

Epiblema grandiflorum, R. Br.

Stem erect, 1–15 inches high, with one long narrow leaf and two short sheathing leaves. Flowers 3–4, pedicillate in a short raceme, dark purple, bracts shorter than the ovary. Sepals and petals alike, $\frac{1}{2}$ inch long, narrow-linear, acute, finely veined. Labellum as long as the sepals. Anther erect, or slightly bent forward, the cells distinct, with a short recurved point.

Brachyglottis rangiora, Buch., n.s.

A small branching tree, 8–12 feet high; branches, petioles, leaves below, and inflorescence, covered closely with white or pale buff tomentum. Leaves large, 6–8 inches long, ovate or oblong, irregularly sinuato-dentate along the margin, often tapering to an acute point, coriaceous, or stoutly membranous, young leaves generally lobulate and dentate, covered on both sides with soft pale buff tomentum. Panicles as large as the leaves, spreading, drooping, or erect, covered with appressed tomentum. Heads numerous, sessile, $\frac{1}{7}$ inch long, involucreal scales 7, in one series, linear, obovate, obtuse or acuminate, or pilose on top. Florets 9, of which 5 are fertile.

This is a very distinct plant from Forster's *Brachyglottis repanda*, differing in its smaller size, coriaceous leaves, which have generally deeper sinuations and more acute angles; the flower-heads are also constantly sessile. Its geographical distribution is also distinct, being apparently limited to the lands of both islands abutting on Cook Strait. The Maoris also distinguish the two plants by different names, the present plant being known as Rangiora, while the northern plant described by Forster, is called Wharangita-whita. Both plants are poisonous to horses.

ART. XLIX.—*On new Species of New Zealand Diatoms.* By JOHN INGLIS.
Plate XXII.

Description of a new Species of Nitzschia.

[Read before the Philosophical Institute of Canterbury, 1st July, 1880.]

Nitzschia nova-zealandia, sp. nov.

Frustule: front view linear, narrowing at the truncated extremities, opposite side of each end obliquely sloping. Valve: linear on side view and sigmoid, attenuated towards the extremities, and rounded at the ends; one row of puncta round the margin of the valve. Puncta: there are twenty-four puncta or beads to $\cdot 001$ of an inch.

I have been unable to make out any striæ or keel under Beck's $\frac{1}{10}$ th immersion. The valves of *Nitzschia nova-zealandia* resemble *Homæocladia sigmoidea*, but the latter is frondose and the frustules are sigmoidal on the front view, while the former is free and sigmoidal on the side view.

I found this Diatom in quantities during the months of April and May, in a spring at Ngapari on the side of North Moeraki Downs, facing the river Ashley.

I am indebted to Professor Hutton for the verification of this description.

Plate XXII., fig. 1: *a*, front view; *b*, suture; *c*, side view.

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On the Identity of Amphicampa with Himantidium, and Description of a new Species.

[Read before the Philosophical Institute of Canterbury, 4th August, 1881.]

ABOUT four years ago I found, quite accidentally, in a drain in the Cust Valley swamp a small pocket of diatomaceous earth, which on examination much resembled *Amphicampa mirabilis*, Ehr., described in the Micrographical Dictionary as a doubtful genus of fossil *Diatomaceæ*. The other species named is *A. eruca*, and both are represented as found fossil at Tizar, Mexico.

Professor Hutton found fossil valves in Waikato and elsewhere, and Mr. George Gray recognized them in gatherings taken from the River Avon.

In the month of May last I gathered a considerable quantity of a filamentous Diatom from a spring at Ngapari, Fernside, which, after treating in various ways, I resolved into the hitherto so-called genus *Amphicampa* (both sides sinuated). That genus, however, appears to have been considered "free," while in the form which I gathered it is filamentous, and cannot be separated generically from *Himantidium*. The present species is, however, certainly not *A. eruca*; and as *A. mirabilis* is figured with $\frac{7}{8}$ bends, while my species varies from $\frac{4}{5}$ to $\frac{6}{5}$, I assume it to be a new species.

Himantidium maskellii, sp. nov.

Frustule: front view rectangular; length about four times the breadth, straight, forming a lengthened tenacious filament, showing lines of dots at the points of suture corresponding to the striæ on the side view. Valve: elongated, slightly arcuated, and attenuated towards the extremities, which are boldly rounded; both edges are sinuated; length about seven times the breadth. The convex edge has invariably one more bend than the concave. The valves vary in the number of the bends from $\frac{4}{5}$ to $\frac{6}{5}$. Striæ: parallel and transverse, and there are 23 to 27 to the $\cdot 001$ of an inch.

Hab.—Ngapari, Fernside, and River Avon, North Canterbury; Waikato and Cabbage Tree Swamp, Auckland (fossil)—*Hutton*; Cust Valley Swamp, North Canterbury (fossil).

Plate XXII., fig. 2: *a*, front view filamentous; *c*, side view.

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