

A NEW SPECIES OF CAMPNOSPERMA FROM PANAMA

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COLLECTIONS of plants obtained in Panama in recent years have revealed the occurrence in that region of many genera of plants, especially of trees, which previously were believed to be confined to the forests of Brazil and the adjoining countries. It is now evident that the Panamanian flora is much more closely allied with that of Brazil than has been believed heretofore. Another striking example of this relationship is afforded by the new species of *Campnosperma* here described. This genus, which is a member of the Anacardiaceae, has been known in America from a single species, *Campnosperma gummifera* (Benth.) L. March., a native of the Amazon region of Brazil. The other members of the group are natives of the East Indies.

Campnosperma panamensis Standley, sp. nov.

Ramulis 12 mm. crassis, cortice rugoso obtectis, novellis stellato-puberulis, dense foliatis; foliis breviter petiolatis, oblongo-obovatis, 27 cm. longis, 11.5 cm. latis, apice rotundatis, basi cuneatis, coriaceis, supra glabris, subtus dense stellato-lepidotis, costa supra canaliculata, subtus valde prominente, nervis lateralibus subparallelis, utrinque latere circiter 20, sub margine adscendentibus; paniculis interrupte spiciformibus, longe pedunculatis, 13–18 cm. longis, stellato-puberulis, floribus pedicellis perbrevibus crassis fultis; calycis lobis ovato-rotundatis, 1.5 mm. longis, stellato-puberulis, obtusis; petalis triangulari-ovatis, acutiusculis, costa extus stellato-puberula; staminibus petalis brevioribus, filamentis glabris; disco crasso, 1 mm. alto, 2–2.5 mm. lato; fructu juvenili ovoideo, lepidoto.

Type in the herbarium of the Arnold Arboretum, collected "at the Chiriquicito Lagoon on the south side of Panama where it covers an area of about 6 square miles" and received from A. D. Little, Inc., of Cambridge, Massachusetts, in August, 1920.

The specimen was forwarded to the writer by Mr. Alfred Rehder, who had already referred it to the Anacardiaceae.

No specimens of the Brazilian *C. gummifera* have been seen by the writer, but an excellent plate of that species is given by Engler in Martius's *Flora Brasiliensis* (XII.² t. 82 [1876]). The Panamanian plant agrees very well with the plate, except in its longer panicles. Engler, however, describes the leaves, sepals, and fruit as glabrous, and in his later monograph of the Anacardiaceae² he uses the presence or absence of pubescence upon the leaves as a key character, placing *C. gummifera* among the species with glabrous leaves. The only species of *Campnosperma* described as having pubescent leaves is *C. macrophylla* (Blume) Hook. f., an East Indian tree. In that, however, the pubescence is stellate and comparatively coarse, while the pu-

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² In De Candolle, *Monog. Phan.* iv. 316–321 (1883).

bescence in *C. panamensis* is essentially lepidote, each trichome having a conspicuous, flat, brown centre. One of the panicles of the type specimen of *C. panamensis* bears two bractlike leaves about 2 cm. long at the apex of the peduncle.

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NOTES ON NORTH AMERICAN TREES. VII¹

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Prunus

THE last ten years have added little to our knowledge of the Plum-trees of North America, where in the Arkansas, Oklahoma and Texas region they are more numerous in species and probably in individuals than in any other part of the world. It is difficult to obtain good material for a complete study of these trees. They flower early when there is little else in bloom to occupy the collector, who is obliged to make long and expensive journeys to collect the flowers of one genus. In four years out of five the young fruit is destroyed by the severe frosts which in that region usually come later than the flowering of the Plum-trees. When the fruit escapes destruction by frost it is difficult to obtain, for it ripens at the season when heat and insects make plant collecting in the region where plums abound a difficult and disagreeable undertaking. The different specimens are often widely separated, and it is therefore impossible to make the comparative study of the living plants which is necessary in order properly to understand their similarities and differences. That there are natural hybrids between at least some of the shrubby species is probable, but it has not yet been possible with available material to work these out; and there is little prospect that American Plums can be properly understood until all or most of the species can be grown together in one garden until they flower and produce fruit. Such a collection will not be easy to establish and maintain, for some of the most interesting species are not hardy in the north, and, except in the north, it is not probable that such a collection will be attempted. A good beginning of such a collection has been made by the Park Department of the City of Rochester, New York, which has brought from Oklahoma and Texas a large number of living plants of several species, varieties and probable hybrids, and many seedlings have been raised from the fruit which has ripened in Rochester on these plants. There are, too, a number of American Plums in the Arnold Arboretum, although some of the Texas and Oklahoma species which are doing well in Rochester have not proved entirely hardy here.

Prunus americana Marsh. is usually described as spreading by suckers from the roots into large or small thickets. In the north this seems to be

¹ For part VI, see Vol. I, p. 245.