bolli. Lytjen 236, 14-356, 02-751, 2002624, 06-96, Shield 11, Bala 14-9, 08-476, Packard 71-262, Boyce 44. Occasional in riparian and moist areas throughout our range. (*Sambucus mexicana* C. Presl ex DC., *Sambucus cerulea* Raf.). BP, JIB, OF, OG, OM, OP.

Sambucus racemosa L. var. *melanocarpa* (A. Gray) McMinn. 05-336, Packard 71-463, McBride 919. Uncommon; Coyote Creek, South Mountain, Silver City range, Jarbidge Mountains. JIB, OM.

Sambucus racemosa L. var. *microbotrys* (Rydb.) Kearney & Peebles. Baker 8011. Rare, known from only one historical collection in aspen stand on South Mountain. OM.

ALISMATACEAE

Alisma gramineum Lej. Peck 25769. Rare emergent; one historical collection 6 miles SW of Jordan Valley. OP.

Alisma triviale Pursh. 23207, 02-884, 2002708, 13-188, Klott 425, Irwin 9268, Baker 8468, 21421. Occasional emergent, widespread in slow water mostly at middle elevations; Jordan Craters (Batch Lake) and Three Forks to Duck Valley along Owyhee River and in Bruneau drainage. (*A. plantago-aquatica* L. misapplied to our native populations). BP, JIB, OG, OP.

Damasonium californicum Torr. ex Benth. 08197, Mancusso1860, Mancuso 1703, Tiehm 14557, Rosentreter 175b. Uncommon to rather rare in wet meadows; East Fork Owyhee River, Harris Creek by Riddle and Duck Valley. (*Machaerocarpus californicus* (Torr. ex Benth.) Small). OP. G4 S2S3.

Sagittaria cuneata E. Sheld. 02-741, 02-792, George 343, 21391, 23199. Occasional emergent in slow water mostly at mid elevations; Bruneau, Owyhee and Snake Rivers. More common in 1930s, according to Pat Packard. BP, OG, OP.

ALLIACEAE (see AMARYLLIDACEAE)

AMARANTHACEAE (including former CHENOPODIACEAE; see also SARCOBATAACEAE)

Amaranthus albus L. * 2002666, Wiggins 30, 08-517, 15-265, 21373. Uncommon to occasional in disturbed upland areas at lower to middle elevations throughout our range. BP, OG, OM, OP.

Amaranthus blitoides S. Watson. * Lytjen 266, 09-454, 15-265, Bratz 131-36, Holmgren 14764. Uncommon on roadside disturbances and barren gravels throughout our range. (*A. graecizans* (Moq.) S. Watson). BP, JIB, OF, OG, OM, OP.

Amaranthus californicus (Moq.) S. Watson. Packard 73-303, Kotter 11, Bratz B2-118, Ertter 206/4, Sanford 476, Irwin 9244. Uncommon in mud flats and gravels from below Owyhee Reservoir to upper Antelope Creek, YP Desert, and Riddle. BP, OF, OG, OM, OP.

Amaranthus hybridus L. Sanford sn. One record from Dirty Shame Rock Shelter, Antelope Ck. OP.

Amaranthus powellii S. Watson. 02-633, 02-659, 02-670, 02-871, 02-986, 14-372. Locally common on sandy shores of the Owyhee River at mid and low elevations. OP.

Amaranthus retroflexus L. * 02-1017, 02-081, 2002667, Pinzl 4497. Locally common on sandy shores of the Owyhee River at lower elevations. OG, OP.

Atriplex argentea Nutt. var. *hillmanii* M.E. Jones. Etter 4080, 02-167, 02-1035, Otting 936. Occasional on white ash and chalk at lower elevations from Chalk Basin to Dry Creek and Succor Creek. (*Atriplex hillmanii* (M.E. Jones) Standl.). OF, OG, OP.

Atriplex canescens (Pursh) Nutt. var. *canescens*. 02-121, 02-699, Polito 35. Locally common in xeric, alkaline sites at mid to lower elevations. OF, OG, OP.

Atriplex confertifolia (Torr. & Frem.) S. Watson. 02-354, 2002066. Common in xeric sites at mid to lower elevations. Often the community dominant in shallow, dry rocky soils. OF, OG, OP.

Atriplex dioica Raf. Grimes 1309, Bratz sn. Rarely seen. Sandy areas at Bruneau Dunes. OF.

Atriplex gardneri (Moq.) D. Dietr. var. *falcata* (M.E. Jones) S.L. Welsh. 2002434, 07-082, Corbin 1449. Occasional in xeric, alkaline scrub in vicinity of Rome and around to Owyhee Front in Idaho. (*Atriplex falcata* (M.E. Jones) Standl.). OF, OM, OP.

Atriplex heterosperma Bunge * Corbin 1675, Corbin 1531, 02-1007, 09-449, 09-426, Luce 29, 08-590. Occasional in sandy shores, ditches, and generally alkaline riparian areas at lower elevations. (*Atriplex micrantha* Ledeb. misapplied). OP.

- Atriplex powellii* S. Watson. 03-128, Packard 78-52, Packard 74-32, Packard 75-101, Packard 76-136, Smithman 08-46, Joyal 1099, Ertter 4080a. Occasional on white and brown ash from Rome and Red Butte to Succor Creek and Little Jack's Creek Glenns Ferry Formation up to about 1400 m. OF, OG, OP. G4 ORSNR.
- Atriplex pusilla* (Torr.) S. Watson. Mancuso 1805, Hitchcock 21052, Baker 8175. Rare on clay and chalky alkaline soils up to 1400 m; Rome, Oreana, Grandview. OF, OP.
- Atriplex rosea* L. Otting 1005, Grimes 72-96, Grimes 72-108, GDS 19, Graber 102a, Luce 45, Hollow 18. Occasional in moist swales and riparian area in northern portion of the region at lowest elevations up to 1400 m. JIB, OF, OG, OP.
- Atriplex truncata* (Torr.) A. Gray. Irwin 9272, Ireland 1678, Corbin 1659, Baker 8175. Known from muddy reservoir margins near Riddle, Succor Ck., Diamond Basin SW of Murphy. Expected from 900 m to 2100 m throughout the range, but rare. OF, OP.
- Bassia hyssopifolia* (Pall.) Kuntze * Otting 943, Grimes 72-97, Grimes 44, Bratz sn, Baker 8173. Roadsides, dry creekbeds, and river banks from Snake River to Reynolds Creek. OF, OG, OP.
- Bassia prostrata* (L.) A.J. Scott * 21454. Exotic introduced for erosion control and fire breaks in Oregon, Idaho, and Nevada. (*Kochia prostrata* (L.) Schrad. OF, OP.
- Bassia scoparia* (L.) A.J. Scott * 02-1019, 02-148, 08589, Williams 783105. Occasional in moist disturbed sites at lower elevations and near Wildhorse Reservoir. (*Kochia scoparia* (L.) Schrad.). JIB, OM, OP.
- Blitum chenopodioides* L. Ertter 241. Rare; one collection along Snake River just below Owyhee confluence. (*Chenopodium chenopodioides* (L.) Aellen; *Oxybasis chenopodioides* (L.) S. Fuentes, Uotila & Borch). OF.
- Blitum hastatum* Rydb. Christ sn. Rare; historical collection along roadside south of Silver City. (*Chenopodium capitatum* (L.) Ambrosi var. *parvicapitatum* S.L. Welsh). OM.
- Blitum nuttallianum* Schult. 02-287, 02-632, 02-343, 2002322, Occasional to common in a variety of alkaline, ash, or sandy sites. (*Monolepis nuttalliana* (Schult.) Greene). BP, JIB, OF, OG, OM, OP
- Blitum virgatum* L. * 02-405, Brainerd 436, Otting 817, Corbin 1474. Uncommon in mesic sites, such as aspen woodlands at upper elevations. Eurasian species introduced sporadically throughout U.S. (*Chenopodium foliosum* (Moench) Asch.). OG, OM, OP.
- Chenopodiastrum simplex* (Torrey) S. Fuentes, Uotila & Borsch. Bratz sn, Tiehm 18544. One old record at reservoir in Reynolds Creek, and near Wildhorse Reservoir. (*Chenopodium simplex* (Torr.) Raf.). JIB, OM.
- Chenopodium album* L. * 01-243, 03-279, 13-116, Ertter 21682. Occasional to common weed in many disturbed communities. OF, OG, OM, OP.
- Chenopodium album* probable hybrids. 2002632, 02-672, 06-228. Growing in seeps and springs from Warm Springs to Rome.
- Chenopodium atrovirens* Rydb. 02-168, 2002528, 20051051, 02-1003, 02-894, 09-178, 18656. Occasional in various communities (mostly vernal wet and ash) across our entire range. (*Chenopodium fremontii* S. Watson var. *atrovirens* (Rydb.) Fosberg). JIB, OG, OM, OP.
- Chenopodium berlandieri* Moq. var. *zschackei* (Murr.) Murr. 01-243, Tiehm 9312, Bratz sn, Grimes 46, Smith 3561. Uncommon and scattered on sandy shores of Owyhee, Bruneau, and Snake Rivers, and some tributary creeks. BP, JIB, OF, OM, OP.
- Chenopodium desiccatum* A. Nelson. 05-493b, 03-186. Rare on vernal wet, alkaline big sagebrush sites. OP.
- Chenopodium fremontii* S. Watson. Sanford 110, Peck 21799, 2002735. Uncommon along Owyhee River and its tributaries from below Rome (Crooked Creek) up to Blue Creek in Duck Valley. OP.

- Chenopodium hians* Standl. Baker 8195, Tiehm 18036. Above 2400 m on ridge between War Eagle and Hayden Peaks, and in Copper Mountains of N. Nevada. (*C. incognitum* Wahl.). JIB, OM.
- Chenopodium incanum* (S. Watson) A. Heller var. *occidentale* D.J. Crawford. Otting 3076, Hitchcock 22603. Rare from west of Owyhee River north of Rome to Grandview. OF, OP,
- Chenopodium leptophyllum* (Moq.) Nutt. ex S. Watson. Peck 21713, Mancuso 2419, Baker 12963, Otting 940, Otting 627, 04-325. Sporadic in our area; on sandy soils and disturbances from Malheur Co. around to the Owyhee Front and up to Grasmere; at all elevations. BP, OF, OG, OP.
- Chenopodium pratericola* Rydb. 03-153, 05-39, 02-168, 03-141, 03-378. Common along Owyhee canyon from West Little to Leslie Gulch and up into Silver City range. OF, OG, OM, OP.
- Chenopodium subglabrum* (S. Watson) A. Nelson. 2002733, 02-517, Otting 818, 04-325. Uncommon in rocks and gravels at all elevations. OF, OG, OP.
- Corispermum americanum* (Nutt.) Nutt. var. *americanum*. Ertter 565, Bjork 5203. Known only at sand dunes at Bruneau Dunes and sands along Snake River. (*Corispermum hyssopifolium* L. var. *americanum* Nutt.). OF.
- Dysphania botrys* (L.) Mosyakin & Clemants. 02-064, 01-92, Lytjen 344, Otting 949. Common on sandy shores of lower riparian zones at mid to lower elevations. (*Chenopodium botrys* L.). OF, OG, OM, OP.
- Grayia spinosa* (Hook.) Moq. 2002030, 02-239, Irwin 9045. Occasional to common in xeric sites at lower and middle elevations. BP, OF, OG, OM, OP.
- Halogeton glomeratus* (M. Bieb.) Ledeb. * N 02-974. Locally common weed in disturbed, alkaline sites at lower elevations. BP, OF, OG, OP.
- Krascheninnikovia lanata* (Pursh) A.D.J. Meeuse & Smit. 02-215, 03-025, 03-218, 08-045. Uncommon on xeric, often ashy sites; more common at lower elevations, though found higher on occasion. (*Eurotia lanata* (Pursh) Moq.; *Ceratoides lanata* (Pursh) J.T. Howell). BP, JIB, OF, OG, OM, OP.
- Micromonolepis pusilla* (Torr ex S. Watson) Ulbrich. 02-201, 05-27, 20051078, Brainerd 1091. Uncommon on barren ashy or sandy soils from Rome to near Chalk Basin. (*Monolepis pusilla* Torr. ex S. Watson). OF, OP.
- Neokochia americana* (S. Watson) G.L. Chu & S.C. Sand. 02-191, 2002435, 2002659, 03-131B, 05-24, Ertter 21679. Occasional in alkaline scrub at lower elevations from near Rome through Chalk Basin, to Leslie Gulch and across the lower Owyhee Front (*Kochia americana* S. Watson). OF, OG, OP.
- Nitrophila occidentalis* (Moq.) S. Watson. 200452015, 08-495. Rare in white chalky soils and alkaline springs at Crooked Creek crossing. Does not enter Idaho. OP.
- Oxybasis glauca* (L.) S. Fuentes, Uotila & Borsch ssp. *glauca*. * 2002753, Dixon 77, 02-969. Known from our area on sandy shores of the Owyhee River below Rome (Fletcher's Crossing). (*Chenopodium glaucum* L. var. *glaucum*). OP.
- Oxybasis glauca* (L.) S. Fuentes, Uotila & Borsch ssp. *salina* (Standl.) Mosyakin. Irwin 9246, Irwin 9270. Rare in muds of reservoirs near Riddle. (*Chenopodium glaucum* L. var. *salinum*). OP.
- Oxybasis rubra* (L.) S. Fuentes, Uotila & Borsch var. *humilis* (Hook.) Mosyakin. Grimes 1225, 02-229, Ertter 21680a, 14-495, 14-541, Davis 4270. Rare in Little Owyhee River and Owyhee canyon below Rome, to Batch Lake, Leslie Gulch and Duck Valley. (*Chenopodium rubrum* L. var. *humile* (Hook.) S. Watson). JIB, OG, OP.
- Oxybasis rubra* (L.) S. Fuentes, Uotila & Borsch var. *rubra*. 09-427, Ertter 21680, Baker 8597. Known here only along Crooked Creek, in Leslie Gulch, and along the Snake River. (*Chenopodium rubrum* L. var. *rubrum*). OG, OP.

- Salsola tragus* L. * 02-975, 02-294, 2002626. Common on sand, seeps, and subirrigated disturbed sites. Increasing and becoming prominent on lower river corridor, but also found in middle elevations. BP, OF, OG, OP.
- Suaeda calceoliformis* (Hook.) Moq. 2002738, Davis 4232. Uncommon in alkaline soil near Crooked Creek and along Owyhee Front from Grandview to Bruneau. OF, OP.
- Suaeda nigra* (Raf.) J.F. Macbr. 01-87b, 02-1012, 20051061, 08-502, Baker 8174, Rosentreter 22,727. Occasional in alkaline seeps and near streams and rivers at lower elevations, from Rome north and around the Owyhee Front to Bruneau. (*S. moquinii* (Torr.) Greene; *S. fruticosa* auct. non Forssk.; *S. intermedia* S. Watson). OF, OG, OP.
- Suaeda occidentalis* (S. Watson) S. Watson. 08-501, Baker 8174. Rare; one record from an alkaline seep at Crooked Creek west of Rome and one record east of Oreana. OF, OP,
- AMARYLLIDACEAE (formerly in LILIACEAE or ALLIACEAE)
- Allium acuminatum* Hook. 02-368, 2002468. Common in vernal moist sites in sagebrush communities. BP, JIB, OG, OM, OP.
- Allium anceps* Kellogg. 05-62b, Nielsen 5130037, Grimes 3053. Rare on exposed gravelly benches overlying heavy clay in upper Antelope Creek, upper and lower Succor Creek, Dry Creek and N. Nevada. *A. lemmonii* from northern Jarbidge Mountains approaches this species. OG, OP. G4 IDS2S3.
- Allium atrorubens* S. Watson var. *atrorubens*. Bent 2017-21, 14648. Known from Independence Mountains only in our area. JIB.
- Allium bisceptrum* S. Watson. 02-409, 02-527, 2002603, 03-077, 04-056, 07-242, Otting 809, Smith 12033. Occasional in mesic aspen and riparian meadows at higher elevations. JIB, OP. G4G5 ORS4.
- Allium brandegeei* S. Watson. 08176, 05254, 09160, 09104, 08279, 08-229, Concannon sn., 05165, Stone 19-181. Uncommon to occasional in thin soils throughout our area above 1500 m. JIB, OG, OM, OP. G4 ORSNR.
- Allium geyeri* S. Watson var. *tenerum* M. E. Jones. 02-413, 02-722B, 2002451, 2002517a, Colson 03-6. Locally common in upper West Little Owyhee River wet meadows, though rather rare generally in our region, in mesic aspen and riparian meadows at upper elevations mainly on the Oregon side. OP.
- Allium lemmonii* S. Watson. 02-118, 02-200, 02-427, 02-553, 04-053, Otting 510, Lytjen 37, Otting 792, Brainerd 1457, 2002391, 2002484, 2002180, 2002319, 03-022, 03-061, 03-199, Grimes 2137. Our most common onion. Most common on depressed microplayas; also present in ash slopes, sandy flats, springs, and ephemeral drainages; below 1800 m throughout our range. Wide ecological tolerance. Some forms (LS 2026, 11-204, 11-175, Harloe 545 and a different form--Smithman 2026) with short stamens included in tepals. An unusual form (DeBolt) near Runaway Gulch may be a new taxon. Much variation herein; may include one or more new taxa. BP, JIB, OG, OM, OP.
- Allium macrum* S. Watson. 21010, Ertter 8405, DeBolt 2498, Corbin 1642, Prentice 5077b, 22056, 22108. Known only in northwestern part of our range: Dry Creek to Succor Creek to Jump Creek, to Little Poison Ck. and Cow Lakes. OG. G4G5 IDS1.
- Allium nevadense* S. Watson. 2002131, 05-22, 97-02, Brainerd 353, Smithman 2002, Smithman 1988, Corbin 1683. Uncommon to occasional in sagebrush communities at low to middle elevations. BP, JIB, OF, OG, OM, OP,
- Allium parvum* Kellogg. 2002134, 05-103, Packard 77-15, Packard 80-10, 14-169, 97-138. Uncommon in clay depressions (often overlaid by gravels) in sagebrush communities. OG, OM, OP.
- Allium punctum* L.F. Hend. 2002009, 2002072, Smithman 0982, Corbin 1262, Corbin 1640, Packard 70256. Uncommon in heavy clays and barren ash below Rome to Owyhee Breaks and McBride Ck;. Difficult taxonomic distinction between this and *A. parvum* except when they occur in same vicinity (and then *A. parvum* more robust). OF, OG, OM, OP.

Allium simillimum L.F. Hend. Packard 78-12, Tucker sn., Bratz 335-165, Grimes 3074, Ertter 74-16. Silver City range to South Mountain and Mud Flat Road, rarely to vicinity of Mountain City. JIB, OG, OM.

Allium textile A. Nelson & J.F. Macbride. Callahan At-2. Only one collection confirmed in our region from Mahogany Mtn in scree overlying deep soils. Bruneau Plateau reports are *A. brandegei*. Mostly to the northeast of Snake River Plain. OG.

Allium tolmiei Baker ex S. Watson var. *tolmiei*. Nielsen 1043, 2002381, Corbin 1647, 03-048, 05-220, Nielsen 1035, Corbin 1687, Smithman 1972, Prentice 5752. Locally common, generally uncommon; In heavy, vernal wet clay soils between 1350 and 2100 m. BP, JIB, OG, OM, OP.

ANACARDIACEAE

Rhus aromatica Aiton var. *aromatica*. Packard 71-49, 15-047, Smith 8704. Along creeks all along the Owyhee Front. (*Rhus trilobata* Nutt.; *Rhus aromatica* var. *trilobata*). OF.

Toxicodendron rydbergii (Small ex Rydb.) Greene. 02-085, Brainerd 433. Locally common at seeps in canyons and on wet, rocky shores of the rivers at lower elevations. (*Rhus toxicodendron* L.). OF, OG, OP.

APIACEAE

Angelica arguta Nutt. Packard 71-98, 04-285, 23194. Rare in our area, Squaw Creek and Bruneau River to Jarbidge and Independence Mountains, though common to the north of Snake River. JIB, OM.

Angelica kingii (S. Watson) J.M. Coult. & Rose. Mancuso 1718, Moseley 3026, Charlet 46718646b, 18615, Tiehm 18058, Charlet 2280. Rare; Stream banks; Spring Creek Basin and South Fork Owyhee River to Jarbidge Mountains where only uncommon. JIB, OP. G4 IDS1.

Anthriscus caucalis M. Beib. * 10052, Ranck 80. European weed known in our area only from lower Bruneau River Canyon and Succor Ck. Likely to increase. BP, OG.

Berula incisa (Torr.) G.N. Jones. 02-961, 02-705b, 02-994, 02-961, 2002668, 08-508, Corbin 1651. Locally common in late season at lower to middle elevation in Owyhee River to Owyhee Front, streams and seeps. (*Berula erecta* (Huds.) Coville misapplied). OF, OG, OP.

Cicuta douglasii (DC.) J.M. Coult. & Rose. Sako 5-74. On northeast side of Snake River and likely on south side in our area, but not yet verified. OF.

Conium maculatum L. * N Pinzl 8762. Known only from along the Owyhee River near Mountain City. Likely occurring elsewhere. OP.

Cicuta maculata L. var. *angustifolia* Hook. 02-916, 2002652, 2002758, 13-209. Common along the rivers, mostly at lower elevations. Reports of *C. douglasii* are probably in error. More varieties possibly occur here. OG, OM, OP.

Cymopterus corrugatus M.E. Jones. 2002002, 2002088, Klott 343. Uncommon to occasional in heavy clay soils of ash deposits in xeric communities between Rome and Owyhee dam and along the Owyhee Front up the Bruneau. BP, OF, OG, OP.

Cymopterus foeniculaceus Torr. & A. Gray. Leland 74-62, Hayes 2305. Rare in our area; in rocks from Succor Creek to Bruneau Canyon. (*Cymopterus terebinthinus* Torr. & A. Gray var. *foeniculaceum* (Torr. & A. Gray) Cronq.). BP, OG.

Cymopterus glomeratus Nutt. var. *glomeratus*. 2002020, 2002091, 2002186, Lytjen 159. Uncommon to occasional on loose clay soils in sagebrush and shadscale communities at lower elevations, from Rome to below the Owyhee dam and along the Owyhee Front. (*Cymopterus acaulis* (Pursh) Raf. var. *acaulis*). BP, OF, OG, OP.

Cymopterus glomeratus (Nutt.) DC. var. *greeleyorus* (J.W. Grimes & P.L. Packard) E.E. George & R.L. Hartm. 2002241, 22050, Raino 46, 07017, 10005. Rare on edges of pale or brown ash with shadscale in Chalk Basin and northeast to Leslie Gulch and Succor Creek. (*Cymopterus acaulis* (Pursh) Raf. var. *greeleyorum* J.W. Grimes & P.L. Packard). OG. G5T2 IDS2.

- Cymopterus ibapensis* M.E. Jones. 2002382, 03-213, 20051044. Uncommon to rare on heavy clay soils of upland playas at higher elevations in southern Malheur Co. along the upper West Little Owyhee River. (*Cymopterus longipes* S. Watson var. *ibapensis* (M.E. Jones) Cronquist). OP. G4 IDS2 ORS2.
- Cymopterus petraeus* M.E. Jones. 02-814, 02-02, Irwin 9223. Locally common in rock crevices of canyon walls along the Owyhee and Bruneau Rivers and some tributaries. BP, OF, OG, OP.
- Eryngium alismifolium* Greene. Kotter 74/37, Ertter 194/4, 04-181, Tiehm 14556. Rare in wet meadows near Duck Valley and Cow Lakes. OP. G4 IDS1S2.
- Heracleum maximum* Bartr. 02-955, 2002724, Pinzl 8776, Pinzl 13372. Uncommon in riparian meadows at higher elevations and descending down canyons in both Bruneau and Owyhee drainages in deep shade. (*Heracleum lanatum* Michx.). JIB, OM.
- Ligusticum grayi* J.M. Coult. & Rose. 07427, Ertter 20367, Baker 8270, 04307b, Charlet 357, Tiehm 10064. Uncommon in moist streamsides; Silver City Range, South Mountain and Jarbidge Mountains. JIB, OM.
- Lomatium bentonitum* K. Carlson & Mansfield. 07015, Carlson 10-1, Carlson 038. Rare on white, bentonitic ash outcrops in Succor Creek. OG. G1G2 ORS1.
- Lomatium canbyi* (J.M. Coult. & Rose) J.M. Coult. & Rose. 2002007, DeBolt 881, 2002188, 2002310. Locally common in shallow clay soils at mostly mid to low elevations. May bloom as early as mid February. BP, OF, OG, OM, OP.
- Lomatium cous* (S. Watson) J.M. Coult. & Rose. 02-488, 2002054, 05-438, 05-111, 07-081, 08-314. Occasional to common in barren openings in big sagebrush communities and small playas, increasing at mid to low elevations. BP, JIB, OG, OM, OP.
- Lomatium donnellii* J.M. Coult. & Rose. 03038, Ertter 8400. Uncommon in deep loose or clay soils barely entering our region from the west. OG, OP.
- Lomatium fimbriatum* (W.L. Theob.) Botello & J.F. Sm. Wernette 28, 03001, 2002170, 18567. Known only from ash beds and sandy flats west of Rome and Cougar Peak in Jarbidge Mountains. (*Lomatium foeniculaceum* (Nutt.) J.M. Coult. & Rose var. *fimbriatum* (W.L. Theob.) B. Boivin). JIB, OP. G5T2T4 ORS1.
- Lomatium leptocarpum* Torr. & A. Gray. 02-442, 03-032, 03-045, 03-055, 05-221. Very common in shallow rocky soils with low sage and in playas at upper elevations. A white-flowered variant is evident in the vicinity of N. Fork Owyhee River. (see relationship to *L. pastoralis*) (*L. bicolor* (S. Watson) J.M. Coult. & Rose var. *leptocarpum* (Torr. & A. Gray) Schlessman.) BP, JIB, OG, OM, OP.
- Lomatium linearifolium* (S. Watson) J.F. Sm. & Mansfield. Packard 71-5, Winter 84, Rosentreter sn, Otting 2358. Uncommon on gravelly, clay soils generally above 1400 m from Silver City range to Jarbidge Mountains. (*Orogenia linearifolia* S. Watson). JIB, OM, OP.
- Lomatium macrocarpum* (Nutt. ex Torr. & A. Gray) J.M. Coult. & Rose. 2002323, 2002010, 2002013, 05-437, Otting 1599. Common in clay soils and slick spots in big sagebrush and low sagebrush communities at all except the lowest elevations. BP, JIB, OM, OP.
- Lomatium multifidum* (Nutt.) R.P. McNeill & Darrach. 2002262, Andrews 868, 07-391. Locally common in rocky slopes, rimrock, and talus. (*Lomatium dissectum* (Nutt.) Mathias & Constance var. *multifidum* (Nutt.) Mathias & Constance). BP, JIB, OF, OG, OM, OP.
- Lomatium nevadense* (S. Watson) J.M. Coult. & Rose var. *nevadense*. 2002324, 2002325, 02-406b, 2002167, 2002222, 2002294, 2002427, 02-502, 03-066B, 03-078. Occasional to common in heavy clay to loamy soils in many communities at all except the lowest elevations. BP, JIB, OG, OM, OP.
- Lomatium nudicaule* (Pursh) J.M. Coult. & Rose. 2002380, 2002525, Otting 594. Common in clay soils mostly above 1500 m. BP, JIB, OG, OM, OP.

- Lomatium packardiae* Cronquist. Schiemer sn, A. Truksa 48, 08048, 07-013, Mancuso 1574. Uncommon to occasional in heavy clay ash beds mainly in Succor Creek, but extending from near the Owyhee dam east to Salmon Creek and Cow Creek. OG, OM. G2 IDS2 ORSNR.
- Lomatium papilioniferum* J.A. Alexander & W. Whaley. 02-268, 2002081, Otting 759. Occasional to common in rocky washes and some clay soils at low to mid elevations northern part of range and in Independence Mountains. Blooms early spring. (*L. grayi* (J.M. Coult. & Rose) J.M. Coult. & Rose misapplied). JIB, OF, OG, OM, OP.
- Lomatium ravenii* Mathias & Constance var. *paiutense* K. Carlson & Mansfield. 05-73, 08-043, Irwin 9027. Uncommon to occasional in sandy or loamy soils with underlying clay throughout the range except at lowest elevations. BP, JIB, OG, OM, OP. G4T4 IDS3.
- Lomatium semivaginatatum* Botello & J.F. Sm. 2002170, Corbin 1637. Occasional and scattered in clay soils throughout most of the region at lower elevations, (*Lomatium foeniculaceum* (Nutt.) J.M. Coult. & Rose var. *macdougallii* (J.M. Coult. & Rose) Cronquist). BP, OF, OG, OM, OP
- Lomatium simplex* (Nutt.) J.F. Macbr. 2002058, Corbin 1442, Brainerd 1403, Smith 5842, Ross 49, Scholten sn. Occasional to common in loamy, rocky soils of sagebrush/bluebunch wheatgrass communities mainly from 900 to 1500 m in western part of our range; rarely seen east or south of Silver City Range. (*L. triternatum* (Pursh) J.M. Coult. & Rose var. *platycarpum* (Torr.) B. Boivin). BP, OG, OM, OP.
- Lomatium vaginatatum* J.M. Coult. & Rose. 05234, 05228, 14097, 8023, 17001, Ertter 1972, Bratz sn., Ottenlips 28, Ottenlips 38. Occasional from Succor Creek along Owyhee Range and to South Mountain in clay-loam soils 1350 – 1500 m. OG, OP, OM.
- Osmorhiza berteroi* DC. Packard 72-212, Smithman 1971, Bratz 475-176, 18588. In shady riparian areas at higher elevations from South Mountain to Silver City ranges to Reynolds Creek and Jarbidge Mountains. (*Osmorhiza chilense* Hook. & Arn.). JIB, OM.
- Osmorhiza depauperata* Phil. 05301, 05287, 06-61, 08-356. In seeps and shady riparian areas at higher elevations from Silver City range to South Mountain to Jarbidge Mountains. JIB, OM.
- Osmorhiza occidentalis* (Nutt.) Torr. 02-403, 12-490, Irwin 9097, 18623b. Occasional to common in aspen and conifer communities at upper elevations occasionally descending into the canyons. JIB, OG, OM.
- Pastinaca sativa* L. * Tucker 1116, Borek 2002.195. Weed from agriculture known from two locations—Jordan Valley and Homedale. OF, OP.
- Perideridia bolanderi* (A. Gray) A. Nelson & J.F. Macbr. ssp. *bolanderi*. 2002159, 2002478, 2002302, 05-105, Lytjen 67, Wigglesworth 16. Common in shallow, heavy soils with low sage or aspen at mid to upper elevations. BP, JIB, OG, OM, OP.
- Perideridia montana* (Blank) Dorn. Sanford 276, Bratz 345-157, Smith 6231, Baker 8481, Klott 412. Rare in shallow clay soils. In Silver City range in aspen groves and Riddle; also Dirty Shame Rockshelter, Antelope Creek.. (*Perideridia gairdneri* (Hook. & Arn.) Mathias ssp. *borealis* Chuang & Constance). Involucel bractlets range from 0.15-0.4 mm wide and are mostly lanceolate. Records of *Perideridia oregana* (e.g. Dean 80) fall within this range and likely represent the same taxon. JIM, OM, OP.
- Sium suave* Walter. 02-79, 13-138, Baker 8503, Baker 8178. Rare to uncommon along the river's edge below Rome around Duck Valley and in the lower Bruneau River (the latter probably extinct.). BP, OP.
- APOCYNACEAE (including former ASCLEPIADACEAE)
- Apocynum androsaemifolium* L. Bratz 342-157, George 203, 18659. Uncommon to occasional on mesic slopes at middle elevations. Our plants range in characteristics from var. *pumilum* to var. *androsaemifolium*. JIB, OM.
- Apocynum cannabinum* L. var. *glaberrimum* A. DC. 02-061, 02-1005, 13-207. Common in rocks along the rivers at all but the highest elevations. JIB, OF, OG.

Apocynum xfloribundum Greene. 15-149, Packard 71-317. Uncommon in Owyhee Mountains above 1200 m from Salmon Creek to Toy Pass. OM.

Asclepias cryptoceras S. Watson ssp. *davisii* (Woodson) Woodson. 02-053, 02-226, 2002184, 03-020, Klott 182. Occasional in brown ash outcrops at mid to lower elevations from Owyhee Front around to Owyhee River. Loveridge Draw; rarely seen as far south as Grasmere. BP, OF, OG, OM, OP.

Asclepias incarnata L. var. *incarnata*. 01-87, Ertter 248, Corbin 1965, Horstman 9477. Rare. Snake River. Opposite lvs. OF.

Asclepias fascicularis Duchesne. Otting 914, Klott 564, Klott 10153. Scarce from ephemeral stream channel in Dry Ck. and riparian areas in Bruneau Plateau into Nevada. Expected along Snake River. Fascicled/whorled lvs. BP, OG.

Asclepias speciosa Torr. 02-124, 2002651, Lytjen 103, Horch 30. Locally common in disturbed and agricultural areas and uncommon along rivers to upper elevations. OF, OG, OP.

ARACEAE (including former LEMNACEAE)

Lemna minor L. Brainerd 355, 02-848, Packard 73-18, Brainerd 1095, Glad 74-142b, 23200. Uncommon on calm waters at mostly lower elevations. BP, OG, OP.

Lemna minuta Kunth. Alexander 987, Grimes 1310. Rare; Leslie Gulch Rd in Succor Ck drainage and Bruneau dunes. (*Lemna minima* Phil. non Thuill. ex P. Beauv.). OF, OG.

Spirodela polyrrhiza (L.) Schleid. Glad 74-142c. Batch Lakes. OG.

ASCLEPIADACEAE (see APOCYNACEAE)

ASPARAGACEAE (formerly in LILIACEAE)

Asparagus officinalis L. * 02-362, Lytjen 111. Uncommon introduction scattered generally at lower elevations near waterways across the range. OF, OG, OM, OP.

Camassia quamash (Pursh) Greene ssp. *utahensis* Gould. 21028b, Peter 74-107, Shield 43-2, Truksa 66, Peck 25776, Graber 113, Galvis 54, 14-173, 21101, Ottenlips 125, 09054. Common in wet riparian meadows above about 1000 m throughout our region. Characters often merge with those of *C. quamash* ssp. *breviflora*, but variation is continuous throughout our range so only one variety exists here. BP, JIB, OG, OM, OP.

Leucocrinum montanum Nutt. 2002014, 03-014. Occasional in loose sand in sagebrush communities at middle and lower elevations. OF, OG, OP.

Maianthemum racemosum (L.) Link ssp. *amplexicaule* (Nutt.) LaFrankie. Peters 74-163, Packard 71-121, Ertter 510, Irwin 9101, 22240. Occasional in deep shade of woodlands and forests from Silver City range to South Mountain, Juniper Mountain and south to Bull Run and Jarbidge Mountains. JIB, OM.

Maianthemum stellatum (L.) Link. 02-136, 2002272, 13-047. Occasional in seeps and shady, riparian woodlands. Generally at lower elevations than *M. racemosum*. (*Smilacina stellata* (L.) Desf.). JIB, OF, OG, OM, OP.

Triteleia grandiflora Lindl. var. *grandiflora*. 02-293, Horch 50. Occasional in riparian areas at lower elevations. (*Brodiaea douglasii* S. Watson). JIB, OM, OP.

ASTERACEAE

Achillea millefolium L. 02-035, 02-510, 130-046. Common in riparian sites and upland meadows at all elevations across the entire range. BP, JIM, OF, OG, OM, OP.

Ageratina occidentalis (Hook.) R.M. King & H. Rob. 02-790, 02-727, 02-910, 02-843, 02-941, 02-906, 20051096, 06-209. Common in rocks along Owyhee River mainly at mid elevations; apparently absent from Silver City range and Owyhee Front and appearing to the east of our range in vicinity of Salmon Falls Ck. (*Eupatorium occidentale* Hook.). JIB, OG, OM, OP.

Agoseris aurantiaca (Hook.) Greene var. *aurantiaca*. 07422, 14-526, Baker 8163, Smith 12056. Occasional in meadows above 2000 m. Silver City Range to East Fork Owyhee, Bruneau and Jarbidge uplands. JIB, OM.

- Agoseris glauca* (Pursh) Raf. var. *dasycephala* (Torr. & A. Gray) Jeps. 02-610, George 192. Uncommon to rare in upper and middle elevation riparian openings from South Mountain and Juniper Mountain to Jarbidge area. JIB, OM, OP.
- Agoseris glauca* (Pursh) Raf. var. *glauca*. 02-255, 2002216, 02-130. Common at lower and middle elevations in moist sites. BP, JIB, OF, OG, OM, OP.
- Agoseris grandiflora* (Nutt.) Greene. 13-140, Bratz 498-155, Bratz sn. Uncommon; Reynolds Creek to Boulder Creek and “tules” on East Fork Owyhee River. JIB, OM, OP.
- Agoseris heterophylla* (Nutt.) Greene. 02-778. 02-808, 2002153, Smithman 1759, 2002221, 2002533, 05-106, 08-319c. Common in gravels along the river and in vernal moist areas, and mesic sagebrush slopes, mostly at mid to upper elevations. BP, JIB, OG, OM, OP.
- Agoseris monticola* Greene. Packard 71-286, Packard 71-294. Known only above 2000 m on Juniper Mountain in our region.
- Agoseris parviflora* (Nutt.) Greene. 2002379, 02-424B, 02-393, 03-175, 2002330, Irwin 9056, Baker 7189. Occasional throughout, but mostly at upper elevations in meadows throughout our region. (*Agoseris glauca* (Pursh) Raf. var. *laciniata* (D.C. Eaton) Smiley). BP, JIB, OF, OG, OM, OP.
- Ambrosia acanthicarpa* Hook. Thompson 95352, Baker 11153, Baker 8920, Klott 100. Uncommon along rivers and creeks below 900 m from Dry Creek in Malheur Co. and Owyhee State Park along Owyhee Reservoir across the lower Owyhee Front to Bruneau. OF, OG.
- Ambrosia artemisiifolia* L. 2002747, 01-275. Uncommon in riparian areas at low elevations. Probably introduced from central or eastern U.S. OF, OP.
- Ancistrocarphus filagineus* A. Gray. 02-549, 97-120, 2002575, 0412. Uncommon in playas and scablands at all elevations, more common higher and more common in the western part of our region. (*Stylocline filaginea* (A. Gray) A. Gray). OG, OM, OP.
- Antennaria anaphaloides* Rydb. 08415, 08-383, Hagwood 756, Tiehm 15212. Occasional at higher elevations in mesic conifer understory in Jarbidge Mountains. JIB.
- Antennaria arcuata* Cronquist. Williams 80-212-1, Williams 79-139-1, Williams 84-123-1, Williams 82-314-5. Rare; in wet *Carex* meadows near Belcher Meadows to Sunflower Flat. JIB. G3 IDS1 NVS1.
- Antennaria corymbosa* E.E. Nelson. 02-379, 12357, Smith 11903. Uncommon in mesic meadows and aspen stands above 1500 m. JIB, OP, OM.
- Antennaria dimorpha* (Nutt.) Torr. & A. Gray. 2002038. 2002016, 03-006, 03-065b, 05-54b. Common in clay openings in sagebrush communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Antennaria flagellaris* (A. Gray) A. Gray. 03-035, 05-57, Tiehm 15189, Ertter 4291. Locally common on bare, vernal wet gravels above 1650 m, frequently in relict *Poa leibergii* sites to Sunflower Flat and Jarbidge Mountains. JIB, OM, OP.
- Antennaria luzuloides* Torr. & A. Gray ssp. *luzuloides*. 2002564, 07-338. Uncommon in wet riparian meadows at above 1500 m and in *Poa leibergii*/*Primula cusickiana* communities. OG, OM, OP.
- Antennaria media* Greene. Tiehm 10053, Macbride 1010, Tiehm 6165, Rust 119. Uncommon near talus above 2700 m in Jarbidge and Independence Mountains and historic collection at War Eagle Mtn. JIB, OM.
- Antennaria microphylla* Rydb. 14-520, Powell 2017-06, Williams 88-38-2, 02-623, 02-390, Lytjen 139, 07-393, 14-459, 14-479, 19235, Irwin 9172, Bala 1436, 05-324, 07-415, 08387, 11-089. Common in meadows, sagebrush communities, and vernal moist slopes and barrens in vicinity of middle to upper elevations across the region. This group is complex and represents multiple taxa, including polyploids and apomicts. Here I follow other regional floras including the *Antennaria rosea* Greene group within. BP, JIB, OF, OG, OM, OP.

- Antennaria stenophylla* (A. Gray) A. Gray. 2002420, 02-385B. 02-440, 2002312, 2002397, 2002413, 2002521, 05-54, 08-303b. Common in clay flats, balds, meadows and other vernal moist sites above 1400 m across the range. JIB, OG, OM, OP.
- Antennaria umbrinella* Rydb. 18456, Tiehm 10040, 11-089. Uncommon in meadows at high elevation in Jarbidge Mountains. JIB.
- Anthemis cotula* L. * Baker 8317. One historical collection in Reynolds Ck. OM.
- Arctium minus* (Hill.) Bernh. * Bratz sn., 08469. Uncommon in riparian areas near Rome, Reynolds Creek, Oreana and Jarbidge River. JIB, OF, OM.
- Arnica chamissonis* Less. Occasional in riparian meadows along W. Little and east to Jarbidge, above 1200 m. Two forms of this occur in our area: one that has green foliage (may be referred to as ssp. *foliosa* (Nutt.) Maguire var. *foliosa*), typified by 99-101, 02-628, 02-821, 03-232, 05-415, and one that has gray, hairy foliage (called ssp. *foliosa* (Nutt.) Maguire var. *incana* (A. Gray) Hultén) typified by 02-482, 02-821, 02-761, 02-509, 05-405. No intermediates have been noted here. JIB, OM, OP.
- Arnica cordifolia* Hook. Bratz 14-165, Prentice 1851, Irwin 9131, 18474. Occasional to common in aspen and conifer forests across the region. JIB, OM.
- Arnica fulgens* Pursh. 02-489, 2002523, Macbride 965, Nelson 1841. Uncommon in wet meadows at higher elevations. JIB, OM, OP.
- Arnica longifolia* D.C. Eaton. Dean 265, 18527, 18409b, 18506, Tiehm 18573. Rare and sporadic in mountains above 1750 m across the region, more common in Jarbidge Mountains, where it approaches *A. mollis*. JIB, OM.
- Arnica mollis* Hook. 07-425, Rosentreter 157, Smith 5663, Baker 7898, 18431, 17407, 18578, 2002523. Occasional in montane riparian areas and wetlands above 1700 m across the region from Silver City range to Jarbidge Mountains. JIB, OM, OP.
- Arnica sororia* Greene. 02-370, 04-051, 09-20b, 12-284, 13-075. Occasional to common in moist meadow depressions and occasionally on ash beds, surrounded by sagebrush throughout the region above 1200 m. JIB, BP, OG, OM, OP.
- Artemisia arbuscula* Nutt. ssp. *arbuscula*. 02-989, 03-368, 05-157, 06-146a, 07-339, 08-584, 09-450. Common in heavy, shallow, rocky, clay soils at mid to upper elevations throughout our area. (*A. arbuscula* ssp. *longicaulis* Winward & McArthur). BP, JIB, OG, OM, OP.
- Artemisia arbuscula* Nutt. spp. *longiloba* (Osterh.) L.M. Schultz. 2002471, 03-174, 02-518, 04-040, 05-439, 06-126, 07-217, 09-455. Common early blooming low sagebrush in shallow, rocky, rhyolitic soils from as low as 3000 ft near Bruneau increasing in upper elevations becoming common in upper W. Little Owyhee area. (*A. longiloba* (Osterh.) Beetle). BP, JIB, OM, OP.
- Artemisia arbuscula* Nutt. ssp. *thermopola* Beetle. 02-581, A. Truksa 80. Rare in rocky, clay soils with *A. arbuscula* ssp. *arbuscula* or *A. arbuscula* ssp. *longiloba* in upper reaches of main Owyhee River tributaries, above 1500 m. OP, OM.
- Artemisia biennis* Willd. * Ertter 529, Kotter 23. Known only in vicinity of Rome and Cow Lakes at water's edge. Uncertainty as to whether this taxon is native. OG, OP.
- Artemisia campestris* L. var. *caudata* (Michaux.) H.M. Hall & Clements. Ertter 20601. Known only from Leslie Gulch in our area. Disjunct from populations east of Rocky Mountains. OG.
- Artemisia cana* Pursh. 2002548, 03-138, George 461, 14260, Packard 76-163, 03-223, 03-227, 07-080, 08-600, 09-458, 13-049, Johnson sn. Common in playas, washes, and with mountain big sagebrush; also along the Owyhee River from the Snake River confluence up to the E. Fork Canyons e.g. in the "Tules". Throughout the range of the species three varieties are recognized, but in our region one may find populations along the lower Owyhee River 1 to 2 m tall having characteristics of *A. cana* ssp. *cana* (08619, 12-810, 15-244, Ertter 19788), populations in playas of Malheur Co. with 4.0-4.3 mm wide involucre and gray stems and leaves having dense stem hairs--characteristics of *A. cana* ssp. *bolanderi* (12-828, 09458, Otting 991), and populations in playas on the Bruneau Plateau and Jarbidge area with 2.4-3.0

mm wide involucre and greenish stems and leaves with less dense hairs—characteristics of *A. cana* ssp. *viscidula* (15-205, 15-323). Most populations, however, fall in a continuum of variation between these three reputed subspecies. I find seasonal variation in reputedly diagnostic morphological characteristics within populations and no coherent geographic pattern of variation from one reputed subspecies to the next. Thus, reputed subspecies are not recognized here. BP, JIB, OF, OG, OP.

Artemisia douglasiana Besser. Ertter 268/4. Lower Owyhee River. OG.

Artemisia dracunculus L. 02-1000, 02-733B, 09-441, Klott 261. Occasional to common in rocks along Owyhee and Bruneau Rivers and tributaries below 1300 m and along Snake River. BP, OF, OG, OP.

Artemisia ludoviciana Nutt. ssp. *candicans* (Rydb.) D.D. Keck. 02-772, 02-210, 02-262, 02-1037, 02-802, 02-876, 02-90, 2002662, 2002563, 05-215, Irwin 9264. Common along dry creek and river shores at all elevations. Highly variable. BP, JIB, OF, OG, OM, OP.

Artemisia ludoviciana Nutt. ssp. *incompta* (Nutt.) D.D. Keck. 02-988, 13-174, 2002629. 02-712, 02-300, 03-273, 03-274. Occasional along rocky river shores mostly at lower elevations. BP, JIB, OF, OG, OM, OP.

Artemisia ludoviciana Nutt. var. *lindleyana* (Bess.) K.L. Chambers. Peck- 25340. Historical collection below the dam on the Owyhee River. OG.

Artemisia ludoviciana Nutt. ssp. *ludoviciana*. 02-851, 02-655, 02-654, 09-442. Common along rocky river and stream shores mostly at middle elevations. Highly variable. BP, OG, OM, OP

Artemisia michauxiana Besser. 18500, Corbin 1573, Grimes 1700. Rare; In rocks of Cinnabar Mountain at 2600 m, and in Jarbidge Mountains. JIB, OM.

Artemisia nova A. Nelson. Hall sn., 08-041, 09-439. Locally common but scattered from Coyote Playa and Bowden Hills, playa country NW of Duck Valley and into N. Nevada. JIB, OM, OP.

Artemisia packardiae J.W. Grimes & Ertter. 02-819, 02-301, 02-837b, 2002719, 02-841b, 02-763, 02-298, 02-948, 03-206, Corbin 1654. Locally common in rock crevices of canyon walls in mid to lower elevations throughout our region, most commonly along Owyhee River. BP, JIB, OG, OM, OP. G3 ORS3.

Artemisia papposa S.F. Blake & Cronquist. 2002311, 2002522, 03-050, 03-051, 03-170, 05-216, 05-53, Polito 47. Locally common in microplayas at upper elevations. BP, JIB, OM, OP. G4 ORS2.

Artemisia rigida (Nutt.) A. Gray. 07-081, 20025846, Corbin 1246. Uncommon in ephemeral washes in northern portion of our range, from Birch Creek to Honeycombs and Squaw Creek, where this species extends its range from the north. OG, OP.

Artemisia spiciformis Ousterh. Prentice 2861a, Lewis 3742. In late-lying snowmelt basin on Bear Creek Summit of Jarbidge Mountains and in headwaters E. Fork Bruneau River. JIB.

Artemisia tridentata Nutt. ssp. *tridentata*. 2002628, 02-232, 02-899, 08-585, 09-453. Common in deeper well-drained soils at lower elevations, along rivers and streams and in uplands by subirrigated drainages. BP, JIB, OF, OG, OP.

Artemisia tridentata Nutt. ssp. *vaseyana* (Rydb.) Beetle. 03-370, 07-554, 09-451, 15608. Common sagebrush at higher elevations above about 1550 m. JIB, OG, OM, OP.

Artemisia tridentata Nutt. ssp. *wyomingensis* Beetle and A. Young. 02-.990, 04-125, 09-420. Abundantly common on rocky slopes and flats at all but the highest elevations. BP, JIB, OF, OG, OM, OP.

Artemisia tripartita Rydb. ssp. *tripartita*. 02-519, 2002075, 02-320, 2002584b, 2002075.

Uncommon at margins of playas or with big sagebrush. Lighter stems and softer foliage than *A. rigida*. OG, OP.

Balsamita major Desf. Tiehm 9303. Known only from low elevation meadow in Bull Run Mountains. (*Tanacetum balsamita* L.). JIB.

- Balsamorhiza hispidula* W.M. Sharp. 14-025, Molsee 1673, Johnson 83, Horsch 07, Grimes 3066, Smithman 2191. Occasional in clay to clay-loam soils with big sage or low sage along the Owyhee Front below 1700 m from Succor Creek to Bruneau and up into lower elevations of Owyhee Mountains. BP, OF, OG, OM.
- Balsamorhiza hookeri* Nutt. 08301, 07174, Barham 19, 11-183, Irwin 9077, 08209, 08169, Packard 7822, Brainerd 357. Common in shallow, rocky soils with big sage or low sage, most common in scablands. From Silver City range south, from Dry Creek south in Oregon and west to Jarbidge area, mostly allopatric with *B. hispidula*. BP, JIB, OG, OM, OP.
- Balsamorhiza sagittata* (Pursh) Nutt. 2002022, Irwin 9111. Common on slopes with big sagebrush at all elevations across the entire region. BP, JIB, OF, OG, OM, OP.
- Balsamorhiza* hybrids. 2002055, 2002061, 2002411, 02-441, Smithman 1746, Packard 78-19, Peter 74-10, Bratz 19-109, Tackett 63. All three of our *Balsamorhiza* species appear to commonly hybridize throughout our range.
- Bidens cernua* L. 2002731, 02-1036, 02-1041, 08587, Otting 972. Uncommon in rocks along the river and ditches; late season at low elevations from lower Owyhee River to near Juniper Mountain and along Owyhee front. OF, OG, OM, OP.
- Bidens frondosa* L. 2002745, 02-1006, 02-993, 08588, Klott 766. Occasional to common in seeps, creeks, and rivers (Owyhee and Bruneau/Jarbidge) in late season below 1350 m. BP, OF, OG, OP.
- Bidens tripartita* L. Packard GDS 51, Dixon 132. Rare; known only along the Snake River in our area. (*B. comosa* (A.Gray) Wieg.). OF.
- Blepharipappus scaber* Hook. 02-364, 2002197, Pinzl 9353. Common in sagebrush communities in early season at all elevations. BP, JIB, OG, OM, OP.
- Brickellia californica* (Torr. & A. Gray) A. Gray. 01-191, Wiggins 37, 14-360, Smithman 909, Kotter 19, 03-269, 13-167b. Uncommon to occasional in riparian rocks below 1700 m on South Fork and East Fork down to the Owyhee Reservoir and in Bruneau canyon; at northern extent of its range here. BP, OG, OP.
- Brickellia grandiflora* (Hook.) Nutt. 01-289, 10103, 13-166, 12-817, Tiehm 9297, 2002714, 06-204, Corbin 1548, 02-930. Uncommon along river's edge and canyons in deep shade mostly at mid elevations in Owyhee and Bruneau systems. BP, JIB, OG, OP.
- Brickellia microphylla* (Nutt.) A. Gray var. *microphylla*. 02-996, 2002750, Packard 71-67, Wuerthner 83-24. Uncommon to occasional along river's edge and tributaries up to about 1800 m in Owyhee front and along Owyhee and Bruneau (to Sheep Creek). BP, OF, OG, OM, OP.
- Brickellia oblongifolia* Nutt. var. *linifolia* (D.C. Eat.) B.L. Rob. 2002704, 01-225, 01-301, 02-719. Occasional in rocks along the Owyhee River above Fletcher's Crossing. More common variety south of Rome. OP.
- Brickellia oblongifolia* Nutt. var. *oblongifolia*. 01-192, Ertter 226/4, Packard 76-104, 99-99, 2002704, Irwin 9234. Occasional to common in rocks along the Owyhee River at low to mid elevations. More common variety north of Rome to Owyhee Reservoir. Mostly in western part of our range. OG, OP.
- Carduus nutans* L. * N 99-209, 2002762, 03-283, Corbin 1564. Weed at Fletcher's Crossing. Increasing. Scotch Bob Ck near intersection of road to lower Hayden Peak. Increasing throughout. OM, OP.
- Centaurea cyanus* L. * Kile sn., 04-188. Naturalizing near towns of Homedale and Owyhee. OF, OP.
- Centaurea diffusa* Lam. * N 15-277, Corbin 1413. Confined to Hwy 95 corridor in 2017, and spreading; e.g. Paiute Ck. OF, OP.
- Centaurea solstitialis* L. * N reported by L. Silva (Vale District BLM). In Arock area and up Jordan Creek. OP.

- Centaurea stoebe* L. ssp. *australis* (A. Kern) Greuter * N Corbin 1671. Jordan Ck. near Silver City. (*Centaurea stoebe* L. ssp. *micranthos* (Gugler) Hayek; *C. biebersteinii* DC.; *C. maculata auct non Lam.*). OM.
- Chaenactis cusickii* A. Gray. 2002083, 2002043, 03-123, 05-84, 05-13, Otting 1609, Corbin 1639. Locally common on ash outcrops from Rome to Owyhee Front. OF, OG, OP. G3 IDS1S2 ORS3.
- Chaenactis douglasii* (Hook.) Hook. & Arn. var. *alpina* A. Gray. Baker 8220, Rink 16254. Summits above 2300 m: Quicksilver Mtn in Owyhee range and Gods Pocket Peak in Jarbidge Mountains. JIB, OM.
- Chaenactis douglasii* (Hook.) Hook. & Arn. var. *douglasii*. 02-037, 02-206, Smith 2520. Common in heavier soils with big sagebrush throughout the region, mostly at lower elevations. Some authors would recognize varieties, including var. *achilleifolia* (Hook. & Arn.) A. Gray, but these varieties are not used here. BP, JIB, OF, OG, OM, OP
- Chaenactis macrantha* D.C. Eaton. 02-217, 02-198, 2002279a, Corbin 1685, 03-094, Otting 1598, 09-182. Common on ash outcrops with high clay content, below Rome around to Owyhee Front (Scorpion Ck. near Guffy Butte). OF, OG, OP. G4 ORS3.
- Chaenactis stevioides* Hook. & Arn. Packard 78-69, 02-108, 02-359, 03-125, Peck 25724, Zika 12331A, 05-25, DeBolt 1454, Brainerd 407. Uncommon to occasional in tan and orange ash outcrops from Dry Creek up to Five Bar and near Oreana and Grandview on Owyhee Front and over to Bruneau Plateau. Like many annuals some populations can vary none or few to thousands depending on water year. Perhaps more sand/silt content than *C. cusickii*. OF, OG, OP. G5 IDS2.
- Chaenactis xantiana* A. Gray. Nielsen 6030002. Rare. Known in our area only from Coyote Playa southwest of Burns Junction. OP. G4G5 ORS1?.
- Chaetadelpa wheeleri* A. Gray. 04-126, 200406, 20056231, 20051069. Uncommon to rare on pale-colored ash outcrops from Rome to Chalk Basin. OP. G4 ORS2.
- Chondrilla juncea* L. * N Smithman 2121, Klott 60. Weed of disturbances; reported in Dry Creek and vouchered first in 1989 in Jordan Creek, just over border into Idaho. In Dead Mans Ck. in 1993. Likely to increase considerably though rare in 2020. OP.
- Chrysothamnus humilis* Greene. Phillips 6, Baker 8289, Baker 8561, Mancuso 4064, Moseley 1232. Sporadic mostly above 1600 m from Owyhee Front to South Mountain and N. Nevada. (*Ericameria humilis* (Greene) L.C. Anders.). JIB, OF, OM, OP.
- Chrysothamnus viscidiflorus* (Hook.) Nutt. ssp. *lanceolatus* (Nutt.) Hall & Clements. 02-918, 06-129, Packard 76-168, 09-452. Occasional in junipers, vernal riparian zones such as the lower West Little Owyhee, and in shallow gravelly barren soils. Scattered throughout the range. BP, JIB, OF, OG, OM, OP.
- Chrysothamnus viscidiflorus* (Hook.) Nutt. ssp. *puberulus* (D.C. Eaton) Hall & Clements. 01-52, 01-221b, 01-73, 02-321, 02-192, 02-929, 2002752, 03-388, 05-480, 07-404, 09-177. Common on dry slopes, ash outcrops, xeric, and mixed sagebrush slopes at all elevations. BP, JIB, OF, OG, OM, OP.
- Chrysothamnus viscidiflorus* (Hook.) Nutt. ssp. *viscidiflorus*. Occasional throughout our range, often divided into varieties that are not universally accepted:
- var. *latifolius* (D.C. Eaton) Greene. 04199, Shumaker 5, Smithman 2569. Uncommon in sagebrush in the mountains above 1200 m. JIB, OM.
- var. *stenophyllus* L.C. Anderson. 2002748, 09-448, 09-432, Klott 134, 23190, 09398b, Packard 70-371, Packard GDS 40. Uncommon in dry Wyoming big sagebrush, shadscale, and greasewood communities. OF, OG, OP.
- var. *viscidiflorus*. 02-807, 02-1032, 2002746. Occasional where water table is high at all elevations. BP, JIB, OF, OG, OM, OP.
- Cichorium intybus* L. * Grimes 72-106, Baker 8516, 06-195. Disturbances Reynolds Creek, Sinker Ck., Jordan Ck. OM, OP.

- Cirsium arvense* (L.) Scop. * N 02-799, 02-907, 2002641. Not uncommon in riparian disturbances. OG, OM, OP.
- Cirsium cymosum* (Greene) J.T. Howell var. *canovirens* (Rydb.) D.J. Keil. 02-073, 05-491, Brainerd 457, Irwin 9248, Hamre 5. Uncommon in upland sagebrush communities at all elevations. (*Cirsium canovirens* (Rydb.) Petr.). BP, JIB, OF, OG, OM, OP.
- Cirsium inamoenum* (Greene) D.J. Keil var. *inamoenum*. 02-746, 2002515, 13-111, Irwin 9265, 03-197, 03-103, 08-320, Giblin 5957. Occasional in upland sagebrush and grass communities and rock outcrops throughout the region above about 1200 m. (*Cirsium subniveum* Rydb. misapplied). BP, JIB, OF, OG, OM, OP.
- Cirsium scariosum* Nutt. 2002510, 02-465, Otting 623, 2002684, 97-126. Occasional in moist riparian meadows at all elevations. As consistent with Oregon Flora and Flora of PNW, the three varieties *C. s.* var. *americanum*, *C. s.* var. *robustum* and *C. s.* var. *scariosum* are all included. BP, JIB, OM, OP.
- Cirsium vulgare* (Savi) Ten. * N 02-711b, 08618, George 282. Not uncommon in disturbed mesic sites along rivers and streams, mostly at lower elevations. BP, OF, OG, OM, OP.
- Conyza canadensis* (L.) Cronquist. 02-854, 02-926, 02-977, 2002744. Common in riparian sands and muds at all elevations. BP, OF, OG, OM, OP.
- Crepis acuminata* Nutt. 02-042, 02-522, 2002469. Occasional in mesic upland sagebrush sites at all but the highest elevations. BP, JIB, OF, OG, OM, OP.
- Crepis atribarba* A. Heller. Packard 73-48, 10-061, Irwin 9153. Rare to uncommon in Mud Springs in Leslie Gulch on rhyolitic tuff and mesic, ungrazed meadows in Cave Draw, Bruneau canyon; Don's Creek near Current Creek and lower elevations in Jarbidge Mountains. BP, JIB, OF, OG, OM, OP.
- Crepis bakeri* Greene. Joyal 1183. Rare in yellow ash tuff in Honeycombs north of Leslie Gulch. OG.
- Crepis barbiger* Leiberg ex Cov. Chambers 6080—Rare; Barren Valley. (*Crepis atribarba* A. Heller ssp. *originalis* (Babc. & Stebbins) Babc. & Stebbins). OP.
- Crepis intermedia* A. Gray. 02-408, Smith 946. Uncommon in sagebrush generally at higher elevations, but down 900 m near Bruneau. JIB, OF, OG, OM, OP.
- Crepis modocensis* Greene ssp. *modocensis*. 02-395, 2002256, 2002329, 2002490, 03-007, 19052. Occasional to common in sagebrush and xeric shrub communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Crepis occidentalis* Nutt. ssp. (A. Gray) Babc. & Stebbins. 02-120, 02-252, 2002147, 02-506, 05-14, Packard 76-89, 06-54, 14-476, Ertter 22019, Brainerd 1424, 08309, Peter 74-42, Prentice 1811, Irwin 9040. Common in sagebrush communities at all elevations. (ssps. *costata*, *occidentalis* and *pumila* are all included as consistent with Oregon Flora and Flora of PNW). BP, JIB, OF, OG, OM, OP.
- Crepis runcinata* (E. James) Torr. & A. Gray ssp. *imbricata* Babc. & Stebbins. 02-704, 2002734, 04-009, Otting 1596, Otting 626, Nielsen 1086. Locally common, in alkaline meadows, such as around Owyhee Springs, near Rome; but not found further east. (= var. *runcinata* in Flora of PNW). OP.
- Cyclachaena xanthifolia* (Nutt.) Fresen. 2002766, George 446. Uncommon in seeps at lower elevations; locally abundant at Fletcher's Crossing. (*Iva xanthifolia* Nutt.). OF, OM, OP.
- Dieteria canescens* (Pursh) Nutt. var. *canescens*. 02-584B, 02-992, 05-484, Thompson 95360. Common in sagebrush communities. (*Machaeranthera canescens* (Pursh) A. Gray ssp. *canescens* var. *canescens*). BP, JIB, OF, OG, OM, OP.
- Dieteria canescens* (Pursh) Nutt. var. *incana* (Lindl.) D.R. Morgan & R.L. Hartm. Rust 17039, Lytjen 276, Otting 984, Tucker sn, Kotter 40. Lower elevations from Dry Creek tributary of Owyhee R. across to Lower Succor Ck and probably onto the Owyhee Front. OF, OG.

- Dimeresia howellii* A. Gray. 2002291, 03-088, 20056114, Corbin 1645. Uncommon in rhyolitic scree benches at upper elevations of Antelope Creek and West Little Owyhee to Triangle and into N. Nevada. JIB, OG, OM, OP. G4? IDS2.
- Doellingeria elegans* (Nutt.) Semple, Brouillet and G.A. Allen. Macbride 352, George 300, Andrews 658, Smithman 2161, Tiehm 9292, 20125, Hagwood 745. Occasional in all ranges above 1800 m: Mahogany Mountain, Silver City range, Juniper Mountain, Jarbidge, Independence and Bull Run Mountains (*Aster perelegans* A. Nelson & J.F. Macbr., *Eucephalus elegans* Nutt.). I follow here Allen et al. (2019). JIB, OG, OM.
- Eatonella nivea* (D.C. Eaton) A. Gray. 2002115, 03-027, 20051001, Rosentreter 386. Uncommon on ashy barrens and sandy sagebrush slopes from above Rome to Chalk Basin and west of Bruneau Dunes. OF, OG, OM, OP. G4G5 IDS3 ORS3.
- Enceliopsis nudicaulis* (A. Gray) A. Nelson. Packard 76-15, Ertter 511. Occasional in gravelly barren slopes from Birch Creek (Owyhee Front) to Bruneau to Shoofly Creek. OF.
- Ericameria discoidea* (Nutt.) G.L. Nesom. 09-406B, Rosentreter 4601, Prentice 2859, 07466, Tiehm 6313. Silver City range; Jarbidge and Independence Mountains. JIB, OM. G4 ORS3?.
- Ericameria greenei* (A. Gray) G.L. Nesom. DeBolt 1523, 09-407, Smithman 1970, Rosentreter 3252, George 163, Dean 28, Baker 8198, 02-493. Uncommon on rocky slopes at high elevations in vicinity of Three Forks, Hoppin Springs and Deep Creek up onto South Mountain, Juniper Mountain and Silver City Range. (*Haplopappus greenei* A. Gray). Possessing glands lacking stalks, like the type of this species, our form is distinct from the form north of the Snake River with stipitate glands. Keys in both FNA and Oregon Flora are errant in assigning our plants to *E. bloomeri* (Trawick & Mansfield 2020). OP, OM.
- Ericameria nana* Nutt. 08235, 2002655, 06-102, Findley 1073, Rink 16255. Occasional in rock crevices at lower elevations, below Three Forks, Red Canyon and into Owyhee Front and Silver City Range and Jarbidge area. (*Haplopappus nanus* (Nutt.) D.C. Eat.). JIB, OG, OM, OP.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *graveolens* (Nutt.) Reveal & Schuyler. 09-412, 12-764, Baker 8586. Uncommon but apparently present in our area from Red Canyon to Silver City range and Bruneau Plateau. (*Chrysothamnus nauseosus* (Pall. ex Pursh) Britt. var. *graveolens* H.M. Hall). Stems yellow-green to white, corolla tubes glab to puberulent, corolla lobes <1.0 mm, invol <8mm, phyllaries usually glab, style appendages relatively long, lvs (1 mm) > 1mm wide. BP, OM, OP.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *hololeuca* (A. Gray) G.L. Nesom & G.I. Baird. 01-220, 09-422, Tiehm 13055. Occasional in sagebrush near the river and on barren rocky outcrops Owyhee Desert. In drier sites than *E. nauseosa* var. *speciosa* (*Chrysothamnus nauseosus* (Pall. ex Pursh) Britt. var. *hololeucus* (A. Gray) H.M. Hall). White stems, short corolla lobes (<1mm), inflorescences generally broader than long, flat-topped, fls orange-yellow often, phyllaries hairy, style appendages relatively short, lvs 1-2mm. OG, OM, OP.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *oreophila* (A. Nelson) G.L. Nesom & G.I. Baird. 02-972, 02-985, 02-1034, 06-203, Otting 930, 09-433. Common in the upper riparian zone and very common in most communities with big sagebrush and low sagebrush throughout our range. The common greenish rabbitbrush, not very palatable to cattle. (*Chrysothamnus nauseosus* (Pall. ex Pursh) Britt. var. *artus* (A. Nelson) Cronquist; *Chrysothamnus nauseosus* (Pall. ex Pursh) Britt. var. *consimilis* (Greene) H.M. Hall). Greenish to yellow-green stems, long corolla lobes (>1.2 mm), fls yellow, invol to 10mm, often >10 mm, phyllaries glabrous, style appendages relatively long, lvs <1 mm wide. BP, JIB, OF, OG, OM, OP.
- Ericameria nauseosa* (Pall. ex Pursh) G.L. Nesom & G.I. Baird var. *speciosa* (Nutt.) G.L. Nesom & G.I. Baird. 02-1033, 02-924, 08-547, 08552, 09-431, Bala 14-102. Occasional in sandy,

- ash or alkaline soils and drier rabbitbrush sites. Light gray rabbitbrush preferred by cattle. (*Chrysothamnus nauseosus* (Pall. ex Pursh) Britt. ssp. *albicaulis* (Nutt.) H.M. Hall & Clements; *Chrysothamnus nauseosus* (Pall. ex Pursh) Britt. ssp. *speciosus* (Nutt.) H.M. Hall & Clements). Stems whitish, corolla lobes >1mm, inflorescences generally longer than broad, flowers lemon yellow, invol >8mm often >10 mm, phyllaries typically hairy, style appendages relatively long, lvs 0.3-2 mm wide. JIB, OG, OM, OP.
- Ericameria obovata* (Rydb.) G.L. Nesom. Klott 517. One population in Dorsey Ck. canyon, tributary of Jarbidge River, disjunct from Utah populations. BP G3G4 IDS1.
- Ericameria parryi* (A. Gray) G.L. Nesom & G.I. Baird var. *parryi*. 02-924, 02-807. Known only from gravel bars in headwaters of West Little Owyhee River. (Following FNA, not IMF). Possible new variety—gland-dotted, but not tomentose.
- Ericameria resinosa* Nutt. Kindschy RM 394, Henderson 8561, Peck 20059. In rocks from Succor Creek to Rockville and Batch Lake. OG, OP.
- Ericameria suffruticosa* (Nutt.) G.L. Nesom. N. Holmgren 6298, Tiehm 6314. Rare in our region; with whitebark pines above 2600 m in Independence Mtns. JIB.
- Erigeron annuus* (L.) Pers. Corbin 1497. Known in our area only from Con Shea Basin. OF.
- Erigeron aphanactis* (A. Gray) Greene var. *aphanactis*. 02-139, 01-76, 02-331, 02-114, 02-089, 2002266, 2002276, 03-118. Common in ash and dry sagebrush slopes across the range.
- Erigeron asperugineus* (D.C. Eaton) A. Gray. 18490, 18427, Ertter 21952, Tiehm 6320. High alpine ridges and rocky subalpine slopes to edges of fir forests in Jarbidge and Independence Mountains. JIB.
- Erigeron breweri* A. Gray var. *porphyreticus* (M.E. Jones) Cronquist. Harris 2017-21. Tennessee Mountain ridge. NE extent of its range. JIB.
- Erigeron bloomeri* A. Gray. 02-244, 02-493, 05-201, 07-255. Common in dry playas, creek bottoms, and riparian benches at all elevations. Purple and green vegetative forms both evident. BP, JIB, OG, OM, OP.
- Erigeron chrysopsidis* A. Gray var. *austiniae* (Greene) G.L. Nesom. 2002267, (2002071, 2002217), 2002328, 2002390, 05-202b, 09-12. Common to occasional in dry, barren playas or gravelly soils at all elevations across the region. BP, OG, OM, OP.
- Erigeron chrysopsidis* A. Gray var. *chrysopsidis*. Packard 70-178, Smithman 2053, Glad 72-16a. Rare in upper Succor Creek and Coal Mine basin. Ray flowers surpassing involucre (but rays only about 5-6 mm). OG, OM.
- Erigeron compositus* Pursh var. *glabratus*. 2002279, 13-039. Common to occasional on rimrock and rocky outcrops at upper elevations. JIB, OM, OP.
- Erigeron corymbosus* Nutt. 03-172, Grimes 1179, Otting 824. Rare on dry slopes in northern part of range--Dry Creek to Leslie Gulch. OG.
- Erigeron disparipilus* Cronquist. 07154, Glad 72-50, Richards 77-159, 13081, Dry granitic soils from Silver City range to upper Battle Creek. Several misidentifications show this on rhyolite. Don't be deceived. OM. G5 ORS2.
- Erigeron divergens* Torr. & A. Gray var. *divergens*. 03-140, Baker 14066A. Rare in riparian meadows below Rome and near Grasmere. BP, OP.
- Erigeron eatonii* A. Gray var. *nevadnicola* (Blake) G.L. Nesom. Grimes 2148, Tiehm 6097, Tiehm 16412. In drying meadows from headwaters of East Fork Owyhee River, Sunflower Flat, Mahoganies, Bull Run Mountains and mountains west of Tuscarora. (*Erigeron nevadnicola* Blake). JIB.
- Erigeron elegantulus* Greene. 04033. Only known from one collection; on brown ash outcrop in Hoot Owl of lower Owyhee River drainage. OG.
- Erigeron glacialis* (Nutt.) A. Nelson var. *glacialis* Ertter 4470, Grimes 1718, 08431 Occasional to common in higher mountains from War Eagle to Jarbidge. (*Erigeron peregrinus* (Banks ex Pursh) Greene ssp. *callianthemus* (Greene) Cronq. var. *callianthemus*). JIB, OM.

- Erigeron latus* (A. Nelson & J.F. Macbr.) Cronquist. 02-612, 2002326, 03-087B. Locally common on rhyolite benches in vicinity of Anderson Crossing to Deep Creek east to East Fork Bruneau R. BP, JIB, OM, OP. G3 NVS1 ORS1.
- Erigeron leiomerus* A. Gray. Tuhy 2877. On main ridge of Jarbidge range; the species is at the western edge of its range here. JIB.
- Erigeron linearis* (Hook.) Piper. 02-041, 02-441b, 2002353, 2002523b, 06-90. Common in sagebrush communities. BP, JIB, OG, OM, OP
- Erigeron lonchophyllus* Hook. Williams 79-140-3, Lytjen 82, Nielsen 1085. Known from wetlands in Dry Creek, Crooked Creek and near Triangle and near Sunflower Flat in N. Nevada. Ray corollas many, erect, barely longer than the phyllaries. OG, OM, OP.
- Erigeron philadelphicus* L. 2002204, Lytjen 88, 07-099. Rare in riparian meadows and seeps; Warm Springs and Dry Creek. Apparently not entering Idaho Owyhee region. OG, OP.
- Erigeron pumilis* Nutt. var. *intermedius* Cronquist. 02-586, 02-555. Atwood 23687, 02-367, 02-649, 02-389, 02-554A. Common in mesic riparian meadows at upper elevations. Large-headed forms at lower elevations on Owyhee Front. JIB, OF, OG, OM, OP.
- Erigeron speciosus* (Lindl.) DC. Grimes 72-123, Packard 71-425, Bratz 430-155. Common at upper elevations from Triangle to Reynolds Creek through Silver City ranges and into N. Nevada. JIB, OM.
- Erigeron strigosus* Muhl. ex Willd. Christ 4517, Sako 6-74, Crowley 27, Smithman 574. Collected just across the Snake River in Halverson Lakes. Very likely also on south side of river; also in Bruneau canyon with Rocky Mountain juniper and hackberry. (Unclear whether ours is *E. strigosus* var. *strigosus* or *E. strigosus* var. *septentrionalis* (Fern. & Wiegand) Fern. Ray corollas many, filiform, long, ours blue (though more commonly white), ray flower pappus of a short crown of scales, lacking capillary bristles.) BP, OF.
- Erigeron tener* A. Gray. Richards 77, Atwood 13175. Rare in our area; known only from rocks along Current Creek and in Jarbidge Mountains. JIB, OM. G4 ORS2?.
- Erigeron untermannii* S.L. Welsh & Goodrich. Rink 16251. Just over the ridge from our area at Gods Pocket Peak. JIB.
- Erigeron vagus* Payson. Charlet 93, Tuhy 2861, Tiehm 9973, Atwood 13204. Rare on main ridge of Jarbidge Mountains. JIB. G4 ORSNR.
- Erigeron watsonii* (A. Gray) Cronquist. 18484, Rink 16238, Rust 131, Atwood 13201, Tiehm 6311. Rare known only from alpine ridges in the Jarbidge and Independence Mountains. JIB. G3G4 IDS1.
- Eriophyllum lanatum* (Pursh) J. Forbes var. *integrifolium* (Hook.) Smiley. 2002261, 02-199, 2002344, 02-227. Common in Malheur & Owyhee Cos. Present throughout our region. JIB, OF, OG, OP.
- Eurybia integrifolia* (Nutt.) G.L. Nesom. Prentice 2856, 18630, Baker 8252, Davidson 12107, Kramer 10114. Uncommon in Silver City Range (Sawpit Gulch and War Eagle); Occasional to common in Jarbidge Mountains and Elk Mountain. JIB, OM.
- Euthamia occidentalis* Nutt. Lytjen 284, 02-981, 2002767, 23205. Occasional to common in riparian margins and meadows at lower and middle elevations across our region. (*Solidago occidentalis* (Nutt.) Torr. & A. Gray), BP, OF, OG, OP.
- Glyptopleura marginata* D.C. Eaton var. *marginata*. 02-175, 2002433, 05-34b. Uncommon on alkaline, sandy barrens at lower elevations. OF, OP. G4G5 IDS3 ORS3.
- Gnaphalium palustre* Nutt. 01-182, 02-066, 02-660, 2002700, 20051093. Common in sandy shorelines of the river and reservoirs, mainly at lower elevations. BP, JIB, OF, OG, OM, OP.
- Grindelia nana* Nutt. var. *nana*. 02-982, 02-668, Thompson 95350, Train 904. Uncommon in open sites along Owyhee River from below the dam to near Rome, and in the Bull Run mountains. (*Grindelia hirsutula* Hook. & Arn. misapplied). JIB, OG, OP.

- Grindelia squarrosa* (Pursh) Dunal. Bratz B33-55, 2002763, 2002636, 21372, 12-820, Glad 72-92, George 389. Common in gravelly, riparian areas, especially at lower elevations. Our plants probably introduced from the Great Plains. OF, OG, OP.
- Gutierrezia sarothrae* (Pursh) Britton & Rusby. 02-987, 06-101, 07-551, 09-421. Uncommon to occasional in gravelly sites, mainly at lower elevations, more common in Leslie Gulch vicinity. More common in NE part of our range and less common in SW portion of Idaho and SE Oregon. OF, OG, OM, OP.
- Helenium autumnale* L. Mhyre SFG51b. Guffey Butte and along the Snake River. OF.
- Helianthella quinquenervis* (Hook.) A. Gray. Nelson 2214. Known only from historical collection in Mountain City. 5-nerved lf. JIB.
- Helianthella uniflora* (Nutt.) Torr. & A. Gray var. *uniflora*. 02-601, 2002491, 18657, 05-390, 05-421, 07-385. Occasional in shallow soils in *Artemisia longiloba* scablands and mesic, big sagebrush/snowberry communities at higher elevations across the region. 3-nerved lf. JIB, OG, OM, OP. G5T4T5, ORSNR.
- Helianthus annuus* L. 01-256, 02-863, 02-784, 2002671. Common in moist disturbed sites. OF, OG, OM, OP.
- Helianthus cusickii* A. Gray. 2002676, 06-98, 06-107, 06-109. Locally common in vicinity of Birch Ck. and vicinity. Not known south of the Owyhee Graben. OG, OM.
- Helianthus nuttallii* Torr. & A. Gray ssp. *nuttallii*. 01-214, 2002727, Tiehm 13056, 01-88, 08-519. Occasional in riparian meadows at lower to mid elevations throughout the range. BP, OF, OG, OM, OP. G5 ORSNR.
- Helianthus petiolaris* Nutt. P. Holmgren 14749. Only one collection known from hills west of Bull Run Mountains. JIB.
- Hemizonella minima* (A. Gray) A. Gray. Corbin 1465. Only known on green granitic soil on Silver City Rd. (*Madia minima* (A. Gray) D.D. Keck). OM.
- Heterotheca cinerascens* (Blake) G.L. Nesom. Tiehm 9295, Tiehm 9050, Tiehm 10070, Train 662, Train 783. Uncommon east of Bull Run Reservoir in Bull Run Mountains and Camp Draw Trailhead and Copper Basin in Jarbidge Mountains. JIB.
- Hieracium scouleri* Hook. Smithman 2096, 12-793, Joyal 1246, Packard 71-434, Bratz 497-176, Smithman 2343. Rare in low sage from Mahogany Mountain to Triangle and Silver City ranges. (*H. cynoglossoides* Arv.-Touv.). OG, OM.
- Hulsea algida* A. Gray. Charlet 100, Tuhy 2880, Atwood 13207. Alpine rock and scree fields on peaks in Jarbidge and Independence Mtns. JIB. G4G5 ORS3.
- Hymenopappus filifolius* Hook. var. *filifolius*. 02-214, 09-175. Rare; known only from white to tan ash in Chalk Basin. OF, OG, OP.
- Ionactis alpina* (Nutt.) Greene. 2002335, 02-495, 08-055. Occasional to common in sagebrush with *Castilleja* spp. (*Aster scopulorum* A. Gray). BP, JIB, OF, OG, OM, OP.
- Iva axillaris* Pursh. 01-90, 02-112, 2002598. Common in gravelly riparian zone. OF, OG, OM, OP.
- Lactuca serriola* L. * 02-806a, 2002759, 07-100. Common in gravelly washes and stream channels. OF, OG, OM, OP.
- Lagophylla ramosissima* Nutt. 02-782, 02-652, 20051006, 06-137, 06-202. Uncommon to occasional in seeps and vernal moist sites in the east part of our range. OG, OM, OP.
- Layia glandulosa* (Hook.) Hook. & Arn. 2002178, 03-023, Lytjen 34. Occasional in wet years in sandy soils mostly at lower elevations. BP, OF, OG, OM, OP.
- Leucanthemum vulgare* Lam. * N Tanner 142, Klott 406. Barely entering our area from the north; known along river below Owyhee dam. (*Chrysanthemum leucanthemum* L.). OG.
- Lygodesmia dianthopsis* (D.C. Eaton) Tomb. Rosentreter 4660, Grimes 1735, Corbin 1593, Smith 12450, Smith 3565. From Oreana, Bruneau and Sugar Valley to Jarbidge Mountains; (*Lygodesmia grandiflora* (Nutt.) Torr. & A. Gray var. *dianthopsis* (D.C. Eat.) S.L. Welsh). BP, JIB, OF.

- Madia exigua* (Sm.) A. Gray. 02-615, 02-553b, 03-169, 09-11, Ertter 4490, Packard 76-116.
Occasional in riparian meadows at middle to upper elevations. BP, JIB, OG, OM, OP.
- Madia glomerata* Hook. 01-311, 02-849, 02-373, 02-592, 02-911, 03-366, 06-196, 06-200.
Common to occasional in riparian areas and vernal wet depressions at all elevations. JIB, OG, OM, OP.
- Madia gracilis* (Sm.) D.D. Keck. 2002596, Otting 567, 06-133. Occasional in mesic meadows in sagebrush and vernal wet gravelly sites. JIB, OF, OG, OM, OP.
- Malacothrix glabrata* (A. Gray ex D.C. Eaton) A. Gray. 2002271, DiNicola 2012-12, 20051047, 20056222. Uncommon in chalk hills near Crooked Creek to Owyhee Front. OF, OG, OP. G5 ORS4.
- Malacothrix sonchoides* (Nutt.) Torr. & A. Gray. Bjork 5872, 05-26, Otting 1582. Rare on dark, barren ash outcrops southwest of Rome and Crooked Creek. OG, OP. G5 ORS1.
- Malacothrix torreyi* A. Gray. 2002191, 2002248, 04-001, 05-80, 20051009, 20056226, 20051067, 17052, 19022. Uncommon to occasional in clay flats within sagebrush and winterfat communities, from Chalk Basin around to Owyhee Front. OF, OG, OP. G4 ORS4.
- Matricaria discoidea* DC. * 02-508, 2002268, Brainerd 1102. Uncommon weed of disturbed habitats. OP.
- Microseris nutans* (Hook.) Sch. Bip. 02-371, 02-392, 02-533, 2002393, 02-525, 03-176, 02-447. Common in aspen and sagebrush communities, and playas at middle to upper elevations. (*Scorzonella nutans* Hook.). BP, JIB, OG, OM, OP.
- Mulgedium oblongifolium* (Nutt.) Reveal. Corbin 1650, Tiehm 9294, 02-829b, 2002606, 2002707, 2002654. Uncommon to occasional in riparian areas at all elevations. (*Mulgedium pulchellum* (Pursh) G. Don illegitimate, *Lactuca tatarica* (L.) C.A. Mey var. *pulchella* (Pursh) Breitung). JIB, OF, OG, OM, OP.
- Nestotus stenophyllus* (A. Gray) R.P. Roberts, Urbatsch & Neubig. 02-505, 2002283, 2002300, 03-171. Occasional in scabland sagebrush communities at mid elevations. (*Stenotus stenophyllus* (A. Gray) Greene; *Haplopappus stenophyllus* A. Gray). BP, OP, OM.
- Nothocalais troximoides* (A. Gray) Greene. 2002040, 2002308, 03-172, 05-49, 05-108. Occasional in barrens at all elevations. BP, JIB, OF, OG, OM, OP.
- Onopordum acanthium* L. ssp. *acanthium* * N 02-732. Uncommon in disturbed areas. Increasing along river below Rome. OF, OG, OM, OP.
- Oreostemma alpingenum* (Torr. & A. Gray) Greene var. *haydenii* (Porter) G.L. Nesom. 18426, Atwood 13203. In subalpine meadows in Jarbidge Mountains. JIB.
- Packera cana* (Hook.) W.A. Weber & A. Löve. 2002372, 02-677, 02-536, 02-498, 07-457, Baker 8222, Smith 12491, 22461. Occasional in sagebrush and vernal moist communities at all elevations throughout the region except the lowest. In eastern end of our region stem leaves are deeply pinnately dissected, closely resembling the related *P. multilobata*, which is to our southeast. (*Senecio canus* Hook.). BP, JIB, OG, OM, OP.
- Packera dimorphophylla* (Greene) W.A. Weber & A. Löve var. *paysonii* (T.M. Barkley) Trock & T.M. Barkley. Tiehm 6312. Uncommon in talus slopes in Independence Mountains. JIB.
- Packera pseud aurea* (Rydb.) W.A. Weber & A. Löve. 04282, 05300, 07112, Winter 93, Baker 7930. From Silver City Range to North Fork Owyhee River to Jarbidge and Independence Mountains above 1500 m in riparian zone. (*Senecio pseud aureus* Rydb.). JIB, OM.
- Packera streptanthifolia* (Greene) W.A. Weber & A. Löve. 2002207, Rink 16248, Tiehm 10774, Baker 8039, Christ 11110, Prentice 6071. Rare; known in grassy swales from Warm Springs Ck., Silver City Range, and a historical collection South of Riddle in Duck Valley, also in high Jarbidge Mountains, sometimes descending into canyons below. (*Senecio streptanthifolius* Greene var. *laetiflorus* (Greene) T.F. Bain). BP, JIB, OM, OP.

- Packera wernerifolia* (A. Gray) W.A. Weber & A. Löve. Maguire 22283, Charlet 662a, Tuhy 2870. In talus above 2700 m in Fall Ck. cirque, Jarbidge Pk. and Jumbo Pk. in Jarbidge Mountains. JIB.
- Picrothamnus desertorum* Nutt. 2002042, Brainerd 1476. Occasional in scadscale communities at lower elevations. (*Artemisia spinescens* D.C. Eat.). OF, OG, OM, OP.
- Pleiocanthus spinosus* (Nutt.) Rydb. 02-695, 2002658, 04-032, 09-188, Klott 300. Occasional in dry sands and gravels in desert scrub communities. (*Lygodesmia spinosa* Nutt.). OF, OG, OM, OP.
- Prenanthes exigua* (A. Gray) Torr. 02-220, 06-41, Smith 5765, 05-386, 14353, Rosentreter 154. Known only from white/tan ash east of Chalk Basin in OR and a few populations known along Owyhee Front. OF, OP. G5 ORS1.
- Psathyrotes annua* (Nutt.) A. Gray. DeBolt 1754, Mancuso 2072. Wildhorse Butte south of Snake River. OF. G5 IDS2.
- Pseudognaphalium stramineum* (Kunth) Anderb. Duft 68, Klott 562. Bruneau sand dunes. (*Gnaphalium chilense* Spreng.). OF.
- Psilocarphus brevissimus* Nutt. var. *brevissimus*. 02-683, 02-513, 02-569, 03-132, 20051036, 06-87, 06-117, 06-123, Brainerd 1085. Occasional to common in drying mudflats and playas at middle to upper elevations. OP.
- Psilocarphus elatior* A. Gray. Ertter 113/5, Richards 77-441. Rarely seen; Succor Creek. OG.
- Psilocarphus oregonus* Nutt. 02-515, Mastrogiuseppe 8686, DeBolt 1680. Uncommon in playas at upper elevations. OP. G4 ORSNR.
- Pyrrocoma carthamoides* Hook. var. *cusickii* (A. Gray) Kartesz & Gandhi. 02-754, Harloe 18494, Tiehm 11881, Tiehm 7453, Tiehm 14560, Tiehm 9964, 20386. Occasional at scattered locations in Owyhees; Barren vernal wet gravels in subalpine to alpine openings in Jarbidge and Independence Mountains to Juniper Mountain and W. Little Owyhee headwaters. (*Haplopappus carthamoides* (Hook.) A. Gray var. *cusickii* A. Gray). JIB, OG, OM, OP.
- Pyrrocoma hirta* Greene var. *sonchifolia* Kartesz & Gandhi. Smith 11984, Tiehm 18032. Known only from three collections in N. Nevada. JIB.
- Pyrrocoma lanceolata* (Hook.) Greene var. *lanceolata*. 02-973, 02-511, 2002679, 20051084, 07-288. Common in playas, vernal creeks and riparian areas at middle to upper elevations. (*Haplopappus lanceolatus* (Hook.) Torr. & A. Gray). JIB, OM, OP.
- Pyrrocoma linearis* (D. D. Keck) Kartesz & Gandhi. 02-386, 02-511b, 2002392, 05-222, 07-260, Brainerd 1427, 08184, Lytjen 209, 21049, Tiehm 16413, Irwin 9117, DiNicola 2013-35, 03173, Prentice 1841, 07144b, 07260, Wigglesworth 14, Irwin 9212, Truksa 72. Occasional in vernal playas and riparian meadows with underlying clay, between 1400 and 1950 m at scattered locations across the range from Dry Ck across to the Bruneau and Owyhee Plateaus to the Independence Mountains; mainly in Owyhee Co. Some specimens (Irwin 9084 and Peck 20625) approach *Pyrrocoma uniflora* in having a few basal leaf serrations, but here interpreted as continuous with the variation in our range of *P. linearis*, and quite distinct from *P. uniflora* north of the Snake River. I follow Flora of North America instead of Oregon Flora. (*Pyrrocoma howellii* (A. Gray) Greene; *Haplopappus uniflorus* (Hook.) Torr. & A. Gray var. *howellii* (A. Gray) M. Peck; *Haplopappus uniflorus* (Hook.) Torr. & A. Gray ssp. *howellii* (A. Gray) H.M. Hall) Basal lvs 2–5 (6) mm wide, entire to rarely with serrations. OG, OM, OP. G4 ORS4.
- Rhaponticum repens* (L.) Hidalgo * N 20051076, 09-440, Baker 8315. Weed near Crooked Creek and Murphy. (*Acroptilon repens* (L.) DC., *Centaurea repens* L.). OF, OP.
- Rigiopappus leptocladus* A. Gray. 2002199, 12-175. Uncommon in bunchgrass communities at middle elevations. BP, OF, OG, OM, OP.

- Rudbeckia occidentalis* Nutt. 04-283, Pinzl 12000, Tiehm 10074, Ertter 508, 18660, 05303, 04263, Baker 8234, Tiehm 18052, Tiehm 9314, Klott 407, Tiehm 18032. South Mountain and historical collection in Sawpit Ck., Jarbidge and Independence Mountains. JIB, OM.
- Senecio crassulus* A. Gray. 02-412, 07-377. Locally common in riparian meadows and aspen woodlands at higher elevations. JIB, OM, OP.
- Senecio eritreae* T.M. Barkley. 02-1030, 2002672, 04-333, Ertter 21675. Occasional in green ash talus tuff from just upriver of Birch Ck. to Leslie Gulch. OG. G2 ORS2.
- Senecio fremontii* Torr & A. Gray. Tiehm 10782, Charlet 114. Occasional from alpine rocks and talus from two populations in Jarbidge Mountains. JIB.
- Senecio hydrophiloides* Rydb. Packard 71-264, Bratz 43-28, 13-097, 08215. Uncommon to occasional from Reynolds Creek to Juniper Mountain and East Fork Owyhee R. and in ranges of N. Nevada. (*Senecio foetidus* Howell var. *hydrophiloides* (Rydb.) T.M Barkley ex Cronquist). JIB, OM, OP.
- Senecio hydrophilus* Nutt. Irwin 9267, 9265b, 09045, 04107, 04-252, Baker 8499, Bjork 4455, 15-186, 15-329. Occasional throughout the region in wet alkaline meadows. BP, JIB, OM, OP.
- Senecio integerrimus* Nutt var. *exaltatus* (Nutt.) Cronquist. 2002354, 02-385, 02-531. Occasional to common in sagebrush and aspen communities at higher elevations. BP, JIB, OG, OM, OP.
- Senecio serra* Hook. var. *serra*. 02-737, 2002601, 03-230. Occasional in riparian zone and meadows at middle and upper elevations. BP, JIB, OG, OM. OP.
- Senecio triangularis* Hook. Corbin 1506, Baker 8028. Uncommon in riparian habitats in Silver City range, South Mountain and Jarbidge. JIB, OM.
- Solidago lepida* DC. var. *lepida*. Smithman 1960, 07398, 03373, 2002607, 14-699, George 427, George 193, George 398, Joyal 1022. Occasional in riparian meadows and upper elevation seeps and riparian wetlands also in Red Canyon to Juniper Mountain, Silver City range. (*Solidago canadensis* L. var. *lepida* DC.). OG, OM, OP.
- Solidago lepida* DC. var. *salebrosa* (Piper) Semple. 02-818, 02-889, 02-903, Smithman 586, Grimes 7303, Packard 71-48, 18644, 13-197, 08-594, George 239, 08621, Shield 72-36, Kotter 36, Williams 82-315, Macbride 427. Common in riparian meadows and river courses to upper elevations but more common below 1600 m throughout the region. (*Solidago canadensis* L. var. *salebrosa* (Piper) M.E. Jones; *Solidago gigantea* Ait.). BP, JIB, OF, OG, OM, OP.
- Solidago missouriensis* Nutt. 01-293, 2002741, Corbin 1768, Prentice 6105, 15-344, 01-314, Otting 915, Lytjen 347, Lytjen 283, 02-890, Prentice 6077a, Prentice 6085, 23198. Common in riparian margins and meadows at middle elevations. BP, OF, OG, OM, OP.
- Solidago simplex* Kunth var. *simplex*. Tiehm 11875, Tiehm 9961, Gentilcore 2142, Train 863, 18577, Atwood 13206, Atwood 13177. Locally common in subalpine fir openings to alpine ridges in Jarbidge Mountains. Seems in our area to replace *Solidago multiradiata*, the species common at upper elevations north of Snake River. JIB.
- Solidago spectabilis* (D.C. Eaton) A. Gray. Tiehm 13057, Peck 16078, 2002741, 08511, 08497, 09428, 09429. Rare, saline seeps; Succor Ck, Crooked Creek and Warm Springs of S. Fork Owyhee River by IL Ranch. OG, OP.
- Sonchus arvensis* L. * N Baker 8543. Known from one historical collection near Oreana. OF.
- Sonchus asper* (L.) Hill * 01-224, 02-334, 02-806, 2002206, 02-152, 03-275. Occasional weed in disturbed mesic sites. OG, OM, OP.
- Stenotus acaulis* (Nutt.) Nutt. 2002366, 2002497, 03-085, 03-214. Occasional to common in scabland soils at higher elevations. Highly variable. (*Haplopappus acaulis* (Nutt.) A. Gray). JIB, OM, OP.
- Stenotus lanuginosus* (A. Gray) Greene var. *lanuginosus*. 08096, 07143, 2002165, Harlowe 583, Smith 8013, Ottenlips 88, Tiehm 15186, Corbin 1448, Tiehm 15186. Occasional in mesic big

- sage and vernal wet low sage communities between 1500 and 2000 m. (*Haplopappus lanuginosus* A. Gray). JIB, OG, OP, OM.
- Stephanomeria exigua* Nutt. ssp. *coronaria* (Greene) Gottlieb. 20051014, 20051063, Corbin 1538, Corbin 1653. Uncommon in sandy soils in vicinity of Rome and by Owyhee Dam and around to Owyhee Front by Sinker Ck. and Oreana. Often not evident in drought years. OF, OG, OP.
- Stephanomeria paniculata* Nutt. 02-714, 2002756, Irwin 9266. Uncommon on sandy shores along the Owyhee River. OP. G5 IDS1S2.
- Stephanomeria tenuifolia* (Raf.) H.M. Hall. 02-999, 02-076, 02-713, 01-298, 02-943, 2002732, 2002749, 2002643b, 2002623, Tiehm 11872. Common in rock crevices, screes, ash deposits and sagebrush communities at all elevations. (*Stephanomeria minor* (Hook.) Nutt. var. *myrioclada* (D.C. Eat.) Kartesz). BP, JIB, OG, OM, OP.
- Stylocline psilocarphoides* Peck. Tiehm 12883. Rare. Known in our area in Owyhee Desert from one collection. Expected elsewhere. OP. G4 ORSH.
- Symphotrichum ascendens* (Lindl.) G.L. Nesom. 01-302, 08-622, Irwin 9269, Johnson 2774. Occasional to common in upper riparian zone of Owyhee and Jarbidge Rivers and their tributaries, throughout our region. (*Aster ascendens* Lindl.). BP, JIB, OF, OG, OM, OP.
- Symphotrichum bracteolatum* (Nutt.) G.L. Nesom. 2002726, 02-1043, Tiehm 18069, 02-867, 02-885, 04-327, 08617. Common in riparian meadows at all elevations, more common in mid to low sites throughout our region. (*Aster eatonii* (A. Gray) Howell; *Symphotrichum eatonii* (A. Gray) G.L. Nesom). JIB, OF, OG, OM, OP.
- Symphotrichum campestre* (Nutt.) G.L. Nesom. 05-495, 2002726, Baker 8399, Trueblood sn. Rare, in alkaline big sagebrush communities above 1500 m in western part of the range and to Tuscarora and Jarbidge area. (*Aster campestris* Nutt.). JIB, OM, OP.
- Symphotrichum foliaceum* (Lindl. ex DC.) G.L. Nesom var. *apricum* (A. Gray) G.L. Nesom. 18436. Rare in subalpine meadows in Jarbidge Mountains. Heads solitary; phyllaries with purplish tinge. JIB.
- Symphotrichum foliaceum* (Lindl. ex DC.) G.L. Nesom var. *canbyi* (A. Gray) G.L. Nesom. George 227, 18620, George 399. Uncommon in riparian meadows from Current Creek to Red Canyon and in subalpine meadows in Jarbidge area. Heads more than 10; outer phyllaries ovate-lanceolate, as long as inner. JIB, OM.
- Symphotrichum foliaceum* (Lindl. ex DC.) G.L. Nesom var. *parryi* (D.C. Eaton) G.L. Nesom. 14-652, 17422, 18533. Uncommon in meadows from Mahoganies and Jarbidge mountains to Sawpit Gulch in Silver City range and possibly at lower elevations. Heads few to 10; phyllaries lanceolate or narrowly lanceolate, outer shorter than inner. (*Aster foliaceus* Lindl. ex DC. var. *parryi* (D.C. Eaton) A. Gray). JIB, OM
- Symphotrichum frondosum* (Nutt.) G.L. Nesom. Ertter 236, Ertter 165, Ertter 522, Corbin 1677. Occasional below 1500 m in muds of springs near Rome and Leslie Gulch to Skull Spring southwest of Marsing and along Bruneau River. (*Aster frondosus* (Nutt.) Torr. & A. Gray; *Brachyactis frondosa* (Nutt.) A. Gray). BP, OG, OM.
- Symphotrichum lanceolatum* (Willd.) G.L. Nesom var. *hesperium* (A. Gray) G.L. Nesom. 02-1004, 02-984, 09-444. Occasional along sandy and gravelly streamsides in late season at low to sometimes mid elevations the Owyhee River into Idaho, and in Bruneau. (*Aster hesperius* A. Gray). BP, OG, OP.
- Symphotrichum spathulatum* (Lindl.) G.L. Nesom var. *spathulatum*. 02-815, 02-752, 02-919, 02-721, 02-912, 05-395, 07-348, 08-498. Common in lower riparian zone and riparian meadows above Rome, and into N. Nevada increasing with elevation but not at highest elevations. (*Aster occidentalis* (Nutt.) Torr. & A. Gray). BP, JIB, OM, OP.
- Taraxacum erythrospermum* Andr. * 2002297, 02-535, Packard 72-80. Uncommon weed above 1500 m. (*Taraxacum laevigatum* (Willd.) DC.). OM, OP.

- Taraxacum officinale* Weber ex F.H. Wigg. * 2002086, 02-534, 02-141. Occasional weed in riparian and mesic communities at all elevations. BP, JIB, OG, OM, OP.
- Tetradymia canescens* DC. 02-587, Baker 8097, Atwood 13170. Uncommon in sagebrush communities at upper elevations. JIB, OG, OM, OP.
- Tetradymia glabrata* Torr & A. Gray. 02-086, 02-170, 02-645. Occasional to common in dry scrub communities up to 1500 m. BP, OF, OG, OM, OP.
- Tetradymia spinosa* Hook. & Arn. 02-145, Brainerd 316, Smith 9472. Occasional in xeric scrub communities below 1100 m. OF, OG, OP.
- Townsendia florifer*(Hook.) A. Gray. Smithman 956, Smithman 2014. Occasional along Owyhee River, below dam, on brown ash or gravelly/rocky desert soils. Also in lowest elevations south of the Snake River from near Marsing to near Bruneau. Blooms in fall if rains are right. OF, OG.
- Townsendia parryi* D.C. Eaton. Tiehm 10545. On 2500 m ridge about 1.5 km east Jarbidge boundary near White Elephant Butte. Most likely on alpine ridges in Jarbidge Mtns. (JIB). G4 ORS1.
- Townsendia scapigera* D.C. Eaton. Packard 78-54, Packard 78-63, Joyal 767, Tiehm 12901, 20056230, 20051071, 08-060, 14-468, Harris 2017-10. Rare in Rome ash beds southeast to Bull Run and Jarbidge areas and southward. Bloomed through the 1977 drought. JIB, OP. G4G5 ORS2.
- Tragopogon dubius* Scop. * 02-126, 12-414. Occasional in mesic communities. Fls yellow, fruits at least 2.5 cm. BP, JIB, OF, OG, OM, OP.
- Tragopogon porrifolius* L. * 2002769, Sanford 476. Rare weed at Fletcher's Crossing and Dirty Shame Rock Shelter in Antelope Creek drainage. Flowers purple, fruits not over 2 cm. OP.
- Uropappus lindleyi* (DC.) Nutt. 02-30b, 2002154, 2002200. Rare in sandy and rocky sagebrush communities at middle to lower elevations. (*Microseris lindleyi* (DC.) A. Gray). OP.
- Wyethia amplexicaulis* (Nutt.) Nutt. 02-438, 02-781. Locally common in wet to mesic meadows at upper elevations. Yellow rays. JIB, OG, OM, OP.
- Wyethia helianthoides* Nutt. 2002406, 08-064b. Common in wet meadows at upper elevations. Earlier than *W. amplexicaulis*. White rays. JIB, OP, OM.
- Xanthium spinosum* L. * Otting 933. Only known from disturbed sites in Dry Creek area. OG.
- Xanthium strumarium* L. var. *canadense* (Mill.) Torr. & A. Gray. 2002661, 02-979, 02-888b. Very common in riparian zone, decreasing with elevation. BP, OF, OG, OM, OP.

BERBERIDACEAE

- Mahonia repens* (Lindl.) G. Don. Andrews 698, Irwin 9130. Mahogany Mountain, to South Mountain, Silver City Range and northern Nevada ranges. (*Berberis repens* Lindl.). I follow Yu & Chung (2017) in this treatment. JIB, OG, OM.

BETULACEAE

- Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung. 01-310, Dean 266, 17441. Locally common riparian tree along the N. Fork and larger tributaries at middle elevations to Jarbidge region and Silver City range otherwise uncommon. JIB, OG, OM, OP.
- Alnus rhombifolia* Nutt. Henderson 8267, Ireland 692, Steele 875, Smith 5936. Succor Creek, Reynolds Creek, and South Mountain. OG, OM.
- Betula occidentalis* Hook var. *occidentalis*. 2002052, 02-363, 02-995b. Locally common along tributary streams, from Birch Ck. and along the Owyhee Front south to the vicinity of Jordan Valley and South Mountain; not known from Owyhee Plateau or Jarbidge/Independence areas. OF, OG, OM.

BORAGINACEAE (see also EHRETIACEAE)

- Amsinckia intermedia* Fisch. & C.A. Mey. 2002126, 2002063, 03-168, 06-130. Uncommon in sagebrush and ash communities and meadows at all elevations. (*Amsinckia menziesii* (Lehm.) A. Nelson & J.F. Macbr. var. *intermedia* (Fisch. & C.A. Mey.) F. Ganders). Overlaps morphologically into *A. menziesii* in our area. BP, OG, OM, OP.

- Amsinckia lycopoides* Lehm. Kola 014, Dean 247, Baker 10137, Baker 13027. Uncommon from Leslie Gulch to Three Forks and east to Squaw Ck. OG, OM, OP.
- Amsinckia menziesii* (Lehm.) A. Nelson & J.F. Macbr. 2002476, 03-130, Peck 21797. Occasional to common in woodlands and meadows at all elevations, more commonly at upper elevations. BP, JIB, OF, OG, OM, OP.
- Amsinckia retrorsa* Suksd. Baker 10168, Harloe 519, Smith 14066, Davis sn, Larrison sn. Uncommon in mid elevation sagebrush communities. Overlaps morphologically into *A. menziesii*. BP, OG, OM, OP.
- Amsinckia tessellata* A. Gray. 2002029, 2002089, 02-079, 2002701, 04-022, Atwood 13162. Common in many upland communities. BP, IB, OF, OG, OM, OP.
- Amsinckiopsis kingii* (S. Watson) Williams, Hasenstab-Lehman & B.G. Baldwin var. *harknessii* (Greene) Williams. 02-322, 02-184, 2002095, 2002116, Packard 79-15, 03-017, Bratz 409-47, Brainerd 1097, Otting 1572, Packard 78-79, 04119c. Occasional, and locally common, up to about 1550 m on pale ash or sandy soils with shadscale, mostly in Malheur Co., but rarely reaching into Idaho; Reynolds Creek. (*Plagiobothrys kingii* (S. Watson) A. Gray var. *harknessii* (Greene) Jeps.). OG, OM, OP.
- Amsinckiopsis kingii* (S. Watson) Williams, Hasenstab-Lehman & B.G. Baldwin var. *kingii*. Zika 12346, Bjork 20424. Known from only two collections along Owyhee River near Birch Ck. and Leslie Gulch. (*Plagiobothrys kingii* (S. Watson) A. Gray var. *kingii*). OG.
- Asperugo procumbens* L. * Lytjen 166, Brainerd 1103, 12-174. Uncommon mid to upper elevation weed in our area from Dry Creek drainage to Jordan Valley and upper Deep Creek. OG, OM, OP.
- Buglossoides arvensis* (L.) I.M. Johnst. * Corbin 1289, 08029, Ertter 4494. Only known from Spring Mountain, Stoneman Ck., Mud Flat Rd., to Silver City. (*Lithospermum arvense* L.). OG, OM.
- Cryptantha affinis* (A. Gray) Greene. Hitchcock 21090, Bratz 658-109, 13-142, Smith 11756. Rare to uncommon in our area in moist, often partly shaded meadows in Owyhee Mountains; collections few but scattered across our area between about 1600 and 2400 m. Nutlets smooth; scar asymmetric. JIB, OM, OP.
- Cryptantha ambigua* (A. Gray) Greene. 97-143, 03-212, Henderson 8286, Otting 595, 06-132, 08-073, 08-321c, 11-151. Occasional in clay openings and shallow gravelly soils in sagebrush at all elevations, but generally above 1350 m. Nutlets 4, ovate, roughened with scattered tubercles, but not spiculate. BP, JIB, OF, OG, OM, OP.
- Cryptantha echinella* Greene. McBride sn, Christ sn (NY), Parkinson 29. Rare; known only in sandy/gravelly soils near Silver City; Nutlets spiculate-papillate, ovate, >0.7 mm wide; proximal stem strigose and spreading-hispid -hirsute; calyx broader (than in *C. scoparia*), spreading. OM. G4 ORSNR.
- Cryptantha fendleri* (A. Gray) Greene. P. Holmgren 7959, Smith 7946, Mancuso 7572, Stevens 050, Smith 6535. Uncommon in sandy sites at lower elevations in Owyhee Front to Mud Flat Road. Nutlets 4, smooth, lanceolate 0.5-0.7 mm wide. OF.
- Cryptantha flaccida* (Douglas) Greene. Packard 79-189b, Grimes 292, Atwood 23774, Mancuso 1359, Cronquist 8375. Leslie Gulch and Succor Creek along Owyhee Front to Bruneau, at low elevations on sandy soils. Nutlet single (or 2); calyx hairs both straight and curved or hooked; proximal stem strigose. BP, OF, OG.
- Cryptantha gracilis* Osterh. Grimes 78-179b, 07-071b, 07-089, Otting 1584. Rare on green ash tuff from south of Three Forks to Leslie Gulch. Nutlet single, smooth, lanceolate-ovate; proximal stem hairs spreading; calyx hairs soft and straight, not curved or hooked. OG, OP. G5 ORS2.
- Cryptantha intermedia* (A. Gray) Greene var. *intermedia*. Otting 856, Ertter 14364. Rare in more mesic sagebrush sites; barely entering our range from the north and west but also found in Owyhee Front near Bruneau/Sugar Valley. (*Cryptantha intermedia* (A. Gray) Greene var.

- grandiflora* (Rydb.) Cronquist) Corolla limb > 3 mm, at least three nutlets papillate and/or tuberculate smooth. OG.
- Cryptantha pterocarya* (Torr.) Greene var. *pterocarya*. 02-235, 2002249, 02-246, Otting 1583, 02-275b, 2002133, 2002189, 2002201, 2002093, 03-225. Common in upland communities at lower elevations. Winged nutlets. OF, OG, OP.
- Cryptantha recurvata* Cov. Ertter 14372, 14354, 10-088, 15008b, Smith 9490A. Rare in our area; known only along Owyhee Front from Reynolds Creek to Bruneau River. Nutlets fewer than 4, roughened with tubercles but not spicules, curved inward; calyx reflexed. BP, OF.
- Cryptantha scoparia* A. Nelson. Prentice 5216, Peck 16106. Rare in desert soils at low elevations. Nutlets spiculate-papillate, lanceolate to narrowly ovate, < 0.8 mm wide, calyx narrowly cylindrical, appressed. OF.
- Cryptantha torreyana* (A. Gray) Greene. 02-545, 03-177, 03-204, 05-481, 07-223, 08-083b, Smith 9761. Common on gravelly, rhyolitic benches and hillsides with sagebrush or basin wild rye at middle to higher elevations, particularly aspen groves. Nutlets smooth, ovate, 0.8 to over 1.0 mm wide. BP, JIB, OG, OM, OP.
- Cryptantha watsonii* (A. Gray) Greene. 02-478, Packard 75-85, 03-142, 03-167, 10-144. Uncommon in dry communities at the edge of meadows at all elevations. Nutlets 4, lanceolate to ovate, distal margins angled or ridged. BP, JIB, OF, OG, OM, OP.
- Cynoglossum officinale* L. * N Corbin 1670, 14-437. Uncommon at upper elevations. South Mountain Rd. and near Wildhorse Res. JIB, OM.
- Eremocarya micrantha* Greene var. *micrantha*. 2004011, 05-33, 07-084, Brainerd 1090, Otting 1589. Uncommon entering our area from the southwest, on sandy slopes and flats from China Gulch to Crooked Creek. (*Cryptantha micrantha* (Torr.) I.M. Johnst.). OP.
- Greeneocharis circumscissa* (Hook. & Arn.) Rydb. var. *circumscissa*. 02-699B, 2002006, 02-342, 03-120. Common on loose ash or sandy soils at lower and middle elevations. (*Cryptantha circumscissa* (Hook. & Arn.) I.M. Johnst.). BP, JIB, OF, OG, OM, OP.
- Hackelia floribunda* (Lehm.) I.M. Johnst. 10-217, Packard 71-466, Smithman 2559, Rink 16240. Occasional on mesic hillsides with juniper and green rabbitbrush. Cottonwood Ck. Silver City and Jarbidge Ranges. JIB, OM.
- Hackelia micrantha* (Eastw.) J. Gentry. 2002529, Baker 13061, Baker 8192, Baker 8026. Uncommon in deep shade near seeps at higher elevations. JIB, OM, OP.
- Hackelia ophiobia* R.L. Carr. 02-824, 02-840, 02-786, 2002725, 2002718. Fairly common in rock crevices near river level at middle and upper elevations; endemic to Owyhee River. OP. G3 IDS2 ORS1.
- Hackelia patens* (Nutt.) I.M. Johnst. 10-055, Smithman 1863. Occasional in upper elevation woodlands and sometimes at lower elevations in deep shade of Bruneau canyon. BP, JIB, OM. G5T5 ORS3.
- Lappula desertorum* Greene. Irwin 9051, 12-739, 12-278, Prentice 5204b, 15008A, 02-183, Packard 75-95, Smithman 2051, Lytjen 176, Otting 1573, Smith 9490B, 02-183, Ertter 8374, Bratz B296-118, Lytjen 176, Maguire 22418. Common in open clay exposures at low elevation up to 1700 m; though can reach to as high as 2450 m. (*Lappula redowskii* (Hornem.) Greene var. *redowskii*). OF, JIB, OG, OM, OP.
- Lappula longispina* Rolfmeier ined. 09073, 02-151, 14-494, Shield 81-2, Packard 77-40. Uncommon in open sites of many communities at all elevations across much of the range. JIB, OG, OM, OP.
- Lappula occidentalis* (S. Watson) Greene. Smithman 0814, Bala 14-125, 22403b, 10083. Occasional between 1050 and 1950 m from East Fork Owyhee to Bruneau River headwaters. Our variety of this single-stemmed, longer-styled species of Greene is var *stricta* (S. Watson) Rolfmeier ined. (*Lappula redowskii* (Hornem.) Greene var. *cupulata* (A. Gray) M.E. Jones). BP, JIB, OP.

- Lappula squarrosa* (Retz.) Dumort * Baker 13040, 04-203, Baker 8567. Uncommon in upper elevations from Sheaville and Triangle to near Wildhorse Reservoir. Our only known Eurasian introduction in this, otherwise native, genus. Marginal prickles in at least 2 rows. JIB, OM.
- Lithospermum ruderale* Douglas. 2002396. Occasional to common in mesic communities at middle to higher elevations. BP, JIB, OG, OM, OP.
- Mertensia ambigua* Piper. 20365, 12-461, 20365. Occasional to common in riparian and mesic areas from about 1450 to 2500 m extending from Jordan Creek and south and east into Bull Run, Independence, and Jarbidge Mountains; also present in Silver City range, apparently not reaching the Owyhee Plateau in our area. Pustulate pedicels, elongate peduncles arising above foliage, calyx lobes < 2 mm. Intergrading with *M. ciliata* in our region. JIB, OM.
- Mertensia ciliata* (James ex. Torr.) G. Don var. *ciliata*. Bratz 401-155, 08266, 07430, 05258, 9258, Ertter 21996. Uncommon in our region along streams above about 1550 m from Silver City range to South Mountain and sometimes to Bull Run and Jarbidge Mtns. Very similar to *M. ambigua* but not as common in our area; many specimens indistinguishable. Pustulate pedicels, inflorescence within foliage, calyx lobes < 2 mm. JIB, OG, OM.
- Mertensia foliosa* A. Nelson. 02-476, 02-499, 2002162, 2002166, 14-565, 11-063, 11-048, 08277, 07181, 12-017, Irwin 034, Carlson 066, Smith 9803. Locally common in mesic sagebrush communities above about 1200 m all across our region. (*Mertensia oblongifolia* (Nutt.) G. Don var. *nevadensis* (A. Nelson) L.O. Williams misapplied.). BP, JIB, OG, OM, OP.
- Mertensia longiflora* Greene. 2002056, 2002292, Bratz 55-93, Bratz 402-93, Corbin 1286. Uncommon in dry sagebrush communities at upper to middle elevations in northern and western part of our area to Silver City range and Nickel Creek Table to West Little Owyhee. OG, OM, OP.
- Mertensia paniculata* (Ait.) G. Don var. *paniculata*. 12-293, 08118, Christ 14345, Maguire 26334, 20314. Uncommon in riparian areas and wet meadows; from around 1500 to 1700 m from Silver City Range to Juniper Mountain. Hispid pedicels; inflorescence branching and above foliage, calyx lobes \geq 3 mm. JIB, OM.
- Myosotis laxa* Lehm. 08478, 23210, 04057. Known in our area from Bruneau River and upper West Little Owyhee area. BP, OP.
- Myosotis stricta* Link ex Roem. & Schult. 03-080, 04-057, 08-072, Smith 7954. Common early season weedy species near springs and swales at all except the lowest elevations. (*Myosotis micrantha* auct. non Pall. ex Lehm. misapplied). JIB, OG, OP.
- Oreocarya alpicola* (Cronquist) D.W. Taylor. Rink 16257, Holmgren 9926, Irwin 9299, 08444, 20349, 07464, 12-744, 14-489, 14-463, 04310, Macbride 987. Rocky ridges above (2200) m in Silver City range and on high Jarbidge Peaks. I follow Cronquist et al. (1984). JIB, OM.
- Oreocarya glomerata* (Pursh) Greene. Grimes 259, Packard 76-100, Otting 937, Ertter 42/4. Rare on barren yellow ash slopes in vicinity of Leslie Gulch to lower Owyhee River and Dry Creek, approaching our area mainly from the northwest. broad, smoother lower leaves than *O. spiculifera*; scar closed; shorter lived than *O. spiculifera*. (*Cryptantha celosioides* (Eastw.) Payson; *Oreocarya* Eastw.). OG.
- Oreocarya humilis* Greene. 04-037, 04-014, Lytjen 13, Smith 10100, 04-028, 0569, 14-311, 12-210, 12-129. Rare on clay barrens and rock outcrops in shrub-dominated communities from 850 – 2000 (2300) m in Malheur Co., and barely into Idaho. Intermediates between this species and *O. alpicola* (07438, 21067, Packard 80-155), assigned here to *O. humilis*, can be found from 2100 – 2300 m in Silver City range, Bull Run Mountains and Mahoganies. (*Cryptantha humilis* (Greene) Payson). JIB, OG, OM, OP. G4 ORSNR.
- Oreocarya interrupta* Greene. 17055, 10112. Uncommon to rare in barren soils reaching our area from the east, ranging from Bruneau and rare across Owyhee Front. Scar closed, style less than 1 mm longer than mature nutlets, ped < 1 mm. BP, OF.

- Oreocarya propria* A. Nelson & J.F. Macbr. 01-68, 02-052, 04-002, 2002019, 03-009, 04-035, 05-12, 07-076. Occasional to locally common on both dark and light ash outcrops at lower elevations. Distinctive sericeous adaxial leaf surfaces lacking pustulate hairs (*Cryptantha propria* (A. Nelson & J.F. Macbr.) Payson). OF, OG, OM, OP. G4 IDS2.
- Oreocarya spiculifera* Piper. 02-653, 2002074, 2002293, Smith 3631, Macbride 987, Packard 79-72, 05-69, 10-145, Halse 1922, Atwood 12128, Raino J68, Atwood 23662, Wright 2013, Joyal 1182. Common in rocky upland communities. Nutlets tuberculate on both surfaces, with somewhat open scar, generally long lived but occasionally single-stemmed, narrow bristly lower leaves. Intergrades with *O. interrupta* along the Owyhee Front, especially in the vicinity of Bruneau where several longer pedicelled forms appear. (*Cryptantha spiculifera* (Piper) Payson; *Oreocarya rugulosa* (Payson) Payson) style exceeding nutlets by at least 1.5 mm; ped < 1 mm. BP, OF, OG, OM, OP.
- Pectocarya penicillata* (Hook. & Arn.) A. DC. Mancuso 4396, Peck 20663. Rare in desert scrub of Owyhee Front. (*Pectocarya linearis* (Ruiz & Pav.) DC.). OF.
- Pectocarya setosa* A. Gray. 17053, 2002035, 03-016, Nielsen 1019. Uncommon in sandy sagebrush/bunchgrass communities at lower elevations. OF, OG, OP.
- Plagiobothrys cognatus* (Greene) I.M. Johnst. 07366. Rare in moist places in meadows at headwaters of W. Little Owyhee, possibly more common as easily confused with the more common *P. hispidulus* and *P. cusickii*; *P. cognatus* distinguished by its triangular or ovate, basilateral nutlet scar, unlike the narrower scar not quite at the base in the more common species. These three are part of a barely distinguishable polyploid complex.
- Plagiobothrys cusickii* (Greene) I.M. Johnst. Prentice 5861b, Smith 11877, Smith 11709, Bratz 477-155, 12-116, 03-272, Smith 8009. Uncommon in muds, playas or stream banks, only in southern and western part of our range. Distinguished from the seemingly more common *P. hispidulus* by the former's flat, shiny, asymmetric, rounded, rugose-wrinkled nutlet with a folded nutlet scar and generally lacking tiny bristles commonly seen in *P. hispidulous*. JIB, OP, OM.
- Plagiobothrys hispidulus* (Greene) I.M. Johnst. Otting 588, Packard 77-37, George 253, 12-118, 12-301b, 99-73, Prentice 6025, 02-258, 17-402, 15-330, Harloe 616, Packard 72-50. Common in all years in clay depressions at middle to upper elevations. BP, OF, OG, OM, OP.
- Plagiobothrys leptocladus* (Greene) I.M. Johnst. 2002111, Otting 994, Rogsac 2017-08, 99-57, Ertter 109/5, 08315, Brainerd 1087. Uncommon in alkaline muds and vernal moist meadows; Owyhee Springs to Dry Creek and N. Nevada. Abundant about every 20 years (pers. obs. P. Packard and D. Mansfield). JIB, OG, OM, OP.
- Plagiobothrys mollis* (A. Gray) I.M. Johnst. Ertter 196/4. Rare. Only known in our area from Cow Lakes near Jordan Craters. Otherwise to SW of us. OP.
- Plagiobothrys stipitatus* (Greene) I.M. Johnst. var. *micranthus* (Piper) I.M. Johnst. 04-146, Irwin 9065, 02-682, Otting 2336, Prentice 5901, 08539, 04186, Prentice 6040, Prentice 5908, Prentice 5892b. Uncommon to occasional; known only at muddy margin of drying ponds and reservoirs from Malheur Co. to YP Desert and Riddle. BP, OP. G4T3T4 ORSNR.
- Plagiobothrys tenellus* (Nutt. ex Hook.) A. Gray. 2002070, 2002123, Dean 250, Cronquist 8387, 11-188, Ottenlips 94, Ertter 20/4, Ertter 142, Peter 74-18, Prentice 5085a. Uncommon to occasional in sagebrush/bunchgrass communities at lower elevations from throughout Malheur Co. to Succor Ck., Sands Basin and Garrat Crossing in Owyhee Co. OG, OM, OP.

BRASSICACEAE

- Alyssum alyssoides* (L.) L. * 15-170, Corbin 1260, Smith 10119, Packard 77-8. Uncommon in disturbed areas from lower elevations on NE side of the Owyhee Mountains around to Pleasant Valley. OG, OM.
- Alyssum desertorum* Stapf. * 12-279, 12-088, 2002277, Smith 12471, 11-140. Common in disturbed, sandy, alkaline sites throughout our region. BP, JIB, OF, OG, OM, OP.

- Alyssum simplex* Rudolphi * 11-451. Uncommon. Known only near Leslie Gulch. (*A. minor* (L.) Rothm.). OG.
- Arabis eschscholziana* Andr. 11-070, 11-123, 2002410, 2002332, Macbride 991, Tiehm 15196, Nelson 2169. Uncommon in mesic meadows and woodlands above 1700 m from upper West Little Owyhee to Silver City range to Jarbidge region. (*A. hirsuta* (L.) Scop var. *glabrata* Torr. & A. Gray). JIB, OM, OP.
- Arabis nuttallii* (Kunze) B.L. Rob. Bratz 581-83, Bjork 4331, Tiehm 15196. Rare, known only from wet meadows around 1600 – 2000 m in Owyhee and Jarbidge Mountains. JIB, OM.
- Barbarea orthoceras* Ledeb. 2002483, 2002152, 2002213, Dean 257, 14-634. Occasional and sparse in riparian habitats throughout our region. BP, JIB, OF, OG, OM, OP.
- Barbarea vulgaris* W.T. Aiton * 09046, 10096, 12-134, 12-133, 12-103, 14068. Occasional and sparse in riparian habitats from above Three Forks to the Vicinity of Riddle. BP, JIB, OM, OP.
- Boechea cobrensis* (M.E. Jones) Dorn. Otting 635, Baker 8216, Atwood 23708, Smith 11713, 12-369, 12-158, 12-241. Rare from rocky sites and mountain sagebrush communities in headwaters of West Little Owyhee to Silver City Range and Bull Run Mountains. (*Arabis cobrensis* M.E. Jones). BP, OM, OP. G5 ORSNR.
- Boechea cusickii* (S. Watson) Al-Shehbaz. 22089, Otting 808, Bratz 290-118. Rare in basaltic gravels at upper elevations in Dry Creek and Reynolds Creek. Barely reaching our area from the north and northwest. (*Arabis cusickii* S. Watson). OG, OM. G4 ORSNR.
- Boechea divaricarpa* (A. Nelson) A. Löve & D. Löve. Tiehm 11403, Ertter 21989. Uncommon in rocky outcrops over 2100 m in Jarbidge Mountains. JIB.
- Boechea lemmonii* (S. Watson) W.A. Weber var. *lemmonii*. Rosentreter 4649, Grimes 2114, 14-458, Tiehm 6171. On ridges and peaks in the Jarbidge and Independence Mountains. (*Arabis lemmonii* S. Watson). JIB.
- Boechea lignifera* (A. Nelson) W.A. Weber. 14-254; Smith 11857. Known from two populations--South Mountain and Independence Mountains; mostly east of our region. JIB, OM.
- Boechea lyallii* (S. Watson) Dorn. 18570, 18566, Tiehm 6318. In rocks, talus, and scree in Jarbidge and Independence Mountains above 2700 m. JIB.
- Boechea microphylla* (Nutt.) Dorn. 2002346, Schilling 36, 09205c, 2002349, Packard 79-84, Brainerd 1442, Bratz 323-49, 15-157. Uncommon to locally common in rock crevices at middle to upper elevations, occasionally coming downcanyon to lower elevations. (*Arabis microphylla* Nutt. var. *microphylla*). JIB, OG, OM, OP.
- Boechea pauciflora* (Nutt.) Windham & Al-Shehbaz. 2002160, 05-143, 05-149, 2002352, 02-477, Sanford 476, Otting 798, Grimes 2060, Packard 71-269. Occasional in rocky and vernal moist sagebrush steppe at middle to upper elevations, only rarely below 1600 m. (*Boechea sparsiflora* (Nutt.) Dorn var. *subvillosa* (S. Watson) Dorn; *Arabis sparsiflora* Nutt. var. *subvillosa* (S. Watson) Rollins); *Boechea holboellii* (Hornem.) A. Löve & D. Löve var. *pinetorum* (Tidestr.) Dorn; *Arabis holboellii* Hornem. var. *pinetorum* (Tidestr.) Rollins). BP, JIB, OG, OM, OP.
- Boechea paupercula* (Greene) Windham & Al-Shehbaz. 2002289, Bratz 582-93. Rare in rock crevices at highest elevations. In our area only known from Upper West Little Owyhee. (*Boechea lyallii* (S. Watson) Dorn var. *nubigena* (J.F. Macbr. & Payson) Rollins). Easily mistaken for *B. microphylla*. OP.
- Boechea pendulocarpa* (A. Nelson) Windham & Al-Shehbaz. DeBolt 690, 22456, Kierstad 353. Rare in rocks from Birch Creek, Castle Creek to Jarbidge Mtns. Lvs not auriculate. (*Boechea exilis* (A. Nelson) Dorn). JIB, OM, OP.
- Boechea pinetorum* (Tidestr.) Windham & Al-Shehbaz. Sanford 476. One known occurrence in southern Malheur Co. OP.

- Boechera polyantha* (Greene) Windham & Al-Shehbaz. Olmstead 2017-24. Only one population known from our area in Bull Run Mountains. JIB.
- Boechera puberula* (Nutt.) Dorn. 2002286, Brainerd 1415, 02-544, Smith 12492, 97-115, 08-167b, Smithman 1755, Smithman 2228, Peter 74-83, 11-221, Peter 74-33. Common in shallow, silty soils at middle to upper elevations. (*Arabis puberula* Nutt.). BP, JIB, OG, OM, OP.
- Boechera retrofracta* (Graham) A. Löve & D. Löve. 02-446, 2002365, 02-098, Otting 530, Peck 21813, 09204, 2002343, 2002388, 02-543, 10203, 10242, Rosentreter 16773, Erwin 004, Smith 3528, Brainerd 350, Chambers 6079, Burkhardt sn. Common in mesic settings in sagebrush communities at middle to upper elevations throughout our region above about 1100 m. (*Arabis holboellii* Hornem. var. *retrofracta* (Graham) Rydb.; *B. holboellii* (Hornem.) A. Löve & D. Löve var. *secunda* (Howell) Dorn). BP, JIB, OG, OM, OP.
- Boechera sparsiflora* (Nutt.) Dorn. 07-254, 08-082, 08-228, Peter 74-23, Bratz 299-135, Traughber 19. Occasional to common on sagebrush slopes throughout our region. (*Arabis sparsiflora* Nutt. var. *sparsiflora*). BP, JIB, OF, OG, OM, OP.
- Boechera stricta* (Graham) Al-Shehbaz. 02-411, 07-083b, 08-407, 18485b, 18600. Uncommon to occasional and sparse in riparian meadows and rocky slopes at middle to upper elevations. (*Arabis drummondii* A. Gray). BP, JIB, OG, OP.
- Boechera suffrutescens* (S. Watson) Dorn. Baker 7891, Baker 8190. Known only from historic collections at high elevations in Silver City Range from Cinnabar to Sawpit Gulch. Fruit > 3.2 mm wide. OM.
- Brassica nigra* (L.) W.D.J Koch * Ertter 533-36, Baker 8537. Reynolds Creek to Oreana. OF, OM.
- Brassica rapa* L. * Bratz 503-96, Macbride 370. Historical collections: Reynolds Creek to Silver City. (*Brassica campestris* L.). OM.
- Camelina microcarpa* Andrz. * 2002144, 2002193, 2002240, Macbride 424, 02-104, 2002617, Brainerd 1112. Occasional on mesic slopes in mild disturbances in many plant communities at middle elevations. BP, JIB, OG, OM, OP.
- Capsella bursa-pastoris* (L.) Medik. * 02-286, Bratz 60-44. Uncommon weed in upland disturbed areas at lower elevations. OG, OM, OP.
- Cardamine breweri* S. Watson var. *breweri*. Wellner 2847, Padgett 2381. Rare in riparian areas from Independence Mountains to Owyhee Mtns. JIB, OM.
- Cardamine cordifolia* A. Gray. Ertter 21997. Rare; in riparian meadow at Bear Creek Summit Jarbidge. JIB.
- Cardamine oligosperma* Nutt. Smith 12022. Riparian meadows at Big Bend in N. Nevada. JIB.
- Cardamine pensylvanica* Muhl. ex Willd. Tiehm 17945, Bratz 505-176, Duft 1496, 14-634. Uncommon in riparian meadows from Owyhee Front to upper E. Fork Owyhee River and Mahoganies. JIB, OF, OG, OM.
- Caulanthus crassicaulis* (Torr.) S. Watson. 02-213, 03-134, 04005, 09-181, Findley 1198. Occasional in tan to white ash around Chalk Basin and gravelly rhyolitic benches near Anderson Crossing. (including *Caulanthus crassicaulis* (Torr.) S. Watson var. *glaber* M.E. Jones). JIB, OP.
- Caulanthus major* M.E. Jones) Payson. Packard 78-66. Rare in rocky outcrops and ash near Crooked Creek ash beds. OP. G4 ORS1.
- Caulanthus pilosus* S. Watson. Peck 21766, 05-18, Nielsen 53109, Hitchcock 622298, Packard 80-25, Packard 80-62. Rome ash beds and Oreana to Sinker Ck. OF, OG, OP. G4 ORS2.
- Chorispora tenella* (Pall.) DC. * 02-639, 2002025. Occasional in disturbed sites. BP, JIB, OF, OG, OM, OP.
- Conringia orientalis* (L.) Dumort * 07-358. Uncommon weed in riparian grass and sedge meadows and scrub at upper elevations. JIB, OM, OP.

- Cusickiella douglasii* (A. Gray) Rollins. 2002421, Findley 851, Dean s.n., Tiehm 10554.
Uncommon in rocky depressions at middle to upper elevations across the range. (*Draba douglasii* A. Gray). JIB, OG, OM, OP.
- Descurainia californica* (A. Gray) O.E. Schulz. Peck 21801, Peck 25716, Hitchcock 22299. Rare in low sagebrush at middle elevations; known from south and west of Rome but not yet known from southern Idaho except Cassia Co. OP.
- Descurainia incisa* (Engelm. ex A. Gray) Britton ssp. *incisa*. 2002127, 09-205, 05304, 11-459, 02-407, Mancuso 2661, 14470, 13-051, 09074. Occasional to common on ashy barrens from Rome to Chalk Basin, and more commonly in mesic sagebrush and aspen. (*Descurainia incana* (Bernh. ex Fisch & C.A. Mey.) Dorn ssp. *incisa* (Engelm. ex A. Gray) Kartesz & Gandhi; *Descurainia richardsonii* (Sweet) Schultz var. *sonnei* (Robins.) Hitchc.). BP, JIB, OF, OG, OM, OP.
- Descurainia longipedicellata* (E. Fourn.) O.E. Schultz. Brainerd 345, 02-027c, 05-78, 10002, 05-13b, Packard 78-71, Brainerd 435, 10087, Peck 21826, Hitchcock 21079, Smith 9448, Bala 95. Common on ash slopes, gravelly slopes, sands, and open ground. (*Descurainia pinnata* (Walter) Britton ssp. *filipes* (A. Gray) Detl.; *Descurainia incisa* (A. Gray) Britton ssp. *filipes* (A. Gray) Rollins; *Descurainia pinnata* (Walter) Britton ssp. *halictorum* (Cockerell) Detl. in our area). BP, JIB, OF, OG, OM, OP.
- Descurainia nelsonii* (Rydb.) Al-Shehbaz & Goodson. 03-226, 05-494, 02-529, 02-539.
Occasional on grazed playas, rocky slopes and near streams at upper elevations throughout our range, less commonly at lower elevations. (*Descurainia pinnata* (Walter) Britton ssp. *nelsonii* (Walter) Britton). BP, JIB, OG, OM, OP.
- Descurainia paradisa* (A. Nelson & Kennedy) O.E. Schulz. 05-77, Peck 20607, Brainerd 1100, Brainerd 1092. Rare in west end of our range in disturbed ground below 1500 m. OP.
- Descurainia pinnata* (Walter) Britton ssp. *brachycarpa* (Richards.) Detl. Ireland 3471, 02-105, 11-198, Trawick 50. Uncommon throughout the range. BP, JIB, OF, OG, OM, OP.
- Descurainia sophia* (L.) Webb. * 02-164, 2002084, 02-640, Dean 48, Sanford 476. Occasional to common in disturbed upland communities throughout our region. BP, JIB, OF, OG, OM, OP.
- Draba albertina* Greene. Ertter 21992, Grimes 2113, Tiehm 17975. Uncommon at edges of wet meadows in Independence and Jarbidge Mountains. JIB.
- Draba densifolia* Nutt. 18568, 18471, Anderson sn. Alpine ridges in Jarbidge and Independence Mtns. JIB.
- Draba nemorosa* L. * 02-273, 05-212, Tiehm 7859. Uncommon to occasional on sandy shores and wet meadows at all elevations. JIB, OG, OM, OP.
- Draba reptans* (Lam.) Fernald. Smith 3489. Known from one collection in rock outcrops in Owyhee Front. OF.
- Draba sphaeroides* Payson. 04320, 18495?, Tiehm 10775, Windham 2459, Holmgren 9929, Nelson 1981. In decomposed granite at upper elevations in Jarbidge Mtns. JIB.
- Draba verna* L. * 2002017, 2002125, 03-079. Common early annual of sagebrush and upland sites. BP, JIB, OF, OG, OM, OP.
- Erysimum capitatum* (Douglas ex Hook.) Greene var. *purshii* (Durand) Rollins. Ertter 40, Packard 73-50, 04293, 21075, Findley 822, Peter 74-77, Legler 14540, Klott 195. Uncommon on ash, limestone and sagebrush slopes from vicinity of Leslie Gulch and in Jarbidge and Bull Run Mountains. (*Erysimum asperum* (Nutt.) DC.). JIB, OG.
- Erysimum cheiranthoides* L. * 12-268, 13-146, 13-140b, Tiehm 9310. Occasional but only known from along Owyhee River between Wildhorse/Sunflower Flat in N. Nevada and Richert Crossing (from Tules to Deep Creek). JIB, OP.
- Erysimum inconspicuum* (S. Watson) MacMill. 2002195, Packard 80-169, Knoke 2017-30. Uncommon in disturbed sagebrush communities. JIB, OF, OP. G5 ORSNR.

- Erysimum repandum* L. * 2002001, 2002172, 2002273, 04-049. Common in early spring in disturbed xeric scrub and sagebrush communities. BP, JIB, OG, OM, OP.
- Euclidium syriacum* (L.) R. Br. * Baker 14059, Halse 1349. Rare at this time near Grasmere. BP.
- Hornungia procumbens* (L.) Hayek. Otting 795, Brainerd 356, Henderson 8415, Bratz 330-55, Corbin 1636. Rare to occasional in understory of shrubs in alkaline scrub in northern end of our range in Oregon and Wilson Ck in Idaho. (*Hutchinsia procumbens* (L.) Desv.). OF, OG, OP.
- Idahoia scapigera* (Hook.) A. Nelson & J.F. Macbr. 2002218, Corbin 1578. Uncommon to occasional in spring on barren gravels. OG, OM, OP.
- Lepidium appleianum* Al-Shehbaz * N 02-307, 02-1024, 02-247, 02-736, Prentice 96070. Common and increasing in riparian zone and ephemeral drainages at all elevations; more predominant lower in elevations. (*Cardaria pubescens* (C.A. Mey.) Jarmol. BP, OF, OG, OM, OP.
- Lepidium campestre* (L.) R. Br. * 01-287, 02-759, 97-125, Christ 51-61. Uncommon to occasional in sagebrush/bunchgrass communities and gravelly washes. BP, JIB, OF, OG, OM, OP.
- Lepidium chalapense* (L.) Hand.-Mazz. * N N.H. Holmgren 13139. The least common white top in our area; found near Jordan Valley. (*Cardaria draba* L. ssp. *chalapense* (L.) Thell.). OF, OM, OP.
- Lepidium davisii* Rollins. Findley 922, 05-224, Joyal 1017, Packard 76-187, Tiehm 12892. In dry playas, though not found in most playas where possibly expected. Known in vicinity of Crooked Creek and Pigeon Toe playa to S. Fk. Owyhee in Nevada. BP, OP. G3 IDS3 ORS1 LT.
- Lepidium densiflorum* (Schrad.) var. *pubicarpum* (A. Nelson) Thell. * 01-62, 03-126, Peck 21802, Peck 30643, Otting 1602, Davis 9-37, Packard 80-46. In moist sites in the Owyhee Canyon from Three Forks to near confluence with Snake River and in lower Bruneau drainages. OF, OG, OP.
- Lepidium dictyotum* A. Gray var. *dictyotum*. Henderson 8427. Rare in sagebrush in Owyhee River canyon below the dam. OG. G3G5 ORSNR.
- Lepidium draba* L. ssp. *draba* * N Lytjen 38, Tanner 46, Bratz 314-135. A less common white top; found from Dry Creek and below the Owyhee dam around to Owyhee Front and occasionally up higher. (*Cardaria draba* L. ssp. *draba*). BP, OF, OG, OM, OP.
- Lepidium latifolium* L. * N 02-138, 2002694. Locally common at seeps and river side at lower elevations. OG, OM, OP.
- Lepidium montanum* Nutt. var. *montanum*. Otting 1576, N. Holmgren 5805. Known from greasewood playa in upper Crooked Cr. and sagebrush on Three Creeks. BP, OP. G5 ORSNR.
- Lepidium montanum* Nutt. var. *owyheense* Barbour & Mansfield. Popovich 6356, Mancuso 1661, DeBolt 2197. Endemic to microplayas of the Inside Desert, Clover Creek. (*Lepidium papilliferum* (L.F. Hend.) A. Nelson and J.F. Macbr. misapplied). I follow Barbour & Mansfield (2022). BP. G1 IDSNR LT (as *L. papilliferum*, Not ranked as *L. montanum* var. *owyheense*).
- Lepidium perfoliatum* L. * 2002026, Sanford 476, Dean 7. Common weed of disturbed upland sites. BP, OF, OG, OM, OP.
- Lepidium virginicum* L. ssp. *menziesii* (DC.) Thellung. 04231, 04262, Williams 80-216-10, Holmgren 6110, Nichols 283, Manning 285, Gentilcore 2179. In forests, aspen woodlands and riparian sites in Independence and Jarbidge Mountains. (*Lepidium virginicum* L. var. *pubescens* (Greene) Thellung). JIB.
- Microthlaspi perfoliatum* (L.) F.K. Mey. * Smith 3035. In sand near stream south of Mud Flat Rd. near Deep Creek. OM.

- Nasturtium officinale* W.T. Aiton. 2002210, 02-60, 01-212. Common emergent from slow water and seeps. (*Rorippa nasturtium-aquaticum* (L.) Hayek). BP, JIB, OG, OM, OP.
- Noccaea fendleri* (A. Gray) Holub. ssp. *glauca* (A. Nelson) Al-Shehbaz & M. Koch. Grimes 2115, 05-235, 05-243b, Ertter 4478, Smithman sn. In subalpine rocky forest openings from Independence Mountains to South Mountain and Silver City range. (*Thlaspi montanum* L. var. *montanum*). JIB, OM.
- Phoenicaulis cheiranthoides* Nutt ex Torr. & A. Gray. 2002132, 03-064, Irwin 9168. Occasional on rocky canyon slopes; mostly at middle to upper elevations. BP, JIB, OG, OM, OP.
- Physaria chambersii* Rollins. 02-221, 2002037, 2002239, 04-007, 08237, Polito 107, Packard79-77, Glad 75-8, 03-024, 03-132. Uncommon to occasional on various ash outcrops from Chalk Basin to Leslie Gulch and in Jarbidge area. JIB, OG, OP. G5 ORS2.
- Physaria kingii* (S. Watson) O’Kane & Al-Shehbaz ssp. *cobrensis* (Rollins & E.A. Shaw) O’Kane & Al-Shehbaz. Corbin 1485, Klott 269, 2002383, Findley 1199, Findley 691, 20051041, Tiehm 12888. Uncommon in clay soils and shallow, alkaline flats from W. Fork Bruneau River across Owyhee Desert to near Deep Creek from about 1400 to 1800 m. (*Lesquerella kingii* S. Watson var. *cobrensis* Rollins & E.A. Shaw; *Physaria cobrensis* (Rollins & E.A. Shaw) N.H. Holmgren). JIB, OM, OP. G5T3T4 IDS3 ORS2.
- Physaria obdeltata* (Rollins) O’Kane & Al-Shehbaz. DeBolt 722. Only one population known in our region, 15 miles SW of Riddle. Disjunct from its region of endemism in eastern Idaho. OP. G2 IDS2.
- Polycytenium fremontii* (S. Watson) Greene var. *fremontii*. 02-394, Brainerd 358, 2002395, 06-98a, Klott 454. Uncommon in scabland clays and playas scattered across our whole range at middle to upper elevations. OG, OM, OP.
- Rorippa austriaca* (Crantz) Besser * Tiehm 14593, Tiehm 10710. Known from our area only near Wildhorse Reservoir in N. Nevada. JIB.
- Rorippa curvipes* E. Greene. 02-242, 01-297, 02-915, 02-803, 02-289, Joyal 929, 20110, 15-343. Occasional to common in sands or muds along the rivers at middle to lower elevations and in lake margins. (*Rorippa obtusa* (Nutt.) Britt. misapplied; *Rorippa truncata* (Jeps.) Stuckey). BP, JIB, OF, OG, OM, OP.
- Rorippa curvisiliqua* (Hook.) Britton. 02-473, 02-529, 07-277, Rosentreter 164. Uncommon in wet meadows in upper to middle elevations. JIB, OM, OP.
- Rorippa palustris* (L.) Besser ssp. *hispidata* (Desv.) Jonsell. Peck 25764, Shield 72-33, 14-391. In low riparian meadows in N. Fork to Jordan Creek, East Fork Owyhee and Bruneau Rivers. OF, OP.
- Rorippa palustris* (L.) Besser ssp. *palustris*. 2002764, Joyal 949, 02-785, 2002713b, 01-316, 13-144, 13-135b, Wallace L23. Uncommon in muds along the river below Rome and from Batch Lake up to above Battle Ck. and Castle Creek in Silver City range. (*Rorippa palustris* (L.) Besser var. *glabra* (O.E. Schultz) R. Stuckey; *Rorippa islandica* (Oeder) Borbas var. *glabrata* (Oeder) Borbas; *Rorippa palustris* ssp. *fernaldiana* (Butters & Abbe) Jonsell; *Rorippa palustris* var. *occidentalis* (S. Watson) Rollins). OM, OP.
- Rorippa sinuata* (Nutt. ex Torr. & A. Gray) A.S. Hitchc. 02-013, 01-204, 02-011, 02-845, 02-789, 02-264, 02-155, 03-116, 08-534. Common in silty mud of riparian soils at all elevations. OM, OP.
- Rorippa sphaerocarpa* (A. Gray) Brill. Baker 8573, George 321, Shield 72-33. Rare along Owyhee and Bruneau Rivers and tributaries (near Triangle) up to 1200 m. BP, OM, OP.
- Rorippa tenerrima* Greene. Packard-77-322, George 358, 15-336. Known only from Red Canyon to Grasmere. BP, JIB, OM, OP.
- Sisymbrium altissimum* L. * 02-024, 02-074. Common in disturbed sites at middle and lower elevations. BP, JIB, OF, OG, OM, OP.

- Sisymbrium linifolium* (Nutt.) Nutt. ex Torr. & A. Gray. Joyal 378, Corbin 1547. Rare to uncommon in sagebrush scrub in Malheur Co. and Sinker Ck below Silver City Rd. crossing. (*Schoenocrambe linifolia* (Nutt.) Greene). JIB, OM.
- Stanleya confertiflora* (B.L. Robins.) T.J. Howell. Bratz 70-56, Smith 7900, Mancuso 2687. In Oregon, reaching Owyhee drainage in upper elevations of Dry Creek and near Mahogany Gap. In Idaho in lower Reynolds Creek and McBride Creek ash outcrops. Reputedly (R. Meinke pers. comm.) only yellow forms are east of the Owyhee River and only white forms are on the west side; unverified. OF, OG, OM. G2 ORS2.
- Stanleya pinnata* (Pursh) Britton. Packard 75-83, 03-154, 03-281, Otting 1601. Occasional to common on ash beds from near Rome to Leslie Gulch and on the Owyhee Front. OF, OG, OP.
- Stanleya viridiflora* Nutt. 02-111, 03-280, Baker 8546, Tiehm 5383. Rare in brown or white ash outcrops between Rome and Birch Ck. Historically from Oreana. In Indendence Mountains. JIB, OF, OG, OP. G4 ORSNR.
- Streptanthella longirostris* (S. Watson) Rydb. Nielsen 5130024, Brainerd 1088, Otting 1580, Packard 80-162, Prentice 950011, Tucker sn. Rare on sands; known only from Coyote Playa and Owyhee Front outwash. OF, OP.
- Streptanthus cordatus* Nutt. ssp. *cordatus*. 99-118, Rosentreter 184. Rare in playas near W. Little Owyhee and Owyhee Desert near S. Fork. OP. G5T4T5 ORSNR.
- Strigosella africana* (L.) Botsch * Smith 9462, 08240, Corbin 1681, Smith 8729. Waste places from Adrian to Marsing to Bruneau along the Owyhee Front and to Bull Run Mountains. Recent introduction. (*Malcomia africana* (L.) W.T. Aiton). JIB, OF.
- Thelypodium flexuosum* B.L. Rob. 02-203, 02-566, 2002386, 2002612, Brainerd 362, Pinzl 10678, 22394. Uncommon to occasional in xeric and ash communities at all elevations, mostly in Malheur Co, only two known populations in Owyhee Mountains. OG, OM, OP. G5 IDS1.
- Thelypodium integrifolium* (Nutt. ex Torr. & A. Gray) Endl. var. *complanatum* (Al-Shehbaz) S.L. Welsh and Reveal. 2002728, 08-510, Corbin 1626. Rare in alkaline meadows near Crooked Ck. and spring between Rabbit Ck. and Reynolds Ck. OF, OP. G5T5 ORSNR.
- Thelypodium laciniatum* (Hook.) Endl. var. *laciniatum*. 02-033, 02-277, 01-299, 02-271, 02-765, 02-917, 2002514, 04-332, Otting 648, 08-535. Common in rocks, crevices and gravels along the rivers and streams, mainly at lower and middle elevations across the region. BP, JIB, OF, OG, OM, OP.
- Thelypodium milleflorum* A. Nelson. 99-36, Otting 517, Smithman 1086, Otting 1581, Corbin 1770. Rare along ephemeral streams and ashes; W. Little Owyhee, Dry Creek, and Owyhee River below the dam. Also in Blue Canoe Exclosure and Con Shea Road near Murphy. BP, OF, OG.
- Thlaspi arvense* L. * 02-160, 02-537, 2002148, 2002194, 2002377. Common in gravel bars and seeps along streams and rivers at all elevations. BP, JIB, OF, OG, OM, OP.
- Thysanocarpus curvipes* Hook. 2002130, Irwin 9241. Uncommon in disturbed sagebrush communities. OM, OP.
- Turritis glabra* L. Grimes 2142, Smith 11941, 2002552, 13-091, George 411b, 12-470, George 279, 05295, 10236, 08111. Occasional in moist swales with mountain big sagebrush above 1400 m. (*Arabis glabra* (L.) Bernh.). BP, JIB, OM, OP.

CACTACEAE

- Opuntia xcolumbiana* Griffiths. Peck 25930, 06-46, Corbin 1686. Uncommon on sandy slopes from Adrian (but not up the Owyhee River) to Mud Flat. OF.
- Opuntia fragilis* (Nutt.) Haw. 19029. Only one population known in salt scrub soils in Castle Creek, SW of Oreana Cutoff Rd. OF. G5 ORSNR.

Opuntia polyacantha Haw. var. *polyacantha*. 04-021, 08-227. Uncommon in sandy sites southeast of Rome and weathered rhyolite in upper East Fork of Owyhee and Jarbidge Rivers. BP, JIB, OP.

Pediocactus nigrispinus (Hochstätter) Hochstätter var. *beastonii* Hochstätter. Packard sn., 10151, Irwin 9200, 14-421. Rare, in barren rocky and gravelly outcrops in Owyhee Mountains and Plateau from 1300 m to 1600 m. Also reported on rare plant surveys from Dry Creek to Barren Valley, and in Reynolds Creek. Very similar to next species but differentiated in our area by habitat, geography and elevation though morphologies often overlap somewhat. (*Pediocactus simpsonii* (Engelm.) Britton & Rose ex Britton & Brown var. *robustior* (J.M. Coult.) L.D. Benson misapplied; *Escobaria vivipara* (Nutt.) Buxbaum *Coryphantha vivipara* (Nutt.) Britton & Rose ex Britton & Brown, misapplied in our area). OM, OP. G4 IDS3 ORS4.

Pediocactus simpsonii (Engelm.) Britton & Rose. Tiehm 12952, 14-646, Harris 2017-24, Smith 16597. Rare in rock outcrops, ridges and barrens near riparian areas from 1500 to 2500 m in Jarbidge/Mahoganies region. BP, JIB. G5 IDS3.

CALLITRICHACEAE (see PLANTAGINACEAE)

CAMPANULACEAE

Downingia bacigalupii Weiler. 02-777, 02-570, Joyal 1208, 08-537, Baker 8476. Occasional in wet meadows and vernal pools our region at middle elevations. BP, OG, OP. G4 IDS2.

Downingia bicornuta A. Gray var. *bicornuta*. 02-640B, 03-194, Baker 8461, Smith 12107. Uncommon in muds of reservoirs and vernal ponds, particularly in the vicinity of Duck Valley. BP, OP.

Downingia elegans (Douglas ex Lindl.) Torr. Davis 4516, Davis 4283, Davis 875, Larrison sn., Maser 459. Rare in vernal wet areas; historical collections from near Riddle and N. Fork Owyhee River area. BP, OP.

Downingia insignis Greene. 02-681, 99-71, 97-134, 03-191, 06-85, Mancuso 1685, Prentice 6101. Occasional to common on shores of vernal pools at middle and upper elevations in Malheur Co. and barely entering Owyhee Co. in YP Desert and along Juniper Mountain Rd. just east of Oregon border. OP. G4 IDS1S2.

Downingia laeta (Greene) Greene. 06-114, Otting 815, Otting 2339, Prentice 5852, Prentice 5888, Mancuso 1693, Baker 8476, Tiehm 14575. Known rarely from muds of vernal wet reservoirs from Crooked Creek, Antelope Creek and Soldier Ck. drainages, all in Malheur County. In Owyhee and Elko Cos. in YP Desert and Duck Valley. OG, OP.

Downingia yina Applegate. Holmgren 16498, Packard 76-110. Rare. In muds of vernal wet reservoirs from Batch Lake to Rattlesnake Creek in upper Antelope Ck. drainage. OP.

Heterocodon rariflorum Nutt. 02-450, Lytjen 63, 20051103, 07-269, George 263, Legler 14534, Smith 6226. Rare in wet meadows at upper elevations, from Dry Ck. to Hoppin Springs to Juniper Mountain and Jarbidge region. JIB, OG, OP.

Nemacladus rigidus Curran. Packard 78-228, 2004017, 20051045, 200553110, 09-187; DeBolt 1947, Bjork 11002. Rare in barren gravelly soils; upper S. Fk. Owyhee region to Chalk Basin and Owyhee Front by Murphy. OF, OG, OP. G4 IDS2.

Porterella carnosula (Hook. & Arn.) Torr. 02-574, 02-570b, 03-200, 08-536, Otting 2351. In playas from Deer Flat to Three Forks and Soldier Ck. in Oregon and on Bruneau Plateau. BP, OP. G4 IDS2.

CANNABACEAE (formerly in ULMACEAE)

Celtis reticulata Torr. 02-310, 2002078, Smithman 1108, Otting 771, Corbin 1655. Common tree along lower Owyhee River up to Three Forks and in canyons of the Owyhee Front decreasing at higher elevations and uncommon in Bruneau/Jarbidge. In northern part of our range. (*Celtis laevigata* Willd. var. *reticulata* (Torr.) L.D. Benson; *Celtis douglasii* Planchon). BP, OF, OG.

CAPPARACEAE (see CLEOMACEAE)

CAPRIFOLIACEAE (including some traditional VALERIANACEAE; see also ADOXACEAE)

Lonicera involucrata (Rich) Banks var. *involucrata*. Baker 8062, Maydole sn., Holmgren 733.

Uncommon in our region; Silver City and Mountain City areas. JIB, OM.

Symphoricarpos longiflorus A. Gray. Siddale 79-1, Dean 170, Joyal 772, Johnson 2700.

Uncommon along the Owyhee River at middle to upper elevations. These specimens have a shorter corolla than typical *S. longiflorus* but are different than *S. rotundifolius* var. *vaccinioides*. This group needs work. OP. G5 ORS2.

Symphoricarpos rotundifolius A. Gray var. *vaccinioides* (Rydb.) A. Nelson. 04-039, 02-718, 02-950, 02-939, 2002599, 2002527. Common in rocks at all elevations (and having morphological variation correlated to elevation that blends into the previous taxon).

(*Symphoricarpos oreophilus* A. Gray var. *utahensis* (Rydb.) A. Nelson misapplied;

Symphoricarpos rotundifolius A. Gray var. *oreophilus* (A. Gray) M.E. Jones misapplied).

BP, JIB, OG, OM, OP.

CARYOPHYLLACEAE

Cerastium brachypodum (Engelm. ex A. Gray) B.L. Rob. Davis 4540, N. Holmgren 16297. In wet areas; known from two collections from North Fork Owyhee River to South Mountain. OM.

Cerastium fontanum Baumg. ssp. *vulgare* (Hartman) Greuter & Burdet * 15-383, 12-432, Fuji 7/74, 03-234b, Smith 6236, Smith 3619, Gentilcore 2134. Occasional to common in streamsides, mesic meadows and rocks at middle to higher elevations. BP, JIB, OG, OM, OP.

Cerastium glomeratum Thuil. * Packard 77-7. Known only at Mud Springs in Leslie Gulch; probably more widespread. OG.

Dianthus armeria L. ssp. *armeria* * 02-873, 01-309, George 368, 08606. Uncommon in riparian meadows of N. Fork of Owyhee. OP.

Eremogone aculeata (S. Watson) Ikonn. Packard 72-226, Bratz B76-165, Smithman 1876, Lytjen 181. Common at higher elevations: Silver City Range, South Mountain, Reynolds Creek; Independence, Bull Run and Jarbidge Mountains. (*Arenaria aculeata* S. Watson), JIB, OM,

Eremogone congesta (Nutt.) S. Ikonnikov var. *congesta*. 02-768, Smithman 2079, Williams 80-210-7, Peck 21821, 07-408, 05383, Bratz 77-148. Occasional to common in gravelly upland soils with sagebrush or juniper and on gravel bars. (*Arenaria congesta* Nutt. var. *congesta*). The few collections identified as *E. congesta* var. *cephaloidea* from our region are better placed here. JIB, OG, OM, OP.

Eremogone congesta (Nutt.) S. Ikonnikov var. *crassula* (Maguire) R.L. Hartm. & Rabaler. Joyal 1204, , Bratz 339-157, Packard 71-279, Shield 16-2, Tiehm 10699. Occasional in upper elevation sagebrush communities and gravelly ridges above about 1800 m. Basal lvs short (< 3 cm), somewhat succulent, needle-like. This variety grades into *E. congesta* var. *congesta*. JIB, OM, OP.

Eremogone franklinii (Douglas) S. Ikonnikov var. *franklinii*. Otting 515, 02-181, 06-105, Corbin 1534. Locally common on brown ash at lower elevations; Chalk Basin to Dry Creek and around to Owyhee Front. (*Arenaria franklinii* Douglas ex Hook. var. *franklinii*). BP, OF, OG, OP.

Eremogone kingii (S. Watson) S. Ikonnikov var. *glabrescens* (S. Watson) Dorn. Ertter 28/4, Grimes 1153, 92-8, Otting 1607, Bjork 4450, 09169, 14075. Occasional in scablands, gravelly benches and meadows at upper elevations. Many collections fit well into this taxon, but many are intermediate between this and *E. capillaris* var. *americana*. Few collections (02-523, 2002559, 2002489) may possibly pass as *E. capillaris* (Poir.) Fenzl var. *americana* (Maguire) R.L. Hartm. & Rabaler, but all material in that continuum is included in this taxon. (*Arenaria kingii* (S. Watson) M.E. Jones var. *glabrescens* (S. Watson) Maguire). JIB, OG, OM, OP.

- Holosteum umbellatum* L. * 11-227, 2002045, 2002124, Smith 6236. Common in disturbed sites mostly at lower elevations. BP, OG, OP.
- Moehringia lateriflora* (L.) Fenzl. Nelson 1874. Known from 1912 collections at Three Creek. BP.
- Sabulina nuttallii* (Pax.) Dillenb. & Katereit var. *fragilis* (Maguire & A.H. Holmgren) Dillenb. & Katereit. McNeil sn, Bratz 79-128, Smithman 2023, Otting 551, Corbin 1570, Halse 1964, Cronquist 8253. Occasional, growing on gravelly ridges and rocky volcanic ash from Dry Creek and Leslie Gulch to Reynolds Creek and Cinnabar Mountain, above 1300 m. (*Arenaria nuttallii* Pax var. *fragilis* (Maguire & A.H. Holmgren) C.L. Hitchc.; *Minuartia nuttallii* (Pax.) Briq. var. *fragilis* (Maguire & A.H. Holmgren) Rabeler & R.L. Hartm.). OG.
- Sabulina nuttallii* (Pax.) Dillenb. & Katereit var. *nuttallii*. Packard 73-98, Packard 73-54, Smithman 1383, Smithman 0980, Packard 74-55, Carlson 49, Ertter 31, Glad 74-75a, Tiehm 17992. Growing on green ash tuff and talus from Owyhee Breaks to upper Succor Creek and at higher elevations in Jarbidge/Copper Mountains. (*Arenaria nuttallii* Pax. var. *nuttallii*; *Minuartia nuttallii* (Pax.) Briq. var. *nuttallii*). OG, OM.
- Sagina decumbens* (Ell.) Torr. & A. Gray ssp. *occidentalis* (S. Watson) Crow. Holmgren 16308, Tiehm 9063, Ertter 4486, Grimes 2132, Ertter 4287, Prentice 6044. From Silver City range to Bull Run, Independence and Jarbidge Mountains along dry streams in forests and meadows above 1800 m. JIB, OM.
- Sagina procumbens* L. Smithman 1954, George 254, Corbin 1403. Known only from Jordan Creek in Silver City range 1500 – 1800 m and on Juniper Mountain. OM.
- Sagina saginoides* (L.) H. Karst. Tiehm 10697, Holmgren sn, 20139, Ertter 6609. Known from highest elevations on South Mountain, Silver City range, Tuscarora area in Jarbidge Mtns. JIB, OM.
- Saponaria officinalis* L. * Bratz 80-55, Davis 4221. Reynolds Creek; Cow Creek; Marsing. OF, OM.
- Schizotechium jamesianum* Arabi, Rabeler & Zarre. Lytjen 57, 02-788, 2002602. Occasional to common in deep shade of canyons and riparian sites in middle to upper elevations. (*Stellaria jamesiana* Torr.; *Pseudostellaria jamesiana* (Torr.) W.A. Weber & R.L. Hartm.). JIB, OG, OM, OP.
- Silene douglasii* Hook. var. *douglasii*. 2002507, 03-335, 05-391, 07-345, Baker 8111. Occasional to common in open sagebrush at higher elevations. OG, OM, OP.
- Silene menziesii* Hook. 02-137, 2002553, 03-207. Uncommon in mesic shady habitats, e.g. under aspen; upper and middle elevations. BP, JIB, OG, OM, OP.
- Silene nuda* (S. Watson) C.L. Hitchc. & Maguire. 01-222, Bjork 4472, 2002696, Grimes 1070, Grimes 78-177, Smith 12488, Knoke 2017-31, Powell 2017-36. Rare to uncommon on ash slopes and thin, exposed rocky outcrops from Leslie Gulch to upper Little Owyhee River to Wickahoney Ck. and Independence and Jarbidge Mtns. (*Silene scaposa* Robins. var. *lobata* C.L. Hitchc. & Maguire). JIB, OG, OP. G4 IDS3.
- Silene oregana* S. Watson. Bratz 458-176, Baker 8111, 20362, Tiehm 11874. Rare in forested areas in Silver City Range: War Eagle, Reynolds Creek and New York Summit and in Jarbidge mountains. JIB, OM.
- Spergularia diandra* (Guss.) Held. & Sart. * Peck 21817, Otting 1010, McBride 514. Known from three collections in gravel bars from above Rome to Dry Creek and Boulder Ck. OG, OM, OP.
- Spergularia rubra* (L.) J. Presl. * 02-745, 2002720, Packard 71-339, Smithman 1936, 17443. Uncommon to occasional in seeps and moist areas above about 1300 m. OM, OP.
- Spergularia salina* J. Presl & C. Presl. * 02-263, Otting 796, Tiehm 10758, Bratz 274-55, Baker 8592. Rare in muds at Bull Ck., Dry Ck, and in alkaline sites in Reynolds Ck. and along the Snake River and Tuscarora. (*Spergularia marina* (L.) Grieseb.). OF, OG, OM, OP.

- Stellaria borealis* Bigelow ssp. *sitchana* (Steud.) Piper & Beattie. Corbin 1661, Corbin 1663. Rare in Sinker Tunnel and Sinker Ck./Mahogany Gulch. (*Stellaria borealis* Bigelow var. *sitchana* (Steud.) Fernald; *Stellaria calycantha* (Ledeb.) Bong. var. *sitchana* (Steud.) Fernald; *Stellaria calycantha* (Ledeb.) Bong. var. *bongardiana* Fernald). OM.
- Stellaria calycantha* (Ledeb.) Bongard. Christ sn. Prentice 6053, A. Holmgren 1674, Maguire 22459, 20368. In wet areas high in the mountains of Silver City, Independence and Jarbidge ranges. JIB, OM.
- Stellaria crispa* Cham. & Schlecht. Smithman 1913, Corbin 1508, Christ 14318. Rare; known only from streambanks and mossy seeps in deep shade in Silver City range. One record at ID (Christ 14318) is likely this. OM.
- Stellaria longifolia* Willd. 02-762, 05-131. Rare in mesic meadows near Three Forks of Owyhee River. OP.
- Stellaria longipes* Goldie ssp. *longipes*. 02-387, 2002369, 02-908, Otting 548, Harper 160. Occasional to common in riparian meadows; tributary creeks throughout the area. BP, JIB, OG, OM, OP.
- Stellaria media* (L.) Vill. Macbride 422. One historical collection within one mile of Silver City. OM.
- Stellaria umbellata* Turcz. Ex Kar. & Kir. 18538. At Emerald Lake wetland in Jarbidge Mtns. JIB.
- Vaccaria hispanica* (Mill.) Rauschert * Williams 791381. Known from one collection at a road cut south of Owyhee. OP.

CELASTRACEAE (see CROSSOSOMATAACEAE; see PARNASSIACEAE)

CERATOPHYLLACEAE

Ceratophyllum demersum L. 01-180b, 01-262, 02-295, 08-530, 02-831, 21391b, 23203.

Occasional submerged aquatic of shallow water at middle to lower elevations. OG, OP.

CHENOPODIACEAE (see AMARANTHACEAE)

CLEOMACEAE (formerly in CAPPARACEAE)

Cleomella hillmanii A. Nelson var. *hillmanii*. Brainerd 330, 2002090, 02-352, 03-015, Packard 74-41, Packard 71-16, Miller 34, Smithman 1976, 20074, Wernette 23, Patrick 33, Smith 9755, Smithman 1998, 20051073, 05-85. Occasional on ash outcrops from Rome, Chalk Basin to Owyhee Breaks, Leslie Gulch and Succor Ck. occasionally reaching as far E as Reynolds Ck. Pet (1.7) 2 – 6 cm, flts ovate elliptic, > 4 mm wide, 1.5 – 3 (3.2) X as long as wide. Stipes 5.8 – 12.8 (17.2). OF, OG, OP. G4G5 T4 IDS2.

Cleomella plocasperma S. Watson. 08506, Ertter 506, DeBolt 2550. Known only from alkaline seep by Crooked Creek Crossing west of Rome and east of Burns Junction and hot wells west of Bruneau. Pet < 2 cm, flts linear oblong < 4 mm wide, 3 – 10 X as long as wide. OF, OP. G4 IDS1.

Peritoma lutea (Hook.) Raf. Tanner 126, Trueblood s.n., 05-35, Ertter 14330. Uncommon to occasional in sandy barrens from Coyote Playa and Crooked Creek to below the Owyhee dam and along Owyhee Front to Bruneau. (*Cleome lutea* Hook.). BP, OF, OG, OP.

Peritoma platycarpa (Torr.) H.H. Iltis. 02-339, 15-085, Bratz B72-56. Uncommon on brown ash from Hole in the Ground to Succor Creek and Reynolds Creek drainages. (*Cleome platycarpa* Torr.). OG, OM.

Peritoma serrulata (Pursh) DC. 10-149, Tucker sn. Rare in greasewood along Owyhee Front. (*Cleome serrulata* Pursh). OF.

Polanisia dodecandra (L.) DC. ssp. *dodecandra*. Ertter 252, Packard 76-101. Along lower Owyhee River below the dam and on black ash. Possibly introduced from east central U.S. OG.

Polanisia dodecandra (L.) DC. ssp. *trachysperma* (Torr. & A. Gray) Iltis. 04-034. Known from only one location on gravels of Owyhee River north of Chalk Basin near Hoot Owl spring. OG. G5T5 ORSNR.

COMANDRACEAE (formerly in SANTALACEAE)

Comandra umbellata (L.) Nutt. ssp. *pallida* (A. DC.) Piehl. Smithman 2199, Tanner 38, Smith 10083, Lytjen 153, Bratz 222-48. Occasional in sagebrush communities at northern end of the area. I follow Nickerent et al. 2010 here. OF, OG, OM.

CLUSIACEAE (see HYPERICACEAE)

CONVOLVULACEAE (including former CUSCUTACEAE)

Calystegia sepium (L.) R. Br. ssp. *angulata* Brummitt. 02-122, 02-661, 2002722, 13-190d.

Uncommon to occasional in rocks at edge of Owyhee River between Hole in the Ground up to Battle Ck. OP. G5T5 IDS2.

Convolvulus arvensis L. * N 02-1013, 02-335B, 2002642. Occasional to common in disturbed gravels near water's edge at lower elevations. JIB, OF, OG, OM.

Cuscuta approximata Bab. * Smith 2990. Known to grow on *Lactuca serriola* in alfalfa fields in Owyhee Front. OF.

Cuscuta campestris Yunck. 01-174b, 2002742, 04-334, Samson sn, Peck 20047, Bjork 27144, Corbin 1496, Ertter 250/4, 02-1011, 06-146. Occasional to common in disturbed sites on *Salsola kali*, *Xanthium*, *Bidens*, *Lactuca*, *Euthamia*, and other taxa (*Cuscuta pentagona* Engelm. var. *calycina* Engelm.). OF, OG, OP.

Cuscuta indecora Choisy. Ertter 229, Ertter 237 Mancuso 1937. Occasional at lowest elevations below Owyhee dam and along Snake River; parasitic on *Xanthium*, *Atriplex*, *Bidens*, alfalfa and other hosts. OF, OG.

Cuscuta occidentalis Millsp. Tiehm 5427. Only confirmed in Duck Valley wetlands. (*Cuscuta californica* Hook. & Arn. var. *breviflora* Engelm.). OP.

CORNACEAE

Cornus stolonifera Michx. 02-634, 01-255, 03-207. Occasional to common in riparian zone at upper to middle elevations. (*Cornus sericea* L. ssp. *stolonifera* (Michx.) Fosberg). JIB, OG, OM, OP.

CRASSULACEAE

Crassula solieri (C. Gay) Meigen. Ertter 217, Brainerd 1438, Prentice 5098b. Rare; known in our area only from CCC Reservoir to Cow Lakes. Hardly distinguishable from *C. (Tillaea) aquatica*, which is not known from our area. OP. G4G5 ORS1?.

Sedum debile S. Watson. 09167, 02-602, 02-914, Grimes 1730, 18468b. Occasional in cliff crevices at upper elevations, West Little Owyhee to Bull Run and Jarbidge Mtns. JIB, OP. G4G5 ORS4.

Sedum lanceolatum Torr. Bratz 94-165, Grimes 72-49, Peter 74, 07414, 05250b, Baker 8036. Common in middle to upper elevations; Owyhee Front from Reynolds Creek to New York summit and South Mountain and Jarbidge Mountains. JIB, OM.

CROSSOSOMATAACEAE

Glossopetalon spinescens A. Gray var. *aridum* M.E. Jones. 2002644, 19-001, Grimes 1699.

Occasional in rock crevices and nearby gravels above high water at Owyhee Reservoir and Leslie Gulch, and canyons along the Owyhee Front and up Bruneau to Jarbidge area. BP, JIB, OF, OG, OM.

CUCURBITACEAE

Bryonia alba L. * N Corbin 1432. South of Marsing. OF.

CUSCUTACEAE (see CONVOLVULACEAE)

CYPERACEAE

Amphiscirpus nevadensis (S. Watson) Oteng-Yeb. Mancuso 3310. Rare; alkaline seeps at Crooked Creek. (*Scirpus nevadensis* S. Watson). OP.

Bolboschoenus fluviatilis (Torr.) Soják. 01-172, 02-350, 02-657, 03-252, Klott 563. Common along the Owyhee River but only at lower elevations, and along Snake River near Bruneau. (*Scirpus fluviatilis* (Torr.) A. Gray; *Schoenoplectus fluviatilis* (Torr.) M.T. Strong). OG, OP

- Bolboschoenus maritimus* (L.) Palla var. *paludosus* (A. Nelson) T. Koyama. Klott 604, Davis 4231, Ertter 568. Snake River from Bruneau Dunes to Grandview. (*Schoenoplectus maritimus* (L.) Lye; *Scirpus maritimus* L. var. *paludosus* (A. Nelson) Kük.). OF.
- Carex abrupta* Mack. George 273, Neilsen 1105, Lytjen 211, 20383, Bala 14-77, 17420, 17386, 18523, 07243. Uncommon in moist meadows throughout our region above 1550 m. JIB, OG, OM, OP. G5 IDS3 ORS3.
- Carex albonigra* Mack. Tuhy 2863 (BRY), Tuhy 2063. On summit plateau of and in alpine wetlands NE of Jarbidge Peak. JIB.
- Carex aquatilis* Wallenb. var. *aquatilis*. 04-306, 17413, Baker 8262, 08388, Ertter 21944, Corbin 1598. Uncommon in our region; North Fork Owyhee R. drainage and in northern Jarbidge Range; Sawpit Gulch. JIB, OM.
- Carex atherodes* Spreng. 15-228, 08-401, Otting 651. Rare in our region from the Tules on E. Fork Owyhee River to Jarbidge Mtns., and headwaters of West Little Owyhee River. JIB, OP. G5 ORS3.
- Carex athrostachya* Olney. 01-284, 02-016, 02-842, 02-436, 02-947, 2002340, 01-187, 05-485, 15-254, 15-255, 07263, 14-609, Hurd 11A-93, Hurd sn. Common along the river and riparian and wet meadow sites at all but the highest elevations. JIB, OG, OM, OP.
- Carex aurea* Nutt. 06-64, Lytjen 84, George 181, Irwin 9135. Uncommon in riparian woodlands; Dry Creek to Juniper Mountain, Nip and Tuck Ck. above 1800 m. OG, OM.
- Carex canescens* L. var. *canescens*. 0.8408, Maguire 22369, Klott 534, Nelson 2037, Lewis 3245, Tiehm 17990, Geertson 345. Uncommon at upper elevations on mossy slopes in juniper woodland in Silver City Range and in Jarbidge Mountains. JIB, OM. G4 ORS2.
- Carex cordillerana* Saarela & B.A. Ford. Geertson 345, 20103. Rare in shade of junipers, aspen or Douglas fir, with snowberry from 1500–1900 m in Silver City Range. OM. G3G4 IDS2.
- Carex douglasii* Boott ex Hook. 99-106, 02-374, 02-551, Findley 826, Otting 801, Lytjen 128. Common on alkaline, riparian benches at mainly lower to middle elevations. BP, JIB, OG, OM, OP.
- Carex filifolia* Nutt. var. *filifolia*. 654, 2002509, 02-632B, 2002574, 03-058, 07133, Corbin 1399. Uncommon to occasional, forming turfs in riverbed gravels and sands and riparian sagebrush communities at upper elevations, but not yet known from Nevada in our region. OP.
- Carex geyeri* Boott. Ertter 4454, Smithman 2122, Train 723, Tiehm 17966. Occasional in coniferous forest understory in Silver City and Jarbidge Ranges. JIB, OM.
- Carex haydeniana* Olney ex. S. Watson. Lewis 3267, Lewis 3738, Charlet 392. Known from high elevations in Jarbidge Mountains. One older collection (Davis 4571) from South Mountain not seen in recent years. JIB. G5? ORS4.
- Carex heteroneura* W. Boott var. *heteroneura*. 18599, Charlet 142, 08426, 18544, Tuhy 2866, Rink 16234. Rare in subalpine seeps, streams and meadows, Jarbidge Mountains. JIB. G5 ORS3.
- Carex hoodii* Boott ex Hook. 2002613, 02-548, 02-573, 05-417, Tiehm 9957, Nelson 1962. Occasional to common on mesic slopes at upper elevations throughout our region. JIB, OM, OP.
- Carex hystericina* Muhl. ex Willd. 2002657, 02-314, 02-324. Uncommon to occasional along Snake and Owyhee Rivers and tributary streams and seeps at lower and middle elevations. OF, OG, OP.
- Carex illota* L.H. Bailey. 18547, Rink 16178. Rare; Alpine lake margins in Jarbidge Mountains. JIB.
- Carex jonesii* L.H. Bailey. Rink 16231. Rare in Jarbidge Mountains. Hummingbird Spring area. JIB.
- Carex kelloggii* W. Boott var. *kelloggii*. Train 851, Baker 8049, Baker 7910, Smithman 1919, Smithman 1944. Rare; wet riparian areas in Silver City Range and Jarbidge Mountains. (*Carex lenticularis* Michx. var. *lipocarpa* (Holm) L.A. Standl.). JIB, OM.

- Carex lasiocarpa* Ehrh. Tiehm 10071, Atwood 11239, John 1217. Streamsides in Jarbidge Mountains. (*Carex lanuginosa* Michx.). JIB.
- Carex limosa* L Tiehm 17988. Known from one population in a sphagnum bog in Copper/Jarbidge Mountains. JIB. G5 IDS3.
- Carex luzulina* Olney. George 172, 08427, 08389, 04-307, 04-306b, Baker 7907, Corbin 1690, 17385, 18551, Lewis 3255, Lewis 3162, Maguire 22316, Tiehm 17977, Ertter 20354. Uncommon to occasional in high elevations seasonally wet areas; widespread in our area on Juniper Mountain, South Mountain, Silver City Range (Sawpit Gulch) and in Jarbidge Mountains; likely in Independence mountains. Reputed varieties merge in our region. (*Carex fissuricola* Mack.). JIB, OM.
- Carex microptera* Mack. 2002647, 02-595, 02-410, 02-820, Lewis 3125, Tiehm 9095, Grimes 1694, 04317, 05325, Grimes 1720, 05354, 07379, 07442, 07201, 08386, 12-303. Common along riparian areas and mesic woods at all except the lowest elevations throughout the region. (includes *Carex limnophila* F.J. Herm.). JIB, OG, OM, OP.
- Carex nebrascensis* Dewey. 02-383, 02-932, 03-285, 03-382, 05-394, Tiehm 5350, 05128, Irwin 9093, Irwin 9161. Common along streams and seeps all elevations throughout our region; more common higher. BP, JIB, OG, OM, OP.
- Carex neurophora* Mack. Manning 250. Known from one collection. Subalpine seeps in Jarbidge Mountains. JIB.
- Carex nigricans* C.A. Mey. Tuhy 2062, 18448, 18548. Locally common in alpine meadows in Jarbidge Mountains. JIB.
- Carex occidentalis* L.H. Bailey. Hurd 169002. Rare and disjunct from mountains to the southeast of our region; here known only from Bull Meadow in Reynolds Ck., likely extirpated there. OM. G4 IDS2.
- Carex pachycarpa* Cham ex Steud. 02-469, 05-418, 20051105, Baker 8240, Lewis 3641, 20374, 18503, 18531, 18532. Occasional to common along streams and rivers at middle and upper elevations in all ranges. (*Carex multicostata* Mack. misapplied). JIB, OM, OP.
- Carex pachystachya* Cham. ex Steud. 12-429, Irwin 9092, 18434, Grimes 2147, 04-234, 09-093, Bratz 488-176, 09124, 18549, Lytjen 211, 19253. Occasional to common and scattered in our area in seeps at upper elevations with *Carex nebrascensis* or *C. athrostachya* and willows. Common in subalpine mesic meadows in Independence and Jarbidge Mtns. JIB, OG, OM.
- Carex pellita* Muhl. ex Willd. 2002619, 02-159, 02-133, 02-135, 2002274, 01-84, 01-320, 08-513, Tiehm 15220. Common in riparian vegetation throughout, particularly at lower elevations but up to 1800 m. BP, JIB, OF, OG, OM, OP.
- Carex pelocarpa* F.J. Herm. Not known in our area, but collected (Tiehm 9969) in high Jarbidge Mountains less than 1 km south of Jarbidge drainage in Mary's River drainage. Likely present in our area in Jarbidge Mountains, thus included. Common in ranges N. of Snake River. (*Carex nova* Bailey misapplied). JIB, G4G5 ORS1.
- Carex petasata* Dewey. 02-475, 12-373, 12-328, Klott 434, Kramer 10141, 22460, Rink 16244. Rare on west side of range; known only from rocks along streamside at headwaters of West Little and North Fork Owyhee Rivers. Occasional on eastern side of range in Jarbidge Mtns and foothills. JIB, OM, OP.
- Carex phaeocephala* Piper. 09204b, 18475, Tuhy 2068, Tuhy 2862, Maguire 22297, Rink 16256. Known only from the high mountains---Porter Peak in Bull Run Mountains and in alpine dry meadows in Jarbidge Mountains. Probably also at high elevations in Independence Mountains. JIB.
- Carex praeceptorum* Mack. Maguire 22442, Maguire 22453. Rare in wet meadows at high elevations in Independence Mountains---disjunct from mountains of Central Idaho and Steens Mountain. JIB. G4G5 ORS3.

- Carex praegracilis* W. Boott. 02-557, 2002228, 02-558, 02-132, 04-011, Otting 562, Lytjen 78, 2002340, 2002729, Tiehm 5412. Common on riparian benches at all except the highest elevations across the region. JIB, OF, OG, OM, OP
- Carex raynoldsii* Dewey. Ertter 4481, Baker 8280, 20294, Holmgren 1683. Rare, in high elevation drying meadows; New York summit, upper Reynolds Creek and Sawpit Gulch, and northern Nevada ranges. JIB, OM.
- Carex rossii* Boott. Otting 2364, Otting 672, Tiehm 5209, Maguire 22357, 20103, Klott 535, Tiehm 18050. Uncommon to occasional in woodlands at upper elevations: West Little Owyhee; South Mountain, Silver City Range to Independence and Jarbidge Mountains. JIB, OM, OP.
- Carex scopulorum* Holm var. *bracteosa* (L.H. Bailey) F.J. Herm. Baker 7909, Tiehm 18064, 18446, 18461, 18603, 08428. Known only from historical collections in Sawpit Gulch in Silver City Range and occasional to common in subalpine streams and wet meadows in Jarbidge Range. JIB, OM.
- Carex sheldonii* Mack. 02-881, 03-117, 03-205, 8240 54, 15-212, Tiehy 9046, Klott 435. Uncommon in riparian meadows from Anderson Crossing to Chalk Basin, and in N. Fork and East Fork Owyhee (eg. The Tules) to Bull Run Mountains and Jarbidge region. JIB, OM, OP.
- Carex siccata* Dewey. 14-605, 21051. Rare; known now only from wetlands near Big Bend Campground in northern Nevada. JIB.
- Carex simulata* Mack. 07-400, Lytjen 53, Lytjen 110, 13-084, Padgett 2355, 09058. Uncommon to occasional in riparian meadows and flood plains across the range below 2100 m. OG, OM, OP.
- Carex stipata* Muhl. ex Willd. Macbride 920. Rare; One historical collection in wet areas near Silver City. OM.
- Carex stramineiformis* L.H. Bailey. Ertter 21993, Lewis 3636. Uncommon to rare: over 2600 m in Jarbidge Mountains. JIB.
- Carex subfusca* W. Boott. 07-401, 07402, 99-91, 99-39, 22459, 18503, 18532, Lewis 3224, Smithman 2166, Hurd 149001. Uncommon to occasional in dry riparian creek beds and near creeks below sagebrush/snowberry or aspen communities at upper elevations in West Little Owyhee R., Silver City Range, to Jarbidge Mountains. JIB, OM, OP.
- Carex utriculata* Boott. 2002511, Otting 647, 12-156, 13-185, 04-249, Padgett 2557, Lewis 3205, Lewis 3275, Lewis 3199. Uncommon to occasional in low spots in wet meadows and in standing water at stream and lake borders at upper elevations. BP, JIB, OM, OP.
- Carex vallicola* Dewey. 07180, 2002558, Otting 653, Otting 2366, Lewis 3437, Tiehm 5203, Tiehm 5112, 02-474, Irwin 9135, 19248, Klott 603, Klott 501. Uncommon to occasional in aspen groves, woodlands and gravelly slopes and with mountain big sagebrush from West Little to South Mountain to northern Nevada ranges. JIB, OM, OP.
- Carex vesicaria* L. 2002511, Otting 647, 12-156, Tiehm 18040, 13-185, Padgett 2557. Uncommon in low spots in wet meadows and at stream borders above 1200 m. JIB, OM, OP.
- Carex viridula* Michx. ssp. *viridula*. Button CB-V034, 01-253, Tiehm 9298, Tiehm 10769. Known only from Warm Springs above Three Forks and meadows in Bull Run and Jarbidge Mountains. (*Carex oederi* Retz.). JIB, OP.
- Carex vulpinoidea* Michx. 2002703. Rare; In ditches and slow water near Rome. OP.
- Cyperus bipartitus* Torr. Packard GDS 85, Grimes 221, Richards sn. Uncommon along Snake River and in Owyhee River gravels below Owyhee dam. (*Cyperus rivularis* Kunth). OF, OG.
- Cyperus erythrorhizos* Muhl. Richards 18, Ertter 22110, Corbin 1577, Klott 560. Uncommon along river gravels below Owyhee Reservoir and along Snake River. OF, OG.
- Cyperus esculentus* L. * 2002765. Uncommon in muds along the main Owyhee R. at Fletcher's Crossing and along Snaker River. OF, OG, OP.

- Cyperus squarrosus* L. 01-175b, 01-213, 2002712, Klott 765, 02-658, 02-1044, 02-080, 08-528, George 324. Common in sands and silts along the main Owyhee and Jarbidge Rivers and their lower tributaries. (*Cyperus aristatus* Rottb.). BP, OF, OG, OM, OP.
- Cyperus strigosus* L. 02-1040. Uncommon in muds along the river; Hole in the Ground to Leslie Gulch. OG.
- Eleocharis acicularis* (L.) Roem. & Schult. 2002698, Joyal 96, Ertter 536, Irwin 9260, Packard 76-111. Uncommon in sands at lower to middle elevations along the Owyhee River and streams, including Batch Lake and Bald Mountain area and in Jarbidge region. JIB, OP.
- Eleocharis bella* (Piper) Svenson. 2002709, Smithman 1900, 06-158, Tiehm 18044, Grimes 1279, 12-765, George 199, Packard 71-159, Packard 75-126. Occasional in sands beneath riparian willows at low and middle elevations, especially between South Mountain and main/East Fork Owyhee R.; also in Tuscarora and Jarbidge Mountains. (*Eleocharis acicularis* (L.) Roem. & Schult. var. *bella* Piper). JIB, OG, OM, OP.
- Eleocharis bolanderi* A. Gray. Irwin 9214, Tiehm 9065, Otting 660, Lytjen 73, Ertter 4290. Uncommon to occasional in muds at seeps and streams from around 1300 to 1950 m across the range. JIB, OG, OM, OP. G4 ORS2.
- Eleocharis engelmannii* Steud. Packard 76-128. One known population from Batch Lake. OP.
- Eleocharis palustris* (L.) Roem. & J.A. Schult. 01-202b, 01-292, 02-490, 99-139, 02-488, 02-575, 02-710, 06-197, 08-319, Smith 10077. Common in nearly all wetlands at all elevations. Locally abundant. (*E. macrostachya* Britton is included in this species complex as the two species overlap in our area.). BP, JIB, OF, OG, OM, OP.
- Eleocharis quinqueflora* (F.X. Hartmann) Schwarz. 02-433, 05-401. Uncommon in riparian meadows at upper elevations in West Little Owyhee drainage. (*E. pauciflora* (Lightf.) Link). JIB, OM, OP.
- Eleocharis rostellata* (Torr.) Torr. 03-260, Lytjen 113. Uncommon along middle Owyhee R. in Oregon near warm or alkaline springs: Warm Springs, Crooked Creek; stigmas 3, >2dm. OF, OP.
- Eleocharis suksdorfiana* Beauverd. 18447, Rink 16245, Rink 16220, Rink 16221. Uncommon in wet meadows in Jarbidge Mountains above 2600 m. JIB.
- Schoenoplectus acutus* (Muhl. ex Bigelow) A. & D. Löve var. *occidentalis* (S. Watson) S.G. Sm. Lytjen 106, 01-169, 01-86, 02-738, 02-146, 03-112, 06-226. Common emergent from slower water of the river, at all elevations up to 1500 m, and increasing at lower elevations. (*Scirpus acutus* Muhl. ex Bigelow var. *occidentalis* (S. Watson) Beetle). OF, OP.
- Schoenoplectus americanus* (Pers.) Volk. ex Schinz & R.Keller. 02-158, 02-360. Uncommon near seeps and springs, up to about 1100 (1600) m; common in warm springs. (*Scirpus americanus* Pers.; *Scirpus olneyi* A. Gray). OF, OG, OP.
- Schoenoplectus pungens* (Vahl) Palla. 02-711, 02-859b, 08523, 02-096, 13-152, 03-266. Very common in all riparian areas up to about 1300 m. Probably in Bruneau drainage, but not yet verified from there. Including var. *longispicatus*. (*Scirpus pungens* Vahl). OF, OG, OP.
- Schoenoplectus tabernaemontani* (C.C. Gmel.) Palla. 02-134, 02-163, 02-017, 03-152, 03-270B, 08-524, 13-030. Occasional emergent from slow water and seeps mostly at lower elevations; less common than the similar *S. acutus* in Oregon, but more common above Deep Ck. confluence up to about 1450 m. Not known yet from Bruneau drainage. (*Scirpus* C.C. Gmel.; *Scirpus validus* Vahl). OF, OG, OP.
- Scirpus microcarpus* J. Presl. & C. Presl. 01-231, 02-725, 02-629, 2002669, 06-211. Occasional to common along seeps and streams at all elevations. JIB, OG, OM, OP.

DIPSACEAE

- Dipsacus fullonum* L. * 2002631. Occasional in mesic disturbed sites at lower elevations. (*Dipsacus sylvestris* Huds.). OG.

EHRETIACEAE (formerly in BORAGINACEAE)

Tiquilia nuttallii (Hook.) Richardson. 02-169, 02-185, 02-329, 09-437, Klott 80. Uncommon in brown ash and sandy sites at lower elevations from Rome around Owyhee Front to Bruneau. OF, OG, OP.

ELAEAGNACEAE

Elaeagnus angustifolia L. * 02-237, 2002730, Brainerd 1094. Naturalized in spotty locations on Owyhee R. below Rome and on lower Bruneau River. OF, OG, OP.

Shepherdia argentea (Pursh) Nutt. Corbin 1633, Hitchcock 22297. Rare in our area; known only from one population near Rockville (presumably planted) and one near Crooked Creek. OG, OP.

Shepherdia canadensis (L.) Nutt. 21140, Tiehm 18571, Klott 537. Rare in Bull Run Mountains and eastern Jarbidge region above 1950 m. JIB.

ELATINACEAE

Bergia texana (Hook.) Seub. ex Walp. Murphy 2013, Tiehm 13048, Ertter 200. Rare, in wetlands including cattail marsh on Snake River Plain, at Cow Lakes and Owyhee Desert. OF, OP. G5 ORS3?.

Elatine californica A. Gray. Otting 2349, 15-352. Rare in muds of drying lakes and reservoirs. Known only in our area from Ryegrass Creek and south of Grasmere. Sepals 4, seed strongly curved, J- or U-shaped. BP, OP.

Elatine brachysperma A. Gray. reported in OF but not confirmed. Sepals 2-3, seed surface pits <16 per row, seeds straight or only slightly curved. OP. G5 ORS1.

Elatine rubella Rydb. 06-113, 99-110, Ertter 216, Trueblood 5, Brainerd 1406, Tiehm 9313, Davis 4278. Occasional in muds of drying lakes and reservoirs. Near West Little Owyhee and below Anderson Crossing Bruneau Plateau and Sunflower Flat. Sepals 2(-3); seed surface pits >14 per row, 1-2 x as long as wide, seeds straight or only slightly curved. BP, JIB, OP.

ERICACEAE

Chimaphila umbellata (L.) W.P.C. Barton. Tiehm 11879. Known from only one collection in Cougar Ck. Jarbidge Mountains. JIB.

Kalmia microphylla (Hook.) A. Heller var. *occidentalis*. 18432b, Charlet 106. In subalpine wet meadows in Independence and Jarbidge Mountains. (e.g. Jarbidge Lake). JIB.

Orthilia secunda (L.) House. 08360, 17435, 18587. Lewis 3271, Train 721. Seeps in aspen and subalpine fir in Jarbidge Mountains, on road to War Eagle and in Sawpit Gulch in Silver City range. JIB, OM.

Pyrola asarifolia Michx. ssp. *asarifolia*. Corbin 1615, Corbin 1672, Nelson 1900. Bull Meadows in Reynolds Ck.; Silver City (Blue Jacket mine). Historical collection at Bruneau "hot hole". OM.

Pyrola chlorantha Sw. Atwood 13181. One collection in northern Jarbidge Mountains. JIB.

Pyrola minor L. 17438, 08435, Corbin 1504, Corbin 1691, Corbin 1622. Subalpine creekside in Jarbidge Mountains, Silver City Range, Sawpit Gulch. JIB, OM.

Pyrola picta Sm. ex Rees. Corbin 1509, Tiehm 11878, 18461, 18528, 18558. On dry forested slopes in Jarbidge Mountains, War Eagle in Silver City range. (*P. dentata* Sm.). JIB, OM.

Rhododendron neoglandulosum Harmaja. 08420, Homgren 685, Tiehm 10791. Subalpine creeksides in Jarbidge Mountains. (*Ledum glandulosum* Nutt.; *Rhododendron columbianum* (Piper) Harmaja misapplied). JIB.

Vaccinium cespitosum Michx. Corbin 1667, Corbin 1688, Charlet 633. Sawpit Gulch south of Silver City and in Jarbidge Mountains. JIB, OM.

Vaccinium scoparium Leiberg ex Coville. 20375, Charlet 636. Known from only two populations in subalpine fir: north of Turntable Mountain and in Jarbidge Mountains. JIB, OM.

EUPHORBIACEAE

- Croton setigerus* Hook. Kaye 1041, Packard 76-156, Bjork 1917. Uncommon in dry disturbed areas along the river below Owyhee Reservoir and rarely along the Owyhee front. (*Eremocarpus setigerus* Benth.). OG, OF.
- Euphorbia glyptosperma* Engelm. Ertter 277, Otting 586, Baker 11154, Smith 14176, Smith 12449. Uncommon in muds or sands of drying shores at lower elevations. (*Chamaesyce glyptosperma* (Engelm.) Small). BP, OG.
- Euphorbia ocellata* Durand & Hilg. ssp. *arenicola* (Parish) Oudejans. Ertter 573, Bjork 2930, Bjork 1919, Davis 4662. Rare in sandy soils from Bruneau Dunes to west of Grandview. (*Chamaesyce ocellata* (Dur. & Hilg.) Millsp.). OF.
- Euphorbia serpyllifolia* (Pers.) Small. 02-283, 02-838b, 02-916b, Mancuso 2672, 09402b, 01-84, 2002611, 2002687, 2002431, 06-92. Common in sands and muds of all riparian areas and uplands in salt desert shrub communities. (*Chamaesyce serpyllifolia* (Pers.) Small). BP, OF, OG, OP.
- Euphorbia virgata* Waldst. & Kit. * N 01-300, 21384. Rarely seen weed; along North Fork of Owyhee R. to Flint Ck. (*Euphorbia esula* L.), OP.

FABACEAE

- Acmispon americanus* (Nutt.) Rydb. var. *americanus*. Bratz 472-155. Only one population known in our region (Reynolds Creek), though more are expected. (*Lotus purshianus* (Benth.) Clements & Clements). OM.
- Astragalus agrestis* Douglas ex. G. Don. G. Prescott sn., 04-219, Baker 14074, Ertter 4286, Grimes 1702, Tiehm 14590, Harloe 626. Uncommon in mostly wooded areas; from Jordan Valley and Silver City range to Sunflower Flat, to upper East Owyhee upper Jarbidge/Bruneau drainage near Riddle. BP, JIB, OM, OP.
- Astragalus alvordensis* M.E. Jones. 2002174, 05-70, Nielsen 5130003, Ertter 4309. Rare in our area on sandy soils with ricegrass from Spring Mountain and Jordan Valley to Rome and Coyote Playa. Not extending east into Idaho. OP. G4 ORS4.
- Astragalus anserinus* N.D. Atwood, Goodrich & S.L. Welsh. Tiehm 12895, Fredrick sn. Rare, known from our area only in silty big sagebrush flats along S. Fork Owyhee River near Idaho/Nevada border. OP. G2 IDS1 NVS2.
- Astragalus atratus* S. Watson var. *owyheensis* (A. Nelson & McBride) M.E. Jones. Klott sn, Mancuso 1660, Nachman 35-18, Holmgren 5803, Bjork 4326, Rosentreter 3405. Scattered from Sailor Creek and Inside Desert in Bruneau drainage across southern part of Owyhee Desert to Juniper Mountain and Reynolds Ck., only reaching Oregon just north of our region; rare in our area; mostly east and northwest of our region. BP, OM, OP. G4G5T3 IDS3 ORS3.
- Astragalus beckwithii* Torr. & A. Gray var. *weiserensis* M.E. Jones. Lytjen 28, 2002187, (2002259), 02-230, Corbin 1680. Uncommon to occasional on brown or dark ash slopes between Fletcher's Crossing and Dry Creek into upper Succor Ck. and Marsing to Grasmere. BP, OG, OM.
- Astragalus calycosus* Torr. ex S. Watson. 2002238, 02-243, 04-044, 05-15b. Uncommon on white ash on Owyhee Front, Chalk Basin, to West Little and East Fk. Owyhee and Owyhee Desert (IL Ranch). BP, OF, OP. G5 ORS1.
- Astragalus camptopus* Barneby. Smith 8693, Halse 1949, Ripley 6525. On carbonates and ashes between Murphy and Walters Ferry and south of Grandview and Bruneau along Owyhee Front (seems to be missing between Grandview and Murphy). Endemic to Owyhee Front. OF. G3 IDS3.
- Astragalus canadensis* L. var. *brevidens* (Gand.) Barneby. Holmgren sn, Atwood 11204, Train 595. Known from our region only in N. Nevada near Wildhorse Reservoir, Independence Mtns and upper Bruneau near Charleston. JIB.

- Astragalus caricinus* (M.E. Jones) Barneby. Grimes 1739, Corbin 1444, Peck 25928, Peck 25929, Mancuso 2666, Mancuso 1379. Uncommon; In vicinity of Bruneau, Marsing, and Adrian. OF.
- Astragalus cibarius* Sheldon. C. Brown sn, Stowell 2017-19. Northwest of Tennessee Mountain in Bruneau drainage of Nevada; reported from Little Jacks Ck. Western most extent of a species to our northeast and east. BP, JIB.
- Astragalus cicer* L. * Tiehm 17962. Along Jarbidge River below the townsite, 0.5 miles S of Idaho. JIB.
- Astragalus conjunctus* S. Watson var. *conjunctus*. 05-100, Otting 845, Huntington 42, Brainerd 1386, 21008, Packard 24-66, Brainerd 845. Occasional in big sagebrush and low sagebrush communities; a northwestern species reaching southeast as far as Dry Creek, Leslie Gulch, Owyhee Front and Silver City range. OF, OG, OM, OP. G4TNR IDS3 ORSNR.
- Astragalus curvicaarpus* (A. Heller) J.F. Macbr. var. *curvicaarpus*. 02-783, 04-060, 05-188, Packard 77-13, Smithman 08-04, Atwood 18131, Williams 82-134-3. Uncommon to occasional in big sagebrush communities, from Jordan Valley, to Middle Fork Owyhee and Red Canyon. JIB, OF, OG, OP.
- Astragalus cusickii* A. Gray. Ertter 1991, Ertter 8764, Alexander sn. A more northern species reaching our area into the lower Owyhee River to Gordon Gulch State Park, and possibly further south to Leslie Gulch. (*A. cusickii* A. Gray var. *cusickii*). OG.
- Astragalus eremiticus* E. Sheldon. 02-348, 02-351, 02-254, 03-012b, 2002024, Otting 747, 2002076a, 2002236, 2002245, 01-78, Otting 1608, 2002385, 2002584, 2002226, 2002285, 08-051, 97-106. Common in xeric, ash, and sagebrush communities in Malheur Co., uncommon in Owyhee Front to Grasmere and Riddle. Though mostly purple-flowered forms with linear-oblong leaflets occur below Rome and in Bruneau Plateau and mostly yellow-flowered forms with oblong-oval to round leaflets occur in the upper, southern part of the Owyhee Plateau, varietal distinctions are not warranted (yellow-flowered, narrow leaflet forms occur N. of Snake River.) BP, OF, OG, OP.
- Astragalus filipes* Torr. ex A. Gray. Otting 671, 02-325, 2002504, 20051107, Smith 7904. Occasional to common in dry sagebrush communities throughout our region. BP, JIB, OF, OG, OM, OP.
- Astragalus geyeri* A. Gray var. *geyeri*. 02-173, 20056220, 05-64a. Rare on sandy soils from Rome chalks to Chalk Basin, and from Murphy to Bruneau along Owyhee Front. OF, OG, OP. G4T4 ORS2.
- Astragalus iodanthus* S. Watson var. *diaphanoides* Barneby. 2002436, 04-026, 20051020, 02-349, 02-353, 2002171, 03-010, Otting 1579, Occasional to common in alkaline and ash communities at lower elevations along Owyhee Front to Adrian and up Owyhee River above Rome, but apparently not in Idaho south of the Silver City Range. BP, OF, OG, OP.
- Astragalus kentrophyta* A. Gray var. *jessiae* (M. Peck) Barneby. Grimes 1738, Grimes 1753, Peck 21270, Peck 21220. Locally common on ash at lower end of Owyhee River, Barren Valley, Adrian to Oreana to Bruneau. BP, OF.
- Astragalus kentrophyta* A. Gray var. *tegetarius* (S. Watson) Dorn. Atwood 12126, Holmgren 9924. Rare in subalpine and alpine rocky area in upper Bruneau Plateau to Coon Creek Basin in Copper Mountains. BP, JIB.
- Astragalus lentiginosus* Douglas ex Hook. var. *lentiginosus*. 03-030, 08-312b, Smith 10067. Uncommon to occasional generally at higher elevations with big sage and snowberry. BP, JIB, OF, OG, OM, OP.
- Astragalus lentiginosus* var. *platyphyllidius* (Rydb.) M. Peck. 2002214, 2002269, 02-779, 2002122, 03-011, 03-021, Ross 53. Common in all sagebrush communities middle to lower elevations. (*Astragalus lentiginosus* Douglas ex Hook. var. *chartaceus* M.E. Jones; *Astragalus lentiginosus* Douglas ex Hook. var. *araneosus* (Sheldon) Barneby). BP, OF, OG, OM, OP.

- Astragalus lentiginosus* Douglas ex Hook. var. *salinus* (Howell) Barneby. 02-604, Otting 591, 08-046. Uncommon to occasional generally in low sage scablands at upper elevations. BP, JIB, OG, OM, OP.
- Astragalus malacus* A. Gray. 04-036, Tanner 64, Otting 511, Corbin 1641, Tuttle 18. Uncommon in sagebrush and xeric scrub communities from Chalk Basin around to the Owyhee Front and Bruneau Plateau to middle elevations. BP, OF, OG, OM.
- Astragalus mollissimus* (Torr.) var. *thompsoniae* (S. Watson) Barneby. Hovis sn, Smith 14963, Smith 14992. Rare on chalk hills by Little Jacks Creek and Castle Creek; disjunct from main distribution southeast of us in southern Utah and Colorado. OF. G5T4, IDS1.
- Astragalus mulfordiae* M.E. Jones. Packard 76-92, Packard 80-24. Sandy soils along Owyhee River below the Reservoir and along Owyhee Front at lower elevations. OF, OG. G2 ORS1 LE IDS2.
- Astragalus multiflorus* (Pursh) A. Gray. Madsen 4137. In our area known only from ca. 2500 m NW of Mountain City in rocky soils on Skyline ridge. (*Astragalus tenellus* Pursh). JIB. G5 ORS1?.
- Astragalus newberryi* A. Gray var. *castoreus* M.E. Jones. 02-222, 04-006, 01-69, 02-780, 2002145, 2002018, 03-008, Atwood 23743, Moseley 3024, Ertter 6627. Occasional in ashy and gravelly soils from Anderson Crossing to Leslie Gulch and across Owyhee Front to vicinity of Bruneau. Fruits (11) 13 – 25 mm. Plants at east end of our range have unusually small flowers (Packard 76-16) and fruits (Ertter 14344) and may represent a new variety. OF, OG, OP.
- Astragalus nudisiliquus* A. Nelson. 02-231, 2002185, 03-096, 03-282, 200553107, Otting 1603, Corbin 1270, Corbin 1679, Atwood 12116. Uncommon to occasional at lower elevations on sandy brown ash between Fletcher's Crossing and Chalk Basin and east into Idaho from Marsing and extending up Bruneau watershed. BP, OF, OG, OP.
- Astragalus obscurus* S. Watson. 02-573b, 2002158, 2002583, 2002155, 05-62, Atwood 12134. Common in scabland low sagebrush flats and with big sagebrush throughout the area at all elevations. BP, JIB, OF, OG, OM, OP.
- Astragalus purshii* Douglas ex. Hook. var. *glareosus* (Douglas ex Hook) Barneby. Peter 74-91, 02-337, 05-17b, Packard 71-10. Uncommon to occasional to middle elevations, from brown ash from Chalk Basin and sometimes as far south as Rome, Three Forks and South Mountain. Large, purple flowers. BP, OF, OG, OM, OP.
- Astragalus purshii* Douglas ex Hook. var. *lagopus* (Rydb.) Barneby. 14-119, Burns 159, Brainerd 1395, 02-619, 03-119, 20056224, 17109, Otting 1606, Otting 1574, 09016, 06-136. Occasional with low sagebrush or alkaline ash beds and rhyolitic gravels from upper elevations to Pruitt's Castle, mostly on Owyhee Plateau rarely seen in Owyhee Front or Owyhee Graben. Small purple flowers, small fruits. OF, OG, OP. G5T4T5 IDS1.
- Astragalus purshii* Douglas ex Hook. var. *ophiogenes* (Barneby) Barneby. 22118, 17058, Grimes 1616, Smithman 1788, DeBolt 1091. Uncommon to occasional from Sinker Creek to Shoofly Creek area in lacustrine soils on the Owyhee front. Small purple flowers, small, coiled fruits. OF. G5T3 IDS3.
- Astragalus purshii* Douglas ex Hook. var. *purshii*. 2002098, 02-622, 04-122, 02-311, 02-494, 2002135, 03-070, 03-090, 03-224B, 06-125, 06-103. Very common in a variety of sagebrush and scrub communities across our entire range. Large, white flowers. BP, JIB, OF, OG, OM, OP.
- Astragalus purshii* Douglas ex Hook. var. *tinctus* M.E. Jones. 2002033, 2002143, Packard 78-74, Packard 79-47, 03-002, Otting 1605. Occasional in sagebrush and bunchgrass communities below Three Forks. Not extending into Idaho Owyhee region. OP.
- Astragalus salmonis* M.E. Jones. 02-582, 2002418, 2002544, 03-066, 05-58, 07-088, 08-068, 2002168, 2002225, 2002307, 2002405. Occasional in shallow, barren, clay soils and low

- sage scablands at upper elevations on across our range, though sometimes at lower elevations (only known from one location on Owyhee Front). BP, JIB, OF, OG, OM, OP.
- Astragalus solitarius* M. Peck. 01-77, 02-049, 02-172, 02-218, 2002108, 2002229, 2002278, 04-013, Brainerd 1108. Uncommon to occasional in ashy sagebrush slopes from Rome to Leslie Gulch. Not extending into Idaho. OG, OP. G3 NVS1.
- Astragalus sterilis* Barneby. Grimes 1059, 2002660, 07-075. Only on orange, brown or tan sands, gravels, and ash tuff from Birch Creek to Leslie Gulch and Succor Creek. (*Astragalus cusickii* A. Gray var. *sterilis* (Barneby) Barneby). OG. G5T2 IDS1 ORS2.
- Astragalus tetrapterus* A. Gray. 2002270, 2002119, 2002695, 04-018, 05-194, Brainerd 1099, Brainerd 1109. Locally common in white ash and sand from China Gulch to Fletcher's Crossing, but rare elsewhere. One record in Idaho south of Bruneau. OG, OP. G4G5 IDS1.
- Astragalus toanus* M.E. Jones. Duft sn., Smithman 08-43. Occasional Oreana to Bruneau along Owyhee Front, rarely up into the Owyhee Mountains or west to Owyhee Graben. OF, OG, OM.
- Astragalus whitneyi* A. Gray var. *confusus* Barneby. Richards 77-236, Grimes 1762, Rosentretter 239, Bratz sn., Rink 16252. At highest elevations in Silver City Range and Jarbidge Mountains. Flowers purple to sometimes cream. JIB, OM.
- Astragalus yoder-williamsii* Barneby. DeBolt 808, DeBolt 1529, Smith 3568, Baker 8107, Tiehm 12861. Juniper Mountain and North Fork Owyhee River to Mudflat Road—from about 1500 m southwest of Grandview to North Fork Owyhee and to Hat Peak in Owyhee Desert. OM, OP. G3 NVS1 IDS1S2.
- Caragana arborescens* Lam. * Irangabiye 41, 17016. Introduced Siberian tree found at old ranch sites or homesteads; Succor Ck. State Park. OG.
- Dalea ornata* (Douglas ex Hook.) D.C. Eaton & Wright. 01-199, 02-116, 02-101. Common on brown ash at lower elevations. (*Petalostemon ornatus* Douglas ex Hook.). BP, OF, OP.
- Glycyrrhiza lepidota* Nutt. ex Pursh var. *glutinosa* (Nutt.) S. Watson. 01-85, 02-978, 2002258. Common in lower riparian zone along rivers and major tributaries in low to middle elevations. BP, OF, OG, OP.
- Ladeania lanceolata* (Pursh) A.N. Egan & Reveal. 02-323, 20051077, Klott 430, Davis 854. Rare in sandy, tan ashy barrens from Rome north to Hole in the Ground and in vicinity of Bruneau. (*Psoralidium lanceolatum* (Pursh) Rydb.; *Psoralea lanceolata* Pursh). OF, OG, OP.
- Lathyrus grimesii* Barneby. DiNicola 14-77, Smith 11867. Rare; Upper Jack's Creek, Independence Mountains endemic. JIB. G2 NVS2.
- Lathyrus lanszwertii* Kellogg var. *lanszwertii*. 2002674, 22081, Halse 1159, Smith 5909. Uncommon along tributary streams such as Birch Ck. and scabby sites. OG.
- Lathyrus pauciflorus* Fernald var. *pauciflorus*. Packard 78-213, Smithman 0971, Schmidt 08, Gross 202, Baker 7868. Narrow-leaflet form uncommon to occasional on sandy, sagebrush slopes of Leslie Gulch and Owyhee Breaks. Broad-leaflet form is rare along streams in Silver City Range. Narrow-leaflet form may need description as distinct variety(?). OG, OM.
- Lathyrus pauciflorus* Fernald var. *utahensis* (M.E. Jones) Piper. Smithman 1856, Corbin 1545, Grimes 1745, Macbride 927, Bratz B107-135, Glad 72-129a. Occasional in deep loamy soils in Douglas fir forests of Silver City Range. OM.
- Lathyrus rigidus* T.G. White. Lytjen 32, Joyal 350. Known only from Dry Creek to Barren Valley and Sheepshead Mountains. OP.
- Lotus tenuis* Waldst. & Kit ex Willd. Otting 1595A, Lytjen 105, 02-693, Tiehm 18731, 02-361, 02-793, 01-237, 2002677, 04-017b, Klott sn. Common in riparian meadows at all elevations, only in Idaho in Silver City area. (*Lotus corniculatus*; *L. tenuifolius* L.; *Lotus glaber* Mill.) Plants in our area vary continuously in form from the diploid *L. tenuis* to the polyploid *L. corniculatus*. Here I put all into *L. tenuis*. OG, OM, OP.

- Lupinus arbustus* Douglas ex Lindl. Packard 73-102, 08329, 05251. Common on sagebrush-dominated slopes at middle elevations (900 to 2400 m) throughout our region, though apparently uncommon if not wholly absent from the middle and upper Owyhee and tributaries in Oregon. Distinct spur and wings with tuft of hairs at tip. Distinctive smell. BP, JIB, OG, OM, OP.
- Lupinus argenteus* Pursh var. *argenteus*. Peck 25762, Henderson 8128, Otting 839, Maguire 26397, Joyal 1167, Otting 924, Joyal 4872, 02-942, 97-116, 07-291, 05435, 03-229, 97-133. Common throughout the region in Oregon at all elevations, in sagebrush and edges of vernal sites and streamsides. Seems to just enter Idaho near Pleasant Valley, but grading into the smaller-flowered var. *holosericeus* in vicinity of Juniper Mountain. OG, OP, OM.
- Lupinus argenteus* Pursh var. *heteranthus* (S. Watson) Barneby. Brummitt 21880, 02-648b, 05-229, Joyal 1168, Andrews 1936. Occasional in bunchgrass and sagebrush communities near rimrock in higher elevations from just east of Oregon/Idaho border occasionally occurring throughout the western part of our range, reaching to Duck Valley. (*Lupinus caudatus* Kellogg var. *caudatus*). More common to west in Steens Mountain region. OG, OM, OP.
- Lupinus argenteus* Pursh var. *holosericeus* (Nutt. ex Torr. & A. Gray) Barneby. 2002348, Smith 12520, Otting 520, many Owyhee Co. collections. Uncommon in sagebrush with bunchgrasses at higher elevations in Malheur Co., but this variety is common in Idaho. It is largely replaced in Oregon by the larger-flowered var. *argenteus*. A form with attenuate keel, white flowers, and flowers sparse on the raceme in Owyhee Canyon from Deep Creek to Three Forks and possibly also Bruneau may warrant a name (reserve Kanaka in honor of local residents, cf. P.L. Packard). Some specimens approach *L. leucophyllus*, but that species has shorter pedicels and longer, narrower and more compact racemes. That species is not found in the Owyhee flora. BP, OP, OM.
- Lupinus argenteus* Pursh var. *parviflorus* (Nutt. ex Hook. & Arn.) C.L. Hitchc. 14-389, J.B. Glad 72-130. Rare in cool, mesic sites along streams at middle to higher elevations; Silver City, Sawpit Gulch to East Fork Owyhee River. Leaves plane and adaxially glabrous, otherwise much like var. *holosericeus*. OM, OP.
- Lupinus argenteus* Pursh var. *utahensis* (S. Watson) Barneby. 02-528, 02-397, Packard 73-47, 03-031, 03-089, 03-229, 05-490, 07-371, Peck 21714, Smith 11741. Common in sagebrush communities at upper elevations from northern Nevada to Silver City Range and less commonly into eastern Oregon. Spur about 1 mm; flowers larger than var. *holosericeus*. (*Lupinus caudatus* Kellogg ssp. *caudatus*). JIB, OM, OP.
- Lupinus argenteus* Pursh var. *rubricaulis* (Greene) S.L. Welsh. Holmgren 6302. Known in our area only from recently melted snowbank in Independence Mountains. JIB.
- Lupinus brevicaulis* S. Watson. 2002146, 2002192, 2002244, 2002246, 05-16. Occasional to common in clay openings in big sagebrush communities in southern part of our area; In southern Malheur Co. across YP desert to Riddle area. BP, OG, OP.
- Lupinus lepidus* Douglas ex Lindl. var. *sellulus* (Kell.) Barneby. Packard 79-14, 01-226. Uncommon in riparian gravel bars from Fletcher's Crossing to below Owyhee dam; more northerly than the next and below 1200 m. OG.
- Lupinus lepidus* Douglas ex Lindl. var. *lobbii* (A. Gray ex S. Watson) C.L. Hitchc. Tiehm 9036, Tiehm 18453, 99-40, 07-259, 2002374, 02-756, 02-463, 05-213b, Otting 632, Packard 78-296, 76-184, 78-297, Brainerd 2381, Tiehm 17951. Common in riparian meadow and gravelly bars at all elevations—mostly above 1200 m. This common dwarf, Owyhee lupine varies continuously from the small end of var. *sellulus* to mostly intermediate between *L. lepidus* var. *lobbii* and var. *sellulus* (Kell.) Barneby, to “good” var. *lobbii*, though at much lower elevation than in that variety's typical alpine setting. Many of our plants have basal tufts rarely exceeding 6 cm, leaflets rarely exceeding 10 mm, and inflorescences less than 5 cm long. Unlike var. *lobbii* on Steens Mountain, our plants have larger inflorescences (2-5

- vs. 2-3 cm), peduncles sometimes exceeding the foliage by up to 5 cm, and narrower (1-2 vs. 2-3 mm), more silvery leaflets. JIB, OG, OM, OP.
- Lupinus lepidus* Douglas ex Lindl. var. *utahensis* (S. Watson) C.L. Hitchc.). 05126, 14-126, 14-053, Prentice 6094, Prentice 6095. Rare in our area in meadows, in Mahoganies of N. Nevada, near Toy Pass in Silver City Range, and along North Fork of Owyhee just over border into Idaho, thus, expected in that area in Oregon. Western extent of range here in northern part of Owyhee country. (*Lupinus caespitosus* Nutt. var. *utahensis* (S. Watson) Cox). JIB, OM.
- Lupinus polyphyllus* Lindl. var. *burkei* (S. Watson) C.L. Hitchc. Corbin 1331, Trueblood sn, Packard 73-86, Brown 36, Horch 25. Uncommon in mesic sites in sagebrush from Dry Creek through Leslie Gulch to Succor Creek and Reynolds Creek entering our area from the western Great Basin in Oregon. (*Lupinus burkei* S. Watson ssp. *burkei*). Tall, keel ciliolate, leaflets large and acuminate OG, OM.
- Lupinus polyphyllus* Lindl. var. *humicola* (A. Nelson) Barneby. Packard 70-159a, Bratz sn, Ertter 14619, 7167, 08-056, 5199, Morse 1451, 22416. Uncommon in shallow rocky soils with sagebrush throughout our range in the northeast foothills of Owyhee to Jarbidge Mountains. Adaxial leaf surface silky strigulose. JIB, OM.
- Lupinus polyphyllus* Lindl. var. *prunophilus* (M.E. Jones) L. Phillips. 2002012, Truksa 41, Irangabiye 45, Klott 540, 22469, Halverson 90. Uncommon in our area in big sagebrush communities; known along Oregon/Idaho border and near Crooked Ck., Mahogany Mtn. and Leslie Gulch and reaching to 1800 m in W. Fork Bruneau R. and Jarbidge foothills. Yellow-flowered form known as *L. biddlei* L.F. Hend. ex C.P. Sm. is included here. BP, JIB, OG. (ranked as *L. biddlei*) G3 ORS3.
- Lupinus pusillus* Pursh. 02-174, 2002432, Smith 9436, Baker 10210. Locally common in sandy and alkaline xeric scrub sites at lower elevations across the Owyhee Front, less common up the lower Owyhee River to lower Owyhee Plateau. (varieties *pusillus* and *intermontanus* intergrade and are often indistinguishable in our region.) OF, OG, OP.
- Lupinus saxosus* Howell. 2002157, 2002219, 2002284, 2002384, 05-154, 08-190, 11-166, 12-078, 03-053, 03-093, Dean 232, Corbin 1228, Bratz 101-109. Occasional in shallow, clay soils of middle to upper elevations in low sage or bigsage, mostly in Malheur Co. but extending into southern Owyhee Co. to Independence Mountains. (*Lupinus polyphyllus* Lindl. var. *saxosus* (Howell) Barneby). Plants < 4dm, Keel ciliolate, lflets < 45mm. BP, JIB, OG, OM, OP.
- Lupinus sericeus* Pursh. Bala 14-86, Smith 12097, Christ 19522, Madsen 4154, 22424. In our region only in N. Nevada from headwaters in mountain meadows of Bruneau and Jarbidge R. tributaries, and one historical collection just east of Delamar; more common to our north. JIB, OM.
- Lupinus uncialis* S. Watson. 2002034, 2002039, 2002281, 03-087, 04-019b, Otting 1600. Uncommon in rocky, gravelly soils in sagebrush communities at all elevations from lower Owyhee R, up to southern Malheur and southern Owyhee county to vicinity of Mountain City in Elko Co. Tiny annual lupine with no more than 2 flowers per raceme. BP, OP. G4 IDS3.
- Medicago lupulina* L. * 02-692, 2002640, Olson 142. Occasional to uncommon in riparian meadows at middle elevations across our range. JIB, OG, OP.
- Medicago sativa* L. * 02-125, 2002653. Uncommon to occasional in riparian areas, roadsides at lower to middle elevations. BP, OF, OG, JIB.
- Melilotus albus* Medik. * 02-269, 02-728. Common in disturbed, moist soils at lower elevations. BP, OF, OG, OP.
- Melilotus officinalis* (L.) Lam. * 02-205, 02-730. Common in disturbed, moist soils at lower elevations. BP, OF, OG, OP.
- Onobrychis viciifolia* Scop. * 04267, 14-457, Smith 12009. Occasional in N. Nevada, naturalizing near roads and campgrounds. JIB.

- Peteria thompsoniae* S. Watson. Klott 382, Rosentreter 1731, 10131. Bruneau Indian Bathtub and benches above Bruneau River. OF. G4 IDS3.
- Robinia pseudoacacia* L. * 2002103, 02-1020. Occasionally naturalized near settlements, such as Birch Ck. OG, OM.
- Thermopsis montana* Nutt. var. *montana*. 2002375, 20051101, 22474. Occasional in riparian meadows and gravel bars at upper to middle elevations. (*Thermopsis rhombifolia* (Nutt.) Richardson var. *montana* (Nutt.) Isley). BP, JIB, OM, OP.
- Trifolium cyathiferum* Lindl. 02-757, 2002441, 20051087. Occasional in seeps and wet places at upper and middle elevations. BP, JIB, OG, OM, OP.
- Trifolium dubium* Sibth. * Olson 142. Known from single location near Three Forks in gravels by river pools and reported but not vouchered in Idaho Owyhee region. OP.
- Trifolium eriocephalum* Nutt. var. *cusickii* (Piper) J.S. Martin. Kotter 74/36, Tiehm 12882, Bjork 4457. Rare at reservoir edges and silty floodplains, at Cow Lakes and in Owyhee desert. (*Trifolium eriocephalum* Nutt. ssp. *cusickii* (Piper) J.M. Gillett). BP, OP.
- Trifolium fragiferum* L. * 02-859, 2002737, Otting 946, Lytjen 289. Occasional in seeps and alkaline springs from above Three Forks to below Rome, and in Reynolds Ck. to Bruneau Hot Springs and Owyhee Front. OF, OG, OP.
- Trifolium gymnocarpon* Nutt. 20051031, Rosentreter 188, 08-179, 08-449, Rosentreter 1315, Smith 14234, Findley 128, Curto 1573. Rare, on flat, gravelly soils from silver sage playa near Toppin Butte and South Fork Owyhee, to Mud Flat Rd and Jarbidge Mountains from 1500 to 2500 m. JIB, OG, OM, OP.
- Trifolium hybridum* L. * 02-872, 03-268. Uncommon on gravel bars at mid to upper elevations. JIB, OM, OP.
- Trifolium leibergii* A. Nelson & J.F. Macbr. 05-102, 09-15, 09-21. Rare, on barren, ashy gravels near Idaho border and Mahoganies, also just east of Jarbidge Range. JIB, OP. G3 NVS2 ORS2.
- Trifolium longipes* Nutt var. *hansenii* (Greene) Jeps. 2002425, 2002454, 02-434, 02-552, 2002520b, 05-411. Common in riparian meadows at upper elevations. (*Trifolium longipes* Nutt. ssp. *hansenii* (Greene) J.M. Gillett; *Trifolium longipes* Nutt var. *nevadense* Jeps.). JIB, OM, OP.
- Trifolium macrocephalum* (Pursh) Poir. 03-071, Tiehm 18354, DeBolt 912, Atwood 12041, Alexander 988, Ottenlips 118. Common in clay depressions in sagebrush communities mostly at upper elevations on Owyhee Plateau. JIB, OG, OM, OP.
- Trifolium microcephalum* Pursh. Joyal 971, Lytjen 62, Lytjen 130, 06-110, Ertter4492, Smithman 567, Bratz 254-124, Klott 399. Uncommon in riparian areas from Antelope Creek down to Dry Creek, Bruneau, Jordan Ck. Reynolds Ck. BP, JIB, OG, OM, OP.
- Trifolium owyheense* Gilkey. Smithman 0970, Ertter 44, DeBolt 1119. Local endemic; occasional in gravels from Owyhee Breaks to Leslie Gulch. OG. G2 IDS1 ORS2S3 LE.
- Trifolium pratense* L. * Bratz sn., Ertter sn, Luce 40, 09042. Uncommon at scattered locations in disturbances. OF, OM, OP.
- Trifolium repens* L. * 01-304, Lytjen 90, Bratz 632-36, Shield 72-14. Occasional in riparian meadows, mostly at middle elevations, Reynolds Ck., Bruneau, Jarbidge. BP, JIB, OG, OM, OP.
- Trifolium variegatum* Nutt. ex Torr. & A. Gray var. *major* Lojak. 07-369. One disjunct population of a California variety in vicinity of Larribeau Reservoir in upper West Little Owyhee River. OP.
- Trifolium variegatum* Nutt. ex Torr. & A. Gray var. *variegatum*. 02-758, Lytjen 129, 05-403, 07-271, 09-24. Occasional in riparian, gravelly meadows at middle elevations throughout the western part of our range. OM, OP.
- Trifolium wormskioldii* Lehm. 02-834, 02-726, Lytjen 87, 05-400b, Kramer sn. Occasional in seeps and meadows at upper and middle elevations. BP, JIB, OG, OM, OP.

Vicia americana Muhl. ex Willd. Lytjen 79, Packard 79-21, 12-029, 15-166, Prentic 6076, 02-028, Smitman 2057, Bratz 107-135, Grimes 1163, Baker 13034, Otting 163. Uncommon in mesic sagebrush and riparian zones in the lower Owyhee R. drainage and in Owyhee Mountains between about 1000 and 1500 m. (*V. americana* var. *americana*; *V. americana* var. *truncata* (Nutt.) W.H. Brewer ex S. Watson). OG, OM, OP.

FUMARIACEAE (see PAPAVERACEAE)

GENTIANACEAE

- Centaurium tenuiflorum* (Hoffm.s. & Link) Fritsch. Otting 923. Rare in ephemeral stream channels, Dry Creek. (*Centaurium muelenbergii* (Griseb.) W. Wight ex Piper). OP.
- Frasera albicaulis* Douglas var. *cusickii* (A. Gray) C. L. Hitchc. Grimes 1077, 05-392, Packard 72-44, Packard 71-280b, 14-199, Klott 367. Occasional on sagebrush slopes from headwaters of W. Little to Leslie Gulch, Cow Ck, Juniper Mtn. and Jarbidge. (*Swertia albicaulis* (Douglas ex Griseb.) Kuntze var. *cusickii* (A. Gray) J. Pringle). OG, OM, OP.
- Frasera speciosa* Douglas ex Griseb. Smith 11917, Legler 14538, Charlet 2276, Stowell 2017-11. Uncommon in meadows Mahoganies in N. Nevada. JIB.
- Gentiana affinis* Griseb. Grimes 1272, Baker 8587, Baker 8505, Tiehm 18046, Kramer sn, Rink 16245.2, Tiehm 18543. Rare in wet meadows above 1800 m from Silver City Range to Jarbidge Mountains and historically near Riddle. JIB, OM.
- Gentiana calycosa* Griseb. Tiehm 10060, Tiehm 10049. Rare in alpine meadows and lakesides in Jarbidge Mountains. JIB.
- Gentianella amarella* ssp. *acuta* (Michx.) J. Gillett. Holmgren 1680. In alpine meadow Bear Ck. Meadows. JIB.
- Swertia perennis* L. Tucker sn. Only known from one historical collection in Squaw Creek. OM. G5 ORS2.
- Zeltnera exaltata* (Griseb.) G. Mans. 02-702, 01-236, 08-496, Otting 923, Baker 8308, Corbin 1657, Klott 808, Klott sn. Uncommon in alkaline muds; Owyhee Springs, Briar Springs (SW of Murphy), upper Owyhee Desert and Jarbidge region. (*Centaurium exaltatum* (Griseb.) W. Wight ex Piper). JIB, OG, OP.

GERANIACEAE

- Erodium cicutarium* L. * 2002032. Common weed in disturbed sites at lower elevations across our area. BP, OF, OG, OP.
- Geranium carolinianum* L. 08515, 13-114, 15-173, Baker 8622, Prentice 5863. Known from rhyolite at Warm Springs, Reynolds Ck., in the "Tules", West Fork of Jarbidge River and Cow Ck. BP, OG, OM, OP.
- Geranium richardsonii* Fisch. & Trautv. 07384, Madsen 4162. Rare in our area along riparian areas at higher elevations from W. Little Owyhee R. to Jarbidge region in headwaters of Bruneau and Jarbidge Rivers. JIB, OM, OP.
- Geranium viscosissimum* Fisch. & C.A. Mey ex C.A. Mey var. *incisum* (Torr. & A. Gray) N.H. Holmgren. 02-459, 2002504b, 07-384. Common in mesic sagebrush and meadow sites of higher elevations throughout the range. (includes *G. viscosissimum* var. *nervosum* (Rydb.) C.L. Hitchc. and *G. strigosum* Rydb.). BP, JIB, OG, OM, OP.

GROSSULARIACEAE

- Ribes aureum* Pursh var. *aureum*. 02-020, 02-179, 2002015. Occasional to common in rocks in riparian zones at all elevations up to 2150 m throughout our range. BP, JIB, OF, OG, OM, OP.
- Ribes cereum* Douglas var. *cereum*. 02-082, 02-479b, 2002059, 03-054, 06-91b. Common on rocky benches and rocks at all elevations across our range. BP, JIB, OG, OM, OP.
- Ribes hudsonianum* Richards var. *petiolare* (Douglas) Jancz. McBride 915, Tiehm 15216. Rare; two historical collection in Silver City Range and in Jarbidge Mountains around 2100 m, and only one more recent collection. JIB, OM.

Ribes inerme Rydb. var. *inerme*. 2002351, 12-464, Smith 3004. Uncommon in shady canyons across the southern end of our range from about 1200 to 2150 m. JIB, OM, OP.

Ribes montigenum McClatchie. 15-384, Grimes 2117, Corbin 1665, Pinzl 13413, 18581. Uncommon from Silver City to the Independence and Jarbidge Mountains, above 2150 m. One historical collection (MacBride 918) from streambanks around 2150 ft near Silver City approaches *Ribes lacustre* (Pers.) Poir., which is common in mountains north of Snake River Plain. JIB, OM.

Ribes niveum Lindl. 02-841, 03-076, Sanford 476, Dean 126, Dean 255. Occasional in deep shady canyons of upper Owyhee and Bruneau and Jarbidge Rivers, generally from 1100 to 2300 m. BP, JIB, OM, OP.

Ribes velutinum Greene. 02-292, Cronquist 8128, Peck 21812, Peck 20058, Joyal 783, Corbin 1643. Uncommon in rocks, seeps and creeks along rivers and streams across the range below 1800 m. BP, OG, OM, OP.

Ribes viscosissimum Pursh var. *viscosissimum*. Bratz 112-165, Smithman 1822, Molsee sn., Crocket 390, Smith 10957. Uncommon in forested or shady, moist habitats from Jordan Craters, Silver City Range and Owyhee Front to Bruneau River. OG, OM.

HALORAGACEAE

Myriophyllum sibiricum Kom. 02-743, 02-831, 02-900. Common in still water of the Owyhee River forks above Rome and Duck Valley. OP. G5 ORS3.

HELIOTROPIACEAE (formerly in BORAGINACEAE)

Heliotropium curassavicum L. var. *obovatum* L. Thompson 95-386, 08-518. Rare from Owyhee State Park to the Snake River, and at Crooked Creek crossing west of Rome. Rare in our area—distributed more widely to the west of us. OG, OP. G5 ORS2.

HYDRANGEACEAE

Philadelphus lewisii Pursh. Smithman 904, Trueblood s.n., Brainerd 429, Lytjen 287. Occasional at lower elevations in rocks along Owyhee River below the reservoir and in Snake River tributaries east to Jump Creek where common in northern end of Owyhee Front. Not known upriver or further southeast. OF, OG.

HYDROCHARITACEAE

Elodea bifoliata St. John. 13-190b. Rare in slow water of Owyhee River. Known near the "Tules". OP.

Elodea canadensis Rich. ex Michx. 01-261. Uncommon submergent the Owyhee River above Three Forks. OP.

Najas flexilis (Willd.) Rost. & Schmidt. 21428. Rare in pools along N. Fork Owyhee R. near Three Forks. OP.

Najas guadalupensis (Spreng.) Magnus. 06-221, 02-744. Known only from pools along the Owyhee River between Soldier Creek and Three Forks. OP. G5 ORSNR.

Najas marina L. Murphy 2013. One population in a pond near Bruneau. OF.

HYDROPHYLLACEAE (see also NAMACEAE)

Hesperochiron californicus (Benth.) S. Watson. 02-560, Peck 20622, Findley 738, Irwin 40. Uncommon in alkaline meadows at upper elevations. OG, OM, OP.

Hesperochiron pumilus (Douglas ex Griseb.) Porter. 02-524, 2002304, 03-043, 05-51b. More common than the former. In vernal wet meadows and balds of sagebrush communities at upper elevations. BP, JIB, OG, OM, OP.

Hydrophyllum alpestre A. Nelson & P.B. Kenn. 14-030, Packard 71-192, 14-240, 11-051, Larrison sn, Irwin 9150, 08179c, 03-041, 2002350, Peter 74-95. Common in loamy sagebrush/bunchgrass communities at all elevations above about 2400 m throughout our region. Unusual forms with very open inflorescences having pedicels up to 3 cm can be found throughout our range. (*H. capitatum* Douglas ex Benth. var. *alpinum* S. Watson). JIB, OG, OM, OP.

- Hydrophyllum capitatum* Douglas ex Benth. var. *capitatum*. Brainerd 466. Very rare in moist sagebrush steppe in our range entering from the northwest of us near Dry Ck. Very common to the north. OG.
- Nemophila breviflora* A. Gray. 02-481, 2002051, 2002161, 2002426, 03-005, 03-081, 08-025. Common in riparian shrub understory and in mesic north-facing sagebrush slopes at all elevations. JIB, OG, OM, OP.
- Nemophila kirtleyi* L.F. Hend. Mancuso 627, Rosentreter 46. Known only on moist, rhyolitic gravels in Jump Creek canyon around 900 m; ours is the southernmost extension of the species; more common to the north. OF.
- Nemophila parviflora* Douglas var. *austinae* (Eastw.) Brand. Packard 71-291, Bratz 115-128, Packard 72-74a, Grimes 1647. Uncommon from Juniper Mountain, Silver City Range and Merritt Mountain to Independence Mountains. JIB, OM.
- Nemophila pedunculata* Douglas ex Benth. 02-381, 02-464, 2002371, 2002334, Irwin 9156. Common in moist riparian understory at upper and middle elevations. JIB, OG, OM, OP.
- Phacelia bicolor* Torr ex S. Watson var. *leibergii* (Brand) A. Nelson. 2002092, 2002254, 2002190, Heckendorn 107, Nielsen 5130013. Occasional in xeric sands and ash at lower elevations from Coyote Playa to Rome and north to Owyhee Reservoir area. Not reaching Idaho. (*Phacelia leibergii* Brand). OG, OP.
- Phacelia glandulifera* Piper. 2002250, Brainerd 329, 05-29, Corbin 1539, 15-068, Otting 525, Smith 8671. Uncommon to occasional on sandy soils and sandy ashes at lower elevations from Malheur Co. to Owyhee Front and Bruneau. OF, OG, OP.
- Phacelia gymnoclada* Torr. ex S. Watson. 02-109, 02-240, 02-275, Nielsen 1010, Heckendorn 103, 02-182, 03-108, 04-001, 05-81. Occasional in sand and ash slopes at lower elevations in Malheur Co. not extending into Idaho. OG, OP. G4 ORS3.
- Phacelia hastata* Douglas ex Lehm var. *alpina* (Rydb.) Cronq. 12-454, 08455, Bratz 400-93, Bratz 362-94, Wight 35, Graber 121. Uncommon; above 6000 ft in Jarbidge and Silver City range, but extending to lower elevations in Reynolds Creek, south of South Mountain, and into Jordan Craters. JIB, OM, OP.
- Phacelia hastata* Douglas ex Lehm var. *hastata*. 02-797, 02-426, 02-257, 08-313b. Common and widespread in gravel bars and sagebrush communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Phacelia heterophylla* Pursh var. *heterophylla*. 02-774, 03-082. Occasional in partially shaded bunchgrass communities from Silver City Range and South Mountain to the Middle Fork canyon, Jarbidge area and scattered throughout. BP, JIB, OG, OM, OP.
- Phacelia humilis* Torr. & A. Gray. 02-406, Otting 2379. Rare to uncommon in aspen groves at highest elevations from Hoppin Springs, West Little Owyhee R.; not extending to Idaho. OP.
- Phacelia incana* Brand. DeBolt 1127. One collection in Dry Ck., Idaho near the Oregon border represents the only possible record between east central Idaho and central Nevada. This collection, though closest to *P. incana* may represent a new species, as it has glandless hairs, smaller corolla, and is absent of internodes. But it has not been relocated following several attempts in recent years. OG.
- Phacelia inundata* J.T. Howell. 2002389, 03-217, 99-60. Uncommon in barren, chalky soils of microplayas at middle elevations in southern Malheur Co. Not extending into Idaho. OP. G3 ORS2.
- Phacelia ivesiana* Torr. Prentice 950023, Bjork 11011, Davis 874. Rare on sandy soils on Swan Falls dam to south of Bruneau. OF.
- Phacelia linearis* (Pursh) Holz. 02-023, 02-620, 2002356, 03-144. Common with sagebrush increasing at lower elevations. OG, OM, OP.
- Phacelia lutea* (Hook. & Arn.) J.T. Howell var. *calva* Cronquist. Davidson 11847, Packard 7115, 1037, Packard 77-18, 97-152b, 10007, Roach 051, 08035b, Smithman 2021. Restricted to Succor Creek from Sands Basin to upper Succor Ck. OG. G4T3 ORS2.

- Phacelia lutea* (Hook. & Arn.) J.T. Howell var. *lutea*. 02-347, 2002169, 02-340, Brainerd 326, Corbin 1638. Occasional to common in depressed clay playa soils and ash beds, northwestern Owyhee region (Dry Ck., Owyhee Breaks, Succor Ck. to Strodes Basin and Owyhee Front) but extending to southern Malheur and Owyhee Cos. at low elevations. OF, OG, OM, OP.
- Phacelia lutea* (Hook. & Arn.) J.T. Howell var. *mackenzieorum* J.W. Grimes & P.L. Packard. Smithman 1391, Packard 74-61, Ertter 45, Packard 78-37a. Rare on ash outcrops; Owyhee Breaks to Leslie Gulch. OG. G4T1T2 ORS1 SOC.
- Phacelia minutissima* Henderson. Bratz 353-157, Smith 12041, Anderson sn, Atwood sn. Rare; Reynolds Creek and Big Bend Campground and Copper Road. JIB, OM. G3 IDS2 ORS1.
- Phacelia ramosissima* Douglas ex Lehm. var. *eremophila* (Greene) J.F. Macbr. Bratz 381-93, Grimes 1727, Corbin 1461, 08238, Polito 099. Uncommon from Silver City Range to northern Nevada in our region. JIB, OM.
- Phacelia ramosissima* Douglas ex Lehm. var. *ramosissima*. 03-140B, 02-291. Rare on mesic rocky canyon slopes; known only below Rome along the Owyhee River. OG.
- Phacelia ramosissima* Douglas ex Lehm. var. *subglabra* M.E. Peck. Smith 11859. Rare; known in our region only from Independence Mountains. Varietal distinctions in our area may be questionable. JIB.
- Phacelia rattanii* A. Gray. Otting 573, 02-844, 2002600, 14-396, 13-131, Irwin 13-063, 12-219b. Occasional in deep shade of rocks in canyons mainly at lower to middle elevations throughout our range. BP, OG, OM, OP.
- Phacelia scopulina* (A. Nelson) J.T. Howell var. *scopulina*. Packard 78-60, 0510, 20051008, 20051042, Brainerd 354, 07255, Baker 14057, Brainerd 354. Uncommon on white ash outcrops from Rome south in Malheur Co.; also historically known from Reynolds Ck in Owyhee Front and Grasmere area. (*Phacelia lutea* (Hook. & Arn.) J.T. Howell var. *scopulina* (A. Nelson) Cronquist). BP, OG, OM, OP. G4TNR IDS1.
- Phacelia sericea* (Grah.8) A. Gray var. *ciliosa* Rydb. 05238, Peter 74-164, Corbin 1378, Baker 7973, Smith 11974, 08339. Hayden Peak, War Eagle in Silver City Range, South Mountain; Jarbidge Mountains. JIB, OM.
- Phacelia tetramera* J.T. Howell. 2002231, Tiehm 15641, Hitchcock 22293. Rare in alkaline, clay, saline soils on ash and with greasewood; known in our area only from Owyhee Springs and Calico Mtns. Apparently barely reaching into Idaho. OG, OP. G4 ORS2.
- Phacelia thermalis* Greene. 99-70, 03-224, Otting 857, Rosentreter 6608, Baker 1305, Prentice 5613, 97-161b. Rare to uncommon in playas and microplayas in sagebrush from about 1200 to 1800 m Oregon; in Idaho, rare from vicinity of Jordan Ck to East Fork Owyhee at Wiley Ranch, and Twilight Gulch. OG, OM, OP. G3G4 IDS1 ORSNR.

HYPERICACEAE

- Hypericum anagalloides* Cham & Schlecht. Packard 71-243, Smithman 1901, George 182, George 246. Juniper Mountain to Silver City Range and collected just south of our range in Jarbidge Mountains, where it is likely within our range. JIB, OM.
- Hypericum scouleri* Hook. 17405, 02-585, 01-315, 07-389b, Bala 14-57d, Baker 8056, Baker 8484, DeBolt 1751. Common along rivulets, streams and rivers at upper to middle elevations. BP, JIB, OG, OM, OP.
- Hypericum perforatum* L. * N Tiehm 9302. Known along Jack Creek in Independence Mountains and reported but unvouchered in Leslie Gulch. (Findley, pers. comm.). JIB, OG.

IRIDACEAE

- Iris missouriensis* Nutt. Packard 72-35, 14-059, Hipwell 109, Smith 2500, Smith 16538, Smith 11954. Locally common in wetland meadows in upper Owyhee and Bruneau basins. BP, JIB, OG, OM, OP.
- Olsynium douglasii* (A. Dietr.) E.P. Bicknell var. *inflatum* (Suksd.) Cholewa & D.M. Hend. 08093, 08-178b, Grimes 3076, Smithman 0994, Thiem 15188, Trueblood sn., Packard 70-

19, Packard 70-248, Maguire 26293. From Silver City Range to mountains of N. Nevada, above 1700 m, Interestingly stopping at the Oregon border. JIB, OM, OP.

Sisyrinchium idahoense E.P. Bicknell var. *occidentale* (E.P. Bicknell) D.M. Hend. Lytjen 85, 05-408, 20051080. In riparian meadows from upper elevations to as low as Crooked Creek.

JIB, OG, OM, OP.

JUGLANDACEAE

Juglans nigra L. * Thompson 95370a, Bratz sn, 10099. Lake Owyhee State Park, occasionally naturalizing along rivers at low elevations and abandoned ranches in Owyhee Mtns. OG, OM.

JUNCACEAE

Juncus articulatus L. ssp. *articulatus*. Ertter 22116, Packard 71-40, 99-144, Corbin 1669.

Uncommon in northwestern part of our area; Squaw Creek and Dry Creek to Snake River, as high as Coal Mine Basin; mostly below 1400 m. OF, OG.

Juncus balticus Willd. ssp. *ater* (Rydb.) Snogerup. 02-208, 02-092, 02-142, 02-922, 05-398.

Common in nearly all riparian communities, increasing at higher elevations. (*Juncus arcticus* Willd. ssp. *littoralis* (Engelm.) Hultén; *Juncus arcticus* Willd. var. *balticus* Willd.). BP, JIB, OF, OG, OM, OP.

Juncus bryoides F.J. Hermann. Ertter 4483, Ertter 3784, Ertter 3778, Grimes 1683, Tiehm 5267.

Uncommon in moist swales New York summit near Silver City to Bull Run and upper Bruneau drainage. JIB, OM. G4 IDS2 ORS2.

Juncus bufonius L. var. *occidentalis* F.J. Herm. 02-067, 02-258B, 02-344, 03-196, 06-119.

Common in riparian sands at all elevations. BP, JIB, OF, OG, OM, OP.

Juncus confusus Coville. 02-492, 02-567, 02-460, 03-378B, 20051104, 06-152, Andrews 720, Smithman 1905, Smithman 1965, 17396, George 290. Common in wet riparian meadows at mid to upper elevations. JIB, OG, OM, OP.

Juncus drummondii E. Mey. 08433, 07447, 17439. Uncommon in our area, from wet seeps in Silver City and Jarbidge Ranges above 2300 m. JIB, OM.

Juncus dudleyi Wiegand. 01-215, 01-232, 03-255, Ertter 258. Occasional in seeps and along the Owyhee River from Three Forks to the Snake River confluence. Not seen yet in Idaho portion of our range. OG, OP.

Juncus ensifolius Wikst. 2002646, 04251b, 06-176, 03-243, Klott 613, Klott 123, 03-374, Smithman 2159, Clark 13. Occasional to common in riparian meadows and along seeps and creeks at all elevations across the range, more common at higher elevations. 800 to 2000 m. BP, JIB, OG, OM, OP.

Juncus hemiendytus F.J. Hermann var. *abjectus* (F.J. Hermann) Ertter. Ertter 3782, Rosentreter 1786, Brainerd 1448, Brainerd 1462. Rare in vernal wet pond edges; Mudflat Road southeast of Jordan Valley, drying reservoirs in Louse Canyon, to Sunflower Flat around 1900 m. JIB, OM, OP. G5T5 IDS1S2 ORS2?.

Juncus hemiendytus F.J. Hermann var. *hemiendytus*. Packard 71-161, Ertter 3770, 06-155, Ertter 4485, Ertter 1981, Ertter 3779, Brainerd 1437. Uncommon to rare in vernal wet areas southwest of Rome, Southeast of Jordan Valley, Juniper Mountain, Bull Run and Independence Mountains, War Eagle. JIB, OM. G5T5 IDS2.

Juncus longistylis Torr. 01-233, 02-455, Otting 603, 08-499, Tiehm 18465, Klott 4335.

Uncommon in wet meadows and alkaline seeps above 1200 m throughout our range. JIB, OG, OM, OP.

Juncus mertensianus Bong. 08392, 08-438b, 07428, Baker 7908. Occasional from War Eagle Mountain to Jarbidge in wet meadows and seeps above 2100 m. JIB, OM.

Juncus nevadensis S. Watson var. *nevadensis*. 02-491, 02-596, 2002502, 05-399, 20051088, 02-946, 02-921, 02-923, 06-151, Rink 16140, Lewis 1313. Common in wet meadows, playas, and streams at middle to upper elevations throughout our range. JIB, OG, OM, OP.

- Juncus orthophyllus* Coville. 99-154, Bratz sn, Smithman 2103, 05377, Lytjen 244, Otting 838, Lewis 3436. Uncommon to occasional at middle to upper elevations in dry, rocky stream channels in from Dry Creek to Jordan Creek, to Reynolds Ck. to north of Mud Flat road near Triangle and Jarbidge area.. Apparently mainly in northwestern end of our range. JIB, OM, OP.
- Juncus parryi* Engelm. 04-322, Tiehm 10046, 20378. Rare in riparian meadows at upper elevations in headwaters of W. Little Owyhee and Jarbidge Mtns. JIB, OM, OP.
- Juncus regelii* Buchenau. Bratz 324-174, 20112. Rarely collected by streams in fir and aspen zone of Silver City Range and Jarbidge Mountains. JIB, OM.
- Juncus saximontanus* A. Nelson. 07-272, 99-128, 99-142, 03-379, Otting 976, 09056, Graber 102b, Rink 16223, Rink 16204. Uncommon in meadows, wetlands, and riparian banks at all elevations. (*Juncus ensifolius* Wikstr. var. *montanus* (Englm.) C.L. Hitchc.; *Juncus ensifolius* Wikstr. var. *brunnescens* (Rydb.) Cronquist). BP, JIB, OM, OP.
- Juncus tiehmii* Ertter. Tiehm 4289, Ertter 4484, Ertter 4289, Ertter 3776. Very rare. New York summit, 1800 m – 2300 m. Independence Mountains, Sunflower Flat. JIB, OM. G4 IDS1 ORS1?.
- Juncus torreyi* Coville. 01-197, 01-210, 02-857, 2002648, 2002681, 06-229, Corbin 1658. Occasional to common in riparian communities at lower to middle elevations along the Owyhee River in Oregon, and less common along the Owyhee Front and across to Bruneau Plateau. OF, OG, OP.
- Juncus trilocularis* Zika. Lytjen 238, Lytjen 249, 14-148, 12-392, 06-172, 02642. Ephemeral stream channels and meadows, from Dry Creek and Rome area in Oregon to Triangle and Juniper Mountain in Idaho. (*Juncus brachyphyllus* Wiegand misapplied). OG, OM, OP.
- Luzula multiflora* (Ehrh.) Lej. ssp. *multiflora*. 07149, Baker 8057, Baker 8165, Corbin 1468. In deep shade of aspens or streamsides in Owyhee Mountains from North Fork to Silver City. OM.
- Luzula parviflora* (Ehrh.) Desv. 04303, Kramer 10116, Padgett sn. Subalpine meadows in Jarbidge Mountains. JIB.
- Luzula spicata* (L.) DC. 18458. In mesic subalpine meadows in Jarbidge Mountains; known only from meadow by Jarbidge Lake, but likely elsewhere in that range. JIB.

JUNCAGINACEAE

- Triglochin maritima* L. Bowden 46, 02-708, 08-500, Otting 2337, Hawkes sn. Uncommon; found only in alkaline springs and seeps in vicinity of Rome and IL Ranch in our region. (*Triglochin concinna* B. Davy var. *debilis* (M.E. Jones) J.T. Howell). OP.
- Triglochin scilloides* (Poir) von Mering & Kadereit. 02-576, Irwin 9263, Mancuso 1720, Smith 3671, Holmgren 7968, Tiehm 5420. Uncommon; on muddy substrates of streams, playas and reservoirs from W. Little Owyhee across southern Oregon and Idaho to near Riddle and into N. Nevada. (*Lilaea scilloides* (Poir.) Hauman). OM, OP. G5 IDS3 ORS3?.

LAMIACEAE

- Agastache urticifolia* (Benth.) Kuntze var. *urticifolia*. 2002472, 03-233, 05-429. Occasional in mesic, rocky sites at higher elevations. JIB, OG, OM, OP.
- Dracocephalum parviflorum* Nutt. Molsee 1619, Train 570. Very rare if not extinct in our region; Bruneau Hot Falls and upper E. Fork Bruneau River. (*Moldavicia parviflora* (Nutt.) Britt.). BP, OF.
- Lamium amplexicaule* L. * 08256. One collection near Maggie Summit. JIB.
- Lycopus americanus* Muhl. ex W. Bartram. 02-957, Ertter 270. Occasional on muddy shores along Owyhee River from Rome to Leslie Gulch. OG, OP.
- Lycopus asper* Greene. 02-1042, 02-957. Occasional in wetlands and muddy shores of Owyhee River and tributaries at lower elevations. OG.
- Marrubium vulgare* L. * 2002430. Uncommon weed of disturbed sites at lower elevations. BP, OF, OG, OM, OP.

- Mentha canadensis* L. 02-305, 02-716, 01-176, 08-514, Nichols 543. Common in riparian meadows and gravels at all elevations across our range. (*Mentha arvensis* L. var. *canadensis* (L.) Kuntze misapplied). BP, JIB, OF, OG, OM, OP.
- Mentha xpeperita* L. Hagwood 588. One collection from Bruneau Plateau. BP
- Mentha spicata* L. * Packard GDS-27. Known in our area only along the Snake River near Guffy Butte. OF.
- Monardella angustifolia* Elvin, Ertter & Mansfield. 02-225, 02-250, 22844, 21363, Ertter 21891. Leslie Gulch to upper Succor Ck., restricted to white consolidated tuffaceous ash. Recently described local endemic. OG. G1 IDS1 ORS1.
- Monardella odoratissima* Benth. 02-924b, 2002586, 06-131. Common on gravels and rocks at all elevations, not in Leslie Gulch. BP, JIB, OM, OP.
- Nepeta cataria* L. * 2002639. Uncommon in disturbed seeps and creeks at lower elevations. OG, OM.
- Pogogyne serpylloides* (Torr.) A. Gray. 99-76, 03-220, Wigglesworth 118. Rare in silver sage playa between Toppin Ck and Main Owyhee River and in a vernal silver sage playa on the Idaho Owyhee Plateau; reported but not confirmed near Riddle. OP. G5 IDS1 ORS1.
- Prunella vulgaris* L. var. *lanceolata* (W.P.C Barton) Fernald. Klott 545. Known only along Jarbidge River upriver from Murphy Hot Springs. Possibly more widespread. JIB.
- Salvia dorrii* (Kellogg) Abrams var. *dorrii*. Ertter 3785, 10121, Davis 19, Packard 73-70, 14310, Ertter 14340. Occasional on ash outcrops and barren, gravelly slopes at lower elevations. OG, OP.
- Salvia dorrii* (Kellogg) Abrams var. *incana* (Benth) Strachan. Prentice 5227, 14-114, Smithman 951, Irwin 9223, 14-012, 17054, 19045, 15-025. Common on shaly, ash outcrops and barren, gravelly slopes at lower elevation. Most specimens are intermediate between the two varieties of this species. OF, OG, OM, OP.
- Scutellaria angustifolia* Pursh ssp. *micrantha* Olmstead. 2002198, 03-084, Brainerd 365, Brainerd 415, Otting 807. Occasional on gravelly soils at middle to lower elevations. (*Scutellaria antirrhinoides* Benth misapplied to our plants.). JIB, OF, OG, OM, OP.
- Scutellaria galericulata* L. 03-287, 13-214, Tiehm 9008, Klott 615, 15-226, 13-107. Rare to uncommon, known only in riparian meadows scattered from lower Owyhee River to Bruneau and Jarbidge Rivers. BP, OP.
- Scutellaria nana* A. Gray. Packard 79-54, 03-180, 09-23. Uncommon in sandy sites from Louse Canyon to Chalk Basin and the Idaho border. BP, JIB, OG, OM, OP.
- Stachys pilosa* Nutt. 02-735, Shields 72-9, 13-202, Klott 338. Rare along Bruneau and Owyhee Rivers from lower to middle elevations. (*Stachys palustris* L. var. *pilosa*). BP, OP.
- Teucrium canadense* L. var. *occidentale* (A. Gray) McClintock & Epling. GDS 24, 15-229, DeBolt 2115, Klott 572. Rare; Guffy Butte, the Tules, and C.J Strike Reservoir. OF, OP. G5T5? IDS2.

LEMNACEAE (see ARACEAE)

LENTIBULARIACEAE

- Utricularia macrorhiza* Leconte. Packard 76-114, 06-94b, Joyal 945. Known only from Batch Lake and ponds of Jordan Craters. (*Utricularia vulgaris* Leconte ssp. *macrorhiza* (Leconte) R.T. Clausen). OP.

LILIACEAE (see also AMARYLLIDACEAE, MELANTHIACEAE, and ASPARAGACEAE)

- Calochortus bruneauensis* A. Nelson & J.F. Macbr. 02-062, 02-171, 2002594. Occasional in barren areas within sagebrush communities. Ranges across southern Idaho and scattered locations beyond. BP, JIB, OG, OM, OP.
- Calochortus eurycarpus* S. Watson. Nichols 433, Christ 4505. Rare in our range; known only from two collections from Bruneau to NE of Mountain City (Merritt Mountain). Common north of Snake River. BP, JIB.

Calochortus macrocarpus Douglas var. *macrocarpus*. 02-646. Occasional in big sagebrush communities at middle to lower elevations. OG, OM, OP.

Fritillaria atropurpurea Nutt. 10060, 2002378, Andrews 739, 08-076, Harloe 528, Irwin 9114. Uncommon in gravel bars and riparian meadows and aspen stands from Mahogany Mountain to Anderson Crossing, Silver City Range, and Northern Nevada ranges. BP, JIB, OG, OM, OP.

Fritillaria pudica (Pursh) Spreng. 2002068, 03-003, Irwin 9067. Occasional to common in early spring in open slopes at lower elevations. BP, JIB, OF, OG, OM, OP.

Prosartes trachycarpa S. Watson. Charlet 2649. Known from only one collection in Moores Gulch just NE of Jarbidge townsite around 2000 m. JIB.

LIMNANTHACEAE

Floerkea proserpinacoides Willd. 2002424, 2002474. Uncommon to occasional in seeps, springs, and meadows at upper elevations. JIB, OM.

LINACEAE

Linum lewisii Pursh. * 02-556, 02-216, Tanner 129, 03-011, Klott 102. Occasional from riparian, ash and sagebrush communities throughout the region at all elevations. Both native (homostylous) and adventive (heterostylous) forms are present, though most are adventive. BP, JIB, OF, OG, OM, OP.

LINDERNIACEAE (formerly in SCROPHULARIACEAE)

Lindernia dubia (L.) Pennell. Ertter 22108, 2002755. Uncommon in muddy shore of Owyhee R. and tributaries from reservoir up to Fletcher's Crossing. OG, OP.

LOASACEAE

Mentzelia albicaulis (Douglas ex Hook.) Douglas ex Torr. & A. Gray. 02-748, 2002252, 02-078, 02-338, 02-486, 2002064, 2002181, 02-188, 03-019, 04-024, 05-191, Smith 8682. Common in xeric ash and scrub communities at all elevations. BP, JIB, OF, OG, OM, OP.

Mentzelia congesta (Nutt.) Torr. & A. Gray. 05-43. Very rare on alkaline, sandy barrens at Crooked Creek crossing south of Burns Jct. Only appears in some years (e.g. 2005 and 2018). OP. G5 IDS1 ORS1.

Mentzelia dispersa S. Watson. 02-627, 02-811, 2002512, 2002630, 03-216, 04-025, 04-023, 05-190. Occasional in playas and riparian sands and gravels at all elevations across the range. BP, JIB, OF, OG, OM, OP.

Mentzelia laevicaulis (Douglas ex Hook.) Torr. & A. Gray var. *laevicaulis*. 02-698B, 2002663. Occasional to common in gravelly soils at lower elevations. JIB, OF, OG, OM, OP.

Mentzelia mollis Peck. Browkaw 240, Smith 14085, 22801, Smithman 2032, Ertter 9211. Endemic on brown ash outcrops in Succor Creek. OG. G2 IDS2S3 ORS2 LE

Mentzelia montana (Davidson) Davidson. Brockaw 308, 08019. Apparently rare but widespread; two populations along Hwy 95; French John Hill to Rockville. OG.

Mentzelia packardiae Glad. Packard 74-64, Packard 76-141, Ertter 43, Ertter 37, Smithman 0971. Uncommon on green ash-tuff; narrowly endemic to Leslie Gulch. OG. G2 ORS2 LT.

Mentzelia torreyi A. Gray var. *acerosa* (M.E. Jones) Barneby. Grimes 1743, Smith 14967 Molsee 3029, Tucker sn, 10133. Endemic from Murphy to Twin Falls. On consolidated, typically brown ash in Glens Ferry Formation; Owyhee front from Guffey Butte, Grandview and Shoofly Ck. to Bruneau drainage. OF.

Mentzelia veatchiana Kellogg. Peck 21790, Baker 12955, Hufford 4099, Baker 12947, 22046, 08019. Uncommon; four miles south of Rome to Succor Ck and Owyhee Front to Rabbit Creek. Only appears in some years. OF, OG, OM, OP.

LYTHRACEAE

Ammannia robusta Heer & Regel. Larson 10327. Rare; in muds along the Snake River. OF. G5 IDS1S2, ORSNR.

Lythrum salicaria L. * N 01-265, Smith 13002. Uncommon along the river at low to middle elevations. Becoming well established in recent years. OF, OP.

Lythrum tribracteatum Salzm. ex Ten. * Bratz 279-55. One known occurrence in Reynolds Creek. OM.

MALVACEAE

Iliamna rivularis (Douglas ex Hook.) Greene. 2002492, Rink 16241. Uncommon in low sage scablands or other open sites at upper elevations. JIB, OM, OP.

Malva neglecta Wallr. * 02-1016, 2002429. Weed occasional in disturbed sites at lower elevations. OF, OG, OM, OP.

Malvella leprosa (Ortega) Krapov. 2002656, Baker 14012, Baker 8450, Klott 570, 02966. Uncommon in gravels near Owyhee Reservoir, to Succor Ck. and Bruneau River. OF, OG. *Sidalcea neomexicana* A. Gray. Atwood 12139, Tiehm 10696, Joyal 843, George 186, Klott sn. Black adobe soil in Barren Valley, Juniper Mountain and headwaters of West Fork Bruneau River. JIB, OM, OP. G4 ORSNR.

Sidalcea oregana (Nutt.) A. Gray ssp. *oregana*. 99-49, 03-234, Lytjen 55, 05-396, 07-350. Occasional in riparian areas of tributaries: West Little Owyhee to Dry Creek, Owyhee ranges and into Elko Co. BP, JIB, OG, OM, OP.

Sphaeralcea coccinea (Nutt.) Rydb. Hitchcock 21040 Smith 8711, Smith 8692, 15-005. Rare in clay soils with big sagebrush along the Owyhee Front southeast of Oreana. OF, OP.

Sphaeralcea grossulariifolia (Hook. & Arn.) Rydb. 2002275, 02-540, Smithman 2259, Smith 9435, 14-013, 9319, Duft 72. Common in sagebrush and rimrock at all elevations.

Approaches both *S. coccinea* and *S. munroana*. BP, JIB, OF, OG, OM, OP.

Sphaeralcea munroana (Douglas ex. Lindl.) Spach ex A. Gray. 02-238, 2002260, 02-516, Bambans 2017-16, Smith 12517, Smith 12541, Lytjen 165, Carrol NV930-A25. Occasional in sagebrush slopes and rimrock at mostly upper elevations. Specimens of this from N. Nevada (e.g. IL Ranch and Wildhorse Reservoir) have been sometimes placed in *S. parvifloia*, a species approaching our area from the south. However, the quantitative variation in leaf morphology between these reputedly distinct species in our area is continuous. BP, OF, OG, OP.

MELANTHIACEAE (formerly in LILIACEAE)

Anticlea elegans (Pursh) Rydb. Coats 256. Known from one collection in Cougar Creek in Jarbidge Mountains. JIB.

Toxicoscordion paniculatum (Nutt.) Rydb. 02-398, 2002233. Common in grassland and sagebrush communities at all elevations. (*Zigadenus paniculatus* (Nutt.) S. Watson). BP, JIB, OF, OG, OM, OP.

Toxicoscordion venenosum (S. Watson) Rydb. 02-369, 02-449, 07-261. Occasional in moist riparian meadows at all elevations; common at upper elevations. (*Zigadenus venenosus* S. Watson var. *venenosus*). BP, JIB, OG, OM, OP.

Veratrum californicum Durand var. *californicum*. 03-376, 07-349. Locally common in seeps and meadows in headwaters of Louse canyon and upper elevations in Owyhee and Jarbidge Mountains. JIB, OM, OP.

MOLLUGINACEAE (formerly in AIZOACEAE)

Mollugo verticillata L. * 01-170, 01-201, 02-717, Bratz sn. Common on sandy shores at lower elevations along Owyhee River in Oregon; also known rarely in aspens of upper watersheds of Silver City Range. OG, OM, OP.

MONTIACEAE (formerly in PORTULACACEAE)

Calyptridium roseum S. Watson. Peck 21791, 05-41, 10027. Rare in alkaline sandy sites, from 5 miles south of Rome to Crooked Creek crossing south of Burns Jct. (*Cistanthe rosea* (S. Watson) Hershkovitz). OP. G5 IDS2 ORS1.

Calyptridium umbellatum (Torr.) Greene. 19271, 14-259, 07452, Grimes 2116a, Bratz 452-176, Smithman 1873, Lewis 3638. Occasional in recent snowmelt barrens from Silver City Range and South Mountain to N. Nevada ranges. (*Spraguea umbellata* Torr.; *Cistanthe umbellata* (Torr.) Hershkovitz). JIB, OM.

- Claytonia cordifolia* S. Watson. Nelson 2022. Two historical collections from Jarbidge area (Jack Creek Divide) and Succor Creek. JIB, OG.
- Claytonia lanceolata* Pursh var. *lanceolata*. 2002398, 08-400, 05335, Giblin 5934. Rare in mudflat and snowmelt communities and forest understories above 1800 m from upper West Little Owyhee to South Mountain and Jarbidge. JIB, OM, OP.
- Claytonia megarhiza* (A. Gray) Parry ex S. Watson. Tiehm 10054. Locally common on rocky alpine ridges and talus above 2400 m in Jarbidge Mountains. JIB.
- Claytonia parviflora* Douglas ex Hook. Davis sn, Packard 73-30, 11-192, Irwin 13-064. Uncommon in seeps in vicinity of Succor Creek, Leslie Gulch to Tules on East Fork Owyhee River (including *C. parviflora* ssp. *utahensis* John M. Mill. & K.L. Chambers). OG, OP.
- Claytonia perfoliata* Willd. 02-626, 02-330, 05144, 08-078, 10041, Irwin 9216, Brainerd 418, Bratz sn, Beard sn, Maydole sn, 08246. Occasional in shady seeps at all elevations throughout the region. (including *C. perfoliata* ssp. *intermontana* J.M. Miller & Chambers). BP, JIB, OG, OM, OP.
- Claytonia rubra* (Howell) Tidestrom. Smithman 0972, 2002049, 03-073, 08-081, 22444, 08246. Common in seeps, creeksides and moist understories of trees and shrubs between about 1000 and 2200 m. (*Claytonia rubra* ssp. *depressa* (A. Gray) J.M. Miller & Chambers; *C. rubra* ssp. *rubra*). In our area there is no discontinuity between morphologic, geographic or ecologic range of variation between reputed varieties. BP, JIB, OG, OM, OP.
- Claytonia umbellata* S. Watson. 05-60. Rare. In talus on divide between Antelope Creek and McDermitt Basin. OP.
- Lewisia nevadensis* (A. Gray) B.L. Rob. Bratz 194-165, Ertter 22003, Tiehm 6163. Uncommon at higher elevation meadows and gravelly openings from upper Reynolds Creek to Independence and Jarbidge Mountains. JIB, OM.
- Lewisia pygmaea* (A. Gray) B.L. Rob. Smithman 1874, 17434, Maguire 26643, Tiehm 18890, Holmgren 9930. Uncommon at higher elevations in loose rocky soils in Silver City Range: Florida Mtn. and Sawpit Gulch to Bull Run and Jarbidge Mountains. JIB, OM.
- Lewisia rediviva* Pursh. 2002242, 04311, Smith 3643, Curto 1545, Tucker 564. Occasional in gravels and clay flats at all elevations. JIB, OG, OM, OP.
- Lewisia triphylla* (S. Watson) B.L. Rob. Corbin 1469, Packard 72-193, 18490, Tiehm 17966, 18443, 17400. Rare along streamsides in moss. Known only from Silver City and Jarbidge ranges. JIB, OM.
- Montia chamissoi* (Ledeb. ex Spreng.) Greene. 02-414, 2002363, 04-054. Occasional to common in moist sites at middle and upper elevations. Highly variable in form, but distinctive. BP, JIB, OG, OM, OP.
- Montia dichotoma* (Nutt.) Howell. 05181, Ertter 18, Brainerd 1439. Uncommon at middle elevations in seasonal wetlands of junipers from Succor Creek to N. Fork Owyhee River. Disjunct from north of Snake River, Wallowas and western Oregon/Washington. OG, OM.
- Montia fontana* L. 194192, 002338, 2002562, 03-038B, Baker 7882. Occasional emergent from pools and streams in middle to upper elevations mostly in northern part of Owyhee uplands and Silver City Range. JIB, OG, OM, OP.
- Montia linearis* (Douglas) Greene. 08162, 02-376, 2002151, 03-046. Occasional to common in wet sites at middle to upper elevations. JIB, OG, OM.

MORACEAE

Morus alba L. * 02-365. Naturalized in the vicinity of Birch Ck. OG.

MYRSINACEAE (formerly in PRIMULACEAE)

Lysimachia maritima (L.) Galasso, Banfi & Soldano. 2002683, Detling 8157, 04-017, 08-494, Otting 1595. Uncommon in alkaline soils along Crooked Creek, west of Rome. (*Glaux maritima* L.), OP.

Lysimachia thyrsoflora L. 12-161. Known only from confluence of Deep Creek and Owyhee River. OP. G5 IDS3

NAJADACEAE (see HYDROCHARITACEAE)

NAMACEAE (formerly in HYDROPHYLLACEAE)

Nama aretoides (Hook. & Arn.) Brand. Lytjen 16, Trueblood s.n., Smithman 2254, Stevens 049, Packard 78-158, 10117. Rare to uncommon in sand dunes and sandy soils from Owyhee Reservoir and Dry Creek across lower elevations of the Owyhee Front to Bruneau. OF, OG.

Nama densum Lemmon var. *parviflorum* (Greenm.) C. L. Hitchc. Brainerd 340, 02-187, 2002179, 04-003b, 20051003, Nielson 6218, Nielson 53108, 950025. Uncommon in brown ash and sands; Rome to Dry Creek; rare in Owyhee Co. from two collections from south of Bruneau. OF, OG, OP. G5T5 ORSNR.

NYCTAGINACEAE

Abronia mellifera Douglas ex Hook. var. *mellifera*. Molsee 2721, Packard 71-23, Halse 1926, Corbin 1684, Smith 3550. Uncommon to occasional in sandy sites along Owyhee Front: Shoefly Creek, MudFlat, Scorpion Ck. and Bruneau River to near Adrian. Owyhee plants probably represent a distinct, new variety (Ertter, pers. comm.). OF. G4 IDS1S2 ORSNR

Abronia turbinata Torr. ex S. Watson. Lytjen 115, 200452014, Otting 1588. Very rare in our area. Sand dunes near Crooked Creek. OP. G5 ORS1

Mirabilis laevis (Benth.) Curran var. *retrorsa* (A. Heller) Jeps. Packard 76-97, Packard 76-107, Tanner 128, Ertter & Grimes 1987, Smithman 1104. Occasional in ash and cinder tuffs and vertical rhyolite below Owyhee dam. (*Mirabilis bigelovii* A. Gray var. *retrorsa* (A. Heller) Munz). OG. G4G5T4 ORS3

OLEACEAE

Fraxinus pennsylvanica Marsh. * 02-1002, 07-073. Naturalized in vicinity of homesteads from Birch Ck. to Battle Ck. OG, OP.

Syringa vulgaris L. * 2002105. Naturalized in vicinity of Birch Ck. OG.

ONAGRACEAE

Camissonia contorta (Douglas ex. Lehm.) Kearney. Baker 14071, Mancuso 1451, Packard 78-41, 11-211. Rare; sandy slope 15 miles southwest of Rome, to Riddle to Mud Flat Rd. BP, OM, OP.

Camissonia parvula (Nutt. ex Torr. & A. Gray) P.H. Raven. 22140, Smith 8685, 2002176, Packard 78-30, Nielsen 5130022, 05-28, 10024, Corbin 1263, Otting 2333, Mancuso 2417, 22140. Uncommon sandy flats along Crooked Ck to Coyote Playa and across to Shoefly Creek along Owyhee Front. Glabrous to strigose. OF, OP. G5 ORS2.

Camissonia pusilla P.H. Raven. Peck 21789, 10016, 2002462, Rosentreter 1770, Hagwood 619. Very rare, known from our area only near sandy sites south of Rome and to Juniper basin in far southern Owyhee Co. and Owyhee Front. Spreading hairs. OF, OP. G3G4 ORS2.

Chamaenerion angustifolium (L.) Holub. ssp. *circumvagum* (Mosquin) Hoch. Baker 8224, George 299, Bratz 145-43, Pinzl 13386. Uncommon from Silver City range to Juniper Mountain and Jarbidge Mountains. (*Epilobium angustifolium* L.). JIB, OM.

Chylismia claviformis (Torr. & Frém.) A. Heller subsp. *cruciformis* (Kellogg) W. L. Wagner & Hoch. 2002073, 2002247, 02-105b, 02-195, 06-145. Common in gravelly washes and ash outcrops at lower elevations. (*Camissonia claviformis* (Torr. & Frém.) P.H. Raven ssp. *cruciformis* (Kellogg) P.H. Raven.) OF, OG, OP.

Chylismia scapoidea (Torrey & A. Gray) Nuttall ex Raimann ssp. *scapoidea*. 97-161, Packard 80-48, 06-145, 09189b, Wigglesworth 74, Smith 8706, Smith 8676, Smith 8616, Prentice 5010, 10124, DiNicola 2012-37, Ertter 14371, Ertter 14326, Smith 12597, Smith 12585, Smith 12530, Smith 12457, 17046. Uncommon to occasional on sandy sites from Rome to Succor Creek, Owyhee Front to Bruneau. Several specimens approach *C. scapoidea* ssp. *utahensis* (P. H. Raven) W.L. Wagner & Hoch or ssp. *brachycarpa* (P. H. Raven) W.L. Wagner & Hoch, but none of the following has both clear, dark oil glands and dentate to compound leaves: Smith 9482, Smith 9457, 08132, Bratz 152-78, Bratz 152-47, 15-026,

- Stevens 42, Henderson 8903, Holmgren 12889. (*Camissonia scapoidea* (Nutt. ex Torr. & A. Gray) P.H. Raven). OF, OG, OP.
- Circea alpina* L. ssp. *pacifica* (Asch. & Magnus) P.H. Raven. Bratz 354-157, Smithman 1912, Corbin 1462, Wigglesworth 116. Rare along streamsides in aspen and coniferous forests above 1800 m, in Silver City Range and South Mountain (and in Independence Mountains just beyond the range of this flora). OM.
- Clarkia pulchella* Pursh. 02-641, Irwin 9242. Uncommon on slopes and vernal moist areas at all elevations, primarily in the western end of our region. Commonly covers hillsides after fires. OG, OM.
- Clarkia rhomboidea* Douglas. Bratz sn., McBride 379, 20285. Uncommon to rare in northern end of the region, from Silver City Range (Glass Mountain) to north of Cow Ck. in Malheur County. Not yet known from Jarbidge region. OG, OM.
- Epilobium anagallidifolium* Lam. Rosentreter 4619. Rare; only at highest elevation wet areas Jarbidge Mountains. JIB.
- Epilobium brachycarpum* C. Presl. * 02-593, 01-308, 07-336, Sanford sn, 18654, Eslick 366. Common in disturbed sites. (*Epilobium paniculatum* Nutt. ex Torr. & A. Gray). Several unverified reports of *Epilobium minutum* Lindl. typically turn out to be *E. brachycarpum*. JIB, OF, OG, OM, OP.
- Epilobium campestre* (Jeps.) Hoch & W.L. Wagner. 07-386, Ertter 204, Bratz 282-55, Tiehm 13047, 06-199, Joyal 951, Mancuso 1688. Uncommon in muds of vernal wet playas throughout the range above 1300 m. (*Boisduvalia glabella* (Nutt.) Walp.; *Epilobium pygmaeum* (Speg.) Hoch & P.H. Raven). JIB, OF, OG, OM, OP.
- Epilobium ciliatum* Raf. ssp. *ciliatum*. 02-805, 02-609, 07-367, Shield 10, Packard 71-332, 2002638, 2002693, 08-512, Bratz sn., 05-310, 06-70b, Otting 569, Lytjen 89, Bala 14-139, Smith 11992, DeBolt 812, Shaw 94-65. Common in seeps, springs, and tributaries throughout our region. Including *E. ciliatum* Raf. ssp. *watsonii* (Barneby) Hoch & P.H. Raven. No turions, seeds papillate in ridges. BP, JIB, OF, OG, OM, OP.
- Epilobium densiflorum* (Lindl.) Hoch & P.H. Raven. 02-733, 01-274, Smith 11061, 01-312, 02-875, 06-185, 06-185a. Occasional to common in riparian gravels and meadows, mostly at middle elevations throughout the range. Both pink and white flowered forms may occur sympatrically. (*Boisduvalia densiflora* (Lindl.) S. Watson). BP, JIB, OF, OG, OM, OP.
- Epilobium glaberrimum* Barbey ssp. *fastigiatum* (Nutt.) Hoch & P.H. Raven. 05309, 07453, Shields 72-13, Padgett 2380. Occasional at all elevations but mostly above 2100 m. Diminutive forms in Silver City Range and Jarbidge Mountains. No turions, glab below infl., glaucous, wiry rhizomes. BP, JIB, OM.
- Epilobium glandulosum* Lehm. Glad 27-129, Bratz 396-96, Bratz 344-157, Packard 71-151, Peter 74-165, 17410, 20302. Occasional in wetlands at higher elevations; in Silver City Range and South Mountain, above 1800 m. (*Epilobium ciliatum* Raf. ssp. *glandulosum* (Lehm.) Hoch & P.H. Raven). Turions, seeds with papillae in ridges. JIB, OM.
- Epilobium halleanum* Hausskn. 04295, 05-379, 08-397, 2002517, 05-397, Baker 7903, Andrews 859, Sanford 476, Etter 4467, Smithman 1865, 18442. Occasional in wet meadows, seeps, and springs above 1700 m throughout the range. Turions, seeds papillate (even longitudinally) but not longitudinally ridged, fruit long pedicellate, leaves not clasping. JIB, OG, OM, OP.
- Epilobium hornemannii* Rchb. 08359, Atwood 20423, Smith 11095, Nelson 2042, 18537. Uncommon in seeps above 2300 m in Jarbidge Mountains and in Sawpit Gulch. No turions, pedicels up to 1.5 cm, flowers anthocyanic, inflorescence with pubescent lines, fruits >4cm, leaves entire or toothed. JIB, OM.
- Epilobium lactiflorum* Hausskn. 08434. Rarely encountered; Dave Creek in Jarbidge Mountains. No turions, pedicels over 2 cm, flowers white. JIB.

- Epilobium leptophyllum* Raf. Packard 71-160. Rare; known only in seep from near Payne cabin meadow on Juniper Mountain. (*Epilobium palustre* L. var. *leptophyllum* (Farw.) Dorn). OM.
- Epilobium obcordatum* A. Gray. Rosentreter 4618, N. Holmgren 6281, 18481. Uncommon; in rocks at highest elevations; Jarbidge and Independence Mountains. Distinctive large flowers. JIB.
- Epilobium saximontanum* Hausskn. 2002442, 07-267, 07-365, Rosentreter 1784, 12-296, Baker 13107, 18625. Rare, in riparian meadows at upper elevations. Turions, seeds papillate (even longitudinally) but not longitudinally ridged, lvs sessile and clasping, often denticulate. JIB, OM, OP.
- Epilobium torreyi* (S. Watson) Hoch & P.H. Raven. 02-733, 02-822, 02-928, 03-390, 99-75, 08-532, Bratz 397-116, Packard 71-338, 07386, Wigglesworth 107. Occasional to uncommon on slopes and gravelly sites and playas from Three Forks to headwaters of the W. Little Owyhee River and to Silver City Range. (*Boisduvalia stricta* (A. Gray) Greene). OM, OP.
- Eremothera boothii* (Douglas ex Lehm) W.L. Wagner & Hoch ssp. *alyssoides* (Hook. & Arn.) W.L. Wagner & Hoch. 02-107, 02-194, 01-63, 03-122, 93-15, 15-030, 2004009, 05-42, 05-79, Smith 2521, 11-210. Occasional in gravelly washes and at the bottom of ash outcrops at lower elevations. Some specimens (Ertter 6620, DeBolt 723, Nielsen 1056) from near Riddle to Owyhee Plateau and Chalk Basin do not conform well to ssp. *alyssoides* or ssp. *villosa*, but are rather intermediate. No true ssp. *villosa* are yet evident in our area. (*Camissonia boothii* (Douglas ex Lehm) P.H. Raven ssp. *alyssoides* (Hook. & Arn.) P.H. Raven). BP, OF, OG, OP.
- Eremothera boothii* (Douglas ex Lehm) W.L. Wagner & Hoch ssp. *boothii*. 02-248, 02-317, 2002637, 02-106, 03-109, 03-148, 03-155, 07-072. Occasional on ash (usually brown) outcrops at lower elevations and sometimes on sandy riparian shores. In our area only in Oregon, not entering Idaho. (*Camissonia boothii* (Douglas ex Lehm) P.H. Raven ssp. *boothii*). OG, OP. G5T4 IDS2.
- Eremothera minor* (A. Nelson) W.L. Wagner & Hoch. Zika 12331, Peck 20664, Ertter 44705, Smith 8725 (likely also Riley 383), Smith 8725. Rare; known in sandy flats above river terrace at base of Pruitt's Castle and slopes in lower river basin south of Adrian and eastern Owyhee Front. (*Camissonia minor* (A. Nelson) P.H. Raven). OF, OG, OP.
- Gayophytum decipiens* F.H. Lewis & Szweyk. 2002505, 20278, 08-441, 09126b, 09135, Packard 72-51, Packard 72-210, 12093. Uncommon to occasional in mesic sagebrush communities at mostly upper elevations, low sagebrush scablands, and gravelly benches. JIB, OM, OP.
- Gayophytum diffusum* Torr. & A. Gray ssp. *diffusum*. 05237, Smithman 2165, Shield 94-2, Ottenlips 185, Bratz 352-157, Packard 71-234. Rare to uncommon in mesic sagebrush communities at upper elevations. JIB, OM.
- Gayophytum diffusum* Torr. & A. Gray ssp. *parviflorum* F.H. Lewis & Szweyk. Packard 71-328, 05486, 06-127, 07-381, Eslick 361, Tiehm 11391, 10227, Andrews sn, Andrews 851, George 164, 14-195, 15-322, 18453. Common on gravelly barrens in mesic sagebrush and montane communities across our range, over 1500 m but sometimes as low as 1000 m (e.g. Leslie Gulch). (*Gayophytum diffusum* Torr. & A. Gray var. *stricipes* (Hook.) Dorn). BP, JIB, OG, OM, OP.
- Gayophytum humile* A. Juss. 20051100, 02-453, 04041, Hagwood 655. Uncommon in moist meadows and playas in upper West Little Owyhee and upper Bruneau drainages above 1700 m. BP, OP.
- Gayophytum racemosum* Torr. & A. Gray. 2002695b, 04-041, 04-012a, Andrews 853, 05208b, 05318. Uncommon to occasional in playas, wet gravelly benches, and riparian openings, at all elevations from 1300 to 2100 m. JIB, OG, OM, OP.

- Gayophytum ramosissimum* Torr. & A. Gray. 02-223, 02-606, Otting 596, Brainerd 1089, 07-155, 2002702, 05-493, 06-127b, 06-138b, 07-342, Williams 80-209-11, 12-243. Common on sands, ash, gravels, and sagebrush slopes from 900 to 2000 m. BP, JIB, OG, OM, OP.
- Neoholmgrenia andina* (Nuttall) W. L. Wagner & Hoch. 2002347, 2002539, 03-092, 05-206, Otting 2345. Uncommon on clay flats and gravels at mid to upper elevations throughout the region. (*Camissonia andina* (Nutt.) P.H. Raven). BP, JIB, OG, OM, OP.
- Oenothera biennis* L. * Packard 71-42, Shields 72-30, SFG 48, GDS 29, Prentice 5997, 02-256. Uncommon to occasional along rivers and streams below 1800 m, throughout our region. (*Oenothera villosa* (Thunb.) ssp. *strigosa* (Rydb.) W. Dietr. & P.H. Raven). BP, JIB, OF, OG, OM, OP.
- Oenothera cespitosa* Nutt. ssp. *marginata* (Nutt. ex Hook. & Arn.) Munz. 2002255, 02-202, 02-691, 02-197, 03-149, Brainerd 1098. Occasional in ash and sand outcrops at lower elevations. BP, JIB, OF, OG, OM, OP.
- Oenothera curtiflora* W.L. Wagner & Hoch. 2002428, 06-100, Corbin 1430. Uncommon weedy native in disturbed sites at lower elevations. (*Gaura mollis* James; *Gaura parviflora* Douglas ex Lehm.). OF, OG, OM.
- Oenothera deltoides* Torr. & Frém. ssp. *piperi* (Munz) W.M. Klein. Packard 79-96, Peck 21799, Rare to uncommon on sandy soils from Rome to below Owyhee dam; not reaching Idaho. OG, OP.
- Oenothera elata* Kunth ssp. *hirsutissima* (A. Gray ex S. Watson) W. Dietr. 01-179, 01-276, 2002649, Munz sn, 09077. Common on riparian gravels generally below 1800 m. (*Oenothera hookeri* Torr. & A. Gray var. *hirsutissima* (A. Gray ex S. Watson) Munz). JIB, OF, OG, OM, OP.
- Oenothera flava* (A. Nelson) Garrett. 14-571. Known in our area only from wetlands in N. Nevada near Sunflower Flat. JIB.
- Oenothera pallida* Lindl. ssp. *pallida*. Ranck 35, Tanner 113, Tanner 141. Occasional to common in sandy soils from below the Owyhee Reservoir across the Owyhee front to Bruneau Dunes, lower elevations. OF, OG, OP.
- Oenothera suffrutescens* (Ser.) W.L. Wagner & Hoch. Grimes 1275. Rare; Deep Creek., (*Gaura coccinea* (Nutt.) Pursh). OP.
- Taraxia subacaulis* (Pursh) Rydb. 2002317, 02-377, 2002376. Occasional in seeps, springs, aspen stands and other vernal wet areas at upper elevations. (*Camissonia subacaulis* (Pursh) P.H. Raven). JIB, OG, OM, OP.
- Taraxia tanacetifolia* (Torr. & A. Gray) Piper. 02-327. Common on gravel bars and seeps at all elevations. (*Camissonia tanacetifolia* (Torr. & A. Gray) P.H. Raven). JIB, OG, OM, OP.

ORCHIDACEAE

- Corallorhiza maculata* Raf. Bratz 346-157, Bratz 153-157, Grimes 1722. In aspen groves and shady woods above 1800 m from Silver City Range to Jarbidge Mountains. JIB, OM.
- Epipactis gigantea* Douglas. 01-250, 02-094. Known only from springs along the Owyhee River in Oregon and at Bruneau Hot Springs. OF, OP. G3G4 IDS3.
- Goodyera oblongifolia* Raf. Corbin 1662. Rare in Silver City range; upper Sinker Ck., Sinker Tunnel area. OM.
- Neottia convallarioides* (Sw.) Richardson. Corbin 1463. Rare; Silver City range; likely also in Jarbidge area (*Listera convallarioides* (Sw.) Nutt. Ex Elliot). OM.
- Platanthera dilatata* (Pursh) Lindl. ex L.C. Beck var. *dilatata*. Tiehm 10034, Grimes 1719, Baker 7894. Jarbidge River terrace and historically in Sawpit Gulch. (*Habenaria dilatata* var. *dilatata*). JIB, OM.
- Platanthera dilatata* (Pursh) Lindl. ex L.C. Beck var. *leucostachys* (Lindl.) Luer. 08429, Common in seeps and aspen from Silver City range (Bull Meadows; Sawpit Gulch), South Mountain and Juniper Mountain to Bull Run, Independence, and Jarbidge Mountains. (*Platanthera leucostachys*, *Habenaria dilatata* var. *leucostachys*). JIB, OM.

Piperia unalascensis (Spreng.) Rydb. Packard 71-172, Ottenlips 190, Gentilcore 2119. Rare to uncommon on rocky ridges in juniper woodlands on north side of Juniper Mountain and in Jarbidge Mtns. (*Habenaria unalascensis* (Spreng.) S. Watson; *Platanthera unalascensis* (Spreng.) Kurtz). JIB, OM.

Spiranthes romanzoffiana Cham. Tiehm 10066, Tiehm 18047. SE of Emerald Lake in Jarbidge Mountains and Copper Mtns. JIB.

OROBANCHACEAE (including some formerly in SCROPHULARIACEAE)

Aphyllon corymbosum (Rydb.) A. Schneid. ssp. *corymbosum*. 02-621, Peck 21850, Peck 21830, Lytjen 116. Uncommon on dark gravelly sagebrush slopes scattered throughout the range up to 1800 m. (*Orobanche corymbosa* (Rydb.) Ferris ssp. *corymbosa*). BP, OF, OG, OP.

Aphyllon fasciculatum (Nutt.) Torr. & A. Gray. 02-043, 02-266, Dean 69, 05-75, 05-197, 13-040. Occasional in big sagebrush communities and barren openings in sagebrush at lower elevations throughout our area up to 1500 m. On host roots of *Artemisia*. (*Orobanche fasciculata* Nutt.). BP, OF, OG, OM, OP.

Aphyllon franciscanum (Achey) A.C. Schneid. 14-161. Known from only one population on glassy rhyolitic gravels. On host roots of *Phacelia*. OM,

Aphyllon purpureum (A. Heller) Holub. 02-451, 10069, Irwin 9191, Smithman 1744, Rosentreter 1794, Irwin 9132, Irwin 9085, Bratz 156-165. Uncommon from meadows and riparian vegetation from 1100 to 2000 m across the range. (*Orobanche uniflora* L. var. *occidentalis* (Greene) Abrams ex Ferris). BP, JIB, OG, OM, OP.

Castilleja angustifolia (Nutt.) G. Don ssp. *angustifolia*. 02-676, 02-607, 03-083, 03-147, 02-233, 2002023, 2002021, 02-055, 2002036, 05-203b, 07-077, Brainerd 1110. Common in sagebrush and xeric scrub communities, more common at lower and middle elevations. BP, JIB, OF, OG, OM, OP.

Castilleja applegatei Fernald ssp. *pinetorum* (Fernald) T.I. Chuang & Heckard. 2002404, 2002467, 2002555, 20051110, 07-354. Occasional in mesic meadows and aspen at upper elevations in all ranges of the region. JIB, OG, OM, OP.

Castilleja chromosa A. Nelson. 02-224, Otting 506. Uncommon at lower to middle elevations in big sagebrush communities. (*Castilleja angustifolia* (Nutt.) G. Don ssp. *dubia* A. Nelson). BP, JIB, OF, OG, OM, OP.

Castilleja cusickii Greenm. 122-304, 12-312, Horch 49. Occasional to common in middle to upper elevation seasonal meadows, as along Mud Flat Road. JIB, OM, OP.

Castilleja flava S. Watson var. *flava*. 14-460, Bala 14-84, Grimes 1723, Hagwood 650, 22462, Tiehm 18462. Common in headwaters of Bruneau, Jarbidge, and East and South Forks Owyhee Rivers in mountains of northern Nevada. Populations in eastern Jarbidge region often have short galeas typical of *C. flava* var. *rustica*, which lies just north (and east) of us, though the calyx is shallowly cleft in back, typical of var. *flava*. JIB.

Castilleja linariifolia Benth. 2002503, 02-951, 03-369, 13-061. Occasional in sagebrush communities at middle and upper elevations throughout our region, but less common in Malheur Co. BP, JIB, OF, OG, OM, OP.

Castilleja miniata Douglas ex Hook. Smith 11675, Corbin 1600, Corbin 1599, Baker 8494. Common in subalpine forest edges. (var. *miniata*). JIB, OM.

Castilleja minor (A. Gray) A. Gray var. *exilis* A. Nelson. 02-866, 02-995, 2002678, 2002739, 09-446, 14273, Baker 13099. Common at seeps and springs and some tributary creeks at middle and lower elevations. (*Castilleja exilis* A. Nelson). OG, OM, OP.

Castilleja oresbia Greenm. Bjork 4347, Bjork 4369. Known from only two collections in juniper scablands between South Mountain and Juniper Mountain, otherwise north of here in Adams and Wallowa Counties. OM. G3G4 ORS3.

Castilleja pallescens (A. Gray) Greenm. var. *inverta* (A. Nelson & J.F. Macbr.) Edwin. 97-131, 2002419, 2002303, 2002416, 99-135, 02-439, 03-068, 04-058, 05-45, 05-203, Brai nerd 1444. Occasional to common in scabland balds at upper elevations. JIB, OG, OM, OP.

- Castilleja peckiana* Pennell. 02-892, 02-496, 05-432, 07-353, 18553, 18624. Occasional in mesic sagebrush and riparian sites at middle and upper elevations from Oregon into Idaho and N. Nevada. JIB, OG, OM, OP. G3G4 IDS2.
- Castilleja pilosa* (S. Watson) Rydb. var. *pilosa*. Otting 799, Lytjen 198. Uncommon in ephemeral creek channels in Dry Creek, barely entering the northwest part of our region. OG.
- Castilleja pilosa* (S. Watson) Rydb. var. *steenensis* (Pennell) N.H. Holmgren. Brainerd 1408, Brainerd 1402. Rare; barely entering our area in the Sheepshead Mountains, upper Rye Ck. drainage, though common on Steens Mountain. OP.
- Castilleja rhexiifolia* Rydb. Nelson 2012, Nelson 2023, Jacobs 2014-069b, Smith 6212. Rare; Silver City Range to Wildhorse to Jarbidge Mountains, 1500 – 2100 m. JIB, OM.
- Castilleja tenuis* (A. Heller) Chuang & Heckard. 02-431, 03-162, 04-048, 07-364. Uncommon to occasional in mesic riparian meadows at upper elevations. (*Orthocarpus hispidus* Benth.). JIB, OG, OM, OP.
- Castilleja viscidula* A. Gray. 05-393, Grimes 1659, 14-258, Smithman 1853, Rosentreter 241. Uncommon in low sage scablands at upper elevations from Oregon to Silver City, South Mountain, and Jacks Creek and into Jarbidge and N. Nevada ranges. JIB, OM, OP.
- Cordylanthus capitatus* Nutt. ex Benth. Corbin 1562, Andrews 799, 18629. Uncommon Summercamp ACEC, northeast of Jordan Valley and Juniper Mtn, south side of Silver City Range, & Mahogany Mountain to Jarbidge. JIB, OG, OM.
- Cordylanthus ramosus* Nutt. ex Benth. 2002498, 03-198, 05-491. Uncommon in upper elevations scabland balds. JIB, OM, OP.
- Orthocarpus luteus* Nutt. Otting 662, 03-267, 03-272, 07-362, Grimes 1744. Uncommon in wet meadows at upper elevations. JIB, OM, OP.
- Pedicularis contorta* Benth. Christ 14781. One historical collection on 'Eagle Peak' (War Eagle Mountain). Not yet relocated. OM.
- Pedicularis groenlandica* Retz. 18428, Ertter 21999, 04301. Subalpine meadows from Independence to Jarbidge Mountains. JIB.

PAEONIACEAE

- Paeonia brownii* Douglas ex Hook. 2002407, Irwin 9115. Occasional to common in moist meadows at upper elevations. JIB, OG, OM, OP.

PAPAVERIACEAE (including former FUMARIACEAE)

- Argemone munita* Dur. & Hilg. ssp. *rotundata* (Rydb.) Ownbey. Packard 76-139, 77-159, Smithman sn., Gilmartin 2256. Rare; Succor Creek to Runaway Gulch by Leslie Gulch. OG. G4T4 IDS1.
- Corydalis aurea* Willd. Corbin 1553, Christ 14261, Klott 375. Rare in our area; Bridge Creek and Silver City range, and in Jarbidge region. JIB, OM.
- Dicentra uniflora* Kellogg. 02-501, 2002398b, Irwin 9020, Tiehm 15193. Uncommon, in margins of recent snowmelt at upper elevations. JIB, OM, OP.
- Fumaria officinalis* L. * 2002609. Rare, one collection in river gravels near Anderson Crossing. OP.

PARNASSIACEAE

- Parnassia fimbriata* K.D. Koenig var. *intermedia* (Rydb.) C.L. Hitchc. Tiehm 10065, 17432, Baker 8276, Corbin 1668. Uncommon in Sawpit Gulch in Silver City range; common in higher elevation seeps in Jarbidge Mtns. (*Parnassia cirrata* Piper var. *intermedia* (Rydb.) P.K. Holmgren & N.H. Holmgren). JIG, OM.

PHRYMACEAE (formerly in SCROPHULARIACEAE)

- Diplacus cusickii* (Greene) G.L. Nesom. 02-245, 02-180, 06-144, 09-183, Rosentreter 1759, Ertter and Grimes 1922, Smithman 224, Maguire 26274. Uncommon Owyhee endemic in brown ash and cinder slopes at lower elevations from Rome and Chalk Basin to Leslie Gulch, Succor Creek and Owyhee Front south of Grandview. (and ranging to northern Malheur Co.)

- Leaf surfaces glab to sparsely gland-puber; lf margins minutely glandular. (*Mimulus cusickii* (Greene) Rattan). I follow Nesom (2013) in this treatment. OF, OG.
- Diplacus cusickioides* G.L. Nesom. Kaye 1038, Joyal 1020, Thompson 986,06-144, Packard 73-295. Uncommon and sympatric with *D. cusickii* in our region, though ranging beyond us to the north and northwest. Leaf surfaces gland-villous to sparsely so, lf margins stipitate glandular-puberulent. This has occasionally been confused with *D. clivicola*, which does not reach our region from the north. Several of our collections appear to be intermediate between *D. cusickii* and *D. cusickioides* including: 10147, Williams 37, 15-060. OF, OG.
- Diplacus nanus* (Hook & Arn.) G.L. Nesom. 2002136, 2002175, 02-588, 2002572, 03-239. Occasional on ash, gravels, and screes at all elevations. (*Mimulus nanus* Hook. & Arn.). BP, JIB, OF, OG, OM, OP.
- Erythranthe arvensis* (Greene) G.L. Nesom. Packard 71-365, Bratz sn, Lytjen 213, 06-60, Peck 25-782, Nelson 1908. Uncommon in seasonally wet meadows and ditch margins. (*Mimulus arvensis* Greene). OG, OM, OP.
- Erythranthe breviflora* (Piper) G.L. Nesom. 02-787, 2002519, 2004013, Corbin 1554, 20312b, (probably Macbride 9000). Uncommon in mesic situations including rimrock and cliff crevices, riparian and wet meadows from upper to middle elevations. (*Mimulus breviflorus* Piper). OG, OM, OP.
- Erythranthe breweri* (Greene) G.L. Nesom & N.S. Fraga. Joyal 978, Smithman 1955, Grimes 2145. Uncommon; North Fork Owyhee River to Silver City Range and Jacks Creek. (*Mimulus breweri* (Greene) Coville). JIB, OM.
- Erythranthe floribunda* (Lindl.) G.L. Nesom. 02-897, 02-801, Klott 10122, 2002723, 2002711, 20051055. Uncommon in deep shade of rocks and sandy shores at middle elevations. (*Mimulus floribundus* Douglas ex Lindl.). BP, JIB, OG, OM, OP.
- Erythranthe guttata* (DC.) G.L. Nesom. 02-147, 01-211, George 329, 17114, George 260, 11-199, Packard 70-194, Hodzic 2017-11, Baker 8265. Common at seeps, springs and tributary creeks across the range at all elevations. (*Mimulus guttatus* DC.). BP, JIB, OF, OG, OM, OP.
- Erythranthe inflatula* (Suksd.) G.L. Nesom. 02-454, 2002290, 07-270, Holmgren 7973, 20129a. Uncommon in rimrock and ephemeral stream channels at upper elevations in West Little Owyhee drainage. Also collected in vicinity of Riddle. (*Mimulus evanescens* Meinke). OM, OP. G3 IDS1 ORS2.
- Erythranthe lewisii* (Pursh) G.L. Nesom & N.S. Fraga. 02-878, DeBolt 2217, Packard 71-429. Uncommon in Silver City range; washed down from higher elevations into N. Fork Owyhee R. More common in N. Nevada ranges. (*Mimulus lewisii* Pursh). JIB, OM.
- Erythranthe microphylla* (Benth.) G.L. Nesom. Christ 19527, 18540, Packard 71-123. Uncommon in intermittently wet meadows and riparian areas at moderate to higher elevations. (*Mimulus guttatus* DC. var. *depauperatus* (A. Gray) A.L. Grant.). OM.
- Erythranthe moschata* (Douglas ex Lindl.) G.L. Nesom. Smithman 1886. 17399, 15-381, 07426. Uncommon; Jacob's Creek and other localities near Silver City and into N. Nevada ranges. (*Mimulus moschatus* Douglas). JIB, OM.
- Erythranthe nasuta* (Greene) G.L. Nesom. Glad 72-48, Bratz sn, Bratz 377-157. Uncommon in vernal moist meadows and riparian sites. (*Mimulus nasutus* Greene). OF, OM, OP.
- Erythranthe suksdorfii* (A. Gray) N.S. Fraga. 2002137, 2002177, 2002549, 03-193B, 05-40, 05-205, 20056112, Hagwood 718, Uncommon on sandy flats, rocky canyon slopes, and vernal pools; often with sagebrush. (*Mimulus suksdorfii* A. Gray). JIB, OF, OG, OM, OP.
- Erythranthe tilingii* (Regel) G.L. Nesom. 18540. Known only from wet meadows in Jarbidge Mountains. (*Mimulus tilingii* Regel). JIB.
- Mimetanthe pilosa* (Benth.) Greene. 02-068, 2002610, 08-308. Occasional to common on sandy shores of rivers at all elevations. (*Mimulus pilosus* (Benth.) S. Watson). OG, OP.

PLANTAGINACEAE (including CALLITRICHACEAE and much of former SCROPHULARIACEAE)

- Callitriche fassettii* Schotsman. 99-93. Known only from vernal pools in Spring Ck.--tributary of W. Little Owyhee River. OP.
- Callitriche hermaphroditica* L. Moseley 1719, Ertter 19785. Known only from Little Owyhee in YP desert, and below Owyhee River dam. OG, OP.
- Callitriche palustris* L. 02-453B, 03-193, 05-413, Tiehm 9064. Smith 10714, Ertter 18687, Ertter 18691. Common in ponds and pools. (*Callitriche verna* L.). JIB, OG, OM, OP.
- Collinsia parviflora* Douglas ex Lindl. 02-378, 2002046, 2002335, 14560, Smith 11845. Common in moist sagebrush communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Gratiola neglecta* Torr. Irwin 9258, Corbin 1401, Baker 8491, 15314, 15345. Rare to uncommon in the muddy margins of vernal reservoirs and pools at middle elevations throughout the range, but most commonly around Riddle to Grasmere. BP, OP, OM.
- Linaria dalmatica* (L.) Miller. * N Tiehm 5425. Rare in our area. Known now only near Wildhorse Reservoir.
- Hippuris vulgaris* L. Baker 8504. One historical collection in Duck Valley Marsh 5.5 mi S of Riddle. OP.
- Penstemon acuminatus* Douglas ex Lindl. var. *latebracteatus* N. Holmgren. Hitchcock 20622, 02-356, 05-34, 20056228, Otting 1586. Uncommon on sandy sites throughout the lower elevations (below 1200 m)—mostly in northern part of our range. OF, OG, OM, OP.
- Penstemon albertinus* Greene. 08108b, Smithman 2092, Grimes 72-61, Tucker sn, Corbin 1590, Hitchcock 22585, Reveal 3855. Upper elevations in Owyhee Co. from Silver City to (lower elevation) Hot Creek falls and into Jarbidge region. Some of what has been mistakenly called *P. albertinus* is the more densely tufted *P. humilis*. Most specimens attributed to *P. attenuatus* in our region have remotely dentate leaves of *P. albertinus* and are better referred to this species, though some even lack remote dentate margins (e.g. Cronquist 11649, 20360, 20273) but fit more closely here as they vary continuously into *P. albertinus*. This is also my interpretation for a specimen from our area (Hitchcock 22585) mistakenly referred to as *P. elegantulus*, a species endemic to Hells Canyon area. JIB, OM.
- Penstemon cusickii* A. Gray. Otting 763, Packard 74-73, Glad 74-174, Corbin 1589. Occasional in scablands, only in Dry Creek, Succor Creek and McBride Creek at northern end of the range. OG, OM, OP.
- Penstemon cyaneus* Pennel. Baker 14082, Baker 13127. Rare, historical collections. Barely reaching our area in sagebrush steppe of upper Bruneau Plateau from Riddle to Three Creeks. BP.
- Penstemon deustus* Douglas ex Lindl. var. *pedicellatus* M.E. Jones. 2002513, 02-920, Hamre 14, 13-092. Occasional to common on rocky sites at middle elevations. (A very unusual form (02-920) in lower Louse Canyon.). JIB, OG, OM, OP.
- Penstemon eatonii* A. Gray var. *eatonii* * Rolapp 1. Introduced in seed mix after Soda Fire in McBride Ck. drainage; not native in our region. OG.
- Penstemon fruticosus* (Pursh) Greene var. *fruticosus*. Packard 71-397, Packard 71-251, 05170, Bratz 332-165, Tucker sn. Locally common in upper elevation rocky sites in main Owyhee County ranges. Our plants have alt lvs with entire margins, atypical of var. *fruticosus* outside of our region. OM.
- Penstemon humilis* Nutt. ex. A. Gray var. *humilis*. 02-219, 02-251, 02-401, 02-688, 02-580, 02-497, 02-550b, 2002367, 05-225, 05-409, 08-344, 08-108b, Ertter 4476, (probably Taylor 4002). Common in rocky or ashy sagebrush communities at all elevations. Some specimens approach *P. attenuatus* (out of our area north of the Snake River) in having nearly glabrous leaves, but inflorescences are not congested as in the latter. Other specimens approach *P. albertinus*, with only remotely denticulate leaves. BP, JIB, OG, OM, OP.

- Penstemon janishae* N. Holmgren. DeBolt 2220, Rosentreter 3135, Atwood 23747, Atwood 23778, Atwood 23746, Atwood 23632, DeBolt 2222, Wellner 2866, Christ 9585, probably Atwood 12119. Uncommon on ash and Lake Idaho lacustrine sediments from Bruneau to Sugar Valley and to the Owyhee Front near Little and Big Jacks Crs., extending no further northwest than Castle Cr. and replaced in that region by *P. miser*. OF. G4 IDS2 ORSNR.
- Penstemon kingii* S. Watson. Packard 1229, Tiehm 12966. Barely entering Little Owyhee R. drainage from SW of us. OP. G4 ORSNR.
- Penstemon miser* A. Gray. 2002235, 03-133, 09-174, Rosentreter sn, Smithman 0847, Corbin 1364, Corbin 1365, Corbin 1443, DeBolt 1937, Corbin 1271, Mancuso 2250, Mancuso 2263, Mancuso 3568. Uncommon in white chalk from Chalk Basin to Leslie Gulch and on to Harper and Westfall ashy areas and into Idaho along the Owyhee Front north and west of Birch Cr. OF, OG, OM. G3 IDS2 ORS3.
- Penstemon palmeri* A. Gray * 97-167. Introduced to rocky sites in Owyhee front from out of our range in Nevada. BP, OF, OG.
- Penstemon perpulcher* A. Nelson. Richards 77-151, Mancuso 667, DeBolt 2198, N. Holmgren 9252, Hagwood 768. Rare in our area, just along the north border of our region--Guffey Butte, Three Creek & Clover Ck. southeast of Murphy Hot Springs. More common in Snake River Plain to the north and east of us. BP, OF. G3? ORS1.
- Penstemon pratensis* Greene. Packard 71-153, 02-401, 03-377, 10-206, Smithman 2076, Brown 52. Uncommon in meadows at upper elevations. A form with pink flowers and minutely hairy stems has been found near Mud Flat Rd. and in Silver City Range. OG, OM, OP. G4? ORSNR.
- Penstemon procerus* Douglas ex. Graham var. *procerus*. 14-628, Atwood 20325, Bala 14-30, Bala 14-31, Bala 14-32, 12-317, 21120, 21036, 04-046, 07351, 2002473. In drier edges of wet meadows above 1750 m; uncommon in Owyhee Mountains to Grasmere, and more common in headwaters of the Bruneau River. Plants 1.5 – 6 dm; calyx 3 – 6 mm. JIB, OM, OP
- Penstemon rydbergii* A. Nelson. 02-428, 02-550c, 2002473, 03-065, 03163, 05-406, McBride 974, Brainerd 475, 08402, Smith 11765, 14-584, Smith 11946, Smith 11895, Smith 11705, 10157, Packard 72-42, 07245, 07481, 03163, 07265, Smith 3546, Smith 2597, Larrison sn, Baker 14079. Common in moist meadows and adjacent rocky sagebrush communities at upper elevations. Some specimens key easily to var. *rydbergii*. Most of the variation in this group ranges from (in inflorescence or lower stem) glab to puberulent and calyx from 3 – 6 mm, but not consistently as expected of either var. *rydbergii* or var. *oreocharis*. Thus, varieties are not recognized in this region. BP, JIB, OG, OM, OP.
- Penstemon seorsus* (A. Nelson) D.D. Keck. Otting 597, 06-89, 08-308, 09-10, Smithman 2513. Uncommon in loamy sagebrush from Three Forks and Grassy Mountain to Jordan Craters and South Mountain to Dry Creek, into Idaho southwest of the Silver City Range between the high range and the E. Fork of Owyhee River with outlying populations known in vicinity of Bruneau. OG, OM, OP. G4? IDS3 ORS3.
- Penstemon speciosus* Douglas ex Lindl. 02-051, 2002486, 02-750, 03-203, 04289, Smith 7961, McBride 977, McBride 1774, Baker 14082, Baker 13127. Common in meadows and mesic sagebrush communities at all elevations throughout the region. (includes *P. rex* A. Nelson & J.F. Macbr.). BP, JIB, OF, OG, OM, OP.
- Penstemon watsonii* A. Gray. 08415b, 04253, Mancuso 670. Occasional to uncommon in mountain mahogany and mountain big sagebrush communities at upper elevations, in Jarbidge/Bruneau headwaters. Collections from Owyhee Co. first thought to be this species are better treated as *P. rydbergii*. JIB.
- Plantago eriopoda* Torr. Peck 25781, Steward 7325. Rare west and southwest of Jordan Valley; known only from historical collections. BP, OP. G5 ORSNR.

- Plantago lanceolata* L. * 02-856, 02-015. Common in seeps and river gravels and other moist disturbed sites at lower to middle elevations. OM, OP.
- Plantago major* L. * 02-720, 2002645, 13-186. Occasional in seeps, sandy shores, and river gravels mostly at lower to middle elevations. OG, OM, OP.
- Sairocarpus kingii* (S. Watson) D.A. Sutton. Packard 79-95a, 93-35, Corbin 1452. Rare on ash slopes in Jackson Ck. Canyon, Castle Creek, and Reynolds Creek. Unable to be relocated yet. (*Antirrhinum kingii* S. Watson). OF, OP. G4 IDS1 ORS2.
- Veronica americana* (Raf.) Schwein. ex Benth. 02-140, 01-268. Common in seeps, springs, and tributary creeks. BP, JIB, OF, OG, OM, OP.
- Veronica anagallis-aquatica* L. * 2002209, 02-671. Common in seeps, springs, and creek and river shores. BP, JIB, OF, OG, OM, OP.
- Veronica arguta-serrata* Regel & Schmalh. * 2002062, Corbin 1574, Smith 12018, 08246b, 09159, 11-053, 02-241. Uncommon in scattered collections from all elevations from near Greeley Bar, and Hayden Peak to Big Bend Campground. (*Veronica biloba* L. misapplied). JIB, OP.
- Veronica arvensis* L. * Corbin 1558. Rare, known from one collection; Stobie Ck. More common north of Snake River. OM.
- Veronica catenata* Pennell. Dean 83A, 07-091, Otting 2341, Owen 85023. Uncommon in muds along Owyhee River, in vicinity of Three Forks. (sometimes included in *Veronica anagallis-aquatica* L.). JIB, OP.
- Veronica peregrina* L. ssp. *xalapensis* (Kunth) Pennell 02-288, 02-578, 03-145, 03-222, 05-209d, 06-115, 08-316. Occasional on sandy to muddy shores, playas, and near springs across the range. BP, JIB, OG, OM, OP.
- Veronica serpyllifolia* L. ssp. *humifusa* (Dickson) Syme. 2002480, Irwin 9158. Uncommon at the edge of muddy seeps at upper elevations across the range. JIB, OM, OP.

POACEAE

- Aegilops cylindrica* Host. * N Corbin 1480, 15-091. In our area known only in McBride Creek and Coal Mine Basin. OG.
- Agropyron cristatum* (L.) Gaertn. * 02-088, 2002570, Lytjen 101, Lytjen 138. Occasional and locally abundant at all elevations where reseeding naturally from plantings. (including *A. desertorum* (Fisch. ex Link) J.A. Schultes and the awnless *A. fragile* (Roth) P. Candargy). BP, JIB, OF, OG, OM, OP.
- Agrostis exarata* Trin. 02-937, 02-933, 02-927, 02-909, Corbin 1656, Klott 621, Nichols 408, Padgett 2544. Common in the riparian zone to about 2300 m across the range. BP, JIB, OF, OG, OM, OP.
- Agrostis gigantea* Roth. * 01-306, 02-662, 02-724, 2002680, 03-261, George 313, Padgett 2399. Common in meadows at springs and seeps along the river at all but the highest elevations. (*Agrostis alba* L.). BP, JIB, OF, OM, OP.
- Agrostis idahoensis* Nash. 07446, Tiehm 18048. Uncommon; known only from streams and seepages including late lying snowbanks above 1700 m in Silver City Range, Jarbidge, Independence, and Bull Run Mountains. JIB, OM.
- Agrostis pallens* Trin. Kramer 10147, Known only from wetlands around 1800 m in headwaters of E. Fork Bruneau River. JIB.
- Agrostis scabra* Willd. 02-794, 02-804, 02-901, 06-97, Joyal 956, Manning 288. Occasional on rocky bars, especially between Anderson Crossing and Three Forks, and on rocks in Jordan Craters, Batch Lake. Uncommon to occasional in wetlands from Silver City Range to South Mountain, Juniper Mountain, and Jarbidge. JIB, OG, OM, OP.
- Agrostis stolonifera* L. * Atwood 13198, 02-858, 02-846, 03-259, 07-347. Common in meadows at springs and seeps at all elevations. JIB, OF, OG, OM, OP.
- Agrostis variabilis* Rydb. Brown sn, Etter 4473, 07444, George 298, 18433, 18444, 18459. Uncommon; seepages below snowbanks in Silver City Range, Jarbidge Mountains, flanks of

- South Mountain and Juniper Mountain, above 2100 m. Probably also in Independence Mountains. JIB, OM.
- Alopecurus aequalis* Sobol. 02-874, 02-624, 03-242, 07-361. Common on sandy and muddy shores at low and middle elevations. BP, JIB, OG, OM, OP.
- Alopecurus carolinianus* Walter. 20051040, 08-318, Otting 2350, Ertter 221, Ertter 110. In overgrazed playas--Bull Flat playa near Toppin Butte and on Grassy Mountain to Cow Lakes and Succor Ck. OG, OM, OP.
- Alopecurus geniculatus* L. 08193, 04184, Mancuso 1470. Uncommon in alkaline wetlands of southern Owyhee Co. OP.
- Alopecurus pratensis* L. * 02-485, 03-159, A. Truksa 89. Uncommon introduction in meadows, usually at higher elevations. OM, OP.
- Apera interrupta* (L.) P. Beauv. * 02-701, 02-072, 02-261, 02-267, 20051054, 06-135, Otting 1610. Occasional in seeps and wet meadows at lower, and sometimes middle elevations. JIB, OG, OM, OP.
- Aristida purpurea* Nutt. var. *longiseta* (Steudel.) Vasey. 02-335. Uncommon and sporadic at lower elevations in upper riparian zone and lower slopes. Not common as in north of SRP. (*Aristida longiseta* Steud.). BP, OG.
- Arrhenatherum elatius* (L.) J.C. Presl. ssp. *elatius*. Rosentreter 4622, Grimes 1710, Klott 550, Smith 12045, Tiehm 17963. Uncommon; Jarbidge Mountains. JIB.
- Beckmannia syzigachne* (Steud.) Fernald. Grimes 195, Kotter 74/40, 09044, Tiehm 9301. Cow Lakes and the "tules" on the East Fork of Owyhee River and Bull Run Mountains. JIB, OG, OP.
- Blepharidachne kingii* (S. Watson) Hack. Packard 1988 sn., Moseley 2880, Moseley 2881. Known only in vicinity of Oreana. Very rare and declining. OF. G4 IDS1.
- Bromus briziformis* Fisch & C.A. Mey. * Theim 13159, Grimes 1091, Bratz 161-116. Uncommon in seepages; Leslie Gulch, Calico Mountains, Lambert Table, Reynolds Ck. JIB, OG, OM.
- Bromus ciliatus* L. 05-286. Known only from dense riparian aspen stands on South Mountain but probably also in high ranges of N. Nevada. BP, OM.
- Bromus commutatus* Schrad. * 99-90, 03272, 03263, 22830. Rosentreter 196, Bratz 440-96, Irwin 9213, Brainerd 1433. Occasional to common in riparian meadows below 1800 m. OF, OG, OM, OP.
- Bromus diandrus* Roth. * 02-663, 03-262. Uncommon at disturbed sandy hot springs at river level near Deary Pasture to Warm Springs. OP.
- Bromus hordeaceus* L. * Lytjen 74, Smithman 2354, 15-065, Grimes 158, Grimes 293, Corbin 1546, 09-062, 02-706, Otting 575, 15-081, 15-075, 12-383, 02-345. Occasional to common in rocky soils, often near seeps, springs, along minor tributaries below 1700 m and occasionally in mesic sagebrush communities. (includes *Bromus hordeaceus* L. ssp. *hordeaceus* and ssp. *pseudothominii* (P.M. Sm.) H. Scholz, which are not readily distinguishable in our region). OG, OM, OP.
- Bromus inermis* Leyss. * 02-144, 02-1022, Irwin 9184, 02-956, 02-723, 02-1009, 08-531, Brainerd 1104, Hitchcock 23555. Very common at seeps, springs, and riverbanks mostly at lower and middle elevations. BP, JIB, OF, OG, OM, OP.
- Bromus japonicus* Thunb. * 01-180, 08-545, 13-023, Bratz 441-135, Smithman 2834, Corbin 1608, Smith 5692. Occasional to common in many habitats from riparian to sagebrush and ash barrens at lower and middle elevations. (*Bromus arvensis* L. var. *japonicus* (Houtt) Flori). JIB, OG, OM, OP.
- Bromus pumpellianus* Scribn. ssp. *pumpellianus*. 02-675. Only known from one collection. A species like *B. inermis* but north of us, crossing into our region along the Owyhee River from N. Malheur Co. (pubescent lemma, nodes and leaf blades). OP.

- Bromus rubens* L. * Christ 9556, Baker 10114, Historical collections in sandy sites near Marsing and Murphy. OF.
- Bromus sitchensis* Trin. var. *polyanthus* (Scribn.) R.E. Brainerd & Otting. 14-439, 04214, 09123, Williams 80-207-17. Rare in Jarbidge River canyon, in vicinity of Wildhorse Recreation Area and Independence Mountains. Glabrous sheath throat; sheath surface usually smooth or scabrous. (*Bromus polyanthus* Scribn. ex Shear). JIB.
- Bromus sitchensis* Trin. var. *marginatus* (Nees) B. Boivin. Dean 109, 02-471, 2002566, 03-160, 20051108, 07-382, Nielsen 1095, 18606. Occasional in moist riparian or aspen woodlands and mesic sagebrush steppe above 1400 m across the range. Pilose sheath throat; sheath surface usually sparsely retrorsely hairy. (*Bromus carinatus* Hook. & Arn. var. *marginatus* (Nees) Barkworth & Anderton). I follow Brainerd et al. (2016) here. JIB, OG, OM, OP.
- Bromus squarrosus* L. * 08306, 22843, 10153b. Rare to uncommon; at south end of Grassy Mountain near Rock Reservoir to Succor Ck and Perjue Canyon. OG, OM, OP.
- Bromus tectorum* L. * 2002085, 02-597. Common in disturbed sagebrush and bunchgrass communities at all except the highest elevations. BP, JIB, OF, OG, OM, OP.
- Calamagrostis canadensis* (Michx.) P. Beauv. var. *canadensis*. 01-235b, 18616, 02-925. Rare in seeps at Fletcher's Crossing, West Little Owyhee and along upper Jarbidge R. JIB, OP.
- Calamagrostis stricta* (Timm.) Koeler ssp. *inexpansa* (A. Gray) C.W. Greene. Padgett 2383, 02-882, 02-944, 03-254. Uncommon to occasional in riparian meadow and seeps at all elevations along Owyhee River and its tributaries. OP.
- Catabrosa aquatica* (L.) Beauv. Tait s.n., Brainerd 1449. Known only from Cairn Spring and Jack Creek in upper West Little Owyhee River drainage. OP.
- Cenchrus longispinus* (Hack.) Fernald. * Ruffing sn. In vacant lot in Marsing. OF.
- Chloris verticillata* Nutt. * Corbin 1429. Known from one location south of Marsing on Owyhee Front in burned, weedy Wyoming sagebrush site. OF.
- Cinna latifolia* (Trevir ex Göpp.) Griseb. A. Holmgren 1661. Known mesic fir stand in Jarbidge Mtns. JIB.
- Crypsis alopecuroides* (Piller & Mitterp.) Schrader. * 02-958, Ertter 255, Etter 21681, 15-293, 08593, 21376. Uncommon to occasional in wet sands of seeps and streams at lower to rarely middle elevations in Oregon and Idaho. OG, OP.
- Crypsis schoenoides* (L.) Lam. * 02-1015, 21376, Bjork 2262. Uncommon in gravel bars near Birch Creek and Bruneau. OF, OG.
- Crypsis vaginiflora* (Forssk.) Opiz * Ertter and Strachan 2542, Mancuso 1447, Bjork 2261. Uncommon in muds along Owyhee Reservoir and Snake River. (*Crypsis niliacea* auct. non Fig. & de Not.). OF, OG.
- Cynodon dactylon* (L.) Pers. * Packard GDS 75. Only one record south of Snake River by Guffy Butte. OF.
- Dactylis glomerata* L. * 03-158, Packard 71-171. Introduced at home sites in scattered locations at lower elevations. OG, OM, OP.
- Danthonia californica* Bol. 07108, 03-164, Grimes 2150, Rosentreter 3182, Lytjen 215, Tiehm 14589. Occasional riparian meadows mostly between about 1800 and 2200 m. JIB, OG, OM, OP.
- Danthonia intermedia* Vasey. Grimes 2150, 02-507, Otting 661. Uncommon at intermittent streams with sagebrush above 1900 m. Our populations have long lemmas of *D. intermedia* but only 2 – 3 spikelets per inflorescence. JIB, OM, OP.
- Danthonia unispicata* (Thurb.) Munro. Lytjen 42, 2002501, 03-166, 05-214, 09165, Rosentreter 1783, Otting 834, 051347, 05152b, 05380, 18483. Occasional to common in basaltic low-sage scablands or in meadows above 1600 m. JIB, OG, OM, OP.
- Deschampsia cespitosa* (L.) P. Beauv. ssp. *cespitosa*. 02-472, 02-862, 01-251, 07-395, 18429. Occasional to common in wet meadows at upper elevations and hot spring seeps at middle elevations. JIB, OM, OP.

- Deschampsia danthonoides* (Trin.) Benth. 02-282, 02-431b, 04-052, 2002620, 02-589, 02-776, 05-213. Common in vernal moist areas at all elevations. BP, JIB, OG, OM, OP.
- Deschampsia elongata* (Hook.) Benth. Joyal 1203, 03-385, 18539. Known from Middle Fork to seeps in upper Louse Canyon, Silver City Range, and Jarbidge ridges. JIB, OG, OM, OP.
- Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark ssp. *fasciculatum* (Torr.) Freckmann & LeLong. 02-861, 03-265, 10107, Spellenberg 318. Rare in our area; known only from Warm Springs near Three Forks. (*Panicum acuminatum* Sw. var. *acuminatum*). OP.
- Digitaria sanguinalis* (L.) Scop. * Klott 767. Known only from sandbar in Jarbidge River at this time. JIB.
- Diplachne fusca* (L.) P. Beauv. Ex Roem. & Schult. ssp. *fascicularis* (Lam.) P.M. Peterson & N. Snow. Grimes 221, Baker 8591, Ertter 254. Uncommon in river bank sands at lower elevations; below the dam to Walters Ferry and along lower Owyhee R. (*Leptochloa fascicularis* (Lam.) A. Gray; *Leptochloa fusca* (L.) Kunth ssp. *fascicularis* (Lam.) N. Snow). OF, OG.
- Distichlis spicata* (L.) Greene. 02-065, 02-708b, 21031. Occasional and locally abundant in alkaline seeps and roadsides. (*Distichlis stricta* (Torr.) Rydb.). JIB, OF, OG, OM, OP.
- Echinochloa muricata* (P. Beauv.) Fernald var. *microstachya* Wiegand. * 02-891, Dean 178, 02-980, 2002743, Irwin 9247. Uncommon to occasional along the river at seeps; lower and middle elevations. BP, OF, OG, OP.
- xElymus hirtiflorus* (Hitchc.) Barkworth. Bailey sn (1938). One historical collection. OM.
- Elymus canadensis* L. Dixon 128. Found in our region only along the Snake River. OF. G5T5 ORSNR.
- Elymus elymoides* (Raf.) Swezey ssp. *brevifolius* (J.G. Sm.) Barkworth. Andrews 844, Bratz 444-124, Bratz 445-58. Known only from Mahogany Mountain and higher elevations in Owyhee Mountains. Probably on higher summits in N. Nevada ranges. (*Sitanion hystrix* (Nutt.) J.G. Sm. var. *brevifolium* (J.G. Sm.) C.L. Hitchc.) OG, OM.
- Elymus elymoides* (Raf.) Swezey ssp. *californicus* (J.G. Sm.) Barkworth. 02-521, 05-489, 08-299. Occasional in sagebrush communities at upper elevations. (*Sitanion hystrix* (Nutt.) J.G. Sm. var. *californicum* (J.G. Sm.) F.D. Wilson). JIB, OF, OG, OM, OP.
- Elymus elymoides* (Raf.) Swezey ssp. *elymoides*. 02-087, 02-207, Smith 2518, 03-105, 06-128, 18470. Common in many upland communities at all elevations to high ridges in Jarbidge. (*Sitanion hystrix* (Nutt.) J.G. Sm.). BP, JIB, OF, OG, OM, OP.
- Elymus glaucus* Buckley ssp. *glaucus*. Grimes 1249, Dean 118, 18627, Burkhardt sn, Smith 14290, Smith 11739, 02-208, 08-463. Uncommon in shaded seepy areas from Three Forks to Leslie Gulch area, in upper Middle Fork and in upper Jarbidge River. JIB, OG, OM, OP.
- Elymus lanceolatus* (Scribn. & J.G. Sm.) Gould ssp. *lanceolatus*. 02-674, 02-638, 06-134, Corbin 1596, 18653. Uncommon in riparian areas at middle elevations. (*Agropyron dasystachyum* (Hook.) Scribn. & J.G. Sm.). OG, OP.
- Elymus lanceolatus* (Scribn. & J.G. Sm.) Gould ssp. *riparius* (Scribn. & J.G. Sm.) Barkworth. Lytjen 71, Lytjen 107, 99-42, 12-740, 13-099, 14-328, George 272, 10050, 22823. Often the dominant rhizomatous grass at seeps and riparian meadows at middle and lower elevations, but extending to 2400 m. (*Agropyron dasystachyum* (Hook.) Scribn. & J.G. Sm. var. *riparium* Scribn. & J.G. Sm.). JIB, OG, OM, OP.
- Elymus multisetus* (J.G. Sm.) Burt Davy. Bjork 4277. Known in sagebrush at base of Owyhee Front. OF.
- Elymus repens* (L.) Gould * 01-175, Grimes 216, 03-257B, 03-270, 03-100, 03-140C, 99-100, 08-464, 02-666, 01-205, 02-931, 02-852, Kramer sn, 02-852. Occasional to common in sandy riparian shores at lower elevations up to about 1600 m. (*Agropyron repens* (L.) P. Beauv.; *Elytrigia repens* (L.) Nevski). BP, OG, OP.
- Elymus trachycaulus* (Link) Gould ex Shinn. ssp. *trachycaulus*, 02-847, 02-945, 2002692, 01-238, 01-188, 03-107, 03-113, 03-139, 03-151, 03-157, 02-236, 02-753, 18594, 18619, Allen

- 38-A-113. Very common in sandy soils along the river at all elevations, more commonly lower and to Jarbidge River. (*Agropyron trachycaulum* (Link.) Malte ex H.F. Lewis; *Agropyron caninum* (L.) P. Beauv.). *E. trachycaulus* ssp. *trachycaulus* on top South Mountain (Smithman 2567) closely approaches *A. violaceus* (Hornem) Feilberg. That species is known from subalpine seeps above 2300 m on Steens Mountain and might be expected in Jarbidge or Independence Mountains. Specimens with awns over 6 mm (03-157, 02-279, 12-235) represent assorted hybrids. JIB, OG, OM, OP.
- Eragrostis cilianensis* (All.) Vign. ex Janchen * Tanner 138, Kotter 13. Rare in muds at Owyhee State Park and below the dam. OG.
- Eragrostis hypnoides* (Lam.) Britton, Sterns & Poggenb. Richards 22, Ertter 22111, Bjork 2335, Baker 8595, Hitchcock 23017. Uncommon at mudbanks of Snake River and Owyhee River. OF, OG.
- Eragrostis lutescens* Scribn. Richards 17. Rare. Known only around 790 m along lower Owyhee R. OG.
- Eragrostis pectinacea* (Michx.) Nees ex Steud. var. *pectinacea*. 99-330, Smithman 577, Richards 19, Ertter 253, Bjork 2320. Occasional in sandy or muddy shores from Fletcher's Crossing down Owyhee River to the Snake River and along lower Bruneau River. BP, OF, OG, OP.
- Eremopyrum triticeum* (Gaertn.) Nevski * 02-564, Lytjen 1, Brainerd 1106, Lytjen 10, Tackett 56, 08-038. Occasional in disturbed roadsides near Anderson Crossing and Dry Creek and across the Owyhee Front. (*Agropyron triticeum* Gaertn.). OF, OG, OP.
- Eriocoma hymenoides* (Roem. & Schult.) Rydb. 02-039, 02-73, Irwin 9236. Common on sandy soils in sagebrush or bunchgrass communities below about 1600 m. (*Achnatherum hymenoides* (Roem. & Schult.) Barkworth; *Oryzopsis hymenoides* (Roem. & Schult.) Ricker ex Piper). I follow Peterson et al. (2019) in treatment of this genus. BP, OF, OG, OM, OP.
- Eriocoma lemmonii* (Vasey) Romasch. 02-512B, 03-039 07-238, Brown 56. Uncommon to occasional in clay soils, playas, and big sagebrush at upper elevations. (*Achnatherum lemmonii* (Vasey) Barkworth ssp. *lemmonii*; *Stipa lemmonii* (Vasey) Scribn.), JIB, OM, OP.
- Eriocoma lettermanii* (Vasey) Romasch. 14-677, Smith 11667, Grimes 1689, Corbin 1383, 08112, 18482. Rare to uncommon; at pass between Jacks Creek and Humboldt River in Independence Mountains, high ridges in Jarbidge Mtns., MudFlat Rd., South Mountain, Silver City range. (*Achnatherum lettermanii* (Vasey) Barkworth). JIB, OM.
- Eriocoma nelsonii* (Scribn.) Romasch. subsp. *dorei* (Barkworth & J. Maze) Romasch. 05-404, Smithman 1879, Ertter 4453, Otting 659, 05-384, Nielsen 1109. Occasional in mesic sagebrush and adjacent riparian meadow communities above 1800 m. (*Achnatherum nelsonii* (Scribn.) Barkworth ssp. *dorei* (Barkworth & Maze) Barkworth; *Stipa nelsonii* Scribn. var. *dorei* (Barkworth & Maze) Dorn; *Stipa occidentalis* Thurb. var. *minor* C.L. Hitchc.). BP, JIB, OM, OP.
- Eriocoma nelsonii* (Scribn.) Romasch. ssp. *nelsonii*. Otting 655, 02-478B, Baker 8187, 03-386, Lytjen 121, 08-223, 09117, 18598. Uncommon to occasional on moist gravelly benches and riparian channels from about 1500 m to alpine ridges in Jarbidge Mtns. (*Achnatherum nelsonii* (Scribn.) Barkworth ssp. *nelsonii*; *Stipa nelsonii* Scribn.). Not readily distinguished from ssp. *dorei* in our region. JIB, OM, OP.
- Eriocoma nevadensis* (B.L. Johnson) Romasch. 07-343, Smith 11725, Firestone 8301, Firestone 8305, Christ 8087. Rare in mesic mountain big sagebrush above 1700 m from headwaters of W. Little Owyhee across the higher elevations of the Owyhee Plateau and Silver City range to the Bull Run and Jarbidge Mountains. (*Achnatherum nevadense* (B.L. Johnson) Barkworth; *Stipa nevadense* B.L. Johnson). JIB, OM, OP. G4 ORS2.
- Eriocoma occidentalis* (Thurb. ex S. Watson) Romasch. subsp. *californica* (Merr. & Burt Davy) Romasch. 02-651, 07-344, 2002508, 05-483. Occasional in sandy loams of bluebunch wheatgrass/sagebrush communities between 1400 and 2000 m. (*Achnatherum occidentale*

- (Thurb.) Barkworth ssp. *californicum* (Merr. & Burt Davy) Barkworth; *Stipa occidentalis* Thurb. var. *californica* (Merr. & Burt Davy) C.L. Hitchc.). JIB, OG, OM, OP.
- Eriocoma occidentalis* (Thurb. ex S. Watson) Romasch. subsp. *pubescens* (Vasey) Romasch. Smithman 2565, 05-363, 05-362, 18584. Occasional in bunchgrass communities on gravelly ridges above 1700 m in Owyhee Mountains to high Jarbidge and Independence Mountains. (*Achnatherum occidentale* (Thurb.) Barkworth ssp. *pubescens* (Vasey) Barkworth; *Stipa occidentalis* Thurb. var. *pubescens* (Vasey) Maze, Roy L. Taylor & MacBryde). JIB, OG, OM, OP.
- Eriocoma pinetorum* (M.E. Jones) Romasch. Bolton s.n. One record near Charleston in upper Bruneau River. (*Achnatherum pinetorum* (M.E. Jones) Barkworth). JIB. G4 ORS3.
- Eriocoma thurberiana* (Piper) Romasch. 02-044, 02-315, 02-355, 03-121, 03-179, Lytjen 3, 20051025, 08-293. Common in sandy soils in bunchgrass and sagebrush communities, more common at lower elevations. (*Achnatherum thurberianum* (Piper) Barkworth; *Stipa thurberiana* Piper). BP, JIB, OG, OM, OP.
- Eriocoma webberi* Thurb. 02-579, 99-133, Otting 610, Otting 1593. Uncommon in scablands at upper elevations. (*Achnatherum webberi* (Thurb.) Barkworth; *Stipa webberi* (Thurb.) B.L. Johnson). BP, OG, OM, OP. G4 ORS3.
- Festuca idahoensis* Elmer. 02-444, 02-541, 02-520, 2002582, Falker 36, Baker 7970. Common in sagebrush and grassland communities and rimrock at upper elevations throughout the region. BP, JIB, OG, OM, OP.
- Festuca rubra* L. ssp. *rubra*. 99-82, 9986, 99-87, Grimes 1692. Common on Toppin Ck. Butte, otherwise rare above 1600 m from upper W. Little Owyhee to Jarbidge region. JIB, OG, OP.
- Festuca saximontana* Rydb. ssp. *purpusiana* (St.-Yves) Fred. & Pavlick. 2002550, 14-252, Ertter 21994. Rare from South Mountain, and on north-facing slopes of Louse Canyon by Cold Springs to Jarbidge Mtns. JIB, OM.
- Festuca valesiaca* Schleich. ex Gaudin * Brainerd 1105. Known in roadside ditch at west end of Jordan Valley. OP.
- Glyceria borealis* (Nash) Batch. 03-195, 03-241, Otting 560, 15-308. Uncommon in vernal and riparian pools above Anderson Crossing, in Dry Creek, and in Duck Valley (Blue Ck.). OG, OP.
- Glyceria elata* (Lam.) C.L. Hitchc. 05294, George 297, Gerge 230, Corbin 1674. Occasional in riparian areas from Bull Meadows, South Mountain, Juniper Mtn. to Red Canyon to Jarbidge Mountains. JIB, OM.
- Glyceria grandis* S. Watson. 01-307, Dean 284, 04256, 13-189, 23196, 05351b, 15-251. Uncommon to occasional emergent in slow water of pools in the Bruneau and Owyhee Rivers, tributaries and wet meadow from 1050 to 1800 m. BP, JIB, OM, OP.
- Glyceria leptostachya* Buckley. Otting 622. One known collection near Crooked Creek NW of Rome. OP.
- Glyceria striata* (Lam.) A.S. Hitchc. 02-097, 18628. Rare to uncommon at seeps, such as Weeping Wall on main Owyhee River and along Jarbidge River. JIB, OM, OP.
- Hesperostipa comata* (Trin. & Rupr.) Barkworth ssp. *comata*. 02-038, Lytjen 2, Irwin 9237. Occasional to common on sandy sites in sagebrush and bunchgrass communities at lower to middle elevations. (*Stipa comata* Trin. & Rupr.). BP, OF, OG, OM, OP.
- Holcus lanatus* L. * Ertter 22112. Known in our region only from Mud Springs in Leslie Gulch. OG.
- Hordeum brachyantherum* Nevski. 02-705, 02-153, 02-512, 07-373. Common in many riparian communities. BP, JIB, OG, OM, OP.
- Hordeum jubatum* L. ssp. *jubatum*. 02-700, 02-100, Otting 998, Brainerd 434. Occasional at spring or seeps of middle to lower elevations. BP, JIB, OF, OG, OM, OP.

- Hordeum marinum* Huds. ssp. *gussonianum* (Parl.) Thell. * 02-1023, Parsell 161, Gilkey sn. Rare to uncommon in sandy sites along the river at lower elevations in the northern end of our region; e.g. Birch Ck. (*Hordeum geniculatum* All.). OG, OM, OP.
- Hordeum murinum* L. ssp. *glaucum* (Steudel) Tzvelev * 2002087, Brainerd 319, Hitchcock 22515, Tanner 50, Tanner 61, Bratz 446-96, Brainerd 328. Uncommon in weedy, mesic disturbed sites; e.g. Birch, Dry and Reynolds Creeks. (*Hordeum glaucum* Steudel). OF, OG, OM.
- Hordeum murinum* L. ssp. *murinum* * Packard GDS-82, Wilson 12537. Known from along Snake River near Guffy Butte and from Leslie Gulch. OF, OG.
- Koeleria macrantha* (Ledeb.) Schult. 02-036, 02-461, 02-470, 02-664, 2002561, 03-165, 03-253. Common in many mesic meadow, grassland and sagebrush communities. JIB, OG, OM, OP.
- Leersia oryzoides* (L.) Swartz. 02-1010, 21390. Uncommon along the Snake and Owyhee Rivers and tributaries at lower elevations. OF, OG.
- Leucopoa kingii* (S. Watson) Rydb. Rosentreter 4620, Ertter 21967. Jarbidge Mountains on rocky outcrops above 2500 m. Probably in Independence Mountains also. JIB.
- Leymus cinereus* (Scribn. & Merr.) A. Löve. 01-245, 02-913, 2002685, 02-280, 03-371, 07-400b, Andrews 842. Common in riparian zones on high riparian benches mostly of lower and middle elevations. Also where subirrigated in upland communities. (*Elymus cinereus* Scribn. & Merr.). BP, JIB, OF, OG, OM, OP.
- Leymus flavescens* (Scribn. & J.G. Sm.) Pilg. Bailey sn, Corbin 1595, Mancuso 2717, Corbin 1604. Rare; on sandy soils. Near Adrian; apparently not moving up Owyhee River; Oreana to Bruneau; an unusual paniculate form is known between Murphy and Oreana. (*Elymus flavescens* Scribn. & J.G. Sm.). OF, OG. G3 ORS1?.
- Leymus multicaulis* (Kar. & Kir.) Tzvelev * 02-290. Only known in sands at spring in Owyhee River below Iron Point. A Russian exotic new to our area. OG.
- Leymus triticoides* (Buckley) Pilg. Gilkey sn, Lytjen 108, Lytjen 80, Ottling 1611, 03-396. Occasional in sandy, alkaline soils near the water; Owyhee, Bruneau and Snake Rivers. (*Elymus triticoides* Buckley). BP, OF, OG, OP.
- Lolium multiflorum* Lam. * Grimes 215. Rare along the Owyhee River below the dam. (*Lolium perenne* L. ssp. *multiflorum* (Lam.) Husnot). OG.
- Melica bulbosa* Geyer ex Porter & J.M. Coult. 02-404, 02-467, 07-239, 21070, 20280, 05283, 17-968, Irwin 9134, Holmgren 9907. Occasional to common in mesic sagebrush and aspen woodlands at upper elevations. JIB, OM, OG, OP.
- Melica fugax* Boland. 02-399, 2002551, Irwin 9133. Occasional in mesic sagebrush communities at upper elevations. JIB, OM, OP.
- Melica spectabilis* Scribn. 05-420, Smithman 2573, Smithman 2108, Holmgren 660, Maguire 22308. In rocks from Silver City Range to South Mountain and upper W. Little Owyhee below Larribeau Reservoir and in Jarbidge Mtns. JIB, OM, OP.
- Melica stricta* Bol. var. *stricta*. Grimes 1669, Irwin 9225, Irwin 9289. Uncommon on shaly slopes at 2200 m in Independence Mountains and in Bald Mountain canyon at 1500 m. JIB, OM. G4 IDS1 ORS3.
- Muhlenbergia asperifolia* (Nees & Meyen ex Trin.) Parodi. 02-709, 2002682, 08507. Uncommon to occasional in alkaline, riparian meadows at lower to middle elevations. OF, OG, OM, OP.
- Muhlenbergia filiformis* (Thurb. ex S. Watson) Rydb. 17387, 08504, Ertter 4468, 18452, Tiehm 18049, Baker 8282. Occasional in alkaline seeps at lower elevation from near Rome to Sinker Ck. and at upper elevation seeps in Silver City Range and Jarbidge Mtns. JIB, OM, OP.
- Muhlenbergia mexicana* (L.) Trin. var. *filiformis* (Torr.) Scribn. 01-285, 02-877, 02-880, Smithman 578. Rare in the shaded N. Fork canyon and Bruneau canyon. BP, OP.

- Muhlenbergia minutissima* (Steud.) Swallen. Joyal 957, Packard 76-123. Rare and only on shores of Batch Lake. OP. G5 ORS2.
- Muhlenbergia richardsonis* (Trin.) Rydb. 02-281, 02-568B, 07-286, 09-457. Common in alkaline riparian meadows and gravel bars, mostly at lower and middle elevations. BP, JIB, OG, OM, OP.
- Panicum capillare* L. ssp. *capillare*. 02-1008, 02-1046, 02-729, 02-870. Common on sandy shores and gravel bars along the river at lower and middle elevations. BP, JIB, OF, OG, OM, OP.
- Panicum dichotomoflorum* Michx. ssp. *dichotomoflorum* * Grimes s.n., Ertter 256. Uncommon on sandy shores of the river below Owyhee Reservoir. OG.
- Panicum hirticaule* J. Presl. ssp. *hirticaule*. Tiehm 6644. Sulfur Hot Springs NW end of Independence Valley. OP.
- Panicum miliaceum* L. ssp. *miliaceum*. * Hollow 6. One collection; northwest of Murphy. OF.
- Pascopyrum smithii* (Rydb.) A. Löve. 01-196, 03-107, 02-204, 2002664. Uncommon to occasional on sandy, generally alkaline sites along Owyhee River at reservoirs and ashy areas at all elevations. (*Agropyron smithii* Rydb.). BP, OG, OP.
- Paspalum distichum* L. * 02-860, 99-336, 99-332. Common along Owyhee and Snake Rivers in lower, wet riparian, gravelly shores of lower elevations up to about 1200 m. OF, OG, OP.
- Phalaris arundinacea* L. * N 02-090, 02-162, 02-883, 02-775, 03-258, 07-101. Common in springs, seeps, and riverbanks at lower and middle elevations across the range up to 1800 m. JIB, OF, OP.
- Phleum alpinum* L. Ertter 4472, 07445, 04304, 18536. Uncommon in subalpine meadows from Silver City range to Jarbidge Mountains above 2200 m. JIB, OM.
- Phleum pratense* L. * 01-305, Kotter 37, 07-368, 18631. Uncommon in shady riparian sites at lower and middle elevations. BP, JIB, OG, OM, OP.
- Phragmites australis* (Cav.) Trin. ex Steud. ssp. *americanus*. Saltonstall, P.M. Peterson & Soreng. 07-074. Occasional to common in seeps, springs, and shores at lower and middle elevations. (*Phragmites communis* Trin.). BP, OF, OG, OP.
- Piptatheropsis exigua* (Thurber) Romasch., P.M. Peterson & R.J. Soreng. Corbin 1572, 18445. In rocks 0.8 miles south west of Hayden Peak in Silver City range and in high elevations in Jarbidge Mountains. (*Piptatherum exiguum* (Thurb.) Dorn; *Oryzopsis exigua* Thurb.). JIB, OM. G4G5 ORS2?.
- Poa annua* L. * Smithman 1938, 05307, Baker 8238, Klott 552. Disturbed sites from Silver City range to E. Fork Bruneau River. BP, OM.
- Poa* aff. *arnowii* Soreng. 22441. Rare. Known only from dense understory of mountain mahogany at Cougar Point in northern Jarbidge Mountains. JIB.
- Poa bulbosa* L. * 2002121. Occasional to common in disturbed sites throughout our region. BP, JIB, OF, OG, OM, OP.
- Poa compressa* L. * Andrews 837, Alexander 986, Ertter 4644, 10235, 14700. Along streams and mesic forest edges, in vicinity of Leslie Gulch, below Mahogany Mtn to Sands Basin, Silver City and Jarbidge area. JIB, OG, OM, OP.
- Poa cusickii* Vasey ssp. *cusickii*. Lytjen 22, 02-479, 2002457, 03-059, 02-429, 99-79, Henderson 5552, 02-570B, 22451. Occasional in rocky, mesic sites and wet meadows at middle to upper elevations. JIB, OG, OM, OP.
- Poa cusickii* Vasey ssp. *epilis* (Scribn.) W.A. Weber. Otting 2357, 08027, George 405, Nelson 1930, Nelson 949, 18472. Uncommon in dry gravelly soils above 1800 m in all our mountain ranges. JIB, OM.
- Poa cusickii* Vasey ssp. *pallida* Soreng. Brown sn, 14-245, 10185. Rare and known in wet meadows above 1800 m in North Fork Owyhee drainage, otherwise, in mountains out of our range but likely present in Jarbidge/Independence Mountains. OM.

- Poa fendleriana* (Steud.) Vasey. Otting 2367, 05247, Grimes 1657, 11-004, Irwin 005, 18564, Charlet 368, 08-275. Uncommon, on ridges from South Mountain to Calico, Independence and Jarbidge Mountains. JIB, OM. G5 TNR ORS2?.
- Poa infirma* Kunth. * Otting 2341B. Sandy bank of river at Rome launch. OP.
- Poa leibergii* Scribn. 2002401, 03-033, 03-049, 05-51, 08-067. Common grass of tufts in high elevation, relictual grasslands in West Little Owyhee, becoming less common but quite evident around 2000 m across Idaho (to south of Silver City and near Grasmere) into northern Nevada. JIB, OM, OP.
- Poa leptocoma* Trin. Padgett 2403, 20309, Tiehm 9956. Rarely seen in wet subalpine meadows in Sliver City Range and Northern Nevada ranges above 1900 m. JIB, OM.
- Poa palustris* L. 01-288, 02-936, 02-938, 02-905, Klott 194, 02-071, 02-800, 02-816, 02-143, 03-267, 18649. Common by water and pools at middle and upper elevations. JIB, OM, OP.
- Poa pratensis* L. ssp. *agassizensis* (B. Boivin & D. Löve) Roy L. Taylor & MacBryde. 20088, Andrews 837, 02-483, 12-155. Mahogany Mountain in mud by seep to Hoppin Springs and Deep Ck. OG, OP.
- Poa pratensis* L. ssp. *pratensis* * 02-143, 02-07102-483, 2002370, 03-101, 05-407, 07-372, George 169, 12-318. Common in wetland meadows at all elevations. BP, JIB, OF, OG, OM, OP.
- Poa secunda* J. Presl. ssp. *juncifolia* (Scribn.) Soreng. Ecotypes of this subspecies are morphologically distinctive as follows:
- Poa nevadensis* Scribn. 02-461b, 02-484, 02-057, 02-237b, 02-590, 2002520, 03-161.
Common in wet meadows and vernal wetlands mostly at middle elevations between 1100 and 1800 m. OM, OP.
- Poa ampla* Merr. 02-178, 02-278, 03-104, 03-235, Dean 52, 08440, 20093, 20063, Irwin 9154. Occasional to common in vernal wet canyon ravines and mesic slopes at all elevations throughout the region up to 2500 m. BP, JIB, OG, OM, OP.
- Poa juncifolia* Scribn. 01-54, 08322, 04012. Uncommon in alkaline wetlands along the river at low elevations. BP, OP.
- Poa secunda* J. Presl. ssp. *secunda*. Ecotypes of this subspecies are morphologically distinctive as follows:
- Poa sandbergii* Vasey. 2002069, 02-445, 02-703. Common in bunchgrass and big sagebrush communities at all elevations up to at least 3000 m. BP, JIB, OF, OG, OM, OP.
- Poa scabrella* (Thurb.) Benth. 02-429, 02-616, 2002458, 02-430, 05-210. Occasional in wet meadows and scabland swales at higher elevations. JIB, OM.
- Poa gracillima* Vasey. Lytjen 182, Irwin 9113, 10075. Uncommon from higher elevation meadows in Dry Creek, shade in Bruneau canyon and upper North Fork Owyhee River canyon. BP, OG, OM.
- Poa canbyi* (Scribn.) Howell. 02-328, 02-083, 2002101, 20094, 20128, 2002362, 200553111, 12-433, 14352. Occasional in dry rocky soils in many communities up to about 1800 m. BP, JIB, OM, OP.
- Poa trivialis* L. * 99-52, 14-227, Tiehm 18055. Uncommon; introduced sporadically: W. Little Owyhee by pools with other common riparian vegetation, South Mountain and Jarbidge River. JIB, OM, OP.
- Poa wheeleri* Vasey. 02-570B, 04291, Ertter 21987, Baker 7932. Occasional to locally common in mudflats to coniferous forest understory at upper elevations. (*Poa nervosa* (Hook.) Vasey var. *wheeleri* (Vasey) C.L. Hitchc.). JIB, OM, OP.
- Podagrostis thurberiana* (Hitchc.) Hulten. Tiehm 11398, Baker 8263, 18626, 18559, 18572. Alpine riparian and rocky areas above 2600 m in Jarbidge Mtns, Sawpit Gulch near Silver City. (*Podagrostis humilis* (Vasey) Björkman misapplied to our material; *Agrostis thurberiana* Hitchc.). rachilla projected, long palea. JIB, OM.

- Polypogon monspeliensis* (L.) Desf. * 02-189. Common at springs and seeps at lower and middle elevations. BP, OF, OG, OM, OP.
- Psathyrostachys juncea* (Fisch.) Nevski * NOT Documented but likely present. Russian wildrye introduced widely and foolishly by BLM. (*Elymus junceus* Fisch.).
- xPseudelymus saxicola* (Scribn. & J.G. Sm.) Barkworth & D.R. Dewey. Peck 21824, Smith 7934, Smith 7197. An uncommon hybrid of *Pseudoroegneria spicata* and *Elymus elymoides* from Owyhee canyon near Rome to Owyhee Front and Bruneau overlook. (*Agrositanion saxicola* (Scribn. & J.G. Sm. Bowden). BP, OF, OG, OP.
- Pseudoroegneria spicata* (Pursh) A. Löve. 02-077, 02-650, 02-591, 03-137, 07-334, Smith 7196. A dominant bunchgrass on slopes of grasslands and sagebrush steppe at all but the highest elevations. The unawned form of bluebunch wheatgrass sometimes referred to as forma *inermis* (e.g. Packard 73-61), attributable to a single dominant allele, occurs occasionally in our area. (*Agropyron spicatum* Pursh). BP, JIB, OF, OG, OM, OP.
- Puccinellia distans* (Jacq.) Parl.ssp. *distans* * 99-158, Otting 578, Packard 77-44, Corbin1676. Uncommon. Dry Creek to below the reservoir and Succor Ck. drainage near Rockville to lower Bruneau. OF, OG.
- Puccinellia lemmonii* (Vasey) Scribn. 04-008, Cronquist 8410, Tiehm 12905. Rare. In alkaline seeps near Crooked Creek and by IL Ranch in Owyhee Desert, not entering Idaho here. OP.
- Puccinellia nuttalliana* (J.A. Schultes) A.S. Hitchc. Otting 617, Peck 21791, Peck 25767. Uncommon. In alkaline stream terraces from Crooked Creek to Jordan Valley and lower Trout Creek Mountains. OM, OP.
- Schedonorus arundinaceus* (Schreb.) Dumort. * 02-333, Otting 1597. Uncommon near drainage ditches and riparian areas with *Phragmites* at mid to lower elevations. OF, OG, OP.
- Schedonorus pratensis* (Huds.) P.Beauv. * 01-278, 01-82, 02-694, 02-879. Occasional to uncommon in the lower riparian areas at lower and middle elevations. (*Festuca pratensis* Huds.). OG, OM, OP.
- Sclerachloa dura* (L.) P.Beauv. * Brainerd 323, Brainerd 1101, Brainerd 1111. In muddy, generally disturbed soils at lower elevations. OG, OP.
- Secale cereale* L. * 02-1001. Uncommon and escaped from cultivation at lower elevations. OF, OG.
- Setaria pumila* (Poir.) Roemer & J.A. Schultes ssp. *pumila* * Packard GDS 77. Guffy Butte. OF.
- Setaria viridis* (L.) P. Beauv. * 02-830b, 02-887b. Uncommon in sands and gravels along the Owyhee and Snake Rivers at lower and middle elevations. OF, OP.
- Spartina gracilis* Trin. 02-084, Otting 613. Occasional in riparian zone at lower and middle elevations. OF, OG, OP.
- Sphenopholis obtusata* (Michx.) Scribn. Mancuso 1707. Rare; YP Desert Little Owyhee. OP.
- Sporobolus airoides* (Torr.) Torr. Otting 630, 15-070, 06-191, Baker 11159. In sand. Known only from Crooked Ck. and over to Bruneau Dunes. OF, OG, OP.
- Sporobolus cryptandrus* (Torr.) A. Gray. 02-1014, 06-99. Locally common on sandy alkaline flats and outwash slopes at lower elevations; e.g. near Birch Ck., Jump Ck. BP, OF, OG, OP.
- Taeniatherum caput-medusae* (L.) Nevski. * N 02-309, Otting 587, 06-107, 03-150. Uncommon to locally dominant at disturbed sites at lower elevations. (*Elymus caput-medusae* L.). OF, OG, OP.
- Thinopyrum intermedium* (Host) Barkworth & D.R. Deey ssp. *barbulatum* (Schur) Barkworth & D.R. Dewey * Lytjen 293, 08-603, 04201, 04265. Occasional to common. Disturbed sites near agriculture and along the rivers mostly below 1800 m but extending up into Jarbidge River. (*Agropyron intermedium* (Host) P. Beauv.; *Elytrigia intermedia* (Host) Nevski). JIB, OG, OM, OP.
- Thinopyrum intermedium* (Host) Barkworth & D.R. Dewey ssp. *intermedium* * Locuson 8, 06-182. Occasional to common. Disturbed sites at lower elevations. JIB, OG, OM.

- Thinopyrum ponticum* (Podp.) Barkworth & D.R. Dewey * 2002686, 01-247, 09-417.
Uncommon in alkaline disturbed soils. (*Agropyron elongatum* (Host) P. Beauv.; *Elytrigia pontica* (Podp.) Holub; *Thinopyrum ponticum* (Podp.) Z.-W. Liu & R.-C. Wang). OF, OP.
- Torreyochloa pallida* (Torr.) Church var. *pauciflora* (J. Presl.) J.I. Davis. Otting 668, 05-426.
Uncommon in streams and seeps at upper elevations. (*Pucinellia pauciflora* (J. Presl.) Munz). BP, OG, OM, OP.
- Trisetum spicatum* (L.) K. Richt. 18473, 07455, Tuhy 2865, Baker 7915. Occasional. Summits and ridges in Silver City, Independence, and Jarbidge Ranges. JIB, OM.
- Triticum aestivum* L. * 2002665. Uncommon; escaped from cultivation at lower elevations. OG.
- Ventenata dubia* (Leers) Coss. * N Corbin 1373, 15-169. Becoming locally common from Owyhee Front to Mud Flat Rd. JIB, OM, OP.
- Vulpia bromoides* (L.) S.F. Gray * 02-056, 03-146. Uncommon in sagebrush and bunchgrass communities at lower elevations; more common when overgrazed. (*Festuca bromoides* L.). BP, OG, OM, OP.
- Vulpia microstachys* (Nutt.) Munro. Curto 1464, Peck 21823, (2002232), Brainerd 318, 13-041, 13-042. Uncommon in dry, disturbed gravelly sagebrush areas. Varieties are not recognized in any of the recent floras in our region. JIB, OF, OG, OM, OP.
- Vulpia muros* (L.) Gmel. * Tiehm 18732, A. Holmgren 580, Rare from Bull Run Mountains/S. Fork Owyhee R. and along Snake River. OF, OG, OP.
- Vulpia octoflora* (Walter) Rydb. var. *hirtella* (Piper) Henrard. 05-31, Packard 80-54, Smith 9486.
On dark, barren sandy site at Crooked Creek crossing south of Burns Jct. to Oreana. (*Festuca octoflora* Walter). OF, OG, OM, OP.

POLEMONIACEAE

- Aliciella leptomeria* (A. Gray) J.M. Porter. 01-75, 02-176, 02-186, 02-563, Otting 325, 10-141, 02-687, 2002251, 06-42, Otting 524, 05-23b, Smith 8613. Common on barren sand, ash, and gravel slopes at all elevations. Collections with corolla lobe tips resembling *A.triodon* (such as by Birch Creek along Owyhee Front) lack the constriction atop the corolla tube and are likely an allotetraploid form this more common *Aliciella leptomeria*. (*Gilia leptomeria* A. Gray). OF, OG, OM, OP.
- Aliciella lottiae* (A.G. Day) J.M. Porter. Baker 10102, N. Holmgren 5815, N. Holmgren 4937, Cronquist 8405, Hitchcock 22564. Uncommon in sandy soils in sagebrush from Rome around to Bruneau on Owyhee Front. OF, OP.
- Aliciella micromeria* (A. Gray) J.M. Porter. 05-32. Rare on dark, barren, sandy soils at Crooked Creek west of Rome. Only two verified populations in our area. (*Gilia micromeria* A. Gray; *Gilia leptomeria* A. Gray var. *micromeria* (A. Gray) Cronquist). OP.
- Collomia debilis* (S. Watson) Greene var. *trifida* Payson. Rosentreter 4648, Tiehm 11387, 18499, 18505, 18571. Uncommon on alpine ridges and talus slopes in Jarbidge Mountains. JIB.
- Collomia grandiflora* Douglas ex. Lindl. 02-014, 02-030. Occasional to common along the river and in moist sagebrush communities at lower to middle elevations. OG, OM, OP.
- Collomia linearis* Nutt. 02-157, 02-156, 02-302, 02-396, 02-734, 07-333. Common in sandy sites in sagebrush and riparian communities. JIB, OG, OM, OP.
- Collomia macrocalyx* Leib ex. Brand. 06-124a, 07-223, 07-216, 05125, 07-227, Findley 1121, Wright 1962. Uncommon on gravelly benches amidst sagebrush north of Anderson Crossing. OG, OP.
- Collomia renaeta* Joyal. 2002331, 2002373, 04-16, 05-226, 08-081b, Findley 1207, Findley 1209, 06-124. Rare, locally endemic; on black, gravelly benches with sagebrush around Anderson Crossing and Lucky Seven cow camp. OP. G1 NVS1 ORS1.
- Collomia tenella* A. Gray. Knocke 2017-36, Tiehm 17981. Rare; few populations known on gravelly ridges and hillsides above 2200 m in Jarbidge Mountains. JIB. G4 ORSNR.

- Collomia tinctoria* Kellogg. 07449, Ertter 4480, Corbin 1692. Rarely seen. Silver City, Sawpit Gulch. OM.
- Eriastrum signatum* D. Gowen. Otting 590, Huston 2017-21, 2002760, 07-253, 15-177, Smith 8675, Prentice 5650A. Occasional to common in sandy to gravelly soils mostly in sagebrush communities from around 900 – 1700 m. Some specimens possess the minute glandular hairs of their more western relative, *E. sparsiflorum*. (*Eriastrum sparsiflorum* (Eastw.) H. Mason misapplied). BP, OF, OG, OM, OP.
- Eriastrum wilcoxii* (A. Nelson) H. Mason. Lytjen 252, 17-059, Smith 12590, Ertter 12077, 14-286, Smith 12463, 14-286, 10135, 10137, 10130, Nielsen 1048, Ertter 581-3, Rosentreter sn, 09191, Smith 8707, 07256, Nielsen 1052, Bratz 273-49. Common at lower elevations in sagebrush communities and barren sites. (*Eriastrum sparsiflorum* (A. Eastw.) H. Mason var. *wilcoxii* (A. Nelson) Cronquist). BP, OF, OG, OP.
- Gilia brecciarum* M.E. Jones ssp. *brecciarum*. Trueblood sn, 0567, Case 42, Smithman 943, Grimes 297. Uncommon in sand, ash and gravel slopes along the Owyhee Front and along lower Owyhee River to vicinity of Rome, up to 1200 m. OF, OG, OP.
- Gilia inconspicua* (Sm.) Sweet. 2002067, 2002342, 2002100, Otting 1604, Smith 8686, Rosentreter 1706, 22121, 22153, 22835. Common on barren sand, ash, and gravel slopes at lower to middle elevations. OF, OG, OP.
- Gilia modocensis* Eastw. Joyal 1097. Rare in our area only reaching the Owyhee Breaks from the SW of us. OG.
- Gilia sinuata* Douglas ex. Benth. 05-36, Joyal 774, Otting 628, Smithman 2255, Packard 78-78, 22154, 93-17, 15-050, 15-012a, Prentice 950021. Occasional to common from Rome and Dry Creek around to Mud Flat Rd on the Owyhee Front, in barren sandy ash. (*Gilia inconspicua* (Sm.) Sweet var. *sinuata* (Douglas ex Benth) A. Gray). OF, OG, OP.
- Gilia tweedyi* Rydb. 07226, Pinzl 10703 Otting 524, Rare to uncommon in gravelly soils; Dry Creek to Anderson Crossing and just south of us at east base of Independence Mountains. JIB, OG, OP.
- Gymnosteris nudicaulis* (Hook. & Arn.) Greene. Smithman 958, Corbin 1580. Rare on barren slopes; Owyhee River below the dam to French John Hill. OF, OG.
- Gymnosteris parvula* A. Heller. Peck 20610, Rosentreter 1316, Leiberg 2144. Rare; known from historical collections near Rome, Dry Creek and near Grandview. OF, OG, OP.
- Ipomopsis aggregata* (Pursh) V.E. Grant ssp. *aggregata*. 10-190, 02-952, Shock sn, Andrews 759. Occasional on gravelly slopes at upper elevations throughout our area. JIB, OG, OM.
- Ipomopsis congesta* (Hook.) V.E. Grant ssp. *congesta*. Brainerd 363, 05-192, Packard 72-167, DeBolt 816, 04-038. Occasional on open slopes at lower elevations from Dry Creek to McDermitt basin and lower Bruneau. (*Gilia congesta* Hook.) OF, OG, OP.
- Ipomopsis congesta* (Hook.) V.E. Grant ssp. *palmifrons* (Brand) A.G. Day. 04-038, 10-142, Rosentreter sn., DeBolt 1133. Uncommon; known only from barren ashy gravels near Jackson Summit to Independence Mountains and in lower Bruneau River area. (*Gilia congesta* Hook. var. *palmifrons* (Brand) Cronquist). JIB, OF, OG, OP.
- Ipomopsis polycladon* (Torr.) V.E. Grant. 06-43, Duft 71. Quite rare; Bruneau Dunes to Owyhee Front. (*Gilia polycladon* Torr.). OF. G4 IDS2.
- Ipomopsis tenuituba* (Rydb.) V.E. Grant ssp. *tenuituba*. 04225, 09085, Stowell 2017-05, Knocke 2017-43. In our area only from Independence Mountains to west of Jarbidge Mountains in Nevada. JIB.
- Langloisia setosissima* (Torr. & A. Gray ex Torr.) Greene ssp. *punctata* (A. Gray. ex Coville) Timbrook. Peck 21238, Rosentreter 50, Packard 78-160, Peck 20660, Smithman 0849, Bratz sn, Ireland 1656. Uncommon. On barren slopes from Dry Creek to Owyhee River below the dam and along the Owyhee Front; less common in Oregon. (*Langloisia punctata* (A. Gray ex Coville) Goodd.). OF, OG. G4G5T3T5 ORSNR.

- Lathrocasis tenerrima* (A. Gray) L.A. Johnson. 2002287, Corbin 1466, Holmgren 16286. Rare in clay flats in sagebrush communities near Anderson Crossing and gravelly soils at New York summit in Silver City Range. (*Gilia tenerrima* A. Gray). JIB, OM, OP. G5 ORSNR.
- Leptosiphon harknessii* (Curran) J.M. Porter & L.A. Johnson. 02-380, 02-423, 03-365, 07-370. Occasional in meadows and mesic aspen and sagebrush communities at upper elevations. (*Linanthus harknessii* (Curran) Greene). JIB, OM, OP.
- Leptosiphon liniflorus* (Benth.) J.M. Porter & L.A. Johnson. Henderson 8921, Peck 25729, Macbride 358. Known only from historical collections from Jordan Valley and Rome to Silver City. OM, OP.
- Leptosiphon septentrionalis* (H. Mason) J.M. Porter & L.A. Johnson. 02-190, 02-546, 20056217, 07-236, 08-303, Klott 69, Klott 628. Occasional in clay depressions or sandy openings in sagebrush and grassland communities at mostly upper elevations. (*Linanthus septentrionalis* H. Mason). JIB, OG, OM, OP.
- Linanthus glaber* (Patterson & Yoder-Williams) J.M. Porter & L.A. Johnson. Rosentreter 3150, Rosentreter 2702, 10034, Rosentreter 1685, Rosentreter 1674, Rosentreter 2702. Rare on canyon walls in Jarbidge and Bruneau canyons. (*Leptodactylon glabrum* Patterson & Yoder-Williams). BP OP. G2 IDS2.
- Linanthus pungens* (Torr.) J.M. Porter & L.A. Johnson. 02-045, 02-058, 02-442B, 2002253, 02-027, Atwood 23791. Common in rocks and adjacent scrub communities at all elevations. (*Leptodactylon pungens* (Torr.) Nutt.). BP, JIB, OF, OG, OM, OP.
- Microgilia minutiflora* (Benth.) J.M. Porter & L.A. Johnson. 04-324, Etter 2374, Piemeisel 40-317. Rare, known only in northeastern part of our region from sandy shores of the Owyhee River south of Birch Creek to Sailor Ck. (*Gilia minutiflora* Benth.; *Ipomopsis minutiflora* (Benth.) V.E. Grant). OG, OM.
- Microsteris gracilis* (Hook.) Greene ssp. *humilior* (Greene) H. Mason. 02-422, 2002053, 2002003, 03-062, 03-028, 03-202, 03-086. Common in early spring in moist sagebrush communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Navarretia breweri* (A. Gray) Greene. 02-391, 07-340. Locally common, in seasonally wet areas in sagebrush communities, mostly in mountains. BP, JIB, OG, OM, OP.
- Navarretia propinqua* Suksd. 02-452, 02-514, 02-631, 02-644, 07-289, 08-541b, 15-333, 14-602, 15-201, 01-272, 07337. Common in gravel bars and vernal pools and playas at upper and middle elevations. Some specimens approach *N. intertexta*. (*Navarretia intertexta* (Benth.) Hook. ssp. *propinqua* (Suksd.) A.G. Day). BP, JIB, OF, OG, OM, OP.
- Navarretia leucocephala* Benth. ssp. *minima* (Nutt.) A.G. Day. 99-81, 03-219, 05-402, 06-88, 08-541, 14-656, 12-358, 12-122, Otting 2347, Smith 11752, 13-161, Baker 9764. Uncommon to occasional in playas and meadows at middle to upper elevations. (*N. minima* Nutt.). JIB, OM, OP.
- Navarretia sinistra* (M.E. Jones) L.A. Johnson ssp. *sinistra*. 06-198, Otting 917, Hardison 8927, Bratz 363-167, Smithman 2106, Corbin 1693, 06-81, 20295b, Baker 7964. Uncommon in muds of vernal wet sites at middle to upper elevations from DryCreek, Nickel Table and Silver City Range to Duck Valley. (*Gilia sinistra* M.E. Jones). May be mistaken for *N. capillaris* which has externally glandular corolla tube and throat, but does not reach our area. OG, OM, OP. G4G5T4T5 ORS4.
- Phlox aculeata* A. Nelson. 02-054, 08-087, Harris 2017-02, Seymour 2017-28. Occasional on ash in sagebrush and bunchgrass communities; common on the Owyhee Front; Fletcher's Crossing and Anderson Crossing to N. Nevada. Calyx membrane keeled. BP, JIB, OF, OG, OM, OP.
- Phlox austromontana* Coville. Packard 76-118, 03052, 0564, 0544b, 06-141b, 08086, Bambans 2017-52. Common in shallow, rocky soils at upper elevations with low sage. Calyx membrane keeled, leaf tips acerose. BP, JIB, OG, OM, OP.

- Phlox caespitosa* Nutt. 12-023. One population in rocky outcrops of north facing juniper slopes along N. Fork Owyhee River. OM.
- Phlox hoodii* Richardson ssp. *canescens* (Torr. & A. Gray) Wherry. 02-209, 2002008, 2002295, 02-503, 2002243, Ertter 8377, 08-052, Lytjen 183. Common on scabland soils at all elevations. Calyx arachnoid; intercalyx membrane flat. BP, JIB, OF, OG, OM, OP.
- Phlox longifolia* Nutt. 2002031, 2002057, 2002237, 2002466, 03-201, 08-053, Hodzic 2017-02, Tate 2017-10. Common in diverse, vernal moist communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Phlox viscida* E. Nelson. Packard 80-158. Rare. Jack's Creek Idaho. One population disjunct from the range in Mountains of west central Idaho and northeastern Oregon. OM.
- Polemonium californicum* Eastw. Tait sn., Findley 862. Rare; known from our region only from Louse Canyon in W. Little Owyhee R. (Louse Canyon). Taproot lacking; rhizomes with 1-2 stems per tip; stigmas exerted, terminal leaflet gen confluent with rachis, lflts gen > 8mm long and > 3 mm wide. OP.
- Polemonium foliosissimum* A. Gray var. *alpinum* Brand. Smith 11882, 09105. Rare in our area; Aspen stands in Independence Mountains. JIB.
- Polemonium micranthum* Benth. Lytjen 23, 2002357, Moiso 42. Uncommon to occasional on loams in bunchgrass communities at all elevations. BP, JIB, OF, OG, OM, OP.
- Polemonium pulcherrimum* Hook. ssp. *pulcherrimum*. 2002422, 2002518a, 05-431. Occasional in rimrock at upper elevations. Taproot and caudex with several stems; stigmas included, terminal leaflet narrowed to petiolule, lflts < 8mm long and < 4 mm wide. OP.

POLYGONACEAE

- Aconogonon phytolaccifolium* (Meisn. ex Small) Rydb. var. *glabrum* S.P. Hong. 12-750, Bratz 557-167, Tucker sn., Baker 8109. Locally common in Silver City range and South Mountain at highest elevations. (*Polygonum phytolaccifolium* Meisn. ex Small). OM.
- Bistorta bistortoides* (Pursh) Sm. 2002408. Locally abundant in wet and mesic meadows at upper elevations. (*Polygonum bistortoides* Pursh). JIB, OM, OP.
- Chorizanthe brevicornu* Torr. var. *spathulata* (Small ex Rydb.) C.L. Hitchc. Peck 25733, Peck 25715, Peck 21688, Packard 80-51, Macbride 1033. Historical collections 2 to 15 miles SW of Rome, and in vicinity of Oreana. OP. G5T2T4 ORSNR.
- Chorizanthe watsonii* Torr. & A. Gray. 03-210, 20051074, 09-18. Rare on gravelly openings in sagebrush or horsebush from near Rome to Anderson Crossing. OP.
- Eriogonum baileyi* S. Watson var. *baileyi*. 02-272, Grimes 1988, Nielsen 1072, 2004006, 05-83, 09-435. Uncommon on ash outcrops at lower elevations from south of Rome to the Snake River plain. OF, OG, OM.
- Eriogonum brachyanthum* Coville. 09-436. Rare, known only from alkaline sandy sites along Crooked Creek. Only evident some years. OP.
- Eriogonum brevicaule* var. *desertorum* (Maguire) S.L G5 ORS1. Welsh. Holmgren 9912. One population known on barren gravelly slope in S. Bruneau River, near 41.578 N 115.555 W. JIB.
- Eriogonum caespitosum* Nutt. 2002139, 02-119, 2002280, 02-400, 09-20. Common in rocky sagebrush communities at all elevations. One anomalous specimen with sterile shoots, not matted (Sharp 516) from summit between Oreana and Triangle has been referred to by Cronquist as *E. douglasii* (var. *elkoense*), but lacks the telltale bracts at midstem of that species. BP, JIB, OF, OG, OM, OP.
- Eriogonum calcareum* (S. Stokes) Grady & Reveal var. *sceptrum* (Reveal) Reveal & Mansfield. Smith 14996, Stevens 45, 15-031, 15-042, 06-37, Corbin 1293. Locally common, endemic to barrens of ash and oolitic lacustrine deposits along the Owyhee Front. OF. G4 IDS4.
- Eriogonum cernuum* Nutt. Pinzl 13422. One collection in upper Bruneau drainage near Charleston. Several collections in the Owyhee Front of *E. watsonii* have been mistakenly called *E. cernuum*. JIB.

- Eriogonum chrysops* Rydb. Otting 828, 22107. Rare on exposed gravels; endemic to Dry Creek drainage, Skull Creek on west side of Owyhee Reservoir. OG. G2 ORS2 LT.
- Eriogonum compositum* Douglas ex Benth. var. *compositum*. Packard 76-102, Tanner 93, Ertter & Grimes 1993. Occasional in brown ash by Owyhee dam, extending beyond our range to the northwest. OG.
- Eriogonum crosbyae* Reveal var. *mystrium* (Reveal) Grady & Reveal. Smithman 2554, 14-256. Rare on barrens entering our region from the southwest; South Mountain. (*Eriogonum ochrocephalum* S. Watson var. *eriatum* Reveal; *Eriogonum prociduum* Reveal var. *mystrium* Reveal). OM. G4T2T3 ORS2 LT NVS1 IDS1.
- Eriogonum douglasii* Benth. var. *elkoense* Reveal. 14-618, Mancuso 4063, 21046. Narrow endemic at Sunflower Flat in N. Nevada in mountain big sagebrush and Idaho fescue. JIB. G5T1 NVS1.
- Eriogonum ertterae* Reveal & Grady ined. 12-731. Edemic known only from War Eagle Mountain in Silver City Range. Taxonomy uncertain. OM.
- Eriogonum heracleoides* Nutt. var. *heracleoides*. 02-402. Occasional to common in rocky sagebrush communities at upper elevations. BP, JIB, OG, OM, OP.
- Eriogonum hookeri* S. Watson. 02-358, 04-329. Rare; one population on tan ash above Greeley Bar and in Leslie Gulch. OG. G5 IDS1 ORS1.
- Eriogonum kingii* Torr. & A. Gray. Tiehm 18894, Tiehm 18575. Rare at approximately 2500 m on ridges in the Bull Run Mountains. JIB.
- Eriogonum lewisii* Reveal. Tiehm 9967, Tiehm 5193. Rare. Slide Rock Ridge alpine rocks, upper E. Fork Jarbidge R. and on alpine ridges in Independence Mountains. JIB. G3, NVS3.
- Eriogonum maculatum* A. Heller. 2002689, Peck 25755, Andrews 821, 04-003, 04-030, 04-123, 20051062, 09-195, Smith 8674. Uncommon to occasional in sandy washes and ash from SW of Rome to near the Owyhee Reservoir and to the Owyhee Front in Idaho. OF, OG, OP.
- Eriogonum microthecum* Nutt. var. *laxiflorum* Hook. 02-699C, 03-215, Otting 986, 01-223, 02-998, 2002627, 02-618, 02-253, 02-319, 06-142. Common on ash and gravel outcrops and playas from throughout our region. A short form in Southern Malheur Co. seems distinct from other members of this variety in our region. BP, JIB, OG, OM, OP.
- Eriogonum nidularium* Coville. 02-357, 02-316, 2002751, 03-156, 04-330, 05-82, 09-438. Occasional in ash outcrops at lower elevations in Oregon and Idaho. OF, OG, OP.
- Eriogonum niveum* Dougl. ex Benth. Lytjen 93. Rare in our area on rocky bluebunch/sagebrush slopes barely entering our area from the NW of us into Dry Creek drainage. OG.
- Eriogonum novonudum* M. Peck. 01-59, 01-51, 01-219, 02-1031, 02-115, 02-177, 06-104, 09-180. Locally common on ash outcrops from Rome to Leslie Gulch; and barely reaching the Owyhee Front near Squaw Ck. OF, OG. G4 IDS1.
- Eriogonum ovalifolium* Nutt. var. *ovalifolium*. 02-040, 02-308, 02-050, Lytjen 5. Common in sagebrush communities at lower elevations. BP, OF, OG, OM, OP.
- Eriogonum ovalifolium* Nutt. var. *purpureum* (A. Nelson) Durand. 02-249, 2002080, 2002592, 2002028, 2002109, Smith 14998. Very common in sagebrush communities at all elevations. Varieties sometimes not well distinguished. Different flower color morphs of these 2 varieties can be found in the same populations along lower Owyhee River. BP, JIB, OF, OG, OM, OP.
- Eriogonum palmerianum* Reveal. Smithman 580. This Great Basin species is known only from one collection in Bruneau canyon. OF. G4 IDS1.
- Eriogonum salicornioides* Gand. 02-181B, 02-193, 02-196, 03-124, 06-108, Ertter 1968, Packard 74-69, 04019, 08133. Occasional to common on ash outcrops at lower elevations. Intermediates with *E. baileyi* are along Crooked Ck. OF, OG, OM, OP. G3G4 ORS2.
- Eriogonum shockleyi* S. Watson var. *shockleyi*. DeBolt 828, Rosentreter sn, DeBolt 1465, Grimes 1742. Shoefly Creek to Bruneau River barrens (including *E. shockleyi* S. Watson var. *packardiae* Reveal). OF. G5 IDS3.

- Eriogonum sphaerocephalum* Douglas ex Benth var. *halimoides* S. Stokes. Lytjen 96. Only entering Owyhee drainage in north end; Dry Creek. OG.
- Eriogonum sphaerocephalum* Douglas ex Benth var. *sphaerocephalum*. 2002264, 02-341, 2002482, 02-346, 02-648, 03-389, 05-412, 07-335, Smith 7916. Occasional to common in rocks and gravels or ash outcrop soils at lower elevations and scabland clays at upper elevations. BP, OG, OM, OP,
- Eriogonum strictum* Benth. var. *anserinum* (Greene) Davis. 02-1029. Uncommon in green ash tuff from Leslie Gulch and Succor Ck. sporadically throughout Owyhee Plateau, Bruneau Plateau and Jarbidge mountains. BP, JIB, OG, OM, OP.
- Eriogonum strictum* Benth. var. *proliferum* (Torr. & A. Gray) Reveal. 02-594, 02-617, 02-647, 02-747, 2002516, 03-240, 20051097, 08-302. Common in rocky soils occurring with all sagebrush species at all elevations throughout the range. BP, JIB, OG, OM, OP.
- Eriogonum umbellatum* Torr. var. *aureum* (Gandog.) Reveal. 05-434, 07-390, 07-241, 07-280, 02-443, 09212b, 07463, 18610, 21037, 21040, 2002614, 08451, Ertter 21974. Occasional on sagebrush slopes and in rocks between 1750 and 2700 m in upper W. Little Owyhee River drainage; very common as a larger-leaved, more shrubby form that approaches *E. umbellatum* var. *nevadensis* in Jarbidge region and some isolated populations in Silver City Range. But all extremes of this variable variety are glabrous or nearly so on both leaf surfaces. (simple umbellate, bright yellow flowers, lvs obovate to elliptic, both lf surfaces glab with some marginal tufts). JIB, OM, OP.
- Eriogonum umbellatum* Torr. var. *deserticum* Reveal. Rosentreter 4650, 07-439, 21092, 20288, 18425, 18486b, 20373, 20531, 03-331. Occasional on scree and gravelly soils above 1950 m in Jarbidge and Silver City Mountains to Lime Mountain in Bull Runs. There is more variation in this variety than expected for a variety of this species. (simple umbellate, cream to pale yellow flowers, lvs oblanceolate to obovate or elliptic both lf surfaces glab with some marginal tufts). JIB, OM.
- Eriogonum umbellatum* Torr. var. *dichrocephalum* Gandog. Grimes 1080c, Otting 634, Ottenlips 102, Shield 52-2, Packard 72-222, Packard 70-240, 05270, 05366, 07156, 19273, Packard 70-222, Packard 71-176, 97-109, Maguire 26316. Uncommon to occasional from about 1400 – 2350 m in Leslie Gulch and upper W. Little Owyhee region through Owyhee Mountains. (simple umbellate, cream to pale yellow flowers, lvs elliptic lower surface floccose to tomentose, upper surface green, glab to thinly floccose). BP, JIB, OG, OM, OP.
- Eriogonum umbellatum* Torr. var. *ellipticum* (Nutt.) Reveal. 15-154, 07416, 06-184, Lytjen 83, Otting 849, George 198, Lytjen 246. Common on rocky hillsides above about 1400 m in the northern part of Owyhee region, entering our area from the north; Dry Creek to Owyhee Mountains. (compound umbellate, yellow flowers, lvs elliptic lower surface floccose to tomentose, upper surface light green, glab to thinly floccose). OG, OM.
- Eriogonum umbellatum* Torr. var. *modocense* (Greene) S. Stokes. Andrews 824, 10-232, 19247, Corbin 1516. Uncommon to occasional on gravelly rhyolitic or granitic rimrock benches from 1750 – 2350 m from Juniper Mtn to Silver City Range. Though often mistaken as it, our material is not synonymous with *E. umbellatum* var. *umbellatum*, which occupies mountains north of the Snake River. (simple umbel with branches 1-2 cm, yellow pale to bright fls, lf blades < 1.8 cm, l/w ratio 1-1.5, lower surface lanate to tomentose, upper surface olive green, glab or nearly so). OM.
- Eriogonum umbellatum* Torr. var. *stragalum* Reveal. 14-587, 04228, Smith 12048, Knocke 2017-58, Tate 2017-38, 12048. Uncommon around 2100 m in sagebrush meadows and groves in Jarbidge Mountains region. (simple umbel with branches > 3 cm long, flowers yellow to sometime pale almost cream, lower lf surface sparsely floccose, upper surface olive green, glabrous or nearly so). JIB.

- Eriogonum vimineum* Douglas ex Benth. var. *vimineum*. 02-636, 02-599, 2002573, 2002705, 2002622, 01-277, 04-328, 05-482, Joyal 1018. Common on riparian gravels in meadows or with sagebrush. BP, JIB, OF, OG, OM, OP.
- Eriogonum watsonii* Torr. & A. Gray. 02-234, 02-686, 02-115B, 03-136, 02-749, 01-198, 01-219b, 04-027, 06-105b, 15058, Ireland 1660, Reveal 3688, Rosentreter 1337, Smith 3557, Mancuso 2592, Brunsfeld 2467, Wellner 2868, Christ 16721, Ertter 14366, Otting 611. Occasional on brown ash from Three Forks to Birch Ck and Succor Ck. and in Owyhee Co. on the Owyhee Front to Bruneau area. (including *Eriogonum carolinae* Reveal). Many collections have been misidentified as *Eriogonum cernuum*, which has involucre about as wide as long and not narrowing at the top. OF, OG, OP.
- Oxyria digyna* (L.) Hill. Ertter 4469, Tiehm 10035. Occasional. War Eagle Mountain and Jarbidge Mountains, likely also in Independence Mountains. JIB, OM.
- Oxytheca dendroidea* Nutt. 05-37, Peck 25722, Grimes 1761, 20051059, 09-186, 09-436b. Rare barren ashes and sands from Rome to Chalk Basin; also in Owyhee Co. OF, OG, OP. G4 ORSNR.
- Persicaria amphibia* (L.) A. Gray. 02-061b, 02-1038, 02-656, 03-271, 03-277B, 03-284. Occasional emergent in slow waters at middle and lower elevations along Snake and Owyhee Rivers up to below Duck Valley. (*Polygonum amphibium* L. var. *emersum* Michx.). OF, OG, OP.
- Persicaria hydropiper* L. Packard GDS-5. One known population along Snake River. OF.
- Persicaria hydropiperoides* Michx. Corbin 1491, 23208. Rare in our area in streamsides and ditches North of Murphy in agricultural runoff in Con Shea Basin and East Fork Bruneau River. BP, OF.
- Persicaria laphifolia* (L.) A. Gray. 01-185, 01-239, 02-069, 02-1045, Smithman 571, Dean 188, 06-227, Prentice 5965, 09429b, Irwin 9250, 22109, 14-379, 21377, 15-292. Occasional to common in wet sands along rivers and tributaries at lower to middle elevations as high as Duck Valley. (*Polygonum laphifolium* L.). BP, OF, OG, OP.
- Persicaria maculosa* A. Gray. 02-895, 02-669. Rare to uncommon along the Owyhee R. shore at middle, and sometimes lower, elevations. (*Polygonum persicaria* L.). OF, OP.
- Polygonum austinae* Greene. 20056115, 05211, 07221, Grimes 2103, Rosentreter 3449, 20272, Tiehm 10057, Ripley 6155. In playas and gravelly, vernal wet areas at higher elevations (typically above 1700 m) in all ranges. (*Polygonum douglasii* Greene ssp. *austinae* (Greene) E. Murray). JIB, OM, OP.
- Polygonum aviculare* L. ssp. *aviculare* * Joyal 1019, 2002477. Rare in our area; known only from Leslie Gulch green ash tuff and West Little Owyhee headwater seeps. Not known to enter Idaho. OG, OP.
- Polygonum aviculare* L. ssp. *buxiforme* (Sm.) Costea & Tardif. 15-276, 07285, 08-319b, 15-024, 15-206, Brainerd 1086, 15-140, 21388, Otting 580, 15-276. Common in our area, in playas from Succor Ck. to upper West Little across the Idaho mountain ranges to Duck Valley. (*Polygonum buxiforme* Sm.). OG, OM, OP.
- Polygonum aviculare* L. ssp. *depressum* (Meisner) Arcang. * 02-976, Otting 609, 15-206b, 02-715, Packard 70-297. Occasional variable weed in riparian gravels and disturbed sites at lower to middle elevations. OG, OP.
- Polygonum aviculare* L. ssp. *neglectum* (Besser) Arcang. * Shield 72-19, Bratz sn. Uncommon. Along lower Silver City range to Bruneau River. OF, OM.
- Polygonum douglasii* Greene. 02-384, 02-643, George 291. Common in mesic riparian meadows at upper and middle elevations. JIB, OG, OM, OP.
- Polygonum heterosepalum* M. Peck & Ownbey. 02-565, 03091, Grimes 1676, Ertter 4448, 03211, 05207, 06-140. Rare; locally common in vernal wet, gravelly benches near Anderson Crossing, Silver City Range and Mahoganies area. JIB, OM, OP.

- Polygonum majus* (Meisn.) Piper. 05-189, 07-359, Otting 920, Bala 2011-60, 14-168, 09-068, Packard 75-129, Willians84-125-1. Occasional in riparian meadows at upper elevations. (*Polygonum douglasii* Greene ssp. *majus* (Meisn.) J.C. Hickman). JIB, OG, OM, OP.
- Polygonum minimum* S. Watson. Ertter 21957. Rare in wet subalpine meadow in Bear Cr. Pass. JIB.
- Polygonum polygaloides* Wall. ex Meisn. ssp. *confertiflorum* (Nutt ex Piper) J.C. Hickman. 99-129, 02-571, 14655, Otting 2346, Andrews 829, Lytjen 212, Lytjen 188, 12-362. Occasional to common in vernal muds of playas and gravelly riparian areas above Anderson Crossing and at higher elevations in Idaho and Nevada. (*Polygonum kelloggii* Greene var. *watsonii* (Small) Reveal). JIB, OM, OP.
- Polygonum polygaloides* Wall. ex Meisn. ssp. *esotericum* (L.C. Wheeler) J.C. Hickman. 04183, 06-177, 03221, 08-295. Rare at edges of silver sage playas, wetlands and reservoirs. (*Polygonum kelloggii* Greene var. *esotericum* (L.C. Wheeler) Reveal). OM, OP. G4G5T3 ORSNR.
- Polygonum polygaloides* Wall. ex Meisn. ssp. *kelloggii* (Greene) J.C. Hickman. 17401, 04047, 02-416, 02-633b, 99-74, 03-184, Ertter 20360, Ertter 4487, Tiehm 12879. Occasional to common in vernal moist sands, meadows and playa bottoms at upper elevations, usually over 1800 m. (*Polygonum kelloggii* Greene var. *kelloggii*). JIB, OG, OM, OP.
- Polygonum ramosissimum* Michx. Peck 25789. One historical collection along irrigation ditch near Rome. OP.
- Polygonum sawatchense* Sm. ssp. *oblivium* Costea & Tardiff. Andrews 827, Irwin 9294, Packard 71-184, Grimes 1646, Packard 71-335, Packard 62-2. Uncommon; rocky, gravelly, vernal wet soils on Mahogany Mountain, Silver City area, Juniper Mountain, Bull Run Mtns. JIB, OG, OM.
- Rumex acetosella* L. 17444, 01-281, 02-306, 02-713b. Occasional along sandy shores of river at lower and middle elevations, and in disturbances in meadows at upper elevations. BP, JIB, OF, OG, OM, OP.
- Rumex crispus* L. * 02-888, 2002633, 03-117B. Occasional to common in riparian zone at mostly middle to lower elevations. JIB, OG, OM, OP.
- Rumex cuneifolius* Campd. 15-196. Known in our region only from Duck Valley marsh. OP.
- Rumex maritimus* L. ssp. *fueginus* Phil. 2002768, Maser sn, 15-284, Ertter 21679. Uncommon in muds along the Owyhee River and its tributaries and at Batch Lake. (*Rumex fueginus* Phil.). JIB, OG, OP.
- Rumex patientia* L. * 14-400, Ertter 21514, Corbin 1597. McBride Ck. to East Fork Owyhee R. and probably much more widespread. JIB, OG, OP.
- Rumex paucifolius* Nutt. 02-375, 2002315, 03-072, 07-248, Otting 669. Occasional in seeps and wet meadows at upper elevations across the range. JIB, OM, OP.
- Rumex salicifolius* Weinm. var. *lacustris* (Greene) J.C. Hickman. 05-492, 06-86, 07-284, 08191, 08192. Rare, but locally abundant in large playa above Cold Springs, Cow Lakes, and Duck Valley. More common to the south of us. (*Rumex lacustris* Greene). OP. G5TNR ORS1?.
- Rumex salicifolius* Weinm. var. *triangulivalvis* (Danser) J.C. Hickman. 02-902, 02-027b, 03-117C, 06-206, 06-201, Otting 600, Tiehm 9032, 23197, Nichols 473. Occasional to common along river, at edge of pools, and in playas at all elevations throughout the region. (*Rumex salicifolius* Weinm. var. *mexicanus* (Meisn.) C.L. Hitchc.; *Rumex salicifolius* Weinm. ssp. *triangulivalvis* Danser; *Rumex triangulivalvis* (Danser) Rech. f.). BP, JIB, OG, OP, OM.
- Rumex salicifolius* Weinm. var. *utahensis* (Rech. f.) Reveal. 05-422, Lytjen 135, George 410, 05333. Rare in rocks along upper W. Little Owyhee at headwaters to Red Canyon and South Mountain. (*Rumex utahensis* Rech. f.; *Rumex salicifolius* Weinm. var. *montigenitus* Jeps.; *Rumex salicifolius* Weinm. var. *denticulatus* Torr.). OM, OP.
- Rumex venosus* Pursh. 2002079. Rare to locally common, in subirrigated sandy soils at lower elevations in Oregon; historical collections only in Idaho. OF, OG.

PONTEDERIACEAE

Heteranthera dubia (Jacq.) MacMillan. 02-828, 02-831b, 06-222, 01259b, 02740b. Uncommon submergent pondweed in slow waters near Three Forks. Possibly more common. OP. G5 IDS1.

PORTULACAEAE (see also MONTIACEAE)

Portulaca oleracea L. 01-95, 02-960, 02-285, 2002713. Occasional in sands and muds along the Owyhee River at middle to lower elevations. Evidently not upriver into Owyhee Co. OG, OP.

POTAMOGETONACEAE

Potamogeton alpinus Balb. 06-224, 07-096, Grimes 1282, 08-526, Rust 2A. Uncommon in flood channel pool and Owyhee River near Warm Springs above Three Forks up to Deep Creek and Jarbidge region. JIB, OP.

Potamogeton berchtoldii Fieb. Baker 8459, 06-220, 97-144, 03-256. Known only from Warm Springs above Three Forks to Duck Valley Marsh along the Owyhee River. (*Potamogeton pusillus* L. ssp. *tenuissimus* (Mert. & Koch) R.R. Haynes & Hellquist). OP. G5 ORS3?.

Potamogeton crispus L. * N 01-178, 02-739, Larson 10249. Occasional, submergent pondweed at lower elevations; with crisped leaf margins. OG, OP.

Potamogeton diversifolius Raf. 02-679, 08-542, 08-296, Rosentreter 202, Rosentreter 286. Uncommon pondweed with submerged, narrow grass-like leaves and floating leaves; in river and drying ponds and reservoirs from Rome to upper Louse Canyon and into Idaho. OM, OP. G5 IDS2 ORS1.

Potamogeton epihydrus Raf. 02-807b, 02-770, 02-868, 06-207, 08-623, 01-294, 03-383, 03-208, 05-424, Dean 193, 21393, 21430. Common pondweed with narrow, sessile submerged leaves, and elliptic floating leaves; on all forks of the river above Three Forks and to Indian Battleground Reservoir. OM, OP.

Potamogeton fibrillosus Fernald. Rosentreter 283. Known from ponds in our region, but rarely confirmed. (*Potamogeton foliosus* Raf. ssp. *fibrillosus* (Fern.) R.R. Haynes & Hellquist). OP. G2G4 ORSH.

Potamogeton foliosus Raf. 02-869, 02-886, 02-830, Otting 599, 02-795, 01-259, 02-690, 02-296, 02-771, 02-740, 01-271, 03-264, 06-225, 07-097, Ertter 6612, Ertter 213, 08-625, Corbin 1525, 23202. Pondweed with narrow submerged leaves; abundant along the length of both Bruneau and Owyhee Rivers, including South Fork Owyhee R. BP, OP.

Potamogeton gramineus L. Corbin 1536, Baker 7956, Baker 8576, 06-207. In slow waters near Three Forks and in the creeks near South Mountain. OM, OP.

Potamogeton illinoensis Morong. 01-181, 02-832, 02-697, 08-521, 03-257, 12-257. Common pondweed from Three Forks to Deep Creek in slow water and in reservoirs. OP.

Potamogeton natans L. Tiehm 18042, 21432. Not commonly collected. Copper Mtns. In upper Copper Basin bog, In East Fork Bruneau River and near Three Forks. BP, JIB, OP.

Potamogeton nodosus Poir. 97-144a, 06-223, 08-522, 08-529, Ertter 209, Corbin 1524. Uncommon in Snake River, Owyhee R. tributary streams and side channels, including South Fork at 45 Ranch. OF, OP.

Potamogeton pusillus L. 02-680, 03-256, 09-424, Corbin 1424. Uncommon submerged in reservoirs, Crooked Creek and the Owyhee River and above Three Forks, and Coal Mine Basin, Idaho. JIB, OP.

Potamogeton richardsonii (A. Benn.) Rydb. 02-893, Ertter 534, Otting 974, Baker 8471, 13-148, 15-311, 15-262. Occasional submergent pondweed in slow water from N. Fork Owyhee River to Rome, and Batch Lake. OM, OP.

Stuckenia filiformis (Pers.) Börner ssp. *alpina* (Blytt) R.R. Haynes. 02-829. Rare in Owyhee River above Three Forks. OP. G5T5. ORS2?.

- Stuckenia filiformis* (Pers.) Börner ssp. *occidentalis* (J.W. Robbins) R.R. Haynes, Les, & M. Král. 02-795, 01-190, Ertter 232, 02-696, 03-238. Pondweed with narrow submerged leaves; common along entire river up to Anderson Crossing. OG, OP. G5T5 ORS3.
- Stuckenia pectinata* (L.) Börner. Ertter 210, 08-520, Ertter 570, Gimes 1285, Corbin 1628, Mozingo 76-150. Uncommon from Crooked Creek to above Three Forks and in E. Fork Owyhee River. (*Potamogeton pectinatus* L.). JIB, OG, OP.
- Stuckenia striata* (Ruiz & Pavon) Holub. 02869, Ertter 558, 03-278, 09-425. Submerged in slow water near Rome. (*Potamogeton striatus* Ruiz & Pavon; *Potamogeton filiformis* Raf. var. *latifolius* (J.W. Robbins) Reveal). OG, OP. G3G4Q ORS1?.
- Zannichellia palustris* L. Brainerd 348, 20051083, Otting 1594, Klott 491, 23202b, 2002211. Occasional submergent in tributaries of both Owyhee and Bruneau Rivers, e.g. Dry Creek and Crooked Creek and to East Fork Bruneau River. BP, JIB, OG, OP.

PRIMULACEAE (see also MYRSINACEAE)

- Primula conjugens* (Greene) A.R. Mast & Reveal. 2002163, 05-47, 08-075, Carlson 71, Davis 45, Smith 14031. Uncommon on north facing slopes and low sage depressions from upper Antelope Creek and West Little Owyhee River north to Leslie Gulch and Succor Creek in western end of our range. (*Dodecatheon conjugens* var. *conjugens* Greene). OG, OP.
- Primula cusickiana* A. Gray var. *cusickiana*. 2002400, 2002415, 03-067, 05-46, 22031. Locally common in relict *Poa leibergii* grassland mudflats around 1800 m in the Owyhee Plateau; Very rare on north facing Douglas fir slopes in Owyhee Mountains and mountain mahogany slopes by rimrock in Jarbidge Mountains. Probably more than one species; needs study. JIB, OM, OP. G4 ORS2.
- Primula pauciflora* (Greene) A.R. Mast & Reveal var. *pauciflora*. 02-456, 01-266, 03-044, 08180b, 08-103, 05168, Packard 78-3, Bratz 197-165. Common in mesic meadows throughout the region above 1600 m. (*Dodecatheon pulchellum* (Raf.) Merr. var. *pulchellum*; *Dodecatheon pauciflorum* Greene var. *pauciflorum*). JIB, OG, OM, OP.
- Primula pauciflora* (Greene) A.R. Mast & Reveal var. *shoshonensis* (A. Nelson) A.R. Mast & Reveal. 01-266, 04-015, Bowden 42, Rosentreter 2625. Rare in springs and seeps in Owyhee River drainage from Crooked Creek to above Three Forks. (*Dodecatheon pulchellum* (Raf.) Merr. var. *shoshonense* (A. Nelson) Reveal; *Dodecatheon pauciflorum* Greene var. *shoshonense* (A. Nelson) Reveal). OP.
- Primula tetrandra* (Suksd. ex Greene) A.R. Mast & Reveal. 08423, 08-391, 04305, Ertter 21001. Occasional in wet subalpine meadows above 2300 m; in our region known only from the Jarbidge Mountains. (*Dodecatheon alpinum* (A. Gray) Greene). JIB.

RANUNCULACEAE

- Aconitum columbianum* Nutt. ssp. *columbianum*. Otting 670, 05-423, 07-397, Packard 71-444, 14-627, 04297, Baker 8061. Uncommon to occasional in aspen groves and shady rocks at upper elevations; increasing in N. Nevada. JIB, OG, OM, OP.
- Actaea rubra* (Ait.) Willd. Corbin 1461, 09-152, Spicklemire 173/74, Irwin 9109, Macbride 925, 11-061. Rare in deeply shaded thickets to shaded canyons from Bull Run Mountains to Silver City range and N. Fork Owyhee, to Cow Creek, and in Jarbidge Mountains; disjunct from Rocky Mountains, Cascade/Sierras, and central Idaho to northeastern Oregon. JIB, OM.
- Aquilegia formosa* Fisch. ex DC. var. *formosa*. 02-270, 02-630. Occasional to common in meadows and aspens at upper elevations and shady seeps at lower elevations. JIB, OG, OM, OP.
- Beckwithia andersonii* (A. Gray) Jeps. 2002306, 03-063, Grimes 3075, Rosentreter 1313, 2675, & 3104, Packard 80-151, LS 1343, Irwin 9026. Uncommon in low-, black- or big- sagebrush balds throughout our region on gravelly benches and scablands above 1500 m. (*Ranunculus andersonii* A. Gray). BP, JIB, OM, OP.
- Caltha chionophila* Greene. Tiehm 10790. Known from our area only in meadows in Jarbidge Mtns. (*C. leptosepala* misapplied). JIB.

- Caltha palustris* L. Sanford sn, Otting 831. Rare in wet meadows by springs and seeps below 1900 m. OG, OP.
- Ceratocephala testiculata* (Cranz) Besser. * 2002004, Irwin 9062. Common and increasing spring annual in disturbed sagebrush and grassland communities up to 1850 m across the range. (*Ceratocephalus testiculatus* (Cranz) Roth.; *Ranunculus testiculatus* Crantz). BP, JIB, OF, OG, OM, OP.
- Clematis ligusticifolia* Nutt. 02-034, 01-193. Common in rocks along rivers and tributaries at lower to middle elevations. BP, JIB, OF, OG, OM, OP.
- Delphinium andersonii* A. Gray. 2002327, 02-435, 2002099, Smith 5380, 2002117, 2002182, 2002387, Smith 10069, Atwood 23706. Smithman 0952, Peter 74-37, Packard 73-79 & 78-59. Common in shallow, gravelly soils with sagebrush or salt scrub communities, and occasionally in meadows at lower elevations, decreasing with elevation up to 2000 m. (*Delphinium scaposum* Greene var. *andersonii* (A. Gray) S.L. Welsh). BP, JIB, OF, OG, OM, OP.
- Delphinium bicolor* Nutt. ssp. *bicolor*. DeBolt 1778. Very rare in our area; confirmed on one ridge near Triangle at 1700 m on granitic soils. OM.
- Delphinium depauperatum* Nutt. ex Torr. & A. Gray. 02-432, 07-264, 07-251, Smith 11930, N. Holmgren 16298, Prentice 5777b, 14-062, 12332, Irwin 9125, Brown 48, Smith 3680. Very common in moist meadows above about 1000 m, mostly around 1350 to 1800 m. Variable in stem vestiture. BP, JIB, OG, OM, OP.
- Delphinium distichum* Geyer ex Hook. 02-637, 02-432. Similar habitats to *D. depauperatum*, but this northern species rarely appears in our area (e.g. near headwaters of W. Little Owyhee River.) Stem leaves exceeding internodes, and more numerous than in *D. depauperatum* (>3). (*D. burkei* Greene misapplied). OP.
- Delphinium glareosum* Greene. 2002327, 08-145, Tiehm 15584, 05-61. In talus from 1700 to 1800 m in Louse Canyon, and on tables west of Grasmere, and similar habitats in N. Nevada. Tufted, glandular, succulent leaves are distinctive. Likely a distinct taxon from the more common form west of Cascades with a type in the Olympic Mountains. JIB, OP.
- Delphinium nuttallianum* Pritz. ex Walp. Andrews 768, 14-236, Irwin 1900, 14-236, Ranck 54, Smith 10966, 06-53, Novock 19-58. Common in mesic sagebrush communities throughout the region above about 1500 m. BP, JIB, OG, OM, OP.
- Delphinium occidentale* S. Watson ex. Coult. var. *occidentale*. Anderson sn, Rink 16259. From our region known only in aspen stands in Jarbidge Mountains. JIB.
- Halerpestes cymbalaria* (Pursh) Greene. Packard 70-278, 01-291, Shield 72-12, 02-091, 02-259, 02-685, 02-983, 2002569, Irwin 9230, 21078. Common in muds and shores at all elevations across the range. (*Ranunculus cymbalaria* Pursh). BP, JIB, OF, OG, OM, OP.
- Myosurus apetalus* C. Gay var. *borealis* Whittemore. 2002337, 03-047, 2002439b, Packard 70-42, Ertter 103/5, Peck 20564. Occasional in vernal pools, muds, meadows and snowbanks at all elevations in both Malheur and Owyhee Cos., but mostly on western edge of our region. OP.
- Myosurus apetalus* C. Gay var. *montanus* (G.R. Campbell) Whittemore. 99-113, 02-572, 08319d, 03181, Ertter 33/4, Smith 14243, 14-055b, Holmgren 5767. Uncommon in vernal pools, playas, and snowmelt ponds from Succor Creek and along the west side of the Owyhee River to upper West Little Owyhee River, but also extending into Idaho and Jarbidge region. JIB, OM, OP.
- Myosurus minimus* L. 2002112, Brainerd 360, 04-044, 08-294, 06-093, Brainerd 1084, 13-139b, Brainerd 1397, Wigglesworth 119. Occasional to common in alkaline seeps, pools, and playas throughout our range from 900 to 1800 m. JIB, OG, OM, OP.
- Ranunculus alismifolius* Geyer ex Benth var. *davisii* L.D. Benson. 11-092, 11-075, Irwin 9157, 12-075. Occasional in seeps from 1650 to 2100 m in North Fork Owyhee region and East Fork Owyhee River above Mountain City. JIB, OM.

- Ranunculus alismifolius* Geyer ex Benth var. *hartwegii* (Greene) Jepson. 20297, Bratz B560-165. Known only from subalpine meadows in upper Reynolds Ck., but expected elsewhere in higher mountain meadows. OM.
- Ranunculus aquatilis* L. var. *aquatilis*. Lytjen 59, 06-111, 08-540, 08-297, Shield 45, 12-290, Smith 11997. Uncommon to occasional in pools throughout the northwest part of our region and into northern Nevada. (including *R. aquatilis* var. *hispidulus* Drew). BP, JIB, OM, OP.
- Ranunculus aquatilis* L. var. *diffusus* With. 06-122, Otting 598, Joyal 869, 05-425, 02-547, 2002360, 03-190, Otting 555. Common in pools, slow water, and muds of playas at all elevations throughout our region. (including *R. trichophyllus* Chaix ex Vill.; *R. aquatilis* var. *capillaceus* (Thuill.) DC.; *R. longirostris* Godr., *R. aquatilis* var. *subrigidus* (W.B. Drew) Breitung). BP, JIB, OM, OP.
- Ranunculus eschscholtzii* Schltl. var. *eschscholtzii*. Charlet 615. Rare in our area. Known only from near the summit of Jarbidge Peak. JIB.
- Ranunculus glaberrimus* Hook. var. *ellipticus* (Greene) Greene. Grimes 3071, Raino J62. Uncommon in mesic sagebrush communities and edges of swales with graminoids at middle elevations, especially along Mud Flat Rd. BP, OM, OP.
- Ranunculus glaberrimus* Hook. var. *glaberrimus*. 2002047, Packard 80-1, McCleod 83-12, Bratz 202-93, Irwin 9023, Fellows 063, Otting 2361, Bahr 096. Common across much of the range at middle elevations in mesic sagebrush communities. BP, OG, OM, OP.
- Ranunculus gmelinii* DC. Irwin 13-137, 15-252, Christ 6922, Baker 8501, McClure 2017-02. Rare in wet meadows in our area; Known in our region only from the "Tules" on E. Fork Owyhee River, along Bruneau River. and marsh south of Riddle. BP, JIB, OP.
- Ranunculus macounii* Britton. 02-131, 02-655a, 02-887, 20051079, 13-187, Ertter 21936. Occasional in muds and gravels of riparian meadows and marshes at middle and lower elevations. JIB, OM, OP.
- Ranunculus orthorhynchus* Hook. var. *platyphyllus* A. Gray. 09109, 11-110, 11-126, Smithman 2085, Grimes 2141, Grimes 1649, .Smith 11869, DiNicola 2014-48, Corbin 1313. In riparian meadows and aspen dominated sites from Jordan Creek, N. Fork of Owyhee River, and Duck Valley, to Independence and Bull Run Mountains; more common in N. Nevada. JIB, OM.
- Ranunculus scleratus* L. var. *multifidus* Nutt. 2002481, Otting 554. Uncommon on muddy shores; not at high elevations. BP, JIB, OF, OG, OM, OP.
- Ranunculus uncinatus* D. Don ex G. Don. Smithman 2084, 05-118, 05-302, Smith 5933, 10235b. Occasional in shaded riparian woodlands of Jordan Creek and N. Fork Owyhee River, South Mountain and Juniper Mountain. Degree of hispid vestiture on stems and achenes varies considerably. OG, OM.
- Thalictrum fendleri* Engelm. ex A. Gray. Otting 652, Irwin 9089, Polito 81, 08368, Baker 7880. Uncommon in riparian areas at upper elevations from Silver City Range to South Mountain, to W. Little Owyhee, to Independence and Jarbidge Mountains. JIB, OM, OP.
- Thalictrum occidentale* A Gray. 04-213, 05339, 09116. Uncommon in aspen or coniferous forest understory from Silver City range, to South Mountain to Independence and Jarbidge Mountains. JIB, OM.
- Thalictrum venulosum* Trel. 02-404b, 02-480, 02-530. Occasional in moist meadows and woodlands at upper elevations in Silver City Range to W. Little Owyhee. OM, OP.

RHAMNACEAE

- Ceanothus velutinus* Douglas ex Hook. var. *velutinus*. Andrews 770, Packard 71-302, Packard 70-251, Irwin 9110, 12-379, 08274, 08382b, 18639. Occasional at higher elevations on Mahogany Mountain, Silver City Range to Triangle and Jarbidge region. BP, JIB, OM, OP.

ROSACEAE

- Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roem. 14-435, 08381, 2002257, 2002368, 2002556. 01-258, Andrews 782, 12-151, Schilling 35, Matthews sn, Kotter 745/21, Alexander and Liston 993, Leiberg 2045, Parsell 174. Occasional on rimrock and tributary streams 1200 to

2100 m; north end of Owyhees. (includes *A. alnifolia* var. *pumila* (Torr. & A. Gray) C.K. Schneid.; *A. alnifolia* var. *cusickii* (Fernald) C.L. Hitchc.; *Amelanchier cusickii* Fernald). *A. cusickii* has petals over 14 mm and glab lvs. but there is continuous variation here. BP, JIB, OG, OM, OP.

Amelanchier utahensis Koehne. 02-099, 02-504, 05-63, Dahlman 80, 11-164, 07166, Smith 3642. Occasional to common on rock outcrops at lower elevations and scablands and talus in upper elevations. (*Amelanchier alnifolia* (Nutt.) Nutt ex M. Roem. var. *utahensis* (Koehne) M.E. Jones). petals less than 9.8 mm; sparsely hairy leaves. BP, JIB, OG, OM, OP.

Cercocarpus ledifolius Nutt. var. *intermontanus* N.H. Holmgren. 02-953, 2002321, 02-500, 04277, 12-240, 10169, 05332. Common on rocky outcrops at middle to upper elevations from Malheur Co. (except Leslie Gulch region) into Silver City range, South Mountain, and into northern Nevada. (*Cercocarpus ledifolius* Nutt. var. *intercedens* C.K. Schneid.). JIB, OM, OP.

Cercocarpus ledifolius Nutt. var. *ledifolius*. 15-156, Packard 76-157, Halse 1496, Kaye 1037, Joyal 1039. Locally common in rocky outcrops in the mountains, along north end of Owyhee Mountains and to Leslie Gulch area. OG, OM.

Crataegus douglasii Lindl. 02-798, Dean 181, Corbin 1629, Brunsfeld 2497, 14-220. Uncommon to occasional along the Owyhee River and into the Owyhee mountains. (*Crataegus columbiana* Howell). OP, OM.

Dasiphora fruticosa (L.) Rydb. Johnson 2790, Mabride 995, Maguire 26661, Baker 8122, Kinnaman sn, 18563. Uncommon to occasional in our region from Silver City range between Silver City and War Eagle and around 2400 m in Independence Mountains and in high ridges In Jarbidge Mountains. JIB, OM.

Drymocallis convallaria (Rydb.) Rydb. 12-467, 04115, 08241, Polito 013, Bala 14-40, 14-664, DiNicola 2014-53, Smith 11943, Ertter 22013, 05244, George 283, 04272. Occasional in mesic, riparian meadows from mostly around 1500 to 1800 m. From South Mountain south and east into N. Nevada ranges. (*Potentilla convallaria* Rydb.; *Potentilla arguta* Pursh var. *convallaria* (Ryd.) D.D. Keck). JIB, OP, OM.

Drymocallis glabrata Rydb. 20146, 20337, Tiehm 1794, 14-515, Smith 11852, Smithman 1906, Peters 74-97, Packard 72-61, Bratz 468-176, 04272, 08352, 21041. This common higher elevation species (1800 to 2500 m, rarely as low as 1500 m) is found from Mahogany Mountain in the Owyhee drainage of Oregon throughout the Silver City Range, to South Mountain and into the mountains of N. Nevada. Its leafy inflorescences easily distinguish it from *D. lactea*. (*Potentilla glandulosa* Lindl. var. *intermedia* (Rydb.) C.L. Hitchc.; *Potentilla glandulosa* Lindl. var. *glabrata* (Rydb.) D.D. Keck). BP, JIB, OM, OP.

Drymocallis glandulosa (Lindl.) Rydb. var. *glandulosa*. Packard 73-84, Corbin 1358, Packard 73-25, 09-140, Hodzic 2017-01. Uncommon here from Leslie Gulch to Juniper Mountain to western Bull Run mountains, from about 1200 to 2000 m. (*Potentilla glandulosa* Lindl. var. *glandulosa*). JIB, OG, OM.

Drymocallis lactea (Greene) Rydb. aff. var. *austinae* (Jepson) Ertter. Peck 21806, 06-67, 2002546, 2002314, 11-189, 07246, 12-150, 13-173. Occasional in rimrock, scabland balds, and near seeps, wherever subirrigated at upper and middle elevations 1400 to 2000 m; W. Little Owyhee to N. Fork Owyhee, and E. Fork Owyhee Rivers. (*Potentilla glandulosa* Lindl. ssp. *nevadensis* (S. Watson) D.D. Keck). Our material is intermediate between var. *austinae* (Jepson) Ertter and var. *lactea* with branch angles varying continuously from 10 to 40 degrees and long-septate hairs virtually absent from stems and pedicels. Most collections of *Drymocallis* from the Owyhee region do not fit well into existing taxa of this genus as circumscribed in Flora of North America (FNA). I follow the taxonomy of Ertter in FNA here. OP.

Drymocallis pseudorupesstris (Rydb.) Rydb. var. *saxicola* Ertter. 08069, Andrews 777, 18498, 18565. This high elevation taxon of rocky sites in central Idaho is above 2900 m in Jarbidge

- Mountains, but has also been collected in the rocky creek bed of Antelope Creek and atop Mahogany Mountain. JIB, OG, OP.
- Geum aleppicum* Jacq. 04245, 04298, 07475, Baker 8244. In seepages and riparian subalpine meadows from Sawpit Gulch in Silver City area and Jarbidge Mountains above 1650 m. JIB, OM.
- Geum macrophyllum* Willd. var. *perincisum* (Rydb.) Raup. Williams 78-307-9, 13-184, 01-323, Smithman 0608, Bassett 2017-03, 07200, George 191. Uncommon in moist riparian areas at upper elevations but occasionally following canyons down to lower elevations. JIB, OM, OP.
- Geum triflorum* Pursh var. *ciliatum* (Pursh) Fassett. 02-437, 2002301, 03-056. Occasional to common in balds in sagebrush communities and some drier riparian meadows at mid to upper elevations. JIB, OG, OM, OP.
- Geum rossii* var. *turbinatum* (Rydb.) C.L. Hitchc. Holmgren 6291. An alpine species known from our area only in Independence Mountains, McAfee Peak ridge. JIB.
- Holodiscus microphyllus* Rydb. var. *glabrescens* (Greenm.) F.A. Ley. 02-063, 2002494. Occasional in rocks and scablands at all elevations. (*Holodiscus dumosus* (Nutt. ex Hook.) A. Heller var. *glabrescens* (Greenm.) C.L. Hitchc.; *Holodiscus discolor* (Pursh) Maxim. var. *microphyllus* (Rydb.) Jeps.). BP, JIB, OG, OM, OP.
- Horkelia fusca* Lindl. var. *pseudocapitata* (Rydb. ex Howell) M.E. Peck. 14-630, 02-458, 2002524, 20051112, 20051098, Winter 89, Peter 74-130. Uncommon to occasional in moist meadows at upper elevations across the entire range. (*Horkelia fusca* Lindl. ssp. *capitata* (Lindl.) D.D. Keck misapplied; *Horkelia fusca* var. *parviflora* (Nutt. ex Hook. & Arn.) Wawra). JIB, OM, OP.
- Ivesia baileyi* S. Watson var. *beneolens* (A. Nelson & J.F. Macbr.) Ertter. 02-031, 2002361. Common in rock crevices of canyon walls at all elevations; more common at higher elevations. BP, JIB, OF, OG, OM, OP.
- Ivesia gordonii* (Hook.) Torr. & A. Gray var. *ursinorum* (Jeps.) Ertter & Reveal. Corbin 1571, Macbride 1012, Rosentreter 4647, Holmgren 11052. Known in our region only in loose granitic rocks and talus at highest elevations from Jarbidge Mtns and Silver City Range. JIB, OM.
- Ivesia rhypara* Ertter & Reveal var. *rhypara*. Smithman 2009, 21083, Ertter 2536, Holmgren 14743. Uncommon in tan ash in Owyhee Breaks and Leslie Gulch Country and in S. Fk. Owyhee area near IL ranch. OG, OP. G2T2 ORS1 LE.
- Ivesia shockleyi* S. Watson var. *shockleyi*. 02-608, 2002282, 2002341, 08-077. Known in our area only from rhyolitic rimrock along W. Little Owyhee River. OP. G3G4 ORS1.
- Ivesia setosa* (S. Watson) Rydb. 08220b, Ertter 20390, Holmgren 16317, Tiehm 18468. Uncommon; Wildhorse area to Sunflower Flat near Mahogonies in N. Nevada. (*Ivesia baileyi* S. Watson var. *setosa* S. Watson). JIB.
- Malus pumila* Miller. * 11-137B, 2002102, 02-935, 02-935, Emry 71. Uncommonly naturalized along the length of the Owyhee River. (*Pyrus malus* L.; *Malus domestica* (Suckow) Borkh.). OP.
- Petrophytum caespitosum* (Nutt.) Rydb. Tiehm 9296, Anderson sn., 21064. Known only on limestone ridges in Bull Run Mtns. JIB.
- Physocarpus malvaceus* (Greene) Kunze. Klott 318, Morris 118, 13-073. Rarely seen in our region; Silver City in Owyhee Range and in canyons in Jarbidge and E. Fork Owyhee River (Tules). JIB, OP, OM.
- Potentilla anserina* L. ssp. *anserina*. 07-093b, 14-270, Barrington sn. Known only rarely along shore of Owyhee River and major tributaries upriver from Three Forks and near confluence of Little Owyhee and S. Fork Owyhee R. and in creeks of Independence Mountains. (*Argentina anserina* (L.) Rydb.). JIB, OP.
- Potentilla biennis* Greene. 02-128, 02-161, 02-542, 02-764, 14-214. Common in riparian meadows at all elevations throughout the range. BP, JIB, OG, OM, OP.

- Potentilla brevifolia* Nutt. Tuhy 2871. Known in our region only from summit plateau of Jarbidge Peak. JIB.
- Potentilla glaucophylla* Lehm. var. *glaucophylla*. Ertter 21980, Baker 8267, Tiehm 17972, Holmgren 6296. Wet subalpine meadows and rocks in Jarbidge and Independence Mountains. Historical collection in Sawpit Gulch near Silver City. JIB, OM.
- Potentilla gracilis* Hook. var. *brunnescens* Rydb. Patton 1327, Larrison sn, Baker 8267, Christ 14967, Tisdale 373. Uncommon in mesic meadows at upper elevations. OM, OP.
- Potentilla gracilis* Hook. var. *elmeri* (Rydb.) Jeps. 02-561, 02-457, 08220, 12-321, 05183, 02-755, 06-148, 07-360, Prentice 1805. Common in gravels and wet to mesic meadows at all elevations. (*Potentilla pectinisecta* Rydb.). BP, JIB, OM, OP.
- Potentilla gracilis* Hook. var. *fastigiata* (Nutt.) S. Watson. 02-129, Dean 285, Corbin 1350, 02-812, 06-149, 06-147, 07-249, 07-352. Common in mesic riparian meadows at all elevations. (included as *Potentilla gracilis* var. *gracilis* in *Flora of Pacific Northwest*). BP, JIB, OG, OM, OP.
- Potentilla gracilis* Hook. var. *flabelliformis* (Lehm.) Torr. & A. Gray. Trueblood sn, Tiehm 12907?. Known from at least one historical collection along Jordan Creek, though much more common north and west of us. OP.
- Potentilla gracilis* Hook. var. *owyheensis* Ertter & Mansfield. 99-136, 02-417, Stone 19-196, Smith 2494, 07-258, 07-357, 08-065b. Common in meadows above 1500 m in headwaters of W. Little Owyhee River, Antelope Creek, and western drainages of the Owyhee River in Idaho to upper Bruneau River. BP, OM, OP. G5TNR IDS2.
- Potentilla pensylvanica* L. Tiehm 10766. One collection at 2600 m NE of Gods Pocket Peak in Jarbidge Mtns. JIB.
- Potentilla recta* L. * N Corbin 1544, Corbin 1489, Tiehm 14585. Uncommon and scattered in moist meadows at middle elevations throughout range but just appearing in recent years. OF, OG, OP.
- Potentilla rivalis* Nutt. Trueblood s.n., Ertter 21678. Rare in riparian communities at lower elevations. Abundant in Fall 2013 at confluence of Leslie Gulch and Owyhee Reservoir. Expected but not collected in Wild and Scenic River corridor. OF, OG, OP.
- Poteridium annuum* (Nutt ex Hook.) Spach. Williams 2017-18, Smithman 1935. Rare; In aspen in Silver City range and near Wildhorse in Nevada. (*Sanguisorba occidentalis* Nutt.; *Poteridium occidentale* Rydb.). JIB, OM.
- Poterium sanguisorba* L. var. *polygamum* (Waldst. & Kit.) Vis. * Corbin 1661, 04264, Tiehm 17985. Uncommon Silver City Rd. and Jarbidge Mtns. (*Sanguisorba minor* Scop. ssp. *muricata* (Spach ex Bonnier & Layens) Nordborg). JIB, OM.
- Prunus emarginata* (Douglas ex Hook.) var. *emarginata*. Trueblood sn., Packard 71-299, Bratz 211-165, Tucker sn., DiNicola 2013-46. Common from South Mountain to Silver City. OM.
- Prunus virginiana* L. var. *melanocarpa* (A. Nelson) Sarg. 02-326, 02-482B, 2002625. Occasional to common in rocks of riparian communities. BP, JIB, OF, OG, OM, OP.
- Purshia tridentata* (Pursh) DC. var. *tridentata*. 2002077, 02-211, Smith 11977. Common in rocky and ashy barrens at middle and lower elevations across the range. BP, JIB, OF, OG, OM, OP.
- Rosa canina* L. * N Tanner 125. Only known below the dam on an island of the Owyhee River. OF.
- Rosa x harisonii* Rivers * 08036, Irangabiye 39, Hamre 58, Davis 31. Known only from Succor Ck. State Park campground. OG.
- Rosa rubiginosa* L. var. *rubiginosa* * N Otting 1004. Known only from moist corral at Wall Rock Springs in Dry Creek. (*R. eglantheria* L.). OG.
- Rosa woodsii* Lindl. var. *ultramontana* (S. Watson) Jeps. 02-021. Common in seeps and riparian zone at all elevations. BP, JIB, OG, OM, OP.

Rubus idaeus L. ssp. *strigosus* (Michx.) Focke. 10056, 02-767, 01-280, 18661, Klott 446, Baker 8209, Baker 8615, Nelson 1907. Uncommon in mesic rocks and rockslides generally above 1800 m, but down to 1050 m in deep shade of N. Fork Owyhee, Bruneau and Jarbidge canyons in riparian zone. (*Rubus idaeus* L. ssp. *sachalinensis* (H. Lev.) Focke; *Rubus sachalinensis* (H. Lev.) Focke). JIB, OM, OP.

Rubus parviflorus Nutt. Corbin 1563, (Train 741). Known only from Silver City Rd. on Scotch Bob Ck below turn to Hayden Pk and possibly also in Jarbidge Mountains. OM.

Sanguisorba stipulata Raf. Corbin 1660. Rare in our area. Known only from Scotch Bob Ck. (*Sorbus canadensis* L. misapplied *Sanguisorba sitchensis* C.A. Mey.). OM.

Sibbaldia procumbens L. Bratz 469-177, Ertter 4497, Smithman 1880, Ertter 21984, Tiehm 18556. Occasional. High mountains in the Silver City range, Bull Run, Independence and Jarbidge Mountains. JIB, OM.

Sorbus scopulina Greene. Bratz 216-165, Boyce 47, Bratz 72-230, Macbride 1013. Uncommon; above 1900 m in moist coniferous forest ravines and slopes from Silver City Range to South Mountain and N. Fork Owyhee River and to Jarbidge Mtns. JIB, OM

RUBIACEAE

Galium aparine L. 02-487, 02-532, 03-276, 2002475, 2002096. Common in mesic woodlands at upper elevations and vernal moist, xeric scrubland at lower elevations. BP, JIB, OG, OM, OP.

Galium bifolium S. Watson. 02-415, 2002403, Andrews 785, Bratz 278-165, Ertter 21985, Ertter 20377, 08364, 2002475, 06-56, 05317. Occasional in mesic areas at upper elevations above 1800 m from upper W. Little Owyhee to Owyhee and Jarbidge Mountains. JIB, OM, OP.

Galium mexicanum H.B.K. ssp. *asperulum* (A. Gray) Dempster. 02-635, 02-165, 01-283, 02-773, 02-836. Common in shady riparian meadows and woodlands at all elevations, mostly from 900 to 1850 m. BP, JIB, OM, OP.

Galium serpeniticum Dempster. Peck 21808a, Joyal 924, 02-047, Packard 73-44, 2002673, Otting 513, 04-031, 07-078. In ash and talus slopes and dry, rocky big sagebrush and bluebunch wheatgrass communities below 1500 m. (*Galium multiflorum* misapplied. Two varieties of that species can be found approaching our area (Dempster & Ehrendorfer 1965), but our material is unmistakably *G. serpeniticum*). OG, OM, OP.

Galium trifidum L. ssp. *subbiflorum* (Weigand) Piper. 04-294b, 14-643, 13-123. Rare in montane and subalpine meadows above 1950 m in Jarbidge range, with one population at Tules at 1500 m. JIB, OP.

Galium triflorum Michx. 14-638, Packard 71-220, Beard sn, Polito 087, 14-638. Rare in Jarbidge Mtns., Silver City Range, Independence Mountains and Juniper Mountain above 1800 m. BP, JIB, OM.

Kelloggia galioides Torr. 04278. Rare in aspens in Jarbidge Mountains. JIB.

RUPPIACEAE

Ruppia maritima L. Corbin 1500. Known from our area only in reservoir from Little Poison Creek (Jump Creek). OF.

SALICACEAE

Populus alba L. * 02-684. Sporadic, rare at sites of old homesteads by springs, such as Owyhee Springs. OP.

Populus xacuminata Rydb. 02-583, 2002568, Tait sn. Uncommon around 1850 m along upper Louse Canyon with other *Populus* spp. OP.

Populus nigra L. cv. 'Italica' * Reported from old homesteads and ranches.

Populus deltoides Bartram ex Marsh. var. *occidentalis* Rydb. * 02-150, Otting 777, 15-135, 2002650, Lytjen 11. Uncommon at sites of old homesteads along the lower Owyhee River and tributaries. (*Populus deltoides* Bartram ex Marsh. ssp. *monilifera* (Aiton) Eckenwalder). OF, OG.

- Populus tremuloides* Michx. Brainerd 1472, Bala 14-42, 08439, Smith 12083, Larrison sn, Smith 3490, Baker 8277, 14-264. Common in stands along north facing slopes and seeps at upper elevations and canyons. JIB, OG, OM, OP.
- Populus trichocarpa* Torr. & A. Gray ex Hook. 02-584A, 02-954, 18640, Baker 13132, Bala 14-7. Occasional and sporadic along streams with high water table, across the range. (*Populus balsamifera* L. ssp. *trichocarpa* (Torr. & A. Gray ex Hook.) Brayshaw). BP, JIB, OF, OG, OM, OP.
- Salix amygdaloides* Andersson * 02-149, Gilkey sn., Lytjen 9, 15-126, Truksa 53, George 336, Brainerd 1096, 12-453, 12-004. Uncommon to occasional along the major rivers and homesteads, below 1550 m and increasingly evident at lower elevations. OF, OG, OM, OP.
- Salix boothii* Dorn. 17425, 05346, Smithman 1851, Corbin 1664, 19261, Baker 8273, Holmgren 5720, Houghton 19-04, Smith 5886. Occasional above about 1650 m in Silver City Range, South Mountain, E. Fork Owyhee River and Bruneau River to Jarbidge, Bull Run Mountains. (*Salix myrtilifolia* misapplied). BP, JIB, OG, OM.
- Salix commutata* Bebb. Johnson 2792, Christ 8049. Rare; not seen in past several decades; streambanks at upper elevations; Silver City and N. slope of War Eagle Mtn. (could be *S. boothii*. Some specimens incomplete). shrub to 2 m. OM.
- Salix drummondiana* Barratt ex Hook. Atwood 20427. Rare; Sawpit Gulch in Silver City range, and likely in Jarbidge area (collected Tiehm 10544 just south of Pole Creek in eastern Jarbidge). In Independence Mtns on Humboldt R. side; likely elsewhere in our range. JIB, OM. G5 ORS4.
- Salix eastwoodiae* Cockerell ex A. Heller. Ertter 21995. Rare in high elevation meadows in Jarbidge Mountains. JIB.
- Salix exigua* Nutt. ssp. *exigua*. 2002048, 02-673, 2002571, Joyal 793, 01-173, 03-237, George 228, 01-177. Common and often dominant along river at all elevations, most commonly lower. BP, JIB, OF, OG, OM, OP.
- Salix xfragilis* L. 09-133, 14-088, Mancuso 3572, Lytjen 185, Lytjen 8. Rare and sporadic in riparian areas across the range from 900 to 1550 m. JIB, OF, OG, OM.
- Salix geeyeriana* Andersson. 12-061. 02-382c, Otting 553, 05-414, Johnson 2672. Common by streams, wet meadows, seeps and aspen woodlands above 1200 m throughout our region. BP, JIB, OG, OM, OP.
- Salix lasiandra* Benth. var. *caudata* (Nutt.) Sudw. 2002296, 2002560, 21122, 17442, 2002149, 03-074, 20135, Johnson 2510. Common and often dominant in riparian communities at all elevations. (*Salix lucida* Muhl. ssp. *caudata* (Nutt.) E. Murray). BP, JIB, OF, OG, OM, OP.
- Salix lasiolepis* Benth. var. *lasiolepis*. 2002107, 99-335, 02-313, Shaw sn, 02-810, 02-991, 03-236, Lytjen 8, Corbin 1612. Common and dominant shrub in lower elevation creeks of Owyhee and Snake Rivers, such as Birch, Dry, Reynolds and Jackson Cks., up to about 1500 m. OF, OG, OM, OP.
- Salix lemmonii* Bebb. 02-382, 03-060. 04-055, 05-487, 20124, 20303, 21134, 12-038. Common by wet meadows, streams, and seeps above about 1400 m throughout our region; less common in N. Nevada than in Owyhee ranges. BP, JIB, OM, OP.
- Salix lutea* Nutt. Otting 552, 2002150, 2002298, 2002364, 02-012b, 05-488, 07-247, 14-140, Holmgren 5729, 15-147, Corbin 1981, 14-266, 13044, George 249, Brunsfeld 2438. Common riparian shrub throughout our entire range at middle elevations, from about 1200 to 2000 m but may be found as low as 1000 m. (*S. eriocephala* Michx. var. *watsonii* (Bebb) Dorn). BP, JIB, OF, OG, OM, OP.
- Salix melanopsis* Nutt. 12-471, 14-039. Uncommon along Currant Ck., Toy Pass, and on Snake River between Swan Falls and Guffey Butte. OF, OM.
- Salix planifolia* Pursh var. *planifolia*. Manning 237. Subalpine wet meadows. In our area known only from Bear Meadow in Jarbidge Mountains. JIB.

Salix prolixa Anderss. 08460, 20310. Rare in our area above 1500 m along Jarbidge and Bruneau Rivers, and upper elevations in Silver City range. (*Salix eriocephala* Michx. var. *mackenziana* (Hook.) Dorn). BP, OM, OP.

Salix scouleriana Barratt ex Hook. 02-605, 01-313, 14-263. Uncommon at seeps and hillsides down to about 1200 m, most common around South Mountain. BP, JIB, OM, OP.

SAPINDACEAE (see ACERACEAE)

SARCOBATAACEAE (formerly in CHENOPODIACEAE)

Sarcobatus vermiculatus (Hook.) Torr. var. *vermiculatus*. 02-127, 02-698, 14-318. Common and often dominant in alkaline seeps and flats below 1550 m. BP, OF, OG, OP.

SAXIFRAGACEAE (see also PARNASSIACEAE)

Heuchera cylindrica Douglas ex Hook. var. *alpina* S. Watson. 02-603, 09-202b, 14-480, Rink 16237. Occasional to common in cliff crevices at upper elevations and down lower in canyons of Owyhee and Bruneau Rivers. BP, JIB, OG, OM.

Heuchera parvifolia Nutt ex Torr. & A. Gray. Graber 120, 14-659b. Rare in rock crevices by Coffee Pot crater in Jordan Craters; in Independence Mountains, perhaps expected more widely. JIB, OP.

Heuchera rubescens Torr. Dean 129, Zika 12340, 02-032, 02-823, 2002618, 2002717, Otting 570, Joyal 1119, Sanford 476, 13-086. Occasional on rock crevices and cliffs scattered throughout the range, generally below 1850 m. Highly variable. BP, JIB, OG, OM, OP.

Lithophragma glabrum Nutt. 08348, 2002044, Irwin 91043, 11-047. Occasional to common in sagebrush communities at middle and upper elevations. (*Lithophragma bulbifera* Rydb.). BP, JIB, OG, OM, OP.

Lithophragma parviflorum (Hook.) Nutt. ex Torr. & A. Gray. 02-418, 02-600, 2002129, 2002050. Common in sage brush and vernal wet communities at all but the lowest elevations. BP, JIB, OG, OM, OP.

Lithophragma tenellum Nutt. ex Torr. & A. Gray. 08178c, Bratz 264-93. Uncommon in mesic sagebrush slopes and rocks above 1800 m. BP, JIB, OM.

Micranthes fragosa (Suksd. ex Small) Small. 05-167, Baker 7890. Rare in streams and seeps above 1700 m in Owyhee Mountains. More common north of the Snake River. (*Saxifraga nidifica* (Greene) var. *claytoniifolia* (Canby ex Small) Elvander). OM.

Micranthes nidifica (Greene) Small ex Britton. 02-463b, 2002417, 11-100b, Tiehm 12953, 08417, 05167, 08104. Occasional in seeps and wet meadows at upper elevations. One form (2002417) approaching *S. apetala*. (*Saxifraga nidifica* Greene var. *nidifica*, *S. integrifolia* (Hook.) Small var. *columbiana* (Piper) C.L. Hitchc.). JIB, OM, OP.

Micranthes odontoloma (Piper) A. Heller. DP 74-167, 08-142, Baker 8264, 17430. Occasional by streams above 2100 m Silver City range (Hayden Peak and Sawpit Gulch) to Jarbidge Mountains. (*Saxifraga odontoloma* Piper). JIB, OM.

Micranthes oregana (Howell) Small ex Britton. 2002333, 2002565, 2002526, 21103. Occasional at seeps and wet meadows in Independence Mountains, Juniper Mountain and at West Little headwaters down to as low as Anderson Crossing. (*Saxifraga oregana* Howell). JIB, OM, OP.

Pectiantia pentandra (Hook.) Rydb. Tiehm 10772, Corbin 1559, 18602. Rare to uncommon; Stobie Ck. in Silver City Range, and somewhat more common in moist streambanks in Jarbidge Mountains. (*Mitella pentandra* Hook.). JIB, OM.

SCROPHULARIACEAE (see also LINDERNACEAE, OROBANCHACEAE, PHRYMACEAE, and PLANTAGINACEAE for genera that have traditionally been placed here)

Limosella aquatica L. Klott 10121, 02-577, 03-189, 20051039, 06-120, Irwin 9256. Uncommon to occasional in springs, seeps, ponds, creeks and upper elevation playas. BP, OP.

Scrophularia lanceolata Pursh. 02-468, 2002518, 02-809. Uncommon in moist, shaded meadows and canyons at middle to upper elevations. BP, JIB, OG, OM, OP.

Verbascum blatteria L. * 06-194, 08-581. Occasional in disturbed sites in the northern part of our region. OG, OM.

Verbascum thapsus L. * 2002634, Gentilcore 2095. Common and locally abundant in dry disturbed sites below 1700 m. OF, OG, OM.

SOLANACEAE

Hyoscyamus niger L. * N Corbin1609, 14200, Klott 646, Ettinger sn. Rare exotic weed appearing sporadically in disturbances from Succor Creek to Bull Run and Jarbidge area. JIB, OG.

Lycium barbarum L. Ranck 82, Atwood 23677. Rare at lower elevations—Succor Ck. to Bruneau River. OF.

Nicotiana attenuata Torr. ex S. Watson. Lytjen 109, 02-850, Lytjen 343, Nielsen 1113, Smith 10712, Irwin 9245, 14-404. Uncommon to occasional in sandy or rocky creek beds and disturbed sites scattered across the range. BP, OG, OM, OP.

Solanum dulcamara L. * 01-218, 02-022, Corbin 1635, 21422, Maser 453. Occasional in wet meadows and seeps at lower and middle elevations. OF, OM, OP.

Solanum nigrum L. * Ertter 251, Packard 73-305. In disturbed sites from Leslie Gulch to lower Owyhee and southeast of Murphy. OF, OG.

Solanum physalifolium Rusby * Baker 8531, Lytjen 261, Bratz 538-36. Rare, in sandy soils of disturbed streamside terraces. OF, OG.

Solanum rostratum L. * N JE 30-58, Corbin 1576. Uncommon in disturbed areas. Near Homedale and near Walters Ferry. OF.

Solanum triflorum Nutt. * 02-1021, Corbin 1475, Corbin 1552, 15-297, Klott 88, Klott 647, Ertter 22113, Davis 4260, 21400. Uncommon to occasional on disturbed roadsides; Macbride Ck, Birch Ck., Piaute Ck., Triangle area, Riddle area. BP, OF, OG, OP, OM.

SPARGANIACEAE (see TYPHACEAE)

TAMARICACEAE

Tamarix chinensis Lour. * Peck 482. Rare; known from one collection along Snake River near Adrian. OF.

Tamarix parviflora DC. * Klott 171, Luce 42, Peck 16076. Sporadic along the Snake River from C.J. Strike Reservoir to Adrian. OF.

Tamarix ramosissima Ledeb. * N 02-304, 2002635, Tanner 95, Otting 756, Glad 7, Ertter 4447, DiNicola 2013-28, 14-365. Occasional in lower riparian zone as high up as Jackson Ck. in the lower Owyhee Canyon. BP, OF, OG, OP.

TYPHACEAE (including SPARGANIACEAE)

Sparganium angustifolium Michx. Bratz 485-176, 21427. Rare; submerged in slow water Reynolds Creek and N. Fork Owyhee River. OM, OP.

Sparganium emersum Rehm. Bratz 484-155, 99-148, 02-769, 01-321, 15-309, Otting 949, Otting 975, DeBolt 1014, Smithman 1899. Occasional emergent in slow water at middle and lower elevations. OM, OP.

Sparganium eurycarpum Engelm. Kotter 39. Known from only one collection as an emergent in inlet stream to Cow Lakes. OP.

Typha angustifolia L. 02-813, 02-864, 2002675, Ertter 8, Lytjen 285. Occasional emergent in slow water at lower and middle elevations. BP, OF, OG, OP.

Typha latifolia L. 02-934, Hamre 62, 13-026. Uncommon to occasional emergent in slow water at lower to middle elevations. BP, OF, OG, OP.

ULMACEAE (see also CANNABACEAE)

Ulmus pumila L. * 02-059, 2002104. Naturalized in lower Owyhee R. and occasionally colonizing uninhabited areas. Increasing somewhat in 2003. OP.

URTICACEAE

Parietaria pennsylvanica Muhl. ex Willd. 02-299, 02-896, 2002721, Otting 572. Rare to uncommon near seeps and in crevices and caves at lower and middle elevations. BP, OF, OG, OP.

Urtica dioica L. ssp. *gracilis* (Aiton) Selander. Bratz 245-145. Known from only one collection in wet streamside areas in Reynolds Creek. More common north of the Snake River. OM.

Urtica dioica L. ssp. *holosericea* (Nutt.) Thorne. 02-012, 2002557, Bala 14-1, Shield 72-35, Bratz 527-58, 14-346, 14-211, 13-141, George 454, 12-441, Lytjen 134, Luce 41, 02-012, Bratz 242-23, 07378, 15-250, Klott 354, 23193. Common in riparian rocks and seeps at all elevations across the range. BP, JIB, OF, OG, OM, OP.

VALERIANACEAE (see also CAPRIFOLIACEAE)

Plectritis macrocera Torr. & A. Gray. 2002041, 02-598. Common in mesic sagebrush communities throughout the range. BP, JIB, OF, OG, OM, OP.

Valeriana edulis Nutt. ex Torr. & A. Gray var. *edulis*. 2002409, 02-559, Klott 493, Peck 21775, 04-016. Occasional in meadows and aspen stands at upper elevations down to Crooked Creek in Malheur Co. and in Jarbidge foothills. JIB, OP.

Valeriana acutiloba Rydb. var. *pubicarpa* (Rydb.) Cronquist. Corbin 1470; 14-500, Olmstead 2017-39. Uncommon on mesic ridges, rocky hillsides and sagebrush slopes at upper elevations. More common in N. Nevada ranges. JIB, OM.

Valeriana occidentalis A.A. Heller. DiNicola 2014-57, 04308, Pinzl 13416, Klott 558, Baker 8219. Common in riparian and woodlands from Sunflower Flat to Jarbidge Mtns and rare in Silver City range. JIB, OM.

Valeriana sitchensis Bong. Boone sn. Rare near Silver City. Known from only one historical collection, though common in mountains north of Snake River Plain. OM.

VERBENACEAE

Verbena bracteata Cav. ex Lag. & Rodr. 02-117, 2002621, 2002754, 200553105. Occasional in disturbed sandy soils at below 1400 m. BP, OG, OF, OM, OP.

Verbena hastata L. 02-865, 01-209, 03-143, 04-326, Baker 11170, Findley 499. Uncommon to occasional at seeps and springs of middle elevations along Owyhee and Bruneau Rivers. BP, OF, OG, OP.

VIOLACEAE

Viola adunca Sm. 12-033, 12-063, Packard 70-284, Bratz sn., 11-106, Baker 7901, Chau 2017-13, 08205. Occasional to common mesic to wet mountain sagebrush, aspen, or juniper communities. JIB, OM, OP.

Viola beckwithii Torr. & A. Gray. 2002141, 03-034, 08-063, Geertson 366. Uncommon to occasional in grassland and sagebrush communities at middle to upper elevations in Malheur Co. Not known yet from east of the far western part of Owyhee Co. south of Jordan Creek. OG, OM, OP.

Viola nephrophylla Greene. 02-018, 02-997, 02-093, 02-689, Tanner 65. Common violet of springs, seeps, and tributary creeks at middle and lower elevations, below 2150 m. JIB, OF, OG, OM, OP.

Viola nuttallii Pursh var. *praemorsa* (Douglas ex Lindl.) S. Watson. 14-248b, Irwin 9103, Peck 20572, Baker 13104, Baker 8007, 12-066, 12-013, 05-245. Common in wet meadows to mesic sagebrush between 1400 and 2450 m across the range. (*Viola praemorsa* Douglas ex Lindl. ssp. *linguifolia* (Nutt.) M.S. Baker & J.C. Clausen ex M. Peck; *Viola praemorsa* Douglas ex Lindl. var. *altior* Blank.; *Viola nuttallii* Pursh var. *linguifolia* (Nutt.) Jeps.). Tapered leaf blade base. BP, JIB, OF, OG, OM, OP.

Viola nuttallii Pursh var. *vallicola* (A. Nelson) H. St. John. Halse 1909, 2002412, 2002215, 2002313. Occasional in scabland balds from Leslie Gulch to wet meadows at upper elevations. More common in N. Nevada ranges. (*Viola vallicola* A. Nelson). More abrupt leaf blade base. BP, JIB, OF, OG, OM, OP.

Viola palustris L. Peter 74-161, 08-421, Baker 13086, 17403. Uncommon to rare in wet, shaded areas above 1900 m from Jarbidge to Silver City range. JIB, OM.

Viola purpurea Kellogg ssp. *integrifolia* (M.S. Baker & J.C. Clausen) J.T. Howell. Otting 2382. Rare in sagebrush in upper W. Little Owyhee drainage. OP.

Viola purpurea Kellogg ssp. *venosa* (S. Watson) M.S. Baker & J.C. Clausen. 08278, 08271, 2002399, Baker 7917, Baker 7995. Occasional to common in mudflats and snowmelt scree and gravel communities at upper elevations in all ranges. JIB, OM, OP.

Viola utahensis M.S. Baker & J.C. Clausen. 09156, Irwin 9293. Known in our area only from the Bull Run Mountains near snowbanks above 2150 m with grasses and forbs. JIB.

ZANNICHELLIACEAE (see POTAMOGETONACEAE)

ZYGOPHYLLACEAE

Tribulus terrestris L. * N 02-366, 02-1018, 2002643. Occasional in disturbed sandy soils below 1100 m. OF, OG.

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LITERATURE CITED

- Allen, G.A., L. Bruoillet, J.C. Semple, H.J. Guest, ad R. Underhill. 2019. Diversification of the North American *Doellingeria-Eucephalus* clade (Astereae: Asteraceae) inferred from molecular and morphological evidence. *Syst. Bot.* 44(4): 930–942.
- Anderton, L.K. and M.E. Barkworth. 2009. Grasses of the intermountain region. Utah State Univ. Press, Logan.
- APG IV. 2016. The Angiosperm Phylogeny Group, M.W. Chase, M.J.M. Christenhusz, M.F. Fay, J.W. Byng, W.S. Judd, D.E. Soltis, D.J. Mabberley, A.N. Sennikov, P.S. Soltis, P.F.

- Stevens. 2016. An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants. *Bot. J. Linnean Soc.* 181(1): 1–20.
- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti (eds.). 2012. *The Jepson Manual: Vascular Plants of California* (ed. 2). Univ. of California Press, Berkeley.
- Baldwin, E.M. 1964. *Geology of Oregon*. Edwards Brothers, Inc., Ann Arbor, Michigan.
- Barneby, R.C. 1990. Fabales. *In* A. Cronquist, A.H. Holmgren, N.H. Holmgren, J.L. Reveal, and P.K. Holmgren (eds). *Vascular Plants of the Intermountain West, U.S.A.* Vol. 3, Part B. The New York Botanical Garden Press, Bronx.
- Benson, T.R., G.A. Mahood, and M. Grove. 2017. Geology and ⁴⁰Ar/³⁹Ar geochronology of the middle Miocene McDermitt volcanic field, Oregon and Nevada: Silicic volcanism associated with propagating flood basalt dikes at initiation of the Yellowstone hotspot. *Geol. Soc. Amer. Bull.* 129 (9–10): 1027–1051.
- Bonnichsen, B. 1982. The Bruneau-Jarbridge eruptive center, southwestern Idaho. *Cenozoic Geology of Idaho. IBMG Bull.* 26: 237–254.
- Brainerd, R.E., N. Otting, and B.L. Wilson. 2016. New combinations in *Bromus sitchensis* (Poaceae). *Phytoneuron* 2016-36: 1–4.
- Brokaw, J.M., M.R. Howard, and B.N. Douglas. 2022. Genetic diversity and evolutionary potential of rare plant species: *Mentzelia mollis* and *M. packardiae* (Loasaceae). *West. N. Amer. Nat.* 82(3): 423–438.
- Brown, B.J. and D.H. Mansfield. 2017. Edaphic and geographic origins of varietal differentiation in *Eriogonum calcareum*. *Madroño* 64(1): 22–31.
- Carlson, K.M., D.H. Mansfield, and J.F. Smith. 2011a. A new species in the *Lomatium foeniculaceum* (Apiaceae) clade revealed through combined morphometric and phylogenetic analyses. *Syst. Bot.* 36(2): 495–507.
- Carlson, K.M., D.H. Mansfield, and J.F. Smith. 2011b. A new variety of *Lomatium ravenii* (Apiaceae) from the northern Great Basin and adjacent Owyhee region. *Aliso* 29(2): 105–114.
- Christiansen, R.L., G.R. Foulger, and J.R. Evans. 2002. Upper-mantle origin of the Yellowstone hotspot. *Geol. Soc. Amer. Bull.* 114(10): 1245–1256.
- Cronquist, A. 1978. The biota of the Intermountain region in geohistorical context. *Great Basin Nat. Mem.* 1978(1): 3–15.
- Cronquist, A. 1994. *In* A. Cronquist, N.H. Holmgren, P.K. Holmgren and J.L. Reveal (eds.). *Vascular Plants of the Intermountain West, U.S.A.* Vol. 5. The New York Botanical Garden Press, Bronx.
- Cronquist, A., A.H. Holmgren, N.H. Holmgren, and J.L. Reveal. 1972. *Vascular Plants of the Intermountain West, U.S.A.* Vol. 1. Hafner Publishing Co., Inc. New York.
- Cronquist, A., A.H. Holmgren, N.H. Holmgren, J.L. Reveal, and P.K. Holmgren. 1977. *Vascular Plants of the Intermountain West, U.S.A.* Vol. 6. Columbia University Press. New York.
- Cronquist, A., A.H. Holmgren, N.H. Holmgren, J.L. Reveal, and P.K. Holmgren. 1984. *Vascular Plants of the Intermountain West, Vol. 4.* The New York Botanical Garden Press, Bronx.
- Cronquist, A., N.H. Holmgren, and P.K. Holmgren. 1997. *Vascular Plants of the Intermountain West, U.S.A.* Vol. 3, Part A. The New York Botanical Garden Press, Bronx.
- Cummings, M.L., J.G. Evans, M.L. Ferns, and K.R. Lees. 2000. Stratigraphic and structural evolution of the middle Miocene synvolcanic Oregon-Idaho graben. *Geol. Soc. Am. Bull.* 112(5): 668–82.
- Dean, M.L. 1960. A taxonomic and ecologic study of the vascular plants of a section of the Owyhee River canyon in Oregon. M. Sc. thesis. Oregon State University, Corvallis.
- Dempster, L.T. and F. Ehrendorfer. 1965. Evolution of the *Galium multiflorum* complex in western North America. II. Critical taxonomic revision. *Brittonia* 17(4): 289–334.
- Ekren, E.B., D.H. McIntyre, E.H. Bennett, and R.F. Marvin. 1982. Cenozoic stratigraphy of western Owyhee County, Idaho. *Cenozoic Geology of Idaho. IBMG Bull.* 26: 215–36.

- Elvin, M.A., D.H. Mansfield, and B. Ertter. 2014. A new species of *Monardella* (Lamiaceae) from southeastern Oregon and adjacent Idaho, USA. *Novon* 23(3): 268–274.
- Ertter, B. and D.H. Mansfield. 2007. A new variety of *Potentilla gracilis* (Rosaceae) and re-evaluation of the *Potentilla drummondii* complex. *Madroño* 54(2): 180–186.
- Ertter, B. and B. Moseley. 1992. Floristic regions of Idaho. *J. Idaho Acad. Sci.* 28(2): 57–70.
- Evans, J.G. 1987. Geologic map of the Owyhee Canyon Wilderness study area, Malheur County, Oregon. U.S. Geological Survey Miscellaneous Field Studies Map, Reston, Virginia.
- Ferns, M.L., J.G. Evans, and M.L. Cummings. 1993. Geologic map of the Mahogany Mountain 30' x 60' quadrangle, Malheur County, Oregon and Owyhee County, Idaho: Portland, Oregon, Oregon Dept. of Geology and Mineral Industries, Geological Map Series GMS-78
- Fields, P.F. 1996. The Succor Creek flora of the middle Miocene Sucker Creek Formation, southwestern Idaho and eastern Oregon: systematics and paleoecology. Ph.D. dissertation. Michigan State University, East Lansing.
- Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico*. 25+ vols. Vol. 1, 1993; vol. 2, 1993; vol. 3, 1997; vol. 4, 2003; vol. 5, 2005; vol. 6, 2015; vol. 7, 2010; vol. 8, 2009; vol. 9, 2014; vol. 10, 2021; vol. 11, 2023, vol. 12, 2016; vol. 13, 2024; vol. 14, 2023; vol. 17, 2019; vol. 19, 2006; vol. 20, 2006; vol. 21, 2006; vol. 22, 2000; vol. 23, 2002; vol. 24, 2007; vol. 25, 2003; vol. 26, 2002; vol. 27, 2007; vol. 28, 2014. Oxford University Press, Oxford and New York.
- Freeman O.W., J.D. Forrester, and R.L. Lupton. 1945. Physiographic divisions of the Columbia Intermontane province. *Ann. Assoc. Amer. Geographers* 35(2): 53–76.
- Geological Map of Oregon. 2024. <<https://www.oregon.gov/dogami/geologicmap/pages/index.aspx>>
- Grimes, J.W. 1984. Notes on the flora of Leslie Gulch, Malheur County, Oregon. *Madroño* 31: 80–85.
- Hitchcock, C.L. and A. Cronquist (D.E. Giblin, B.S. Legler, P.F. Zika, and R.G. Olmstead, eds.). 2018. *Flora of the Pacific Northwest: An Illustrated Manual*. Edition 2. Univ. of Washington Press, Seattle.
- Holmgren, N.H. 1972. Plant Geography of the Intermountain Region. Pp. 77–161, *in* A. Cronquist, A.H. Holmgren, N.H. Holmgren, and J.L. Reveal. *Intermountain Flora: Vascular Plants of the Intermountain West*, Vol. 1.
- Holmgren, N.H., P.K. Holmgren, and A. Cronquist. 2005. *Intermountain Flora. Vascular Plants of the Intermountain West*. U.S.A. Vol. 2. Part B. New York Botanical Garden Press, Bronx.
- Holmgren, N.H., P.K. Holmgren, and J.L. Reveal. 2012. *Vascular Plants of the Intermountain West*, U.S.A. Vol. 2, Part A. The New York Botanical Garden Press, Bronx.
- Holmgren, N.H. and P.K. Holmgren. 2017. *Vascular Plants of the Intermountain West*, U.S.A. Vol. 7. The New York Botanical Garden Press, Bronx.
- ISDA. 2024. Idaho State Department of Agriculture. *Invasive Species of Idaho (ISPI)*. 2024. <<https://invasivespecies.idaho.gov/>>
- INPS. 2023. Idaho Native Plant Society. *Idaho Rare Plant List*. <<https://idahonativeplants.org/rare-plants-list/>>
- Izett, G.A. 1981. Volcanic ash beds: Recorders of Upper Cenozoic silicic pyroclastic volcanism in the western United States. *J. Geophys. Res.* 86: 10200–10222.
- Jackson, R.A. 2021. New perspectives on prolific and voluminous rhyolite volcanism of the Mahogany Mountain: Three Fingers rhyolite field, eastern Oregon. Ph.D. dissertation. Portland State University, Portland, Oregon.
- Kimmel, P.G. 1979. Stratigraphy and paleoenvironments of the Miocene Chalk Hills Formation and Pliocene Glenns Ferry Formation in the western Snake River Plain, Idaho. Ph.D. dissertation. Univ. of Michigan, Ann Arbor.
- Kittleman, L.R. 1967. Geological map of the Owyhee region, Malheur County, Oregon. Museum of Natural History, Univ. of Oregon, Eugene.

- Kittleman, L.R. 1973. Guide to the geology of the Owyhee region of Oregon. Bull. No. 21, Museum of Natural History, Univ. of Oregon, Eugene.
- Knott, J.R., A.M. Sarna-Wojcicki, J.A. Barron, E. Wan, L. Heizler, and P. Martinez. 2022. Tephrochronology of the Miocene Monterey and Modelo Formations, California, In Aiello, I.W., J.A. Aiello, J.A. Barron, and A.C. Ravelo (eds.). Understanding the Monterey Formation and similar biosiliceous units across space and time. Geol. Soc. Amer. Special Paper 556: 187–214.
- Link, P., S. Willsey, and K. Schmidt. 2021. Roadside Geology of Idaho. Second Edition. Mountain Press, Missoula, Montana.
- Mansfield, D.H. 2000. Flora of Steens Mountain. Oregon State Univ. Press. Corvallis.
- Mansfield, D.H. 2010. Vascular flora of the Owyhee River watershed in Oregon. J. Idaho Acad. Sci. 46(2): 1–127.
- Mansfield, D.H. and L. Barbour. 2022. Morphological variation in the rare Idaho endemic, *Lepidium papilliferum* (Brassicaceae) and segregation of Owyhee County populations as a new variety of *Lepidium montanum*. Phytoneuron 2022-46: 1–20.
- McKee, A. and D. Knutson. 1987. A disjunct ponderosa pine stand in southeastern Oregon. Great Basin Nat. 47(1): 17.
- McLaughlin, S.P. 1989. Natural floristic areas of the western United States. J. Biog. 16: 239–248.
- Meyers, S.C., T. Jaster, K.E. Mitchell, and L.K. Hardison (eds.). 2015. Flora of Oregon. Vol. 1: Pteridophytes, Gymnosperms and Monocots. Botanical Research Institute of Texas, Fort Worth.
- Meyers, S.C., T. Jaster, K.E. Mitchell, T. Harvey, and L.K. Hardison (eds.). 2020. Flora of Oregon. Vol. 2: Dicots A–F. Botanical Research Institute of Texas, Fort Worth.
- Miller, R.F. and J.A. Rose. 1995. Historic expansion of *Juniperus occidentalis* (western juniper) in southeastern Oregon. Great Basin Nat. 55(1): 37–45
- Murphy, C., M. Mancuso, and S. Cooke. 2003. Field inventory of Bureau of Land Management special status plants on the Owyhee Front, Castle Creek to Mud Flad road. Idaho Department of Fish and Game, Boise.
- NatureServe. 2024a. NatureServe. Arlington, VA. <<https://explorer.natureserve.org/>>
- NatureServe 2024b. NatureServe Rank Calculator, NatureServe, Arlington, Virginia. <<https://www.natureserve.org/products/conservation-rank-calculator>>
- Nayak, A., D. Marks, D. G. Chandler, and M. Seyfried. 2010. Long-term snow, climate, and streamflow trends at the Reynolds Creek Experimental Watershed, Owyhee Mountains, Idaho, United States, Water Resour. Res. 46, W06519, doi:10.1029/2008WR007525. Boise, Idaho.
- NDA. 2024. Nevada Department of Agriculture noxious plants list. <https://agri.nv.gov/plant/noxious_weeds/noxious_weed_list/>
- Nesom, G.L. 2013. Three new species of *Diplacus* (Phrymaceae) from California and Oregon. Phytoneuron 2013-65: 1–18.
- NDNH. 2023. Nevada Division of Natural Heritage. <<https://heritage.nv.gov/assets/documents/2023-07-Track-List.pdf>>
- Nickrent, D.L., V. Malécot, R. Vidal-Russell, and J.P. Der. 2010. A revised classification of Santalales. Taxon 59(2): 538–558.
- Omernik, J.M. and A.L. Gallant. 1986. Ecoregions of the Pacific Northwest. EPA/600/3-86/033.
- ORBIC. 2023. Oregon Biodiversity Information Center. Rare, Threatened and Endangered Vascular Plant Species of Oregon An excerpt of the Rare, Threatened, and Endangered Species of Oregon publication Oregon Biodiversity Information Center, Portland State University Portland.
- ONW. 2024. Oregon Department of Agriculture. Noxious Weeds Program (ONW). <<https://www.oregon.gov/oda/programs/weeds/oregonnoxiousweeds/Pages/default.aspx>>
- Packard, P L. 1970. *Pinus ponderosa* in Malheur County, Oregon. Madroño 21: 298.

- Peterson, P.M., K. Romaschenko, R.J. Soreng, and J.V. Reyna. 2019. A key to the North American genera of Stipeae (Poaceae, Pooideae) with descriptions and taxonomic names for species of *Eriocoma Neotrinia*, *Oloptum*, and five new genera: *Barkworthia*, *xEriosella*, *Pseudoeriacoma*, *Ptilagrostiella*, and *Thorneochloa*. *PhytoKeys* 126: 89.
- Pierce, K.L. and L.A. Morgan. 1992. The track of the Yellowstone hotspot: Volcanism, faulting, and uplift. In Link, P.K., M.A. Kuntz, and L.B. Platt (eds.). *Regional geology of eastern Idaho and western Wyoming*. *Geol. Soc. Amer. Mem.* 179: j53.
- Reveal, J.L. 1979. Biogeography of the Intermountain region. A speculative appraisal. *Mentzelia* 4: 1–92
- Roché, C.T., R.E. Brainerd, B.L. Wilson, N. Otting, and R.C. Korfhage. 2019. *Field Guide to the Grasses of Oregon and Washington*. Oregon State Univ. Press, Corvallis.
- Shoemaker, K.A. 2004. The tectonomagmatic evolution of the late Cenozoic Owyhee Plateau, northwestern United States. Ph.D. dissertation. Miami University, Oxford, Ohio.
- Strand, E.K. and S.C. Bunting. 2023. Effects of pre-fire vegetation on the post-fire plant community response to wildfire along a successional gradient in western juniper woodlands. *Fire* 6(4): 141.
- Swirydczuk, K. 1977. Tephra stratigraphy of sedimentary rocks associated with the Glens Ferry Formation, western Snake River Plain. M.S. thesis, Univ. of Michigan, Ann Arbor.
- Swirydczuk, K., G.P. Larson, and G.R. Smith. 1982. Volcanic ash beds as stratigraphic markers in the Glens Ferry and Chalk Hills Formations from Adrian, Oregon to Bruneau, Idaho. Pp. 543–558, *in* B. Bonnicksen and R.M. Breckenridge (eds.). *Cenozoic Geology of Idaho*. *IBMG Bull.* 26.
- Thiers, B.M. Ongoing. *Index Herbariorum*. <<https://sweetgum.nybg.org/science/ih/>>
- Trawick, D. and D.H. Mansfield. 2020. Stipitate and non-stipitate forms of *Ericameria greenei* (Asteraceae). *Phytoneuron* 2020-32: 1–13.
- USDA Plants. 2024. United States Department of Agriculture Plants Database. <<https://plants.usda.gov/>>
- USDA NRCS Snowtel. 2024. <https://www.nrcs.usda.gov/Internet/WCIS/AWS_PLOTS/siteCharts/POR/PREC/ID/South%20Mtn..html>
- USGS. 2024. <<https://www.idahogeology.org/WebMap4/>>
- Weber, W.A. 1982. Mnemonic three-letter acronyms for the families of vascular plants: A device for more effective herbarium curation. *Taxon* 31(1): 74–88.
- Western Regional Climate Center. 2024. <<https://wrcc.dri.edu/Climsum.html>>
- Wilson, B.L., R.E. Brainerd, D. Lytjen, B. Newhouse, and N. Otting. 2014. *Field Guide to the Sedges of the Pacific Northwest*. Oregon State Univ. Press, Corvallis.
- Wood, S.H. and Clemens, D.M. 2001. Geologic and tectonic history of the western Snake River Plain, Idaho and Oregon. *In* B. Bonnicksen (ed.). *Tectonic and magmatic evolution of the Snake River Plain Volcanic Province*. *Idaho Geol. Surv. Bull.* 30.
- Yu, C-C. and K-F.Chung. 2017. Why *Mahonia*? Molecular recircumscription of *Berberis* s.l., with the description of two new genera, *Alloberberis* and *Moranothamnus*. *Taxon* 66(6): 1371–1392.