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BETSY ISLAND

By KELSEY AVES

FEW people ever land on Betsy Island, though it was given to the people of Tasmania by Lady Franklin, and is quite near Hobart. It is a sanctuary and permission to land must be obtained from the Trustees of the Tasmanian Museum.

Members of the Tasmanian Field Naturalists' Club paid a visit to the island on Mr. B. Cuthbertson's fishing vessel "Weerutta II." in March, 1951. Time did not permit of an exhaustive survey, but a brief general report follows, with further reports on the reptile life by Mr. A. Hewer and on marine life by Mr. E. Guiler.

On the trip out many penguins, gannets, and mutton-birds were seen in the estuary, also a few dolphins. We sailed completely round the island especially to see the seals on Little Betsy, but only two were on the shore and these took to the water as soon as we appeared.

A landing was made on the North of the island which was sheltered from the long swell which we had experienced in Storm Bay. A pebble beach gave place to a light sandy soil as the shore rose and this was honeycombed with penguin burrows, most of which were, apparently, in occupation. One or two birds were persuaded to emerge for the photographers, but showed their resentment in the usual way by pecking viciously at their captors.

From the shore, upwards of a hundred feet, there is a ground cover of the native Pig-face (*Mesembryanthemum aequilaterale*), also quite a dense scrub of the 'Sydney wattle' (?) evidently an escape from a garden specimen planted when there was a resident on the island. Another escape in this area was a small colony of Aloes (*Agave americana*).

The Bidgee-widgee (*Acaena sanguisorbae*) has colonised large areas above the *Mesembryanthemum* and this then gives place to the rush Sag (*Xerotes longifolia*). The upper area of the northern end of the island is dominated by Blue Gum (*Eucalyptus globulus*) with a few specimens of White Gum (*E. viminalis*). On the eastern side a few

Blackwoods (*Acacia melanoxylon*), Box (*Bursaria spinosa*), and Sheoak (*Casuarina quadrivalvis*) were noted. An area of a few acres near the summit of the island has been cleared long ago, and the ruins of a small hut can be seen there. This area has been largely colonised by Scotch thistles (*Carduus lanceolatus*). I did not see the south-western end of the island.

Some rabbits were started and these have a history. Bent's Tasmanian Almanac for 1829 says "1827, May 10th—Silver-haired rabbits, pheasants and peacocks imported from England per 'Tiger'; many thousand of the rabbits increase on Betsy Island, Mr. King intending to make the skins an article of export to China." A year later the Almanac states there were "thirty thousand silver-haired rabbits belonging to Mr. King on Betsy Island". Capt. O'May informs me that he believes the original number introduced was eight pairs!

A wedge-tailed eagle was seen soaring over the south of the island and several black-browed albatrosses were observed on the return trip, near the Iron Pot. A flock of 40-50 gannets were noted floating together in one small area near Dennes Point. Away from the nesting colony so large a flock is quite unusual.

The following notes, taken from Walch's Tasmanian Guide Book, published 1871, may be of interest in regard to the name 'Franklin Island,' which is sometimes used. "Betsy Island, . . . now the acclimatisation park of Tasmania. In compliment to Lady Franklin, whose generous gift of the island for this purpose is gratefully appreciated, some persons, with more zeal than good taste, have wished to rename it "Franklin" Island, thus ignoring the long-honoured name bestowed upon it by Flinders. Lady Franklin, herself the wife of an intrepid explorer, would assuredly be the last to desire or approve so questionable a compliment as the change of any name given by the illustrious dead. To us it will continue to be Betsy Island, and Lady Franklin's name being Elizabeth the gift thus still bears the name of the donor by singularly appropriate right. Deer, hares, pheasants, partridges, and a host of other importations are here carefully reared, and, as they multiply, are transferred to other homes. A gamekeeper resides on the island."

SNAILS AND REPTILES ON BETSY ISLAND

By A. M. HEWER

SEVERAL members of the party found some snail shells attached to trees at the southern end of the island. On examination these proved to be specimens of *Bothriembryon gunnii*. This is normally an East coast species and is quite common on the eastern side of Tasman's Peninsula. It is curious that the species occurs on Betsy Island, but apparently not on the adjacent mainland.

I understand it has been recorded from Variety Bay on Bruny Island.

Another land snail was seen on Betsy Island. This was *Caryodes dufresni* and is quite common all over Tasmania from the sea coast to about 3,000 feet. It varies considerably in size however and seems to prefer moist shady gullies, large specimens usually being found in these habitats. Betsy Island is extremely dry and all specimens were small.

The reptile fauna of Betsy Island appears to be confined to three species of lizards.

Others may exist but were not sighted on the trip.

Around the shore, among the rocks numbers of specimens of *Leiopisma ocellatum* were seen. This species is common all over Tasmania from sea-level and over 3,000 feet. It does not appear to be present on Bruny Island, but, may yet be discovered there. However the presence of this species on Betsy Island is interesting as it is an endemic species for Tasmania and this is the first time I have seen it on an island off the Tasmanian coast.

This species and *Egernia whitii* were both common.

Another species which appeared to be *Leiopisma entrecasteauxii* was observed along the western side of the island. However the identification is indefinite as no specimens were taken.

It is interesting to note that all three species are viviparous in Tasmania.

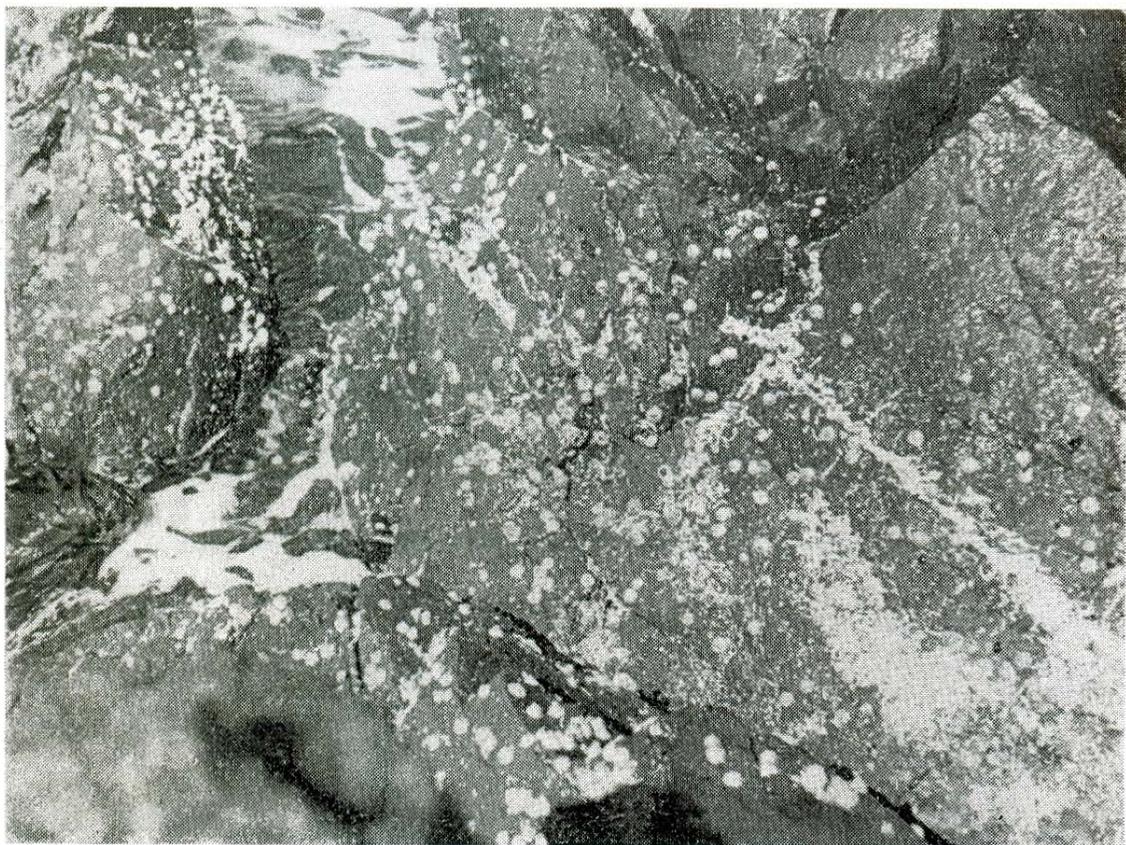
BETSY ISLAND—MARINE NOTES

By ERIC R. GUILER, B.Sc.

BETSY ISLAND being situated in Storm Bay it is exposed to severe storms and gales. In spite of this, the gale loving alga *Sarcophycus potatorum* (Labill.) Kutz. is not found on the island. This alga is commonly known as the Bull Kelp. Instead, most of the Infralittoral Fringe is occupied by *Lessonia corrugata*. This species is fond of fairly strong wave action and its presence on the island gives some comparative exposure values for the alga.

The shores of Betsy Island were rather disappointing from other points of view. The fauna and flora on all sides of the island are remarkably uniform. It might have been expected that the fauna and flora of the sheltered northern shore would have been different from that on the wave exposed parts of the island. Unfortunately, we were not able to observe this, because the northern shore is composed of loose boulders which move with the swell and are devoid of life. On one or two rocky outcrops on this shore the indications are that *Lessonia* is the dominant alga on this part of the island.

From the Infralittoral Fringe upwards the zones are *Catophragmus polymerus* (the surf barnacle), limpets, barnacles with the littorinid *Melaraphe unifasciata* at the top of the shore. At some places the surf barnacles are very numerous, especially on the western shore.



Lessonia corrugata, *Catophragmus polymerus* and *Galeolaria caespitosa* on eastern shore of Betsy Island.

Photo. E. Guiler.

At the north-eastern corner of the island there are algae which are usually associated with calmer waters. They are not in sufficient numbers to become dominant. These algae are *Cystophora spartioides* (Turn.) J. Ag., *C. uvifera* (Ag.) J. Ag. and *Codium tomentosum* (Huds.) Stackh. At the same place the tube worm *Galeolaria* is very plentiful. The mussel *Mytilus planuiatus* also forms small beds here. The presence of these five species suggests that the wave action is at a minimum in this area.

On the western shore of the island *Lessonia* becomes more numerous and there is no *Codium* or *Cystophora*. The mussel, *Mytilus planulatus* is also absent.

Although the flora and fauna of the shore of Betsy Island is rather uniform, the absence of *Sarcophycus* is very interesting and it offers a useful index of the wave action demands of that species. The island was well worth the visit for this fact alone. The terrestrial botany and zoology of the island are very interesting, presenting such features as the penguin and mutton bird rookeries, arboreal snails and a pure race of blue-black rabbits.

POLLEN PROJECT

A PROJECT for Club members which promises to be of considerable interest is that suggested at the April, 1951, meeting by Mr. D. Martin, senior Research Officer at C.S.I.R.O.

'Pollen in Peat' was the title of the talk given by Mr. Martin, and in this he outlined the work that he was doing, together with suggestions for assistance from members of the Field Naturalists' Club. He stated that, in beds of peat, owing to acid conditions, pollen grains are completely preserved, sometimes for thousands of years. The shape of the pollen grains is characteristic for each species of plant, so that it is possible by microscopic examination of peat to identify the plant whose pollen was distributed at a certain period; also to obtain a rough guide to the comparative frequency of plants, and, if a time scale for deposition of peat could be worked out, a fairly close date given for any stratum of peat. Knowing the dominant species of plant at a certain period it is then possible to give a fairly reliable estimate of the type of climate existing then.

Mr. Martin said that research had been held up for lack of workers, and that he felt some Field Naturalists would be willing to help. He thought that the first need was to compile a pollen atlas, by which pollen could be quickly identified. This would necessitate a knowledge of the method of mounting on microscope slides and he proposed a demonstration at the University for this purpose. Subsequent pollen counts would require workers who were prepared to devote a regular period perhaps once a fortnight to such work.