A NOTE ON THE GENUS LYSICHITUM

MARY L. BOWERMAN

Our Pacific Coast skunk cabbage has been known for many years as Lysichitum camtschatcense. This species was first described from Asia. Linnaeus, in the first edition of his Species Plantarum[1], named it Dracontium camtchatcense. He recorded it only from Siberia although it was first recognized by him as Dracontium foliis lanceolatis in the dissertation Plantae Rariores Camtschatcenses[2]. In 1857 Schott tranferred it to a new monotypic genus, Lysichitum.

Recently Hultén and St. John have studied the Asiatic and Californian plants and have found that the two are specifically distinct. Since all synonyms refer to the Asiatic plant, they have described the Pacific Coast form as a new species, Lysichitum americanum[3].

The true Lysichitum camtschatcense is characterized as follows: a white, instead of a pale lemon-yellow, spathe; odorless flowers; a smaller spadix on the average; smaller perianth segments, 2-3 mm. in length as compared with 3-4 mm., with their upper part fleshy rather than distinctly membranous; the stamens more protruded, and the anthers considerably smaller, 0.6-0.8 mm. as compared with 0.9-2 mm.

The above-mentioned paper was called to my attention by Mr. W. T. Stearn, of Cambridge, England. In conversation he said that he had studied these two forms and, independently, had come to the conclusion that they are specifically distinct. In the Gardeners' Chronicle[4] he reviews the article by Hultén and St. John and adds some further points of interest. In material examined by him, he notes that the perianth segments of the American species are more inclined outward than those of the Asiatic species so that each flower is more conical, and the whole spadix is warty by comparison with the more even spadix of the latter. This difference can be observed in the photographs published by Hultén and St. John.

Other differences have been noted by J. W. Besant, Keeper of the Glasnevin Botanic Garden, Dublin. Speaking of the Asiatic form, as known in British gardens, he says[5], "this white-spathed plant might be a distinct species as not only are the spathes broader in proportion to their length, but the leaves differ from those of the yellow-spathed plant, which has enormous, deep green leaves, whereas in the white-flowered variety they are shorter, blunter and almost glaucous green, especially when young". He further notes that the seeds of the white-spathed plants are slow to germinate which is in striking contrast to

[1]1753, p. 968.

[2]1750, p. 29.

[3]Eric Hultén and Harold St. John, The American Species of Lysichitum, Svensk Botanisk Tidskrift, Band 25, Hafte 4, pp. 453-464 (1931).

[4]Vol. 91, pp. 477-478 (June 25, 1932).

[5]Quoted by Stearn (l. c.) from The Gardeners' Chronicle, vol. 85, p. 441 (June 15, 1929).

the behavior of the yellow one. The latter is reported by Stearn as germinating self-sown around the parent clumps at Kew and at Glasnevin. Even when growing under the same conditions, Lysichitum camtschatcense begins to grow and flower a month later than Lysichitum americanum.

The odor of the plants is a matter of interest. Hultén describes the Kamchatka plant as odorless (from memory, according to Stearn). The white-spathed plant at Kew likewise has no scent. Upon comparing fresh material from Glasnevin and from Captain Simpson-Hayward's garden, Stearn found both yellow and white equally redolent, "the odour of the white plant being sweeter and more pleasant than the skunk-like reek of the yellow". This is surprising if, as believed, the Glasnevin plant is a clone from the Kew plant.

Our skunk cabbage grows in swampy woods or in cut-over woodlands, and the same can be said of the Asiatic species. In Kamchatka it usually occurs in Alnus hirsuta swamps; only occasionally was it observed, by Hultén, in a cut-over Betula forest.

Lysichitum camschatcense is found from the Kamchatka peninsula southwards along the Kurile islands and Sachalin to the Hokkaido (Yeso) and Japan proper (Honschu), and on the Asiatic mainland in Primorskaya, near the mouth of the Amur river. Lysichitum americanum occurs in Alaska, British Columbia, Washington, Idaho, Oregon, Montana and California.

The observations of these several authors clearly indicate that the Asiatic and American species have been confused through similarity of habit and through difficulty of preservation. Both morphological and physiological characteristics afford evidence of the distinctness of these plants. The facts of geographic distribution are also in accord; one species, Lysichitum camtschatcense, is strictly Asiatic, the other, Lychitum americanum, is limited to the Pacific Coast of North America.

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PINUS FLEXILIS IN THE UPPER KERN RIVER WATERSHED

Rimo Bacigalupi

While on the annual summer "High Trip" with the Sierra Club, the writer came upon a somewhat extensive colony of Pinus flexilis along the lower reaches of Whitney Creek about one and a half miles below Lower Crabtree Meadow. So far as ascertainable, this species has not heretofore been authentically reported from the western slope of the Sierra Nevada. G. B. Sudworth, in his "Forest Trees of the Pacific Slope", reports it as occurring "along south side of South Fork of Kings River, at 10,500 to 12,000 feet." In the summer of 1928 and again during that of 1932, the writer attempted to verify this record of its occurrence on the Kings River watershed. The regions visited, all within or about the altitudinal range cited by Sud-