DESCRIPTION OF A NEW SPECIES OF CREPIDULA FROM THE EOCENE BEDS, TABLE CAPE.

By Robt. M. Johnston, F.L.S., Etc.

[*Read August* 11*th*, 1884.]

In addition to the three representatives of the family *Calyptraeidae* already described from the Table Cape beds, viz:—*Infundibulum calyptraeformis*, Desh. *Crepidula turbinata*, Woods, and *C. umbilicata*, Johnston, I have now the pleasure to announce the existence of a fourth species of this interesting family from the same formation. The following is a description giving the specific characters of the new form:—

Crepidula Hainsworthii, nov. sp.

Shell, thin, ovate, narrowly and abruptly arched laterally, and gently rounded longitudinally, dorsal surface finely striated with lines of growth; whorls one and a half rapidly and laxly expanding; nucleus minute, of one turn, exserted on posterior margin, slightly beaked and incurved. Inner shelf concave, transversely striate, deeply sunk and partly dividing the cavity leading to exserted nucleus; the shelf scarcely occupies one-third of the posterior part of the shell. Aperture narrowly ovate.

Length, 14mil.; breadth, 8mil.; height, 5½mil.

The younger examples differ very much in appearance from the mature form, being relatively shallower and scarcely beaked.

I have much pleasure in associating this shell with the name of Mr. Thomas Hainsworth, of Latrobe, who has largely contributed to our knowledge of the geology of the North-West Coast of Tasmania.

NOTES ON THE DISCOVERY OF TWO RARE SPECIES OF FERNS, NEW TO TASMANIA.

By Robt. M. Johnston, F.L.S., Etc.

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Thanks to the distinguished labours of Robt. Brown, J. D. Hooker, Gunn, Stuart, and other naturalists, the extent and distribution of our Tasmanian ferns, in nearly all parts of the island, have been so thoroughly investigated that it would seem little now remains to be done. Still there are certain Alpine regions in the North-Western and in the extreme South of this island which, being densely covered with an

almost impenetrable scrub and being very remote from centres of population, have never been thoroughly explored by botanists. Mining enterprise, however, is now ramifying these hitherto inaccessible regions with roads and forest tracks to such extent that the facilities now available to naturalists for the investigation of the flora of such parts are wonderfully improved and may probably lead to important botanical discoveries. As an encouragement to further local observation, I may mention that it is only a year or two ago since Mr. Justice Dobson reported the discovery by Mr. Geo. Lefroy of a new fern to Tasmania (*Aspidium hispidum*—Swartz) in the neighbourhood of Mount Heemskirk. This fern, prior to Mr. Lefroy's discovery, was supposed to be confined to the Cape Otway Ranges, Victoria, and to New Zealand, and its existence in Tasmania was of great botanical interest. And recently, through the instrumentality of Mr. T. B. Moore, who is at present surveying tracks in the neighbourhood of the Queen's River and Huxley Ranges on the West Coast, I have obtained several interesting geological and botanical novelties. Mr. Moore's praiseworthy observations and example might be followed with advantage to science by all surveyors and other persons who have similar opportunities in new districts; for among the specimens submitted to me by Mr. Moore were two remarkable species of ferns which I at once recognised were new to Tasmania. One of them upon diagnosis I determined to be the rare *Hymenophyllum marginatum* (Hook and Grev.), one of the smallest of the filmy ferns, hitherto only known from localities in the neighbourhood of Port Jackson, New South Wales. The other was so novel and so densely covered on all sides with a coating of tomentum that I could not readily assign its position, no *sori* being visible on any of the fronds examined by me. I immediately submitted the two species to our illustrious honorary member—Baron Von Mueller—who was extremely interested in the discovery. He at once wrote to me confirming the correctness of my determination as regards *H. marginatum*, and on subsequent reference to his type specimens as regards the other he afterwards wrote me to the following effect:—"I have carefully examined the tomentose little fern which Mr. T. B. Moore discovered near the Huxley Range. It is precisely identical with *Hymenophyllum malingii*, of Metteuius (*Trichomanes malingii*, Hooker), which species was hitherto only known from New Zealand. The associating of it with *H. marginatum*, one so rare in New South Wales, and there only found as yet, leads to the anticipation that both will yet be found in many other places. . . . I trust that this gathering of two ferns new for the flora of Tasmania will convince your fellow colonists

that yet much remains to be done for perfecting the elucidation of the flora there. I hope that particularly the North-Western regions will be well searched this season." Mr. Moore may well be complimented for these two interesting discoveries, and I hope they will encourage him to still farther prosecute his meritorious observations in that interesting part of the island. Tasmania has only one species of fern peculiar to the island, the remaining fifty-two species are common to one or other of the Australian colonies. Queensland and New Zealand possess by far the largest number of species. Out of the 201 species of ferns found in Australia and Tasmania, only 53 of them, or about one-fourth, are as yet known to exist in Tasmania. This is a small proportion when we recognise what peculiarly favourable conditions exist in this island for the growth of this most interesting order of plants.

The following is a description of the two species referred to :—

Hymenophyllum marginatum (Hook and Grev.), p. 705, Flora Austral., vol. vii. ; p. 57, Hook and Bak., syn.

Fronds on short filiform stipes, $\frac{1}{2}$ to 1 inch long ; linear and entire, or once or twice forked, with a central nerve and nerve-like margins not toothed. Sori solitary and terminal. Indusium about $\frac{1}{2}$ line long and broad, divided nearly to the base into obovoid-orbicular valves.

On mossy rocks and on trunks of honeysuckle.

Honeysuckle Hill, Queen River, Tas., T. B. Moore ; Port Jackson, N.S.W.

Hymenophyllum malingii, Mett. ; *Trichomanes malingii*, Hook, p. 66. Hook and Bak., syn.

Stipes 1-3 in l., slender, naked ; fronds pendent 4-6 in l., 1-1$\frac{1}{2}$ br., linear-oblong, bi-or tri-pinnatifid ; main rachis densely clothed with close tomentum, free throughout ; pinnæ $\frac{1}{2}$-$\frac{3}{4}$ long, oblong or ovato-rhomboidal, cut down to a rounded rachis ; pinnules deeply flabellately and sub-pinnatifidly cut ; ultimate segments linear-filiform, 1-3 long ; the substance coriaceous and soft with a dense coating of tomentum, a single vein only in each segment ; sori 2 to 12 to a pinnæ terminal on the segments ; involucre divided about half-way down ; valves denticulate at the apex, and shaggy like the frond.

Honeysuckle Hill, Queen River, Tas., T. B. Moore. New Zealand.