

**ASTER PRICEAE AND A. KENTUCKIENSIS (ASTERACEAE):
NOMENCLATURAL HISTORY AND A NEW BINOMIAL FOR PRICE'S ASTER**

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ABSTRACT

Herbarium and field research indicates that the name *Aster priceae* Britton (Britton 1901), now interpreted as *Symphyotrichum priceae* (Britton) Nesom, has been consistently misapplied to the species as it occurs in the field and that a new Latin binomial is needed: ***Symphyotrichum kentuckiense*** (Britton) Medley, **comb. nov.** Plants of *S. kentuckiense* are glabrous; those of *S. × priceae*, an uncommon hybrid, are pubescent.

In the first edition of the *Manual of the Flora of the Northern States and Canada* (1901), N. L. Britton described *Aster priceae*, a pubescent entity, and *A. kentuckiensis*, a glabrous entity, as having pink or purple rays, and — excluding the vestiture — distinguished only by minor characters of the involucre bracts.

These two entities are closely related to *Symphyotrichum (Aster) pilosum* (Willd.) Nesom, differing from var. *pilosum* by having fewer and much larger blue (not pink or purple) rather than white flowers and by being glabrous rather than pubescent or pilose. Var. *pilosum* differs from var. *pringlei* (A. Gray) Nesom (including *A. pilosus* var. *demotus* Blake) by having flowers fewer and distinctly larger, blue rather than white.

Following the original description (Britton 1901) and the treatment by Britton and Brown (1913), *Aster priceae* and *A. kentuckiensis* usually were treated as a single species, *A. priceae* Britton, the first in order on the page of publication, with *A. kentuckiensis* Britton treated either as a synonym or ignored, as by Small (1933). A notable exception was by Fernald (1950), who considered *A. priceae* to be either a color form of *A. pilosus* var. *pringlei* or a hybrid between it and another species.

In 1948, Cronquist, based on *Cronquist 4207* (GA) from Clarke Co., Georgia (a series of 15 sheets purporting to be a series “forming a gradual transition from one extreme to another”). Based on these specimens, Cronquist reduced the species to *Aster pilosus* var. *priceae* (Britton) Cronq. Perusal of these specimens on SERNEC (2020) showed that, while some of the specimens appeared to be a color form with rose-colored ligules, all of them have the small flowers and obvious dense pubescence of *S. pilosum* and are clearly that species, either in the typical form or with pink or rose-colored ligules. Further, they have all been anonymously annotated as *Symphyotrichum pilosum* var. *pilosum*. Thus, treatment at varietal rank was based on misidentified specimens and is not appropriate.

The varietal rank was usually used until 1994, when Nesom transferred *Aster pilosus* var. *priceae* to the genus *Symphyotrichum* at species rank. It is currently treated as *S. priceae* (Britton) Nesom (e.g., Brouillet et al. 2006; Weakley 2020).

While researching Kentucky's rare plants in the late 1970s and early 1980s (Branson et al. 1981) and conducting my doctoral dissertation research in the late 1980s and early 1990s (Medley 1993), I observed populations of *Symphyotrichum priceae* in the south-central Kentucky region from which it was originally described (*Medley 6788-82, 12095-84, 12096-84, 12102-84, 12104-84, 12105-*

84, 12120-84, 12356-84, 12357-84, 12358-84, 12409-84, 12415-84, 12418-84, 12419-84, 12358-84, 20038-95, 20039-95, 20041-86, APSC, including both of Britton's entities).

One of my first observations was that the ray flower color is blue (not pink, purple, or lavender as reported in most published descriptions). The flower color is consistent in all populations except for the largest population which had a few plants with white ligules. In addition, the flowers are consistently and obviously larger than those of *Symphyotrichum pilosum*, and the plants are glabrous rather than densely pubescent as in *S. pilosum*. *Symphyotrichum priceae* (in the few populations observed) did not occur in mixed populations with *S. pilosum*. However, in one locality where they were in proximity, plants otherwise like *S. priceae* had puberulent stems and inflorescences intermediate to *S. pilosum* and were interpreted as probable hybrids.

It was evident in my field study that although *Aster priceae* was described as pubescent, the species as it occurs in the field is consistently glabrous (except for the few presumed hybrids). This was observed in Kentucky in the 1980's and by subsequent observations in Tennessee and Georgia.

In 1990, while visiting the Lehman Herbarium at Missouri Botanical Garden, I studied topotypes collected by Sadie Price of both *Aster priceae* and *A. kentuckiensis*. The plants labeled as *A. kentuckiensis* are glabrous like the plants in the field that have been interpreted as *A. priceae*. The presumed hybrid is puberulent and referable to the entity described as *A. priceae*. Recent study of the holotypes of both taxa (NY, as digital images via SERNEC 2020), shows that the nomenclature on the type material at NY matches that on the topotypes at MO and is identical to the published descriptions. Therefore, *Aster kentuckiensis* is the correct name for the species, necessitating a new binomial under the generic concept of *Symphyotrichum*.

Symphyotrichum kentuckiense (Britton) Medley, **comb. nov.** *Aster kentuckiensis* N.L. Britton, Man. Fl. N. States & Canada 960. 1901. **TYPE: Kentucky.** Near Bowling Green, Oct 1898, *S.F. Price* 4 (holotype: NY).

The binomial *Symphyotrichum* × *priceae* (Britton) Nesom is applicable to the putative hybrid.

Despite the nomenclatural discrepancy, it seems preferable to retain Price's *Aster* as the common name for the species in honor of the collector, Sara (Sadie) Frances Price, an important collector in south-central Kentucky in the late 1800's.

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