ON THE TYPIFICATION OF *SALVIA DORRII* (LAMIACEAE)[1]

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ABSTRACT.— The type of *Salvia dorrii* is shown to represent the Great Basin phase of the species (currently called subsp. *argentea*) rather than the Mojave Desert expression as implied by Epling and others. The Mojave Desert phase is hereby renamed S. *dorrii* var. *pilosa* (A. Gray) Strachan & Reveal.

In the Intermountain Region, three phases of *Salvia dorrii* (Kellogg) Abrams (Lamiaceae) are reported. The northern var. *carnosa* (Dougl. ex Greene) Cronq. of Washington and Oregon barely enters the Region along the Snake River on the Oregon-Idaho border. The widespread Great Basin plant has been called subsp. *argentea* (Rydb.) Munz, but the Mojave Desert element, long referred to as subsp. *dorrii*, was not considered to be in the Region even though the type was collected in west central Nevada. An examination of the variation in the S. *dorrii* complex throughout its range (by Strachan), and specifically that in the Intermountain Region (by Reveal), has shown some minor problems that can be resolved at this time.

When *Salvia dorrii* was originally proposed, it was placed in the genus *Audibertia* Benth. in Lindl., a homonym of *Audibertia* Benth., a synonym of *Mentha* L., and apparently was based on a C. Herbert Dorr collection supposedly gathered near Virginia City, Nevada (Epling 1938, Ewan 1967). This original collection has been lost (Epling 1938). Kellogg (1863) mentioned Dorr collections for three new species. Under *Lilium parvum* he thanked "Mr. C. H. Dorr for specimens from Nevada Territory." The type of *Viola aurea* was found by "Mr. C. W.[sic] Dorr from Nevada Territory," but in his description of *Spraguea paniculata* Kellogg wrote that the type was found by Dorr "in a ravine extending to the west, about six miles from Virginia City, Nevada Territory, at an altitude of 3,000 feet." It was this latter information that probably led to the assumption that the type of *A. dorrii* came from near Virginia City. In his description of *A. dorrii*, Kellogg gives no indication at all as to the collector or the place of collection. The specific epithet is our only link with Dorr.

Interestingly, there is a series of subsequent species found in western Nevada and along the eastern slope of the Sierra Nevada in California proposed by Kellogg (1863) without any reference to collector or exact location (except one). These are *Lupinus confertus* (p. 192), *L. calcaratus* (p. 195), *L. caudatus* (p. 197), *Oenothera nevadensis* (p. 224—his next paper), *O. cruciformis* (p. 227), and *Viola chrysantha* var. *nevadensis* (p. 229). Only *O. cruciformis* has a location cited for it, this being "Steamboat Springs, Nevada Territory." Raven (1962) did not find a type specimen of *O. cruciformis* and proposed a neotype for this narrowly endemic species. Only a fragment of a specimen, without any information, was found for *O. nevadensis* (Raven 1969). This specimen was taken by Raven to represent Kellogg's original material. As for the three lupines, we can find recently published information on two. Hess and Dunn (1970) cite a Carson Valley collection of Kellogg's as the type of *L. caudatus*. Although Greene (1887) indicated that Kellogg did some collecting and illustrating of plants, both Ewan (1955) and Greene insist that Kellogg did not begin active botanizing until his Alaskan trip in 1867. Neither Reifschneider (1964) nor Ewan (1967) report Kellogg as a Nevada collector. There is no indication on

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the specimen of *L. caudatus*, now deposited at the California Academy of Sciences, when it was collected or who made the collection. According to Curran (1885), this species was originally gathered by Dorr near Virginia City, but she gives no evidence to support this conclusion. It is probable that Kellogg was not the collector of this specimen as suggested by Hess and Dunn. It should be noted that John Allen Veatch, an associate of Kellogg's then living in Virginia City, did collect in Carson Valley. We suggest that the lupine could just as well have been gathered by Veatch as it may have been gathered by Dorr.

Dunn (1957) reports no type specimen for *L. calcaratus*, but Curran (1885) states the plant was collected "by H. C. [sic] Dorr, near Virginia City," indicating that perhaps a specimen must have been extant at one time, although it is possible she just assumed it was gathered by Dorr near Virginia City. Day (pers. comm.) says there is no type for *L. confertus*, and Cox (1972) suggests the need for a neotype. As for the *Viola*, no specimen is extant (Day, pers. comm.), and there is some question as to the exact meaning of the name "*nevadensis*." J. T. Howell and A. Day (pers. comm.) have called to our attention that *V. douglasii* (as *V. chrysantha* is now called) is a Sierra Nevada species, and is not found in the state of Nevada. Perhaps the plant came from the mountains of California rather than Nevada. We cannot tell. Curran (1885), in her review of the early names proposed by Kellogg, states the variant was hardly different from typical *V. douglasii*, but there is no indication that she actually saw a specimen.

In reviewing the distribution of the plants attributed to Dorr, two occur in the Virginia City area of west central Nevada. These are *Viola aurea* and *Spraguea umbellata* Torr., the correct name for *S. paniculata*. However, we have no record of *Lilium parvum* from the Intermountain Region of Nevada (Cronquist et al. 1977), although it is found on the eastern slope of the Sierra Nevada in Nevada. We now suspect that Dorr collected several specimens that were used by Kellogg to propose new species. For unknown reasons Kellogg failed to record who made the collections. One possible reason is that Kellogg was unable to retain Dorr's specimens for the California Academy of Sciences' collection and decided not to cite them. We have found no Dorr or Kellogg specimen of *S. dorrii* among the several hundred specimens we have observed of the complex, and, thus, we too must conclude that the type is lost.

The only indication as to the original intent of the type is that represented by the illustration published by Kellogg (1863). Epling (1938) referred *Audibertia dorrii* to synonymy under his *Salvia carnosa* Dougl. ex Greene subsp. *pilosa* (A. Gray) Epling without comment, although his range map specifically excluded the Virginia City area of western Nevada. The Kellogg illustration is not critical enough to fully distinguish his species from either the Great Basin phase, subsp. *argentea*, or the Mojave Desert plant, subsp. *dorrii*, which would later (Abrams 1951) include what Epling termed *S. carnosa* subsp. *pilosa*. The Kellogg illustration shows a rather congested inflorescence. This is similar to the condition found in the Mojave Desert phase. The short hairs on the ciliated bracts, however, are more similar to what is found on the bracts of the Great Basin phase. In reading the description additional characters can be noted. The verticillasters are given as "proliferous or condensed whorls, the whorls often remote or separated, of about three or more." The bracts are stated to be "externally somewhat strigose," a distinctive feature that clearly indicates the original material was not the southern phase characterized by long, pilose hairs on the bracts. Finally, an examination of other collections from the Virginia City area reveal only plants of "subsp. *argentea*." We believe the epithet *dorrii*, which must be typified with the Kellogg illustration according to Art. 9.3 of the International Code (Stafleu et al. 1978), applies to the Great Basin phase of the species rather than the southern desert expression as proposed by Epling and followed by Abrams (1951), Munz and Keck (1959), and others.

As a result, we propose to place *Audibertiella argentea* Rydb. in synonymy under *Salvia dorrii* var. *dorrii*, and recognize *S. dorrii* var. *pilosa* (A. Gray) Strachan & Reveal, comb. nov., based on *Audibertia incana* var. *pilosa* A. Gray, Syn. Fl. N. Amer. ed. 2, 2(1): 461. 1886 as typified by *Parish & Parish 1309*.