In sandy soil or on earth over rocks. North Branford (1931), Old Lyme (1930), and Old Saybrook (1931).

The present form, which represents the species in its most typical development, is characterized by the presence of more or less definite cups.

*CLADONIA BORYI f. **cribrosa** (Del.) comb. nov. *Cenomyce lacunosa* γ. *cribrosa* Del. in Vainio, Acta Soc. F. et Fl. Fenn. **4**: 282. 1887. *Cladonia reticulata* f. *cribrosa* Vainio, *Ibid.* **10**: 466. 1894.

On sandy soil, Old Saybrook (1931).

The specimens here listed are made up of old and prostrate, robust podetia, in which the cribrose condition shows with remarkable clearness. A few of the branchlets show small apical clusters of the rhizinae which Vainio emphasizes in his description, but these are by no means conspicuous.

(*To be continued*)

PHYMOSIA REMOTA

P. D. STRAUSBAUGH and EARL L. CORE

ON the third day of August 1927, the members of the West Virginia University Botanical Expedition discovered *Phymosia remota* growing on the slopes of Peters Mountain about 1½ miles below the village of The Narrows in Giles County, Virginia. At this point the New River has cut a huge gap across the mountain completely dividing it into East River Mountain on the west and Peters Mountain on the east; therefore the station where the plants were found lies on the east side of the river and at an elevation of approximately 2000 feet, or 500 feet above the level of the stream. As this represents a most remarkable extension of the range of this species which has previously been "known only from a gravelly island in the Kankakee River, Illinois,"[1] the writers were tempted to make a thorough study of the taxonomy of the species. The available literature clearly reveals that considerable difficulty has attended the delimitation and naming of the species and therefore a brief history of the taxonomy will be given.

The genus *Sphaeralcea* was established by A. St. Hilaire[2] in 1827. Two years prior to that date, however, Desvaux[3] had created the genus

[1] Robinson, B. L., and M. L. Fernald. Gray's New Manual of Botany, 7th ed. p. 566. 1908.

[2] Flora Brasiliae Meridionalis **1**: 209. 1827.

[3] Desvaux in Hamilton, Prodromus Flora Ind. Occ. 49. 1825.

Phymosia, recently treated as including a considerable number of Malvaceous plants similar to those which have been included in *Sphaeralcea*. Considerable confusion exists among botanists as to the exact limits of the two genera, certain authors having accepted the notion that they are exactly synonymous and others (as Rydberg) having attempted to set up a division of the species into groups resembling the types, as described by Desvaux and by St. Hilaire. Rydberg included under *Sphaeralcea* plants having the upper part of the carpel empty, under *Phymosia* plants in which the carpel is not differentiated into an upper and a lower portion. Irrespective of the viewpoint one may take regarding this segregation, it would seem that the plant forming the subject of this paper should be assigned to the genus *Phymosia*, since the name *Phymosia* antedates that of *Sphaeralcea* by two years, and since, also, the present species does not have the carpels differentiated into two portions.

The Illinois plant was first collected by Dr. E. J. Hill, of Chicago, June 29, 1872, on a gravelly island in the Kankakee river, near Altorf, and referred to *S. acerifolia* Nutt.[4] This specimen is preserved in the herbarium of the Field Columbian Museum (No. 68972). *S. acerifolia*, however, is a western plant, occurring in the Rocky Mountains from Colorado to British Columbia.

Greene[5] recognized that the Illinois plant, separated by such a great distance from its nearest congeners, was also specifically distinct by characters of the calyx, having long-acuminate instead of broadly acute calyx-lobes, as well as by its manner of growth, bearing its flowers in the upper axils, in addition to the terminal arrangement characteristic of *S. acerifolia* Nutt. Greene recognized likewise the carpellary situation and created for Hill's plant the new genus *Iliamna*. The species he named *I. remota* in recognition of the extreme distance separating it from its nearest relatives.

Fernald[6] in 1908 transferred the species to *Sphaeralcea*, making the combination *S. remota*, and in 1913 Britton[7] made the transfer to *Phymosia*.

Since the Illinois plant has been confused with the Western *Sphaeralcea acerifolia* Nutt. (*Phymosia acerifolia* Rydb.) and since the Virginia plant is obviously identical with the Illinois species, the writers

[4] Nutt. in Torr. & Gray, Fl. N. A. **1**: 288. 1838.
[5] Leaflets **1**: 206. 1906.
[6] Rhodora **10**: 52. 1908.
[7] Britton & Brown, Ill. Fl. ed. 2, **2**: 522 Fig. 2865. 1913.

Fig. 1. PHYMOSIA REMOTA; specimen in herb. Univ. West Virginia.

deemed it advisable to include a description of the Virginia plant, with complete synonomy.

PHYMOSIA REMOTA (Greene) Britton.

Sphaeralcea acerifolia Gray, Syn. Fl. **1**: 317, 1897 as to Illinois plant, not Nutt. in Torr & Gray, Fl. N. A. **1**: 228. 1838.

Iliamna remota Greene, Leaflets **1**: 206. 1906.

Sphaeralcea remota Fernald, RHODORA **10**: 52. 1908.

Phymosia remota Britton in Britt. & Brown, Ill. Fl. ed. 2. **2**: 522. 1913.

Perennial. Stem strict, 0.6–2 m. tall, or taller, with few lateral branches. Stems and foliage densely stellate-pubescent. Leaves firm, the larger 7 inches wide and as long, or somewhat longer, palmately 3–7-lobed, the lobes triangular, coarsely and irregularly toothed, acute, the middle one longest. Flowers short-pedicelled, in the upper axils and in terminal spike-like racemes. Bractlets of the involucel linear, much exceeded by the calyx-lobes. Calyx-lobes ovate-acuminate, 1–1½ cm. long in fruit, densely stellate-pubescent. Corolla light rose-pink, 2.5–5 cm. broad, the petals cuneate, emarginate. Fruits sub-truncate-ovoid, with fine stellate pubescence and longer hirsute, simple hairs. Carpels without reticulation or conspicuous venation on the sides, not differentiated into an upper and a lower portion. Seeds reniform, 2–3 mm. long, densely hairy on the back, less so on the sides, 2–3 in each carpel. Flowers appearing in July and August.

Specimens consulted:

E. J. Hill, June 29, 1872, island of Kankakee river, Altorf, Ill. (Field Columbian Museum.); *Greenman* 3530, type locality (New York Botanical Garden); *Clute*, June 30, 1921, collected in type locality, flowered in garden at Joliet, Ill. (New York Botanical Garden). *West Virginia University Botanical Expedition*, Aug. 3, 1927, Peters Mt., Giles Co. Va. (West Virginia University; Private Herbarium of H. Hapeman, Minden, Nebr.; University of Virginia; Concord State Normal School, Athens, W. Va.; Gray Herbarium; New York Botanical Garden; Carnegie Museum, Pittsburgh, Pa.; Missouri Botanical Garden).

From a careful consideration of the literature and the above description, it must be concluded that the Virginia species should be called *Phymosia remota* Britton and not *Sphaeralcea remota* Fernald.

The Virginia habitat of *Phymosia remota* is on the resistant Medina sandstone of the Silurian series, which outcrops along Peters Mountain. The edges of the upstanding strata display numerous soil-filled pockets and crevices in which the plants are growing. Water drains readily from the loose soil and consequently the moisture supply throughout the growing season is very moderate. There are only a few stunted trees widely spaced so that shade is scarcely a factor in this habitat and most of the plants are exposed to full sunlight. The individual

specimens grow vigorously and attain a height of 6 feet or more. As a usual thing several plants may be found growing together but these clumps are more or less scattered. Although there is an abundant supply of seeds each year, reproduction seems to be at a low ebb for there is apparently no spread of the plants and the number during the years from 1927 to 1931 has remained fairly constant, the total number at the present time being not more than 50.

According to Clute[1] the original station for *Phymosia remota* has been completely destroyed. He states that he removed the last plant found on the island to his garden. Assuming that Clute's observation is correct it must then be apparent that the Virginia station is now the only known place in the world where *Phymosia remota* is growing as a wild plant, and since there are at the present time not more than 50 plants at this station the species must be regarded as an exceedingly rare one that may soon become extinct.

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POLYGONUM CAESPITOSUM VAR. LONGISETUM IN THE UNITED STATES. —*Polygonum caespitosum* Blume var. *longisetum* (De Bruyn) A. N. Steward[2] has hitherto been recorded in the United States only from Greenwich, Connecticut,[3] where it was found by Dr. E. H. Eames. Specimens from that locality, collected by Dr. Eames on 3 Sept. 1929 and 18 Sept. 1930, are in the Gray Herbarium, the first from "moist shaded low spot near house," the second from "shaded moist roadside" (in both cases "large colony"). Regarding its occurrence at Greenwich, Dr. Eames writes me: "It is known to me only from an old estate where first collected 7 Oct. 1927, in what may be pioneer localities, and at several points in much disturbed property nearby—a development of recent years." Other specimens are in the Gray Herbarium collected at Garden City, Long Island, New York, 16 August 1922, by W. C. Ferguson ("common weed"); and on streets, West Chester, Pennsylvania, 10 Aug. 1927, by William Trimble. In the

[1] Clute, Willard N., The Rarest American Plant. The American Botanist **26**: 127–129. 1920.

———— Plant Names and their meanings—XX Malvaceae. The American Botanist, **30**: 103–109. 1924.

[2] Contr. Gray Herb. **88**: 67. 1930.

[3] Harger et al., "Additions to the Flora of Connecticut," Bull. Conn. Geol. & Nat. Hist. Surv. **48**: 43. 1930, as *P. longisetum*.