Chorisodontium and the former sent specimens of the two Southern American species. Brotherus (1924) gives 11 species for the genus, mostly from Columbia to Fuegia in South America with one species in St. Paul Island and another extending from Fuegia to the Falkland Islands, South Georgia and Antarctica. Our plant at first sight much resembles *Dicranum trichopodum* although rather darker in colour, but differs in growing on earth, not on bark or rocks, and under the lens is quite distinct in the very broad nerve (200–300μ as against 100–150μ wide at the base) which is longly excurrent, in the entire leaf margin (except sometimes at the very apex) and in the short cells of the lower leaf lamina, few exceeding 2 x 1, whereas in the *Dicranum* these are fusiform or narrowly linear. *Dicranoloma menziesii* approaches *C. burrowsii* closely in cell structure but the nerve is much more shortly excurrent, being bordered for most of its length by at least a few rows of subula cells which usually show some trace of denticulation.

3. **Conostomum curvirostre** (Mitt.) Mitt.

DISTRIBUTION: Near Naseby, ca. 2,200ft on earth on open hillside; No. 4049, December 5, 1950. Coronet Peak, near Queenstown, 3,800ft, in opening in tussock land; No. 4380, October 8, 1952. On ridge below Mt. Ida, ca. 3,500ft, on open bare ground; No. 4849, February 19, 1954. Near Oturehua with *Pleuridium arnoldii* on bare ground sheltered by a large rock; No. 6085, February 6, 1957. Swinburn Creek, Maniototo County, ca. 2,000ft, on open bank amongst short open vegetation; No. 6280, October 8, 1958.

The only known New Zealand collectings have all been made by the author in Central Otago where the plant appears to be widely distributed though in each locality it has been found in only small quantity. It belongs to the Bartramiaceae and is usually a somewhat smaller plant than *C. pusillum* the tallest plants seen being 7mm high against 2cm in that species. It is the only gymnostomous species of *Conostomum* given by Brotherus (1924, p. 458) and in this respect differs from all other species and from our species as well in the smooth, globose and erect capsules. On drying, young capsules may become rugose but are never ribbed as in our other species. Hitherto *C. curvirostre* was known from only two localities in S.E. Australia, Mt. Kosciusko (6,000–7,000ft) and Bogong High Plains (5,440ft), 65 miles apart. J. H. Willis compared some N.Z. specimens with the type material in the National Herbarium in Victoria and verified my identification, also sending me part of the type for inspection. The specimens match well. In New Zealand it appears to grow at lower altitudes than in Victoria.

4. **Drepanocladus fontinaliopsis** var. **flaccidus** var. nov.

Planta mollis, tenuis, flaccida, aquatilis, viridis, ad 10cm longa. Rami breves, inferi remoti, superiores conferti ita planta subfruticosa. Folia obscure tristicha, mollia etsi dum sicca minime mutata biformia; folia caulina remota, appressa, concava, dorsi rotunda, lingulata, 0.8–1.3mm longa, marginibus integribus vel apice denticulatis; folia ramulorum conferta, infima intermedia, reliqua erecta vel patula sed flaccida, anguste lanceolata ad lineata, in apicem subacutum vel acuminatum, gradatim angustata 2.3–3.5mm longa, supra dentata denticulis paulum remotis, base subconcava, alibi plana. Costa abest. Cellulae chlorophyllosae, base minime mutatae, alares nullae, parietibus tenuibus; cellulae foliorum caulinorum 60–80 x 10–12μ, inferiores ad 100μ longae; cellulae foliorum ramorum 50–70 x 7–12μ, quarum 1–2 ordines marginales saepe angustiores et longiores ad 100μ longae, sed margo indistincte notatus. Fructus ignotus.

Soft, slender, flaccid, growing in water, green, to 10cm long; branches short, distant below, freely produced and crowded above to form a somewhat bushy