

*Maculia berggrenii* (Herzog) Hodgson comb. nov.

*Lembidium Berggrenii* Herzog *Ark. f. Bot.* 1 (13) 485, fig. 3 a-e, 1951.

*M. berggrenii* differs from *M. filosa* in its more shortly lobed leaves, lobes triangular, smaller cells, and its well developed underleaves. Both agree in their succubous-inclined multi-lobed leaves, curved upwards at their apices, otherwise squarrose, and their uniform cells not differentiated with a basal zone of large hyaline cells, also in their stem-structure and terminal lateral branching.

Locality of *M. berggrenii* examined: clay bank by track, Leith Valley, Dunedin, South Island, comm. J. Taylor, Dec. 1961.

### ZOOPSIS Hooker

*Zoopsis caledonica* Steph. *Spec. Hep.*, vi, 318, 1924

I am indebted to Dr R. M. Schuster for identifying as *Z. caledonica* this beautiful New Zealand species which has long been with us under the herbarium name of *Zoopsis foliosa* Herzog. As Stephani's type was sterile and his analysis very short, I append the following description:

Plants dioicous, terrestrial, in depressed mats, loosely intricate, in a pure colony or in association with other bryophytes, glossy with a prismatic sheen. Stem to 1cm, once or twice branched, cortical cells large, in 6, 3 dorsal and 3 ventral, rows forming a hyalodermis, enclosing a slender strand; vegetative branches lateral with the incomplete leaf on the dorsal side, fertile branches ventral, intercalary, short, may be several in a series, rhizoids in tufts at bases of underleaf initials, flagelliform branches with minute leaves consisting of 1 row of cells, rare. Cauline leaves contiguous to sub-remote, rectangular to sub-rectangular, symmetrical, longitudinally inserted, plano-distichous, at right angles to the stem or nearly so, as though a continuation of the cortex, 0.6mm long x 0.2mm broad, margins straight or ventral a little arched, occasionally both dorsal and ventral somewhat curved, normally 4 cells wide, but sometimes 5-6 cells across the middle; apex bilobed, each lobe based on 2 cells, then with 2 single cells diminishing in size. Cells of leaves and hyalodermis irregularly hexagonal, very large, 70-80 $\mu$ , tumid hyaline, a pale green squarish chloroplast sometimes present, but smaller longer ones may be against the walls, walls thin. Underleaves variable, not always present, normally bilobed, each lobe based on 2 cells, with 2 single cells uppermost, narrowed and perhaps pointing inwards towards the stem. Invol. leaves larger than the cauline, deeply bifid with longly acuminate lobes, from a broad base and ending in at least 3 single rows. Perianths 0.9mm long, on special short ventral branches, may be several in a row, smooth cylindrical, not contracted at the mouth with 5-6 longly setose lobes, ending in a series of narrow, elongate cells. Sporophyte and antheridia not seen.

North Island: 5 gatherings from Urewera National Park, 2,000-3,000ft, 9296, 8391, 8298, 9729, 8540, E.A.H.; damp rotten log, Puaiti Bush, near Rotorua, 6834 K.W.A.

South Island: Supper Cove, Fiordland, 6835, H. H. Allan; on log, Wilmot Pass to L. Manapouri, W. M.; in bog near L. Virginia, Fiordland, 100020, CHR, M. J. Simpson.

Stewart Island: roadside bank, 146, C. Smith; on tree-fern, Thule, 135165 CHR, J. Taylor.

The type was from New Caledonia coll. Lerat. First collected in New Zealand by K. W. Allison, Nov. 1932.