THE BOTANY OF THE ANTARCTIC VOYAGE, PART III: FLORA TASMANIAE, VOL. II MONOCOTYLEDONES AND ACOTYLEDONES, PP. 159-240

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JOSEPH DALTON HOOKER

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Trieste

III.

FLORA TASMANIÆ.

BOTANY OF TASMANIA.

VOL. II.

MONOCOTYLEDONES AND ACOTYLEDONES.

THE BOTANY

OF

THE ANTARCTIC VOYAGE

OF

H.M. DISCOVERY SHIPS *EREBUS* AND *TERROR*,

IN THE YEARS 1839–1843,

UNDER THE COMMAND OF

CAPTAIN SIR JAMES CLARK ROSS, Kt., R.N., F.R.S. & L.S., ETC.

BY

JOSEPH DALTON HOOKER, M.D., R.N., F.R.S. & L.S., ETC.

ASSISTANT SURGEON OF THE "EREBUS," AND BOTANIST TO THE EXPEDITION.

PART III.

FLORA TASMANIÆ.

VOL. II.

MONOCOTYLEDONES AND ACOTYLEDONES.

Published under the Authority of the Lords Commissioners of the Admiralty.

LONDON:

LOVELL REEVE, 5, HENRIETTA STREET, COVENT GARDEN.

1860.

easily recognized by its floating habit, closely distichously-branched stem, and minute imbricating leaves. The fructification forms small globular masses on the under surface of the frond.

Gen. II. PILULARIA, *L.*

1. **Pilularia globulifera** (Linn. Sp. Pl.).—*Engl. Bot. t.* 521. (*Gunn*, 1561.)

Hab. Marshy ground near Penquite, *Gunn*, and probably common elsewhere, but easily overlooked.

Distrib. Swan River, Europe, North Africa. (A native of England.)

Dr. Valentine, who has examined this plant in Tasmania, says that it might be distinguished from the European by the curved pedicels and pendulous capsules, but I find precisely similar states in English specimens. In Swan River specimens of *P. globulifera* the capsules are placed as in the European plant.—*Rhizome* slender, creeping, often submerged, rooting at the nodes. *Leaves* capillary, 2–4 inches high, bright-green. *Capsules* like pills, sessile or shortly peduncled, 2 lines in diameter, covered with hairs, four-celled, four-valved at the top, containing spores of two sorts, one large, the other very minute.

Nat. Ord. IV. CHARACEÆ.

The *Characeæ* are all fresh-water plants (very rarely inhabiting brackish water), often forming densely matted patches. They are leafless, with whorled branches, and minute axillary fructification. There are probably very many Tasmanian species, but they are difficult of investigation. The following enumeration of the known Tasmanian species is by Professor Alexander Braun, of Berlin, who is preparing a work on the Order; the descriptions of several have not, I believe, been published. In an able paper on the Australian and Antarctic *Charæ*, by Professor A. Braun, of Berlin, in Hooker's 'London Journal of Botany,' 1849, that learned author remarks that in Australia the greatest number of species are diœcious, whilst in Europe the contrary is the case; as also that all the true *Charæ* of Australia belong to the division *Haplostephaneæ*, while in other parts of the world the division *Diplostephaneæ* prevails, which latter seems to be entirely absent in Australia.

Gen. I. CHARA, *L.*

1. **Chara gymnopitys** (A. Braun).

Hab. Derwent River, rivulets at Launceston, etc. (*Gunn*, 1573, 1568, 1568?)

2. **Chara myriophylla** (F. Mueller).

Hab. Ponds at Georgetown; shallow muddy water, Lake St. Clair. (*Gunn*, 1568, 1572.)

3. **Chara australis** (Br. Prodr. 346).—*Braun, in Linnæa*, xvii. 117; *Plant. Preiss.* ii. 148; *Hook. Lond. Journ. Bot.* i. 201.

Hab. South Esk River, near Launceston. (*Gunn*, 1565, 1000.)

Distrib. Swan River, Victoria, New South Wales, New Zealand.

4. **Chara leptopitys** (A. Braun).

Hab. Mixed with *Triglochin*; Georgetown, near the sea, in places dry in summer. (*Gunn*, 1568, 1569.)

5. **Chara Hookeri** (A. Braun, in Hook. Lond. Journ. Bot. i. 202).—(F. microphylla, *F. Muell.*)

Hab. South Esk River, near Perth. (*Gunn*, 1001.)

6. **Chara mollusca** (A. Braun).

Hab. Lake St. Clair; abundant. (*Gunn*, 1570, 1571.)

7. **Chara fragilis** (Desv.).
Hab. Derwent River, at Glen Leith. (*Gunn*, 1576.)
Distrib. Common in Europe and other parts of the world.

8. **Chara macropogon** (A. Braun, in Linnæa, xvii. 116).—*Plant. Preiss.* ii. 147; *Hook. Lond. Journ. Bot.* i. 200.
Hab. Brackish water at Georgetown, with *Ruppia*. (*Gunn*, 1568**.)
Distrib. Swan River.

Gen. II. NITELLA, *Ag.*

1. **Nitella gleeostachys** (A. Braun, in Hook. Lond. Journ. Bot. i. 196).
Hab. South Esk River. (*Gunn*, 1566.)
Distrib. Swan River.

2. **Nitella Hookeri** (A. Braun, l. c. 199).—*Fl. N. Zeal.* ii. 56. Chara australis, *Tayl. in Herb. Hook. etc.*
Hab. Yorktown, Lake St. Clair (with *C. mollusca*). (*Gunn*, 1571, 1567.)
Distrib. New Zealand, Kerguelen's Land.

3. **Nitella penicillata** (A. Braun, l. c.).
Hab. Tasmania. (*Gunn*, 1002.)

4. **Nitella diffusa** (A. Braun).
Hab. Distillery Creek, Launceston; rivulet near Penquite. (*Gunn*, 1574.)

5. **Nitella gelatinosa** (A. Braun, l. c.).
Hab. Rivulets near Launceston, St. Patrick's River, etc. (*Gunn*, 1566*, 1557, 1566?)
Distrib. Swan River.

6. **Nitella Gunnii** (A. Braun).
Hab. South Esk River. (*Gunn*, 1570*, 1571*, 1575.)

Nat. Ord. V. MUSCI, *Juss.*

By W. Wilson, Esq.

Of the Tasmanian Mosses (about 250) here described, the majority (180) were collected by Mr. Gunn and myself, and have been elaborated by Mr. W. Wilson; the remainder consists of additions to the Tasmanian Flora, chiefly made by my friend W. Archer, Esq., F.L.S., of Cheshunt, and which have been examined and described by Mr. W. Mitten. Mr. Mitten has indeed prepared a paper on Mr. Archer's Mosses, which will be presented to the Linnæan Society of London; and I have to acknowledge my great obligations to him for allowing me to insert his descriptions of the new species here, as well as for some valuable notes on Gunn's Mosses and my own; these I have appended to Mr. Wilson's descriptions as this work was passing through the press.

There are no doubt very many fine Mosses to be discovered in Tasmania, especially on the lofty mountains, and on the damp western and southern coasts. A large proportion will probably prove identical with New Zealand species, and with those of Fuegia and the Antarctic Islands. In the New Zealand Flora upwards of 250 species of Mosses are described by Mr. Wilson, and many have been discovered since, especially by Mr. Knight, raising the number known to upwards of 300.—*J. D. H.*