

NOTES ON THE MOSS GENERA, CAMPTOCHAETE, PHYSCOMITRIUM

AND PTYCHOMNION, IN CHILE

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The following notes on the Chilean moss flora are a partial result of study of numerous collections from both the mainland and the Juan Fernandez islands.

Camptochaete orbiculata (Thér.) H. Robinson, comb. nov.

Weymouthia orbiculata Thér., Rev. Bryol. Lichenol. 7: 180.
9. 1935.

Camptochaete arbusculans Broth. ex Bartr., Farlowia 2(3):
316. 1946.

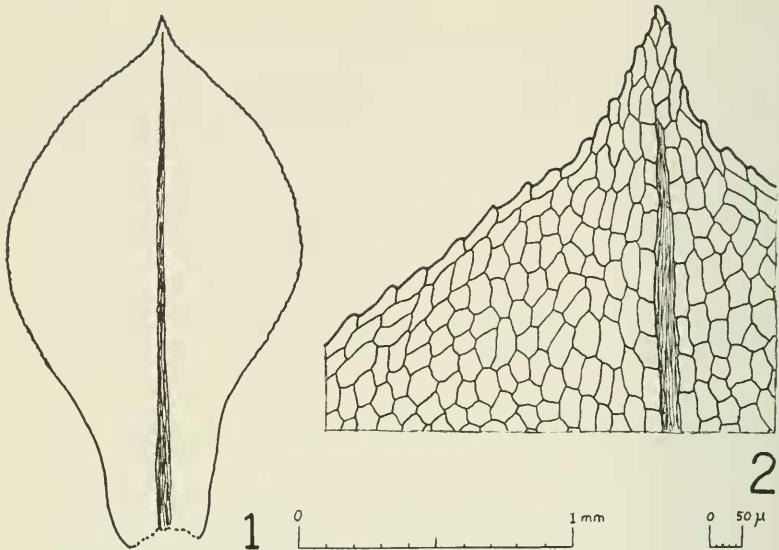
Bartram (1946) following Brotherus correctly recognized the species as a Camptochaete, the only american representative of the genus. The species had been named previously, however, by Thériot.

Physcomitrium mahui H. Robinson, sp. nov. (figures 1-2).

Planta synoica, minuta, ad 5 mm alta, pallide viridis, laxe caespitosa. Caules perbreves, pauce ramosi, in basi radiculosi. Folia superiora late obovata ad 4 mm longa et 2 mm lata, sensim breviter acuminata, margine superne serrulata; nervis tenuibus, infra apicem evanidis; cellulis marginalibus vix dissimilibus, cellulis mediis rectangularibus vel rhomboideis, ad 40 μ latis et 80 μ longis, cellulis basilaribus ad 60 μ latis et 140 μ longis. Calyptrae campanulatae, basi lobatae. Setae breves, 0.5-1.0 mm longae. Capsulae immersae, hemisphaericae; collis brevibus; cellulis exothecialibus laxissimis ad 40 μ diam., non incrassatis, sub ore in 8-10 seriebus vix oblatis. Opercula obtuse apiculata, aliquantum conica ubi immatura. Sporae sphaericae, dense papillosae, 30-35 μ diam.

Chile: Aconcagua: Balneario Papudo, en una charca.
8-12-1969. Manuel Mahu M. 4835 (holotype US).

The new species is a member of the subgenus Cryptopyxis and is closely related to the recently described P. delicatulum Crum & Anderson of Mexico. Both species have the distinctive broadly ovate "spathulate" leaves and wide hemispherical capsules. The mexican species differs by having leaves more nearly entire and bordered with 2-3 rows of narrow thickened cells.



Figures 1-2. Physcomitrium mahui n. sp. 1. Upper leaf.
2. Leaf tip showing cells.

The beautiful austral genus, Ptychomnion, contains a number of distinct species that have been inadequately characterized in the past. Recent attempts to determine specimens from the Chilean area have resulted in the concepts contained in the following key.

1. Leaf apices very shortly acute or acuminate with small marginal serrations.
2. Leaves widely spreading from base, usually flattened with rather distinct longitudinal plications; cell walls very thin P. ptychocarpon
2. Leaves becoming squarrose from a sheathing base, rather concave distally with a short twisted apex; cell walls wider than the lumens P. densifolium
1. Leaf apices distinctly and often abruptly elongate with few to many large sharp teeth.
3. Leaves not distinctly concave, serration rather remote; cell walls as wide as cell lumens P. subaciculare
3. Leaves in part concave, serrations strong and close-set; cell walls not as wide as cell lumens.
4. Leaves mostly spreading from base, very broadly ovate with very abrupt attenuate apex P. aciculare
4. Leaf bases somewhat imbricated, leaves ovate-lanceolate.

5. Leaf apices gradually tapering, leaf margins in basal half strongly recurved; cell walls very slightly thickened P. fruticetorum
5. Leaf apices rather attenuate, leaf margins not or weakly recurved in basal half; cell walls distinctly thickened P. cygnisetum

Ptychomnion aciculare (Brid.) Mitt. occurs widely in the Australian region and the south Pacific. There are reports from Chile but I have seen no material. The Juan Fernandez endemic, P. falcatum Broth. in Skottsbo. as described and illustrated is very close, having been distinguished by secund leaves. Dixon's species, P. gracillimum, is also very close. The latter is said to be smaller but the few measurements given by Dixon overlap with P. aciculare.

Ptychomnion cygnisetum (C.Müll.) Kindb. seems to be primarily in southern South America. I have seen reports but no material from the Australian region.

Ptychomnion densifolium (Brid.) Jaeg. occurs on islands of the southern Atlantic and Indian Oceans. It is also reported from the southern tip of South America. Brotherus and Kaal have described P. ringianum from Possession Island which is very like P. densifolium with the possible exception of the weakly recurved lower leaf margin.

Ptychomnion fruticetorum C.Müll. is known only from southern Brazil. The strongly squarrose leaves from sheathing bases with strongly recurved basal margins and evenly tapered tips are reminiscent of P. densifolium. The latter is a much smaller plant with much thicker cell walls, however. If the other species cited for southern Brazil, P. latifolium Aongstr., is not distinct, the Aongström name will have priority.

Ptychomnion ptychocarpon (Schwaegr.) Mitt. is restricted to southern South America. This is the most distinctive member of the genus, having little superficial resemblance to the other species.

Ptychomnion subaciculare Besch. is restricted to but widely distributed in southern South America including the Juan Fernandez Islands. As described and illustrated, P. horridum, Card. and Broth. is the same. Perhaps Brotherus realized this fact since he excluded the species from later treatments.

Literature Cited

- Bartram, E. B. 1946. New mosses from Tierra del Fuego. Farlowia 2(3): 309-319.