Fiordland and Stewart Island, I now have it from Ngamoko Track, Waikaremoana, 2,000–3,000ft, North Island, 9934, with *Riccardia colensoi* coll. E.A.H.; and from Mt Pukeamaru, East Cape, North Island, 3,200ft, 11453, on bark mixed with small "Lejeuneas", coll. Alison Druce. This specimen is pale green, lacking all traces of the typical pigmentation, and has small trigones, also a more or less distinct row of marginal cells.

Also from Tasmania mixed with *Plagiochila decurvifolia* Steph. or a specimen so labelled.

BLEPHARIDOPHYLLUM Angstrom

Blepharidophyllum densifolium (Hook.) Angstr.

Schuster (1963, p. 272) questions the presence of this beautiful species in Stewart Island, but W. Martin collected it near West Hut, Tin Range, 15/1/49, 2045, subnumber 408. Another specimen is from Hari Hari, Westland, growing intermixed with *Schistochila*, Leg. J. B. Langridge, H307 Herb. K. W. Allison. It is not yet known from the North Island.

DIPLOPHYLLUM Dumort.

Diplophyllum obtusifolium (Hook.) Dumort.

Syn. *Diplophyllum domesticum* (G.) Steph. *Hedwigia,* 1894.
Jungermannia domestica Gottsche, *Linnaea,* 1857.

Plants usually paroicous, caespitose or semi-prostrate,, often mixed with other bryophytes, bright green when fresh, sometimes rose or brownish rose, alpine, terrestrial. Stems to 1.5cm but shorter when mixed with other bryophytes, usually simple, rhizoids spread along the stem, branches lateral either from the axil of a leaf between the lobes, or between two leaves with much reduced dorsal leaves; one or occasionally two subfloral innovations from the axils of the female bracts of a non-paroicous stem (in one instance). Leaves approximate, spreading, sometimes a little falcate, transverse, divided into two unequal conduplicate lobes, partly embracing the stem, the dorsal lobe smaller with a narrow hyaline keel at the fold of the leaf often reaching to half-way along the leaf, at the base merging into the hyaline cortex of the stem; dorsal lobe to threequarters the length of the ventral lobe, appressed, directed away from the stem, rounded obtuse; ventral lobe rounded obtuse occasionally apiculate, margins everywhere minutely denticulate, cells small, dense, 14–16μ, rounded polygonal or subquadrate, elongated in the mid-basal region to as much as 30μ, cuticle minutely papillose; underleaves absent. Floral leaves larger than the cauline to 1.4mm, otherwise similar, the ventral lobe with an auricle where the dorsal leaves it (in one instance). Perianth oval to nearly 2mm, pluriplicate, mouth lobed with as many lobes as there are folds, lobes triangular, margins dentate, apex hyaline. ♂ bracts below the perianth, saccate at the base and convexly arched, antheridia 1–2, small.

Diplophyllum domesticum (G.) Steph. was first discovered in E. Australia, then later collected in Tasmania. It seems probable that it was first collected in New Zealand by G. O. K. Sainsbury on Mt Arthur, Nelson, and identified as this by the late E. W. Nicholson. Schuster (1963, p. 272) thinks it might be conspecific with *D. obtusifolium* of the Northern Hemisphere, and Arnell (1956) evidently is of the same opinion, as he includes New Zealand in the distribution note for this species. Schuster, however (1963, p. 272) says that *D. domesticum* differs primarily from *D. obtusifolium* in being freely gemmiparous. I cannot confirm this, though I have looked carefully through numerous specimens, and have found no gemmae at all. I have also examined plants from Washington coll. T. C. Frye, and from Sweden, and can find no constant differences, though in the overseas specimens ♂ bracts are occasionally terminal on ordinary branches.