

EUPHORBIA MACULATA L.

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An entirely novel application of the Linnean *Euphorbia maculata* and *E. Chamaesyce* was sponsored by Wheeler (Contr. Gray Herb. **127**: 74. 1939; Rhodora **43**: 265. 1941), which aroused misgivings in the mind of prudent taxonomists. These two names had endured well over a century in a sense agreeing with current usage, and it was not certain that absolute necessity required a change.

In a previous study (Bull. Torrey Club **72**: 312. 1945), I endeavored to show that the transfer of *E. Chamaesyce* L. to a species universally known as *E. prostrata* Ait. was uncalled for, and that even a Chicagoan fragment of the "Linnean type" was not enough of a lever to effect revolutionary alterations. After the publication of this work, my advice was privately sought on whether I had objections against using *E. maculata* in the Wheelerian sense. I answered that I could not indorse this sense.

I would have stopped here, if Fosberg had refrained (Rhodora **48**: 197. 1946) from supporting Wheeler. I had felt that controversy was unnecessary because Svenson's note on *E. maculata* (Rhodora **47**: 273. 1945) gave fair warning to hopeful users of this binomial in the Wheelerian manner that they had better reinvestigate the question. It meant nothing to me that Svenson's grounds and mine were entirely different so long as the result could be the same for taxonomy.

It is clear that Fosberg is no better aware than Wheeler of the real status of the issue, which requires final restatement. The point at issue is fact, and the reader may embroider further at his own pleasure.

Boissier's monograph of the *Euphorbieae* (in DC. Prodr. **15**(2): 3. 1862) is still viable, and few taxonomists will be inclined to slight the diligence and trustworthiness of this author. Boissier's treatment of *E. maculata* (op. cit. 46) reads, "156. *E. maculata* (L. sp. pl. I. n. 21 et hb. ! non L. mant.). . . . In Americâ boreali a Canadâ ad Floridam (Chapman!) et Texas! *E. supina* Rafin. dec. pl."

It is manifest that: (1) Boissier diligently consulted the Linnean herbarium before 1862; (2) elected one particular specimen out of this herbarium as the type, which agreed with the traditional application of the binomial; (3) further investigated, reaching the conclusions that the Linnean concept of the *Mantissa* was no longer the same as that of the *Species Plantarum*.

Vague beliefs exist that the botanists of the Old World never had the perfect understanding of "type" vouchsafed to those of the New, which it

would be instructive to discuss. Whatever the details, Boissier effected in this treatment an iron-clad "typification" of the most modern pattern both under the International and the American Code of Nomenclature.

Informed of this treatment, a critical taxonomist mistrusts forthwith a photograph of the Linnean "type" of *E. maculata* disagreeing with the Boisserian understanding of it. The Linnean herbarium is well known to contain sometimes more than one specimen for the same species, and to have been handled by hands other than those of the original owner. It is also known—more or less learned discussions to the contrary—that the *Species Plantarum* is an outright compilation based upon the sexual system in lieu of a key. Discrepancies of interpretation of the "types" in the Linnean herbarium, consequently, demand a full investigation of the *entire content* of this herbarium, and the utmost caution in the application of the synonyms. Cases arise in which an old name must be sacrificed on the altar of the goddess Typification, but the sacrifice must never be allowed without question. Linnaeus had no understanding of the interspecific limits of petty *Chamaesyce* forms, and it would be a mistake to lightly prefer his judgment—if any—to that of Boissier.

The Arnold Arboretum has a complete set of microfilms covering the Linnean herbarium, and these reproductions have been properly enlarged and made available for immediate reference. The enlargements fall short of the perspicuous details apparent in other photographs of classic material from European herbaria, but are good enough, nevertheless, for the current purposes of taxonomy.

These microfilms and their enlargements prove that the Linnean *E. maculata* rested in origin upon two specimens, as follows.

(1) The specimen seen by Boissier, and indeed very well agreeing with Fosberg's *E. supina* Raf. (op. cit. 198, fig. 2); the holotype of this I have studied, bringing of it a fragment, the kind gift of Prof. H. Humbert of Paris, to the herbarium of the Arnold Arboretum. This specimen (No. 630.11 in Savage's "Catalogue") is inscribed "*21. maculata*" in a handwriting which is to all appearances Linnaeus' own.

(2) The specimen, a photograph of which was handed to Wheeler as the "type," and is mistakenly reproduced by Fosberg as such (op. cit. 199, fig. 4.). This photograph is of a plant in the vicinity of the form currently understood as *E. Preslii* or *E. brasiliensis*, and is inscribed in different handwritings both "*maculata*" and "*hypericifolia*."

I much regret that the Linnean herbarium was not open for study when I visited London at the end of 1938, and will not venture to commit myself to certain identification of, or notes about, these plants, the intangibles of which must be studied upon the actual sheets. I am safe in the belief, nevertheless, that Boissier, who knew *Euphorbia* and studied the Linnean "types,"

in choosing one fully agreeing to sound practice was not wrong in identifying *E. maculata*. In short, Wheeler and Fosberg, unknowingly despite Boissier's outspoken warning, are trying to do in 1939, 1941, and 1946 what Boissier did in 1862, and to do it against Boissier's prior understanding. This cannot be done, and on this the matter rests.

It is consequently proper to affirm the following synonymy,

Euphorbia maculata L. sensu Boissier in DC. Prodr. **15**(2): 46. 1862.
Syn. *E. supina* Raf.; Wheeler, Contr. Gray Herb. **127**: 76. 1939; Fosberg, Rhodora **48**: 197. 1946.

Considering the narrow scope of this note, I see no reason to complicate matters with a reference to *Chamaesyce*, which I emphatically hold to be the correct generic name for the group to which *E. maculata* and *E. Chamaesyce* belong.

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