

DRABA LEMMONI.—There is a population of *Draba* in the Sweetwater Mountains area of Mono County, California, that appears to stand in about the same relationship to *D. Lemmoni*, var. *Lemmoni*, as does the eastern Oregon *D. Lemmoni*, var. *cyclomorpha*. The following key shows the principal differentiating characteristics of the two California varieties:

- Scapes, pedicels and siliques hirsute with simple or forked trichomes; siliques contorted; leaves hirsute on blade surfaces and margins with simple and forked trichomes *D. Lemmoni*, var. *Lemmoni*.
 Scapes, pedicels and siliques glabrous; siliques plain; leaves sparingly hirsute along margins with simple trichomes . . . *D. Lemmoni*, var. *incrassata*.

DRABA LEMMONI S. Wats., var. **incrassata** Rollins, var. nov. Herba perennis caespitosa; foliis rosulatis crassis obovatis ciliatis; pedicellis glabris; siliquis ellipticis glabris 4–7 mm. longis, 3–4 mm. latis; stylis 0.5–1 mm. longis.

Caespitose perennial with a deep root system; caudex repeatedly branched, covered with old leaf-bases; leaves obovate, rounded above, thick, glabrous or sparingly ciliate with simple trichomes along margin; 4–10 mm. long, 1.5–3 mm. wide; scapes glabrous; flowers yellow; pedicels spreading, slightly curved upward, glabrous, 4–6 mm. long; siliques glabrous or with a few small trichomes, elliptical to nearly orbicular, 4–7 mm. long, 3–4 mm. broad; style 0.5–1 mm. long.

Type in the herbarium of the University of California, Berkeley, collected on rockslide below snowbank, ridge southwest of Sweetwater Canyon, Sweetwater Mountains, Mono County, California. Alt. 9,200 ft., July 17, 1944, *Annie M. Alexander and Louise Kellogg 3905*. Isotypes at Dudley Herbarium, Stanford, and the Gray Herbarium. Other collections studied, all from the Sweetwater Mountains of Mono County: Desert Creek Divide, Alt. 11,400 ft., Aug. 8, 1945, *Alexander & Kellogg 4559* (DS, UC); Mt. Patterson, July 29, 1941, *Robert F. Hoover 5551* (GH); Deep Creek, Alt. 10,200 ft., Aug. 1–7, 1944, *Alexander & Kellogg 3984* (DS, UC); east wall of Desert Creek Canyon, Alt. 11,000 ft., Aug. 7, 1945, *Alexander & Kellogg 4549* (DS, UC).

The leaves of var. *incrassata* are smaller, thicker and with a fainter nerve on the lower side than those of var. *Lemmoni*. A vein pattern can be seen on the valve surfaces of most of the siliques of var. *incrassata*, but I have not been able to make out such a pattern on the siliques of var. *Lemmoni*.

There is considerable variation in silique size, shape and the length of the style in var. *incrassata*. Other characteristics appear to vary less, but petal size and shape is also somewhat variable. It is not possible, at present, to get at the causes of

this variation, although it is fairly safe to assume it is not wholly environmental in origin. *D. Lemmoni* occurs at very high altitudes and the populations are often separated by considerable distance. The semi-isolation resulting from this physical separation is probably a major factor in producing the local variants found in the species, but the plants of the Sweetwater Mountains alone show a range of variation that is nearly equal to that of the rest of the species put together. *D. Lemmoni* as a whole deserves further study when additional material can be obtained.—REED C. ROLLINS.

ASTER SHORTII SSP. AZUREUS (LINDL.), STAT. NOV.—Based upon *Aster azureus* Lindl., Hook., Comp. Bot. Mag. 1: 98. 1835. The midwestern species *A. shortii* Lindl. and *A. azureus* Lindl. were artificially hybridized during the course of an investigation of the heterophyllous asters.¹ The results of these crossings showed that these two species behaved differently from the rest of the group with regard to ease of crossability and gene exchange. The information suggested that the two taxa had not sufficiently diverged genetically to be maintained as distinct taxonomic species.

The relegation of *A. azureus* to subspecific rather than varietal rank was based upon its geographical distribution in relation to that of *A. shortii*. These subspecies are allopatric in most of their range but do occur together in a triangular area from northern Ohio to southeastern Minnesota, eastern Iowa, and southern Illinois. *Aster shortii* ssp. *shortii* is found mostly east of the Mississippi River from southern Wisconsin to Georgia and Alabama while *A. shortii* ssp. *azureus* occurs in the states bordering the Great Lakes and south to Louisiana and eastern Texas.

Hence, despite morphological and ecological differentiation of *A. shortii* and *A. azureus*, the lack of genetic barriers to hybridization is, in the writer's judgment, sufficient basis for nomenclatorial revision.—CHARLOTTE J. AVERS, INDIANA UNIVERSITY, BLOOMINGTON, INDIANA.

¹ Avers, Charlotte J., Biosystematic studies in *Aster*. I. Crossing relationships in the Heterophylli. In ms. (1953).