

ART. LIV.—Notice of the Occurrence of a Variety of *Zostera nana*, Roth, in New Zealand. By T. KIRK, F.L.S.

[Read before the Wellington Philosophical Society, 12th January, 1878.]

UNTIL within the last twenty years few groups of plants have received less attention than the Marine Phanerogams, all the known species of which belong to the Monocotyledonous Orders *Hydrocharidaceæ* and *Naiadaceæ*. A complete list by Dr. Ascherson, of Berlin, appeared in 1874 in Neumayer's "Anleitung in Wissenschaftlichen Beobachtungen auf Reisen," containing twenty-six species arranged under eight genera.* The earliest record of any species having been found in New Zealand bears date so recently as 1867, when a *Zostera*, found in a flowerless condition in many places in the colony, was recorded in the "Handbook of the New Zealand Flora" as *Zostera marina*, L.—a species of wide distribution in the northern hemisphere—but the identity of our plant must be considered uncertain in the absence of flowers. I have now to record the discovery, in a flowering condition, of a second species, which, notwithstanding a slight departure from the normal characters, I identify with *Zostera nana*, Roth, and of which the following is a description.

Zostera nana, Roth, var. *muelleri*.

Z. muelleri, Irmisch.

Stem creeping, rather stout for the size of the plant, clothed with the dead bases of old leaves. Leaves linear, 3–6 inches long, $\frac{1}{8}$ – $\frac{1}{2}$ inch wide, with about six nerves on each side of a midrib formed of two nerves in contact for their whole length, margin thickened; spathes 1–4, including the leafy portion 2–3 inches long, peduncles short, flattened; spadix rarely exceeding $\frac{3}{4}$ inch in length with inflexed membranous appendages on the margins; anthers about six on each side, ovules four; stigmas frequently exerted. Fruit faintly furrowed when mature.

Hab. North Island—Port Nicholson; on mud flats exposed at low water.

Our plant differs from the typical form in its more robust stem, clothed with the persistent bases of old leaves, leaves somewhat crowded and narrower, in the short, flattened peduncles, and in the rather larger fruit which agrees with the type in being faintly striated.

In Port Nicholson it is associated with the larger plant provisionally identified with *Z. marina*, the inflorescence of which must be sought in deep water.

* Not including *Ruppia* and those forms of *Zannichellia* and *Potamogeton* found in salt-water lagoons.

According to Dr. Ascherson, the typical form *Z. nana* has a wide distribution, occurring at the Canary Islands, Mediterranean, North Coast of Sicily, Smyrna, Black Sea, Caspian Sea, Portugal, Spain, France, British Islands, Holland, Denmark, Holstein, Japan, Cape of Good Hope, Port Natal, Nossi Beh.

Var. *muelleri* has been collected on the coasts of Chili, South and East Australia, Tasmania, and New Zealand.

Zostera tasmanica, G. v. Martens, is said to occur in New Zealand, but I do not know by whom collected. The plant intended is probably that referred to in the early part of this paper as *Z. marina*; but in any case the identification cannot be considered satisfactory in the absence of flowers, since it is possible that our plant may belong to *Phucagrostis*, which it closely resembles in habit.

ART. LV.—*Notice of the Occurrence of Juncus glaucus, L., in New Zealand.*

By T. KIRK, F.L.S.

[Read before the Otago Institute, 17th January, 1878.]

In company with Captain J. Campbell-Walker I had the pleasure of discovering this interesting addition to our flora by the road-side between Hokitika and Ross, within a mile of the left bank of the Hokitika river. I had not time to make a detailed examination of the locality, but Mr. Shillitoe, who kindly went over it at my request, informs me that the plant occurs plentifully over a considerable area.

Juncus glaucus bears some resemblance to *J. communis*, Meyer, but is distinguished by its hard texture, interrupted pith, and glaucous striate rigid culms; the perianth segments are lanceolate and equal the capsule in length; the capsule is mucronate.

The culms are two to three feet in length, frequently drooping in large specimens.

In *J. communis*, var. *hexangularis*, the pith is sometimes slightly interrupted, but never to so great an extent as in *J. glaucus*, from which it may always be distinguished by the retuse capsule.

In all probability *Juncus glaucus* is not unfrequent on the west coast of the South Island. It is singular that this species, as well as *J. lamprocarpus*, Ehrhart, should not have been observed earlier. The latter species is abundant in the Hokitika district, extending southward to the Bluff and northward to Port Nicholson, but is not found on the eastern side of either island. In Taranaki and Auckland it is replaced by *Juncus holoschanus*, Thunb.