

The largest-flowered species of *Corallorhiza* in temperate North America, *C. striata* Lindl., has a remarkably disrupted range: the Gaspé Peninsula; southwestern Quebec to western Ontario, south to northwestern New York and southern Ontario, Michigan, northern Wisconsin and northeastern Minnesota; southern Alberta and southern British Columbia, with tongues down the mountains to northwestern Wyoming, eastern Idaho and California; in the East preferring calcareous woodlands and growing chiefly at the bases of *Thuja occidentalis*. Throughout this broad range the plant (scape, sheaths and perianths) is of a warm madder-purple, with the sepals and 2 upper petals conspicuously 3 (or 2)-striate with deep purple. At the easternmost limit of the range the stem, sheaths and perianth are yellow- or orange-brown, comparable with color-forms in *C. maculata* Raf.¹ and *C. odontorhiza* (Willd.) Nutt. This plant may be called

C. STRIATA Lindl., forma **fulva**, forma nov., scapo vaginis perianthiisque fulvis. TYPE: arbor-vitae woods, cold walls of Percé Mt., Percé, Gaspé Co., Quebec, July 25, 1905, *Williams, Collins & Fernald* (Herb. Gray.).

(To be continued)

APPLICATION OF THE NAME EUPHORBIA MACULATA L.

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SVENSON, in his valuable discussion of the Descriptive Method of Linnaeus (RHODORA 47: 273–302, 363–388, 1945), disagrees with Wheeler's interpretation of the Linnaean *Euphorbia maculata*. The latter (Contr. Gray Herb. n. s. 127: 76, 1939) applied this name, on the basis of the Linnaean specimen, to the upright species long known as *E. nutans* (or *E. Preslii*), regarding the Plukenet figure cited by Linnaeus as of secondary importance. Svenson, arguing that the latter figure is of equal significance

¹ When, in RHODORA, xxiv. 145–148 (1922), Bartlett defined (as varieties) the color-forms of *Corallorhiza maculata* Raf. in Am. Mo. Mag. ii. 119 (1817), he considered the yellow plants as relatively rare, while his purplish var. *punicea* is relatively common. He then concluded: "The deeply purple-stemmed var. *punicea* might with some reason be viewed as the biological type of the species, and therefore chosen, in the absence of a type specimen, as the nomenclatorial type as well". Bartlett and those who have followed him, but treating the color-forms as formae, apparently overlooked Rafinesque's statement that in the original *C. maculata* "the whole plant is yellowish".



EUPHORBIA MACULATA: FIG. 1, Plukenet's figure (in part), Alm. t. 65, f. 8;
FIG. 2, *E. supina* Raf. from Winchester, Massachusetts, *Smith & Zimmerman*;
FIG. 3, Washington, D. C., *Freeman*.



FIG. 4, *EUPHORBIA MACULATA*: the specimen in Herb. Linnaeus.

with the specimen in illustrating Linnaeus' concept, used the case of *E. maculata* as an example, attempting to show that if the Plukenet figure is regarded as the type, long-established usage will be preserved and the name will continue to be applied to the prostrate plant referred by Wheeler to *Euphorbia supina* Raf.

To test Svenson's conclusions I examined the specimens of the two species in the herbarium of the U. S. National Arboretum, many of them annotated by Wheeler, and compared them with Svenson's reproduction of Plukenet's figure (RHODORA 47: pl. 990, 1945). The results were as follows:

(1.) The upright plant (our FIG. 3) frequently has the reduced axillary shoots, referred to by Svenson, as well developed

as in Plukenet's figure (our FIG. 1). (2.) The leaves of the upright plant practically always have petioles as long as or longer than those of *E. supina* (our FIG. 2). (3.) Most important of all, the length of the leaves in the Plukenet figure is over half that of the internodes, corresponding to the upright plant (FIG. 3) rather than the prostrate one (FIG. 2), which has them less than half. This gives a valuable clue to the scale of the drawing.

The Plukenet figure looks as though it represented an upright plant rather than a prostrate one, though this is inconclusive. Furthermore, in Linnaeus' treatment nothing is said about a prostrate habit, though this character is striking enough so that it probably would have been mentioned.

Moreover, the statement in the Mantissa (2: 392, 1771) "*Euphorbia maculata* similis *E. hypericifoliae*" lends weight to Wheeler's conclusion, as *E. hypericifoliae* L. is superficially almost indistinguishable from *E. maculata* (sensu Wheeler), while it bears no resemblance to the prostrate *E. supina*. Most important of all, the specimen preserved by Linnaeus and in his Herbarium when he prepared *Species Plantarum* (1753) is, as shown by a photograph (our FIG. 4) provided by Professor Fernald, the upright plant which Plukenet had shown, not the prostrate one selected by Svenson.

The addition of the photo. of the modern upright specimen to Svenson's plate removes all force from the similarity of his two illustrations.

My conclusion, therefore, is that both the Plukenet plate and the entire Linnaean treatment apply to the upright plant, which should be called *Euphorbia maculata* L. The confusion surrounding this species did not exist in Linnaeus' concept, but was introduced by later misinterpretations. This example, consequently, does not seem to have much bearing on the problem of the application of Linnaean names to present-day concepts.

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