

virtually created another sanctuary, but here is the difference: *it is one which can be visited*, and where, for all time, if it is religiously guarded, our own people, and visitors from all parts of the world, will be able to see the wonderful plant-life of New Zealand and her unique birds exactly as nature planted the one and provided for the other.

(d.) *Introduced Animals.*

Stewart Island is fortunate in not possessing so many species of naturalised foreign animals as are in New Zealand generally. The hare, rabbit,* ferret, stoat, and weasel are absent. On the other hand, the so-called Australian "opposum" was introduced a few years ago. It is already doing some damage in gardens, and also to the forest plants, especially to the tree-ferns, I am told. Virginia deer have been liberated in the neighbourhood of Port Pegasus, and red-deer in the Freshwater Valley. *Animals, such as the above, which feed on herbaceous plants or shrubs, must bring about changes in the vegetation, altering its character and with that the scenery, and undoing exactly what the setting-aside of so much of the island as a plant and animal sanctuary is designed to effect.* Nor, in this case, can the value of these animals for sport be held as a plea, since the trivial amount of open ground, the dense character of the sub-alpine scrub (see Photos 8, 26, and 27), and the close forest growth renders Stewart Island *quite unsuitable as a hunting ground.*

The presence of rats and cats, and their effect on the bird-life has already been referred to. The common introduced European birds are plentiful, but they are chiefly in the neighbourhood of settlements and in the more open country, and have not interfered to any extent as yet with the indigenous avifauna.

PART VII.—THE FLORISTIC BOTANY.

A. DESCRIPTIONS, ETC., OF NEW SPECIES, VARIETIES, ETC.

(i.) *UNCINIA COMPACTA* R.Br. var. *CAESPITIFORMIS* Kükenthal var. nov.

Rhizoma caespitos densos formans et stolones breves agens. Culmus foliaque rigida. Spicula angusta. Utriculi maturi subpatentes.†

(ii.) *BULBINELLA GIBBSII* Cockayne, sp. nov.

Herba perennis *B. Rossii* similis sed multo minor. Folia ensiformia 12–22 cm. longa, 13–37 mm. lata. Scapus folia superans, 12–30 cm. altus. Racemi haud densi 5–9 cm. longi, pedicellis 1–7 cm. longis, floribus dioicis.

Stewart Island: Bogs and subalpine meadows; abundant.

Much closer to *B. Rossii* than to *B. Hookeri*, but an altogether smaller plant, with much more slender scape, and very much shorter and more open racemes. The perianth segments are shorter in the female than in the male flower.

Mr. G. M. Thomson called attention to this plant in 1881 (79, p. 287), but no reference has been made to it since. He attributed the differences in the blooms to cleistogamy, writing, "On Frazer Peaks, Stewart Island, I found a very stunted form of this species (*Anthericum Hookeri*)‡ tending strongly towards cleistogamy. The flowers were crowded on short rigid scapes, but had their perianth lobes so greatly reduced in size as to give the racemes a pale yellowish-green hue. The stamens were also greatly reduced, but the ovaries were well developed."

(iii.) *ASTELIA SUBULATA* Cheeseman comb. nov., M.S.—*A. linearis* var. *β. subulata* Hook. f. in "Flora Antarctica," vol. i, p. 76.

A full description of this species has been prepared by Mr. T. F. Cheeseman, while this report was being written, for his memoir of the systematic botany of the New Zealand subantarctic islands, now in the Press, otherwise I had intended describing it, as I had previously expressed the opinion it was distinct from *A. linearis* (Cockayne, 18).

(iv.) *RANUNCULUS CROSBYI* Cockayne, sp. nov., M.S.

I can, unfortunately, give no diagnosis, the living plants growing in my garden having died. The species was only noted at the summit of Table Hill. It is a small plant with radical leaves hairy—so far as I remember, with reddish hairs. The scape is short and 1-flowered. Named after Mr. J. Crosby-Smith, F.L.S., of Invercargill.

(v.) *CARDAMINE HETEROPHYLLA* (Forst. f.) O. E. Schultz, var. *UNIFLORA* (Hook. f.) comb. nov.—*Cardamine hirsuta* L. var. *uniflora* Hook. f. in Handb. N.Z. Flora, p. 12.

(vi.) *RUBUS SUBPAUPERATUS* Cockayne, sp. nov.

Frutex scandens ramis gracilibus aculeis rubris aculeatis, foliis ternatis foliolis lineari-lanceolatis petiolis gracilibus aculeatis, paniculis parvis 5 cm. longis floribus dioicis sepalis ovatis pilosis.

South Island: Common throughout. Stewart Island: Forest, Mason Bay; rare.

* I understand that rabbits were at one time, and perhaps are yet, on Native Island, in Paterson Inlet, where Black (6, p. 3) also records the presence of goats.

† Description written by Pastor G. Kükenthal.

‡ Its former name.