

FOREWORD

The Tasmanian Field Naturalists

I have been allowed the privilege of writing a few words to the 'Naturalists' before I leave Tasmania. First I would like to thank them for the great pleasure it has given His Excellency and myself to visit their camps almost every Easter. It has always been a visit to which we looked forward and which we thoroughly enjoyed. My last visit and night spent under canvas with them will be a memory I will long cherish. I am so very glad to see so many young people enjoying these camps, thus learning about the birds and beasts—trees and flowers of their own State. There is nothing that gives greater pleasure all through life than being on friendly and intelligent terms with the flora and fauna of one's own homeland. May I once more thank the Club and its members for all their kindness and wish them the best of good fortune in the future, and many happy Easter camps.

Elisabeth Binney.

April 25th, 1951.

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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.

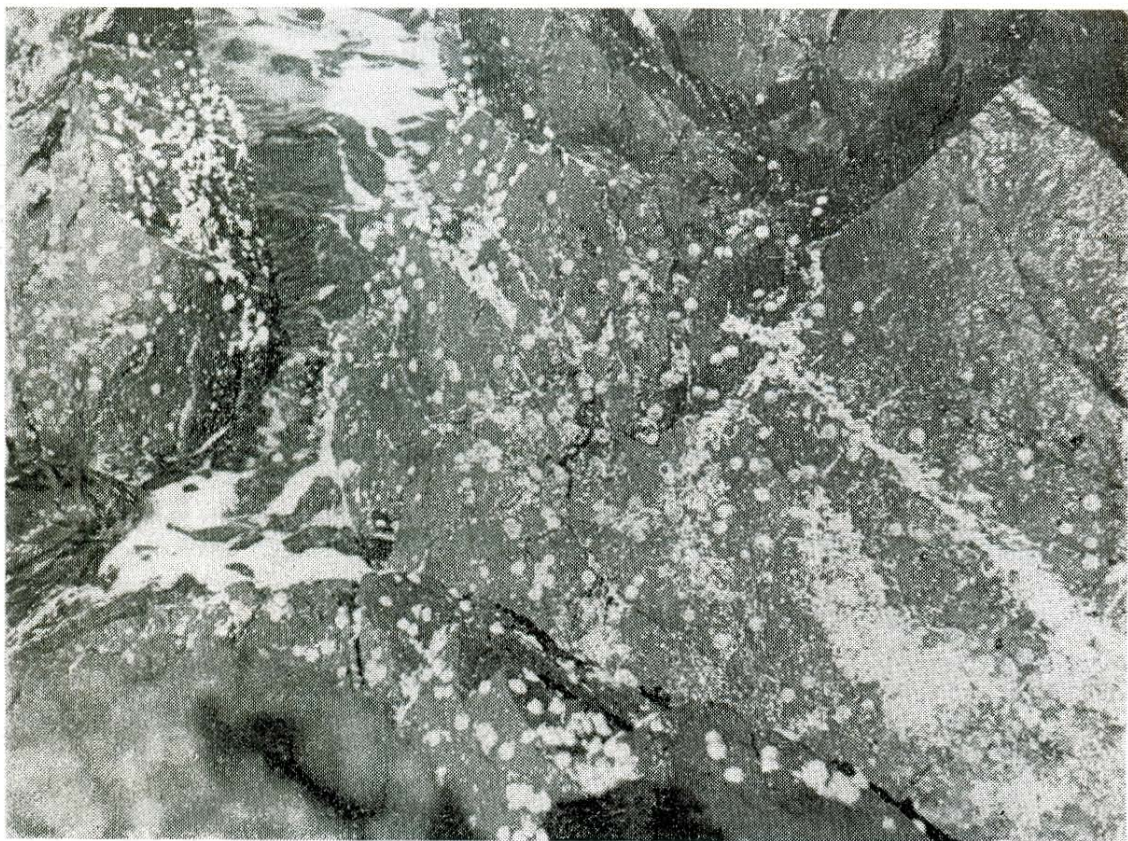
BETSY ISLAND—MARINE NOTES

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.

CAMP AT EAGLEHAWK NECK

By KELSEY AVES

WHILST it is normally the policy of the Committee to vary the sites for the Easter Camp year by year, there were several reasons why it was decided to hold the Camp at Eaglehawk Neck again, and the decision was undoubtedly vindicated.

Eaglehawk Neck has a great variety of rugged coastal scenery on the west, and calm, near-lagoon conditions on the east, on Eaglehawk Bay. On the Neck itself sand dunes are the principal feature. To the west, exposed to the full fury of Pacific storms, massive cliffs rise up, their outlines broken from constant erosion by wave, wind and rain. Blow-holes and stacks are frequent and geologically world famous, and the cliffs are honeycombed with caves. Within two or three hundred yards all degrees of exposure from storm to calm sheltered pools are found, producing a wealth of interest for the marine biologist. A mixed vegetation, varying from rain-forest and light timber, through moorland to sand-dunes provides material for the botanist, and these vegetation covers, plus the open sea itself, give habitats for a great variety of bird life. So perhaps it is not surprising that our host, Mr. W. H. Clemes, who has spent a lifetime of keen observation at Eaglehawk Neck, still finds fresh wonders there.

The weather, always the greatest factor when camping, was very kind, and no rain was experienced until the last day of the camp.

Apart from the work on the Club equipment which goes on throughout the year at Mr. Sargison's home, the earliest outward sign of the Club's annual migration is on the Saturday before Easter, when a colossal lorry draws up outside that astonishing residence. An electrically driven wagon on a tram-track ingeniously descends a series of sand-stone terraces, carrying the apparently endless impedimenta of a thoroughly well organised camp. At the roadside willing 'chain' gangs load this material on to the lorry. That all this impedimenta, plus some 60 peoples' gear, plus bales of straw, plus water tanks, &c.—that all this is persuaded by Burn Widdicombe to fit on the lorry at all is an annually recurring miracle.

This year the members of the advance party arrived at the site at various times from Sunday to Tuesday, two members making a special trip back to Hobart on the Monday evening to attend one of a series of lectures on geology. Except for that little jaunt there was very little time off for the advancites for the next few days. The lorry arrived on the Monday at mid-day and was duly unloaded.

Tents soon arose in the wilderness and all was ready by the time the main party arrived by bus at about 10 o'clock on Thursday evening. Chief Cook Charles Theobald's hot coffee and scones were gratefully disposed of and by 11 o'clock most of the campers had settled in.

Good Friday morning was 'go as you please' and so parties dispersed in all directions—some to the Blow-hole, others to Clyde Island, while others tried out the surfing for which the beach at Pirates' Bay is so well adapted. In the afternoon we were honoured by a visit from His Excellency Sir Hugh Binney and Lady Binney. This was the third Field Naturalists' Camp attended by the Governor and Lady Binney, and their practical interest in the activities of the Club has been greatly appreciated. Afternoon tea was taken in the dining marquee ('Lufra' to campers) and after the President (Kelsey Aves) had welcomed the Vice-regal party on behalf of all in camp, His Excellency thanked the Club for their invitation and spoke of his own and Lady Binney's enjoyment of, and interest in, Tasmania's natural history. The Governor was due in town for the evening, but Lady Binney was to spend the night in camp and she joined the greater number of campers in a walk along the beach towards the Neck.

Our cooks achieved the apparently impossible feat of eclipsing even their previous efforts at tea this evening, and it was a well satisfied happy group which wended its way to the camp fire for the evening social. Songs, solo and in concert, a report by Leonard Wall on birds seen during the day, and stories, funny and finally ghost, were enjoyed in the glorious setting of the fire, the silent trees and the full Easter moon.

Next morning, Saturday, Waterfall Bay was the main objective, with an added attraction in a descent into Tasman's Arch by about a dozen of the party—a thrill both for participants and spectators, for the only way down involves 200 feet of nearly vertical cliff face. A group of the advance party had earlier made the descent (and subsequent ascent!) under the leadership of our host, Mr. Clemes, and so one of these, Alan Brownell, was able in turn to act as guide for the present party. Spectators gasped as climbers dangled on a rope on the cliff face, but there were no mishaps and those who made the effort were amply rewarded. As one stands beneath the arch its roof is some 150 feet above, while spectators at the brim look very tiny at a height of 200 feet. A number of lesser caves run transversely off the main ones and above each can be seen very plainly the 'fault' which made a weak spot for the waves and the air pressure to hammer at. It is only from below that the real magnificence of the caves, blow-holes and natural arches can be fully appreciated. A



Some members who attended the Easter Camp of the Tasmanian Field Naturalists' Club at Eaglehawk Neck, 1951.

[Photo. A. Hever.]

pink alga in the gulches within the caves also gives a curious effect to the surging water and straining kelp. Mr. Clemes pointed out that unsorted pebbles of quartzite and other rocks firmly embedded in the lower strata give evidence of glacial action here millions of years ago, while there are also many beautifully preserved fossils to interest the geologist. A detailed description of these caves was given by Mr. Clemes in the last issue of the 'Naturalist'.

In the afternoon the principal attraction was the shore-life excursion under the leadership of Mr. E. Guiler, lecturer in Zoology at the University of Tasmania. The fascinating life and colour of the rock pools on Fossil Island was examined, while the variations of marine life caused by exposure to, or shelter from, the buffeting of the waves were well demonstrated by Mr. Guiler. A technical account of the marine biology appears elsewhere in this journal.

A live octopus over two feet long was adeptly caught and held by Mr. Guiler and it was noticed that, contrary to usual practice with exhibits, no-one else even wanted to hold it! We were also enthralled here by the loveliest of all forms of motion—the gliding of albatrosses.

On Easter Sunday a short religious service was conducted by Mr. Clemes and attended by almost all campers. An expedition was then made to the fire look-out tower on Mt. McGregor, from whence a view is obtained of the whole of Forestier and Tasman Peninsulas. The vegetation seen along the track is largely what one associates with the south west of Tasmania—mainly rain-forest. Although this is the East coast, the wet weather of the south west sweeps round Cape Raoul and Fortescue Bay and up to Eaglehawk Neck. We recorded here *Bauera rubioides*, Cutting Grass (*Gahnia psittacorum*) Native Laurel (*Anopterus glandulosus*) Celery-Top Pine (*Phyllocladus rhomboidalis*) and some 35 other species of plants.

We lunched under the watch-tower and then some members decided to try to find the lovely Slender Palm Fern (*Cyathea Cunninghamsi*) a tree-fern of which a small stand still remains near here. Other stands around Eaglehawk Neck have been obliterated by repeated bush fires, the arch-enemy of the nature lover—and of all sections of the community, did they but realise it. Nobody in the party had actually seen the *Cyathea* before, and when after battling down a scrub-filled gully for some half hour or so, two or three small trees of about eight feet in height were triumphantly discovered, it is believed that several members of the expedition secretly felt that this was something of an anti-climax. However, those who did battle

there saw a rather rare plant and perhaps can imagine a little better what the main stand of trees some 30 feet high looks like—some-where else in that gully!

Botanists in camp invariably wish that Easter occurred in Spring, for then the country is ablaze with flowers, while at this later season most of the flowers are over. Especially was this so this year as the exceptionally sunny and dry Winter and Spring had produced a marvellous wealth of bloom, but had produced it earlier than usual. I had camped at this same spot the previous September and I think that never before had I seen such large areas so completely covered with wild flowers. The camp site itself had been gay with Prickly Wattle (*Acacia verticillata*) and Coast Whitebeard (*Leucopogon Richei*), but at Easter the only shrub flowering near camp was the Coast Fuschia (*Correa alba*)—and of course the Banksia, which never seems to stop flowering.

Monday's trip was along the northern shore of Eaglehawk Bay, a sleepy, idyllic stretch of water, as great a contrast to Pirates' Bay as could be imagined. The first rain of the holiday fell during the afternoon, but it was not heavy and it gave campers the opportunity to return to their tents to prepare for the fancy dress carnival which is a feature of the last night in camp.

The standard of costumes and 'floor shows' was as high as ever. A 'Dog Watch' band played and danced reels quite as ably (in their own way!) as the recent Black Watch visitors. 'Mandrake' and his giant Nubian henchman performed wondrous feats of magic and strength, while a team of Volga boatmen succeeded in dragging a diminutive paper boat into the arena only after superhuman straining, to the accompaniment of a subtly swelling and fading tenor offstage. A prehistoric Octiwantigandaloupe, or was it an Aspidilio?, with four hands and feet and marsupial pouch containing the dearest little Octi . . . &c. with a piercing scream . . . the towering Prof. Woureddy of Blowhole University . . . the Shepherdess and Bill-the-Bull, Tom-and-Mary, . . . Rev. Dr. Doonix and many others,

Yes, a return to Eaglehawk Neck was amply justified. The prostration of the Hon. Organiser owing to a bad attack of lumbago was the one disappointment, but the spontaneous roar that greeted his appearance at table after two days in bed must have made him realise what an affectionate regard his fellow-campers have for him.

Those who attended camp were:—

Messrs. K. Aves, H. Sargison, J. Simpson, E. Cruickshank, B. Widdicombe, A. Brownell, K. Little, A. Love, E. Guiler, A. Hewer, L. Wall, F. J. Swan, A. Craike, F. Green, D. Guilbert.

Lady Binney, Mesdames B. Widdicombe, Goldfinch, C. H. Elliott, Parsons.

Sisters Jensen and Burn, Misses D. Wyly, H. Mosey, K. Coyen, M. Westbrook, K. Hurford, M. Scott, P. Batt, M. Griffiths, A. Wall, H. Reid, M. Washington, M. Peppin, D. Catlough, S. Sargison, F. Moorhouse, N. Moorhouse, E. Widdicombe, J. Heritage, J. Bignell, R. Aschman, S. Aves, G. Aves, B. Parsons, K. Sargison, B. Reid, L. Goldfinch.

Masters D. Widdicombe, L. Nollath, J. Forster, L. Moore, R. Brownell, B. Wherret, A. Peppin, J. Peppin, G. Parsons, R. Parsons, J. Parsons.

Staff: Official cook, Mr. C. Theobold, assistants, Messrs. D. Andrews, P. Hassett.



Sarcophycus and *Pyura praeputialis* on reef below camp, Eaglehawk Neck, March, 1951.

Photo. E. Guiler.

MARINE LIFE AT EAGLEHAWK NECK

By ERIC R. GUILER. B.Sc.

ONE of the most interesting features of the Easter Camp was the generosity of the sea in providing us with a variety of pelagic forms which were examined with great interest by members.

The most striking species washed ashore was large numbers of the pelagic gastropod mollusc *Janthina violacea* (Bolten.) Hundreds of shells of this species were lying on the shore. On some of the shells of this mollusc were some stalked barnacles, subsequently identified as *Lepas anatifera* L. This latter species has not been recorded before from Tasmanian waters.

One badly damaged siphonophore, ?*Physophora* sp., was found on the sand. Although the creature appears to be composed of only one animal it is actually a colony, being composed of numerous individual animals. Each of these animals is differentiated to perform some important function for the benefit of the colony as a whole. Another siphonophore was also found. This was the Portuguese Man o' War, *Physalia*.

All of these species were deposited on the shores of Tasmania by the warm Notonectian current which runs from the tropical seas down the Australian coast. The current swings on-shore in the summer and the animals characteristic of warm seas appear off our coasts.

On kelp which was washed ashore were some stalked barnacles of a different species from that noted above. These specimens were assigned to *Lepas australis* Darwin. This species is common on wood, weed &c. at Eaglehawk Neck. Yet another species of stalked barnacle was recorded. This was the small intertidal form *Ibla quadrivalvis* Cuvier. This species lives in clefts in the rocks. The species is one of considerable interest in that the male is very small and lives within the female.

The shore in the Eaglehawk area presents several types of habitat for examination. There is an exposed coast with rock platforms, sheltered coasts with both platforms and boulders and all grades of coast between these two extremes. There are also sandy beaches with varying degrees of wave exposure and a very sheltered bit of coast in which conditions approach those found in a lagoon.

On the wave exposed coast Bull kelp, *Sarcophycus potatozum* (Labill.) Kutz, forms a belt at the lowest tidal limits, i.e. in the Infralittoral Fringe. This alga is exposed to the most severe wave action and is always being battered against the rocks. The kelp does not inhabit all of the rock platform, but lives on the seaward edge of the platform.

The remainder of the platform is fairly characteristic in its flora and fauna. One interesting feature is the scarcity of barnacles in the upper shore regions. *Chamaesipho columna* (Spengler) is the most common species, but it is found in small patches and does not form dense growths on the shore. The reason for this is not yet understood. It is usual for barnacles to like surf and this is certainly true of the large barnacle *Catophragmus polymerus*. The remainder of the Tasmanian barnacles seem to be most common where there is only moderate wave action.

Near the seaward edge of the platform were numerous specimens of a coral-like alga, a *Lithothamnion* sp. This species is only found where the wave action is severe. It is common throughout the length of the East coast.

On the sheltered, or Pirates' Bay side of the Blow Hole and Fossil Island the wave action is progressively reduced from a maximum at the northern end of Fossil Island to a minimum at the Old Jetty. This leads to an interesting zonation of the algae. Where the wave action is most severe the only species found is *Sarcophycus*. With slightly less wave action *Phyllospora comosa* (Labill.) Ag. lives with the Bull kelp. Under conditions of slightly less wave action *Lessonia corrugata* replaces the *Sarcophycus*. As the wave action decreases we find the following zoning of the seaweeds . . . *Xiphophora*, *Cystophora*, *Cystophora* with *Ecklonia*, *Hormosira* and finally the flowering plant *Zostera*.

The difference in the fauna inhabiting the wave exposed coasts and that on a sheltered coast is most striking. On the former are species which are tough and resistant to wave action such as limpets and barnacles. On the sheltered shore are more fragile forms such as anemones and decapod crustaceans. At one place the anemones form a carpet on the rocks.

Under stones and boulders the fauna is very varied. Numerous sponges were seen and several species of crabs are common, notably *Naxia spinosa*, *Lomis hirta*, *Cyclograpsus punctatus* and a *Petrolisthes* sp.

An octopus was caught in shallow water. It aroused much interest in its form of jet propulsion and its power of rapid colour change as it moved over different coloured substrata.

The sandy surf beach is notable for its lack of fauna due to the instability of the sand as a habitat. The shore at Eaglehawk was no exception to this. Rocky reefs along the shore are densely covered with the mussel *Brachyodontes rostratus*. The ascidian *Pyura praeputialis* (Heller) forms a continuous belt on these reefs. This species is not common on the wave exposed coast. Some very large ascidians were found on the shore suggesting that there are large colonies in Infralittoral. The stalked ascidian *Boltenia pachydermatina* (Herdman) also lives on these reefs.

Eaglehawk offered a very good area for the study of marine zoology. Numerous types of habitat were seen and the fauna and flora inhabiting these are varied and numerous.

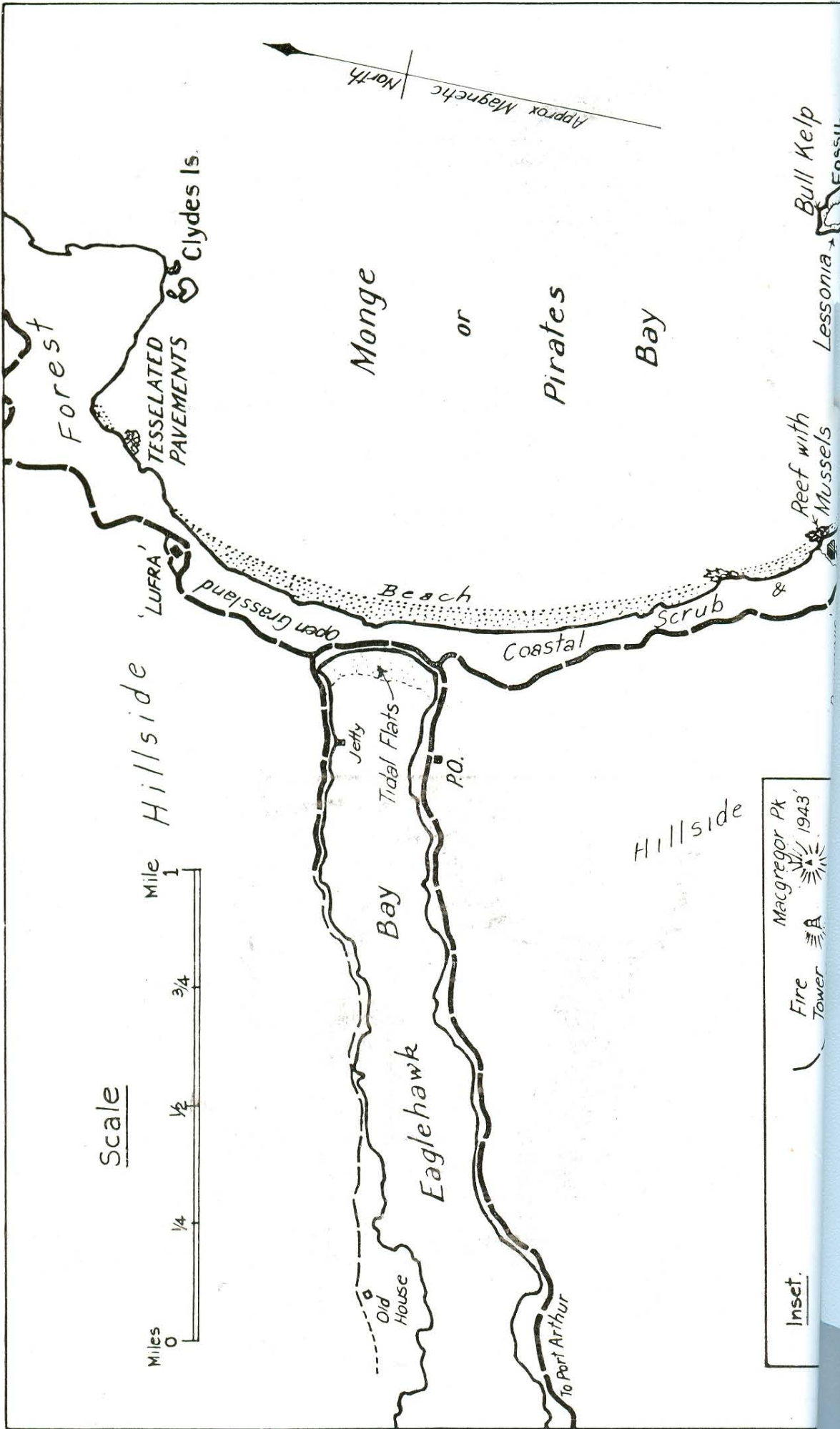


In Camp. [Photo. A. Hewer.]



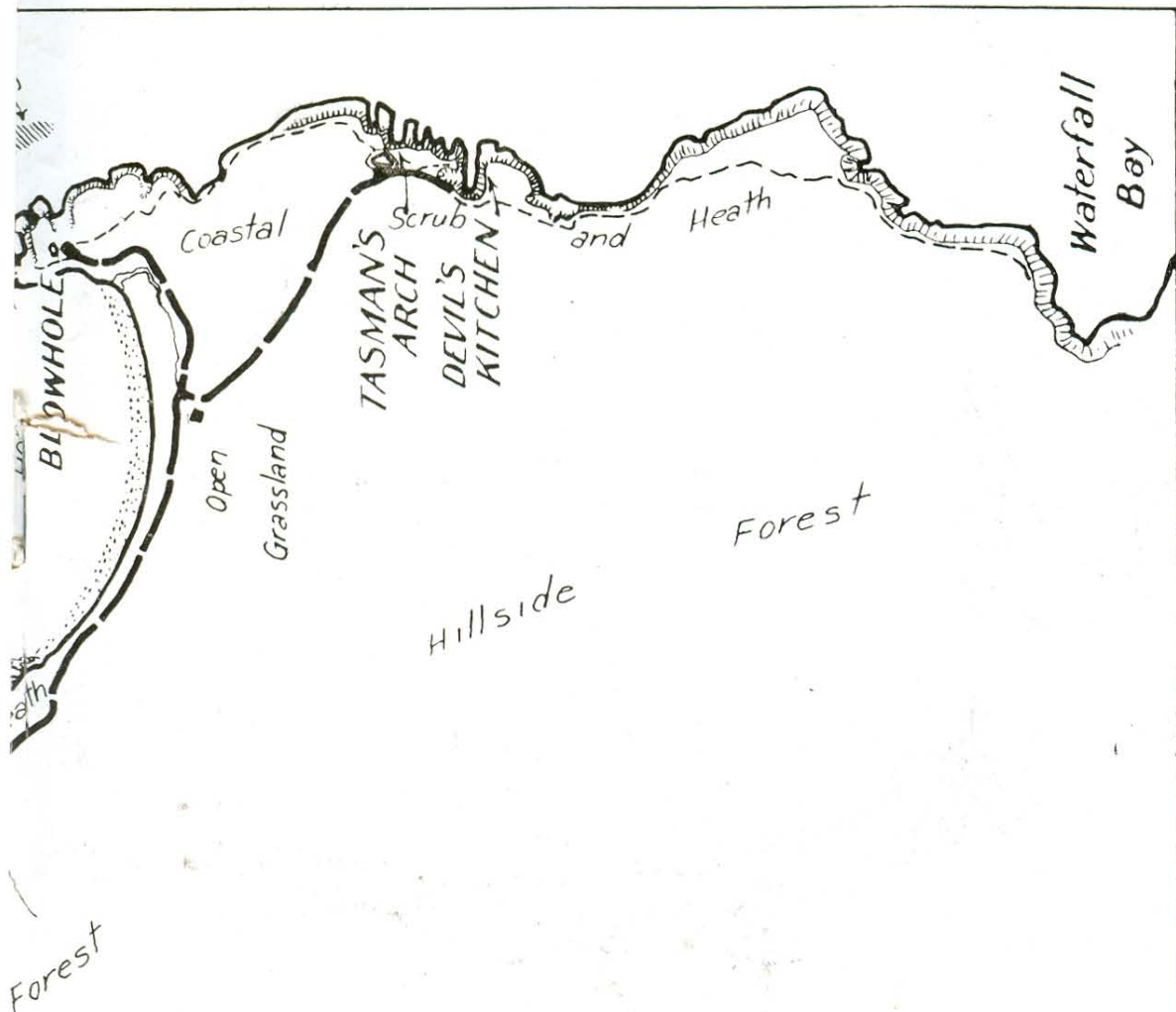
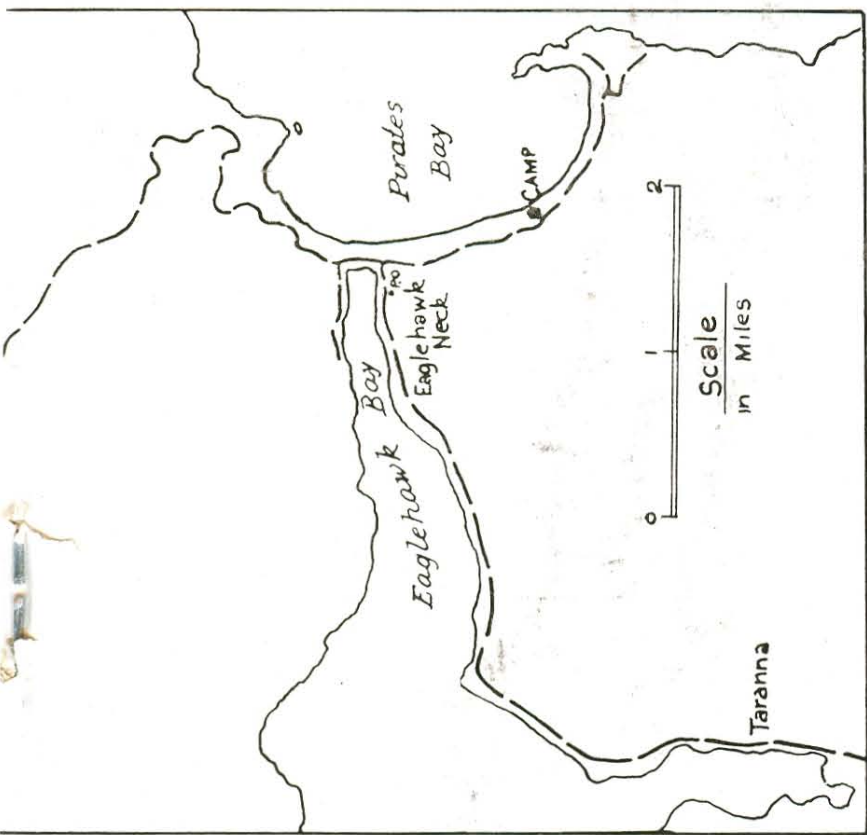
Tasman's Arch, from below.

[Photo. K. Aves.]



Inset.

- () Macgregor Pk
- (☀) 1943
- (A) Fire Tower



[Drawn by A. R. Love.

MAP OF EAGLEHAWK NECK.

Marine and bird habitats mentioned in articles are indicated.



Inside Tasman's Arch—the "face" was un-noticed by any of the party until the print was seen.

[Photo. K. Aves.]

BIRDS OF EAGLEHAWK NECK

By LEONARD E. WALL

MEMBERS of the Club have had a good opportunity to observe the birds of the district during the Club's last two Easter Camps. The lists of species compiled during our visits show a few variations, and these will be mentioned as I come to them. The general locality may be roughly divided into five habitats, and each will be dealt with separately. They are (1) Ocean and Eaglehawk Bay, (2) Shores, (3) Coastal heath and scrub, (4) Hillside Forests and (5) Open Grassland.

Ocean and Eaglehawk Bay

The Southern Ocean provided its usual population of Gannets (*Sula serrator*) which never ceased to attract attention by their diving for fish. We watched many from the camp site. Other birds easily seen from the shore were Silver Gulls (*Larus novae-hollandiae*), Pacific Gulls (*Gabianus pacificus*), Black Cormorants (*Phalacrocorax carbo*) and White-breasted Cormorants (*P. fuscescens*.) Further out to sea, and not easily seen except by the use of field glasses, were many Albatrosses, most of which were probably of the Black-browed species (*Diomedea melanophris*), which seems to be the most common round our coasts. Though not seen by any of our members there was also, apparently, a good number of Short-tailed Shearwaters (*Puffinus tenuirostris*), the common Mutton Bird of Tasmania, as many dead specimens were found washed up on the beach during our visit this year. None was seen last year. Also found on the beach this year was a small petrel, which was, unfortunately, so decomposed as to be beyond identification. On our previous visit two specimens were picked up on the beach, one in a good state of preservation, and these were identified by Mr. Sharland as Diving Petrels (*Pelecanoides urinatrix*). A considerable number of Fairy Penguins (*Eudyptula minor*) were also found dead on the beach but none was seen alive.

It is interesting to note that in the report of the Club's Camp at the same site in 1916 Clive Lord wrote of the presence of several Terns (not specified). None has been seen in either of the two recent visits, though the reason may be that Eaglehawk Bay, that narrow inlet from Norfolk Bay on the western side of the neck, which is the most likely hunting ground for terns, has not received very much attention from our observers. The same writer recorded the occurrence of terns (again unspecified) in his report of the Club's camp at Eaglehawk Neck in 1919.

There was one observation at our recent camp which deserves special mention. Throughout the five days of our visit a family party of nine Hoary-headed Grebes (*Podiceps poliocephalus*) was to be seen in Eaglehawk Bay, just off-shore from the Post Office on the south side. The presence of these birds, which usually frequent fresh-water lagoons and tidal waters (brackish only), seemed quite remarkable.

Shores.

The most common birds were Silver Gulls and Spurwinged Plovers (*Lobibyx novae-hollandiae*), while Sooty Oystercatchers (*Haematopus unicolor*), Pied Oystercatchers (*H. ostralegus*), Hooded Dotterels (*Charadrius cucullatus*) and White-faced Herons (*Notophox novae-hollandiae*) were also present. High overhead, too, a White-breasted Sea Eagle (*Halixetus leucogaster*) was often seen patrolling the coastline in its daily scavenger-hunt for food. About the cliff faces were many Tree Martins (*Hylochelidon nigricans*) forever restless in their search for airborne insects. On the main beach this year we also found a Double-banded Dotterel (*Charadrius bicinctus*) consorting with a party of Hooded Dotterels.

This dainty little bird provides us with one of the puzzles of ornithology for its home is in New Zealand. Each year (about the end of February) large numbers of this species arrive on our shores and spend the autumn and winter with us, returning to their homeland at the end of August to breed there. But why this migration? Firstly, it is partial only, a considerable number remaining in New Zealand throughout the year; and secondly, there appears to be no reason why they should change their home for the Winter. For their cousins which visit us each Summer from far-away Siberia there is good cause—the severe Winter of Northern Asia deprives them of their source of food—but this does not apply so far as Double-banded Dotterels are concerned, since the climates of Southern Australia and New Zealand are very similar. Perhaps if we can solve the second question the answer to the first may be apparent. Are we seeing the beginning of a full-scale migration? Is there some reason why present conditions are unfavourable to them in their homeland in winter, so they seek fresh fields for that season; or are conditions, which ages ago made migration necessary, moderating now to such an extent that it is no longer necessary, and some individuals have overcome the inherent urge to seek seasonal refuge from them?

Another interesting item amongst the birds seen along the shore was the presence of Flame Robins (*Petroica phoenicea*) on the beach, feeding on insects among the decaying sea-weed. My first experience of this was at our camp at Wilmot Harbour at Easter, 1948, but

since then I have observed this habit on many occasions. The habits of this species are very similar to those of the Scarlet Robin (*P. multi-color*), but I have never seen the latter feeding in this way. When both intermingle freely in coastal scrubs it is surprising that only one species should take advantage of this very abundant food supply.

Coastal heath and scrub

Most of the honeyeaters were present in good numbers, the only members of the family which were not seen were the Yellow Wattle Bird (*Anthochaera paradoxa*), the Tawny-crowned Honey-eater (*Gliciphila melanops*) and the Noisy Miner (*Myzantha melanocephala*). The last named frequents open parklands almost exclusively, while the Tawny-crowned Honeyeater may be classed as a rarity in Tasmania, where it is practically restricted to South Bruni Island. Other common birds were Brown Thornbills (*Acanthiza pusilla*), Green Rosella (*Platycercus caledonicus*), Blue Wrens (*Malurus cyanens*), Flame and Scarlet Robins, and Brown Quail (*Synoicus australis*). The last-named caused considerable comment when they appeared at frequent intervals about the camp, even running in their quaint way nonchalantly along the tracks and between the tents. For a bird of such shy habits it was remarkable to see them with no apparent fear of man.

Other birds seen in this habitat were Grey Fantails (*Rhipidura flabellifera*), Ravens (*Corvus coronoides*), Olive Whistlers (*Pachycephala olivacea*), Golden Whistlers (*P. pectoralis*), Tree Martins, Silvereyes (*Zosterops halmaturina*), Dusky Robins (*Amaurodryas vittata*), Firetail Finches (*Zonaeginthus bellus*), Grey Thrushes (*Colluricincla harmonica*), Wood Swallows (*Artamus cyanopterus*), Spotted Pardalotes (*Pardalotus punctatus*), Black Cockatoos (*Calyptorhynchus funereus*), Scrub Wrens (*Sericornis humilis*), a Kestrel (*Falco cenchroides*), and the introduced birds Goldfinches (*Carduelis carduelis*) and Blackbirds (*Turdus merula*). Another unidentified hawk was seen.

Hillside Forests

The bird population here was substantially the same as in the coastal scrubs; a few from the lower parts, such as the Firetail Finch and Brown Quail, were missing, but on the slopes of Mt. McGregor, where we visited the Forestry Lookout, some interesting finds were made. Along the track is a belt of vegetation which seems quite out of place, it is dense rain-forest of beech, sassafras, laurel and

native olive, and it afforded shelter for Pink Robins (*Petroica rodinogaster*), Scrub Tits (*Acanthornis magnus*) Scrub Wrens. Whilst at the Lookout I saw a bird which was probably a Peregrine or Black cheeeked Falcon (*Falco peregrinus*), but identification was uncertain.

At the 1950 Camp Black-faced Cuckoo-Shrikes (*Coracina novae-hollandiae*) and Swift Parrots (*Lathamus discolor*) were also seen on Cash's Lookout, but none were noted this year.

Open Grassland.

This is the smallest habitat, but by no means the least interesting. Unfortunately little attention was paid to it, and no unusual birds were seen. The most common species was the Spurwinged Plover, but considerable numbers of Scarlet and Flame Robins were also in evidence, ever watchful for insects and grubs. Tree Martins, too, found plenty of food in the air above, and several Field Wrens (*Calamanthous fuliginosus*) were seen among the patches of bracken-fern. White-faced Herons and a few Native Hens (*Tribonyx mortieri*) frequented the small streams running by. Two other birds belonging to this habitat have been seen by Miss J. A. Fletcher but were not seen by any Club members; they are the Land Rail (*Hypotaenidia philippensis*) and the Spotless Crake (*Porzana plumbea*). Miss Fletcher has also informed me that Forty-spotted Pardalotes (*P. quadragintus*) and Ground Parrots (*Pezoporus wallicus*) have been seen near her home on the Blowhole Road.

The list of species given here cannot be expected to be exhaustive, but includes all those which can be expected to be seen commonly in the district.

TASMANIAN FIELD NATURALISTS' CLUB

(Founded 1904)

Meetings are held at the Royal Society's room, Tasmanian Museum, Hobart, on the third Thursday in each month, except December and January.

Annual subscription: Adults 5/-, juniors 2/6.

Membership is open to anyone who is interested in Natural History. Application forms for membership may be obtained from the Secretary at meetings, or from Mr. H. F. Sargison, 21 Elizabeth St., Hobart.

VISITORS TO EAGLEHAWK NECK

By W. H. CLEMES, B.A. B.Sc.

The arrival of visitors to our shores is largely governed by the two great ocean currents that meet at Eaglehawk Neck. The cold Westerly Drift sweeps round Cape Pillar and works up the coast. This current is predominant during the Winter months. The warm Eastern Australian Current reaches our shores in the early Summer. These two currents bring varying types of migrants.

The *Salpas* arrive between Christmas and Easter. Sometimes they come ashore in chains, but usually the chains are broken up by the waves and they are thrown up singly. If you are wanting to collect a perfect specimen you have to be on the spot and race the birds and sand-hoppers to it. With them come the small cylindrical colonial *Pyrosomas*, about the length and thickness of a finger. The *Pyrosomas* are so named on account of their phosphorescence. The larger variety appears, but not so regularly. I once saw Munro's Bight, near Cape Pillar, covered with these animals, some large enough to fill a small bucket comfortably.

The female glassy shrimp (*Phronima*) in its transparent barrel-like home, in which she brings up her young, the test of a pelagic tunicate, arrives at the same time.

This year the warm season brought along large numbers of the violet snail. The smaller variety came first in great numbers and the larger much later. The shells are very light and float mouth upwards, to which is attached a curious weblike raft which assists in flotation. If the raft is cut away the shell sinks. When handled it exudes a purple fluid which stains the hands.

The Portuguese Men-of-War, or Blue Bottles (*Physalia*) also appear in great numbers, but seem to be a smaller variety than those found on the mainland. Their sting is not so severe, though quite sharp enough. Occasionally a very large variety of jelly fish comes ashore, about eighteen inches to two feet across, a rather fearsome creature to meet in the breakers. *Doris*, the sea lemon, is occasionally seen.

There seem to be different seasons for some varieties of fish. The White Fish, a large form of Silver Trumpeter, appears on the coast towards the end of January and stays till May. A New Zealand fish, called by the fishermen the Abuka, arrives about the same time. Large shoals of mackerel, chased by the barracouta, dolphins and gannets, are seen going up the coast and are sometimes driven into the bay ashore. They seem to cover acres of water.

Whales of very kind, from the Sperm whale to the whalebone varieties, sometimes accompanied by young ones, roll and splash about in the kelp. Eaglehawk Neck was a bay-whaling station in the old days, with its rows of trying-out pots on the Blow-hole Bay and

its look-out station on Mt. McGregor. The fur seals from the Hippolytes and the Cape Pillar colonies are often seen in the bay, much to the annoyance of the fishermen since they break great holes as they pass along the nets tearing out the fish entangled in them.

Sea Leopards sun themselves on the beaches after their long swim from the Antarctic. Sea Lions and even Sea Elephants from Macquarie Island have been found here. The last visitor was well featured in "Wild Life". Unfortunately it became ill and died.

Both the crested and the Royal Penguins visit here on many occasions. They come in to moult and spend quite a long time on the rocks or beaches. I have two records of finding them on February 18th in different years. One Crested Penguin that had been injured lived at the Blow Hole for quite a long time. It was fed by a fisherman and seemed quite contented and happy. However, the inevitable vandal came along who killed it for crayfish bait.

When the Mutton Birds arrive in the Spring they cross the bay in great black lines, splashing into the water in countless thousands as they feed. It is a wonderful sight and never to be forgotten. Some take up their abode on the neighbouring islands. There are quite sizeable colonies on the Lanterns and probably on the Hippolytes. The New Zealand Mutton Bird has formed a colony on Tasman Island. Many birds nest on the Hippolytes, but no one has yet succeeded in investigating what should prove to be a most interesting locality.

Two deep-sea varieties of fish have been cast ashore—the Ribbon fish and the Sun fish. The Ribbon fish can grow to a length of 20 feet with a depth of one foot and a width of a few inches. It has no ventral fin, but the dorsal extends the whole length of the body. It is grey in colour and has blotches or protuberances scattered over the body. The ones I saw were washed up on the rocks, but had portions cut off by the fishermen for bait, and so their measurements could not be obtained. I understand that they have not been caught alive, but that the specimens so far obtained have been found floating dead on the surface. The bones contain practically no mineral matter and are easily cut with a knife. The young ones live in the ocean depths.

Their relatives, the Sun fish, are sometimes washed ashore on the beaches, much to the disgust of the health authorities, who have to get rid of them. This is no mean task as they may be six to eight feet across and weigh a ton or more. Their bones are soft like the Ribbon fish. Strangely enough their spinal cord may be only 12 to 15 millimetres in length.

The last visitors I shall record are the large Octopuses that are washed up on the inner beach every Winter. Some are very large. It is difficult to imagine why this stranding occurs. Perhaps it is due to the large amount of fresh water in a long shallow bay. Who knows?

FIELD OUTINGS, 1950

By MARJORIE WALL

EXCURSIONS are made each month, generally on the Saturday following the Club's monthly meeting, and whenever possible the lecturer at the meeting is asked to lead the party to follow up his lecture with field observations. Ten such excursions were made during 1950.

In February a bus was chartered to take members to the top of Mt. Wellington, where Mr. Aves led the party in search of alpine flora on the Summit Plateau. He pointed out the plants that grew on the well-drained 'Islands', as distinct from those growing in the marshy ground.

Mr. A. Hewer led the outing in March, the party going along the St. Crispin's Well track from Fern Tree. The shrimp (*Anaspides tasmanica*) was seen in the creek by the Wishing Well, and many birds were seen along the track. There were few flowers in bloom, but the berries were particularly beautiful, the Heart Berries (*Aristotelia peduncularis*) being specially noticeable.

The April outing was again led by Mr. Hewer, this time from Bellerive to Flagstaff Hill. We walked across the Rosny Hills where numbers of different types of spiders were seen. Birds were very plentiful, but flowers were scarce, the only plant in bloom being the cranberry (*Astroloma humifusum*).

Mr. F. Green led the party around the lower slopes of Mt. Wellington for the May excursion, when berries were the main attraction. Mr. B. Mollison interested us in fossils when we reached the mudstone quarries at Lenah Valley. A Black-faced Cuckoo-Shrike (or Summer Bird) was seen at Junction Cabin, although members of this species generally migrate northwards in early Autumn.

Mr. L. Wall led the June excursion from Risdon to Old Beach. The morning was very foggy, so little bird life was seen during the early part of the trip. Fairy Penguins were heard as we crossed the river by punt in the late afternoon. Aboriginal kitchen middens along the eastern shore were examined by some members.

The July outing, again led by Mr. Wall, was from Granton Railway Station to the Limestone Quarries on the New Norfolk Road. The chief interest was the fossils which abounded in the quarries. Many water birds were observed along the edge of the Derwent.

The August outing provided a very pleasant round trip from Margate to Blackman's Bay, via Tinderbox. Mr. K. Aves was leader. It was a very early Spring, after a mild Winter and flowers were the outstanding feature of the day. Acacias were specially abundant.

A most instructive outing was held in November, when Mr. D. Martin was leader. We took a bus to the top of Mount Wellington and walked down the road, noting the different Eucalypts at decreasing altitudes. Mr. Martin gave us many useful hints in identifying these trees.

Attendance at our excursions has not generally been good and members are urged to come along as much useful information is gained while the text of lectures is still fresh in our minds.

(The following notes were contributed by Mr. A. M. Hewer)

The September and October outings, by the introduction of dredging trips, revived a phase of the Club's activities which had lapsed for many years. These were both in D'Entrecasteaux Channel—one in vicinity of Tinderbox and one at Woodbridge. Both were led by Mr. E. R. Guiler, B.Sc., and were attended each time by about 20 members. Much interesting material was dredged up and at least two crabs collected which proved to be new records for Tasmania. Material collected included Sea Cucumbers, Slate Pencil, Sea Urchins, Brittle Stars, Cowries, Scallops, sponges and several different amphipods.

TASMANIAN FAUNA CONSERVATION COMMITTEE

(Extract from Annual Report, 1950-51)

PERSONNEL.—The Committee comprises delegates from the Royal Australian Ornithologists' Union; the Royal Society for the Prevention of Cruelty to Animals, the Tasmanian Field Naturalists' Club and the Hobart Walking Club.

FAUNA BOARD.—The initial move by the Committee was an approach to the Attorney-General (Mr. Fagan) to urge the reconstitution of the Animals and Birds' Protection Board. While the Committee recognised that some members of the Board had done splendid work with very limited resources it believed that the importance of having more scientific personnel on the Board had been overlooked.

Briefly, it submitted to the Minister that the most important function of the Board should be the preservation of native fauna, particularly those of great interest and value in grave danger of extinction. It pointed out that the Board as constituted was dominated by representatives of commercial interests with only one member representing scientific interests. It claimed the Board lacked the financial resources and co-ordination with other bodies to fulfil its functions effectively and was not in a position to foster, as it should, public appreciation of the value of native fauna.

The Committee is pleased to report that certain submissions have been carefully investigated by the Minister, though delays inevitably occasioned by dissolution of Parliament have helped to make progress towards the Committee's goal seem disappointingly slow.

Despite these delays, however, the Committee has been encouraged by the greater activity of the Fauna Board in directions advocated and its decision to prohibit the use of steel jawed traps on poles for the taking of opossum, on humanitarian grounds, and the appointment of the Commissioner of Police as chairman, as advocated by this Committee.

PUBLICITY.—With the decentralisation of industry and the growth of population in rural areas, the Committee has been seized with the urgent need to encourage the greater public appreciation of the value of conservation of native fauna. With that end in view the Committee has given consideration to various forms of publicity.

Arrangements were made with the Australian Broadcasting Commission for a series of talks to be broadcast over national stations. To date, talks have been delivered by Mrs. J. Luckman on National Parks and by Mr. E. Guiler.

Other talks have been prepared by Messrs. K. Aves, and W. Salisbury. It is hoped to have these broadcast in the near future.

Press publicity has been adopted when deemed desirable.

GENERAL.—Matters of topical interest affecting conservation, have been brought under the notice of the appropriate authorities as occasion demanded and the aims of the Committee had been submitted to the Leader of the Opposition (Mr. Rex Townley) and the Independent Member for Denison (Mr. W. G. Wedd).

FINANCE.—The activities of the Committee have been financed by means of small grants from the parent bodies. Expenditure has been modest, but members have expressed their willingness to donate broadcast fees should additional finance be required.

OFFICE BEARERS.—Mr. Norman Laird was elected first chairman and Mr. K. Aves, honorary Secretary.

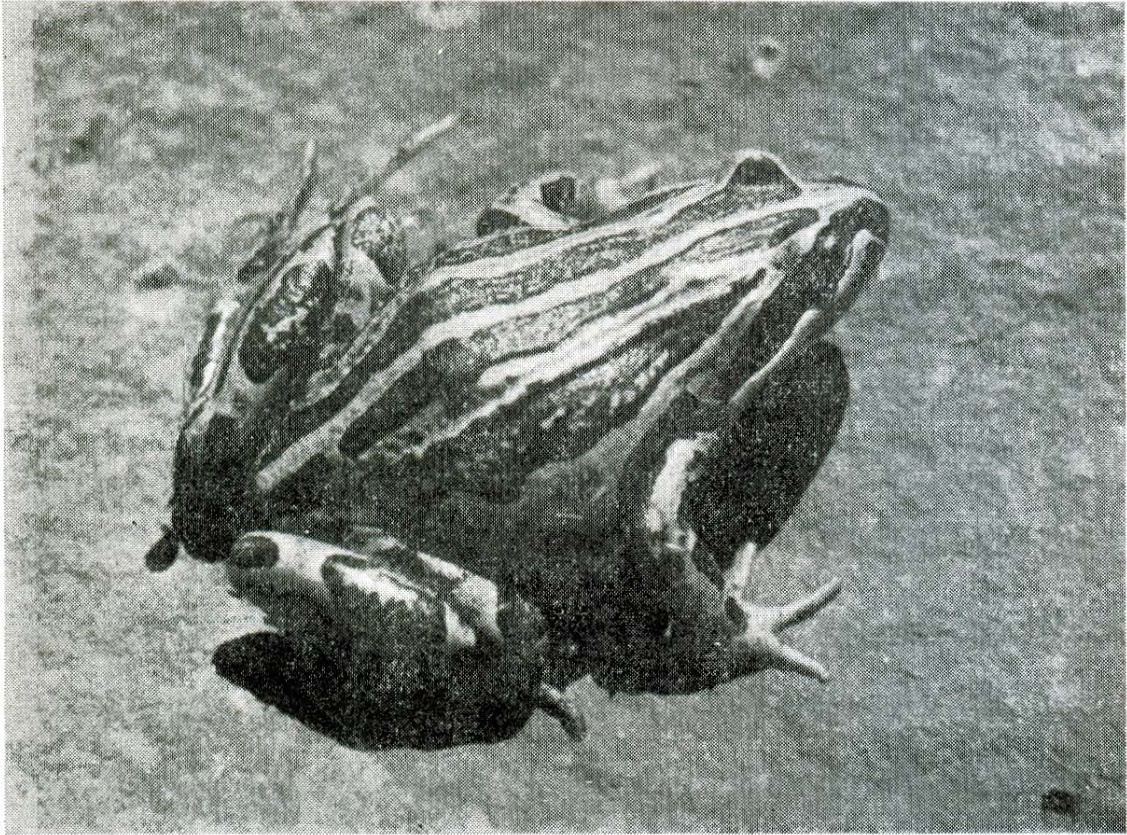
The Committee feels it has made definite progress in fulfilling the worthy and important aim of conserving the native animals and birds with which Tasmania has been richly endowed. It appeals for the wholehearted support of all interested bodies and the public in general to ensure intelligent control and conservation as opposed to a purely commercial outlook and indiscriminate killing. On the measure of this support will depend the future achievements of this Committee.

LIBRARIAN.—Members are reminded that the Club possesses a Library of books and journals on matters of Natural History. These may be borrowed, also back numbers of the 'Tasmanian Naturalist' may be bought. Please apply to the Librarian, Mr. Leonard Wall, at meetings or by post at 4 Gourlay-street, W. Hobart.

A NEW DISCOVERY IN THE TASMANIAN AMPHIBIANS

By A. M. HEWER

RECENTLY while visiting the North-West Coast, I collected two specimens of a frog which was unknown to me. The genus was obviously *Lymnodynastes*, but quite different from anything I had seen. They are approximately the same size as *Hyla aurea*, a large green frog common in Tasmania; the colour is yellowish (almost straw color) with black stripes. An illustration appears herewith.



[Photo. A. Hewer.]

My first impression was that I had discovered an undescribed species—however, some doubt exists on this point. The species could be *Lymnodynastes peronii*. This latter was described from Tasmania prior to 1860 and the species has not been recorded from this State since that date. If my specimen proves to be this species, it will clear up all doubts about its existence as it is common from Stanley to Cape Grim on the North-West coast.

However, it is at present unidentified. The specimens have been handed to Mr. E. O. G. Scott, M.Sc., and an announcement is due in about a month.

It is interesting to note that my attention was first drawn to the species when I dissected a Copperhead snake (*Denisonia superba*) and found immature specimens of the frog in the stomach. These were sufficiently different from anything I had seen to arouse my curiosity. So I started searching for live specimens and found two at Woolnorth Estate.

AN INTERESTING CRAB

By A. M. HEWER

SOME few miles north of the Pieman River, at a point about 50 yards from the water's edge and about 20 feet above water level, I noticed tracks in the sand leading to a number of burrows. These burrows were mostly under stones and rock ledges.

My first impression was that the tracks and burrows were made by the lizard, *Egernia whitii*, as this lizard is in the habit of burrowing under stones, &c.

On turning over one of the stones I was surprised to see several large crabs. I captured two specimens (male and female) and these were carried in a tin in my pack for ten (10) days without water.

On returning to Hobart the specimens were handed to Mr. E. R. Guiler, B.Sc., and were identified as the Shore Burrowing Crab (*Brachynotus spinosus*). This is a common species in South Australia and Kangaroo Island, where its habits are similar to those of the specimens I observed north of the Pieman. Apparently they are well adapted for living on land and can live quite comfortably for weeks without water. They feed on refuse cast up by the sea.

The species has been recorded from Tasmania, previously, from a point on the North coast.

However, this is the first record of the species from the West coast. It is interesting to note that its range is limited in this area to a stretch of coastline about half a mile long, and about three miles north of the Pieman River.

TASMANIAN FIELD NATURALISTS' CLUB

Annual Report for 1950

FINANCIAL membership of the Tasmanian Field Naturalists' Club is now 134, consisting of 124 seniors and 10 juniors.

It is with regret that we record the passing of Mr. L. J. Cerutti.

The annual meeting and nine ordinary monthly meetings were held during the year, the average attendance being 58.

Talks and field excursions during the year were most interesting and one evening was devoted to lecturettes by members of the club.

Subject and lectures covered were:—

- "Flowers of the Mountains" (H. K. Aves).
- "Spiders and their Habits" (Professor Hickman).
- "The Life of the Lyre Bird" (M. S. R. Sharland).
- "Marine Fisheries Research" (M. H. Olsen, M.Sc.),
- "Barracouta, Sharks and Whales" (J. Simson).
- "Mesolithic Implements of Britain" (T. H. Phillips).
- "Youth Hostels of Tasmania" (J. B. Thwaites).
- "Some Interesting Fungi" (G. C. Wade, M.Ag.Sc.).
- "British Seaweeds and their uses" (Professor L. Newton).
- "Sea Life" (E. R. Guiler, B.Sc.).
- "Ecology of the Eucalypts" (D. Martin, B.Sc.).

Mr. E. R. Guiler's talk consisted of a practical demonstration of specimens dredged by members of the club in d'Entrecasteaux Channel.

A review of the Easter Camp at Eaglehawk Neck was given at the April meeting of the club.

During the year many successful and interesting Field Outings were held. The two dredging trips held were a revival of a phase of the club's activities which had lapsed for many years.

The Easter camp (1950) was held on Mr. Clemes' property on the Blowhole Road at Eaglehawk Neck. Again this year the camp was highlighted by a "Museum" competition. Some very interesting exhibits were tabled and the Senior Section was won by Mr. and Mrs. C. B. Widdicombe.

A Wild Flower and Nature Show was held on the 9th and 10th November, 1950. This was quite successful in every way. Interest was broadened by the addition of feature exhibits which included

Reptiles, Anaspides, a Marine exhibit of fish by the Fisheries Division of the Department of Agriculture and an Alpine garden by the Botanical Gardens.

A profit of £24 was made from the exhibition and this covered the cost of the 1950 issue of the "Tasmanian Naturalist" which was issued in May.

A Sub-Committee was formed to co-relate Vernacular names of the Tasmanian Flowering plants. Several meetings were held during the year and progress was satisfactory.

The Fauna Conservation Committee met several times during the year.

It is with interest and some satisfaction that we record several prosecutions for the shooting of Wedge Tailed Eagles. Also prosecutions were made against individuals who took kangaroo from Freycinet Peninsula.

Several film evenings were held during the year. At these evenings excellent Nature films in black and white and colour were shown and were much appreciated by all those who attended.

The statement of receipts and payments shows that cash in hand at the end of the year amounted to £94 8s. 4d. This compares favourably with the balance of £49 0s. 2d. at the end of the previous year.

PLANT NAMES COMMITTEE

THIS Committee has met at regular intervals and is proceeding steadily through Rodway's Flora, collecting all the popular names it can. Where a number of names exist for one species, attempts are made to assess the relative suitability, but this is not always easy. Only too frequently, however, no popular name for a species exists.

The Committee hopes to make a report to the Club in the near future. In the meantime it would appreciate any lists or suggestions regarding vernacular plant names that members of the Club, or of the public, may care to submit.

The convenor is Mr. F. A. Peterson, 8 Swanston-street, New Town.

A TASMANIAN NATURALIST IN NEW GUINEA

By HIRONDELLE MUSEY, R.A.O.U.

LAST year I had the good fortune to make a trip to New Guinea. We sailed through smooth tropical seas, and past palm covered islands and coral reefs. I was particularly interested in the birds, seeing many species that were new to me. One day, off the N.S.W. coast, a dozen Albatross followed the ship, most of which were Wandering Albatross (*Diomedea exulans*), that most magnificent of all fliers. Of these, the older birds had much more white in the plumage than the younger birds, the immatures showing dark wavy bands on the sides of the chest.

Four Black-browed Albatross (*D. melanophris*) also followed in our wake, and with them a single Yellow-nosed Albatross (*D. chlororhyncha*) which flew so close we could see the bright yellow ridge line down the beak.

Our first sight of New Guinea was the green hilly coastline, with the Owen Stanley Range towering up behind. And behind this Range lies Mt. Lamington, which has erupted so disastrously lately. However, at the time of our visit there was no active volcano in the land, the recent Mt. Lamington eruption being the first in the memory of man either white or black. I am told that even the native legends do not contain reference to any volcanic disaster. Nevertheless geologists know that much of the country is volcanic in origin, and we saw great evidence of this during a drive inland from Port Moresby. The ship stayed here for four days unloading all the necessities of life for the white population, and loading rubber and copra to take back to Australia. So this four days gave us a little time to explore. Our first drive inland took us past the beginning of the Kokoda Trail, and the glorious Rhuona Falls. Here a frothing sheet of water falls from a great height down a precipice to the Laloki River below. All this is volcanic country, and tremendous boulders were scattered around, the driver pointing them out saying they are naturally made cement. Some were as big as a room, others would only weigh one or two tons. They were formed after being cast forth by some volcano in the dim past, and consist of large stones mixed with another substance, which was plastic at the time of eruption. These rolled down the mountainside and cooled into these great boulders, with the original

stones in their composition plainly showing, and the cementing substance cooled into an equal hardness. Many of these boulders are hidden beneath the luxuriant tropical growth.

Our explorings round Port Moresby gave us quite a good list of birds, the most interesting being an Osprey (*Pandion haliaetus*), which we watched fishing in the bay. He came quite close to the ship, and, trailing his feet in the water, he caught a small silver fish. As he mounted steeply upwards with his catch, he bent his head well down and transferred the fish to his mouth.

And one evening, soon after sundown, we came round the bend of a road, and surprised a flock of Rainbow birds (*Merops ornatus*) which were resting on the ground. They rose with a whirring sound as we drew near. These are very beautiful birds, truly named "Rainbow" from their colours. They are migratory, and visit all Australian states except Tasmania.

The next port of call was Samarai, a very lovely coral island near the China Straits, famous for their beauty. As we passed Milne Bay, there was a glorious red and gold sunset, and silhouetted against the sky were about 50 Whistling Eagles (*Haliastur sphenurus*). Each was pursuing his own course and sailing and circling in the sky. It was a wonderful sight to see so many eagles against that beautiful background.



Rain Trees near Wau.

[Photo. H. Mosey.]

At Lae we disembarked, and from here we flew 90 miles inland to Wau, where we were to spend the next two months. We flew in a flimsy Moth over the mountains where the pine-trees were festooned with lichen hanging in trailing masses, evidently growing freely in the moist atmosphere. As we drew near to Wau we could see the scattered groups of houses, and looked everywhere for the airstrip, but no sign of it could we see. The next thing we knew, we were landing in a paddock! Later we discovered that this *was* the landing ground—just a steep grassy slope, the gradient being 1:10. The native Kunai grass is very thick and tough, and makes a good binding which does not wear off. The pilots all like this landing ground. When coming in to land they run uphill, and the steep slope soon pulls them up. On the other hand, to take off, they run downhill and in no time have they left the ground far behind.

From our house we had a perfect view of Wau, including the airfield. Wau is a goldmining town situated on the floor of a wide basin. The rim of the basin is a ring of mountains 5-6,000 feet high, and more. We never tired of watching the planes enter through a gap in these mountains, circle inside the rim of the basin, and come in to land. We watched for the wheels and their shadows to join together as they touched down and ran up the slope. All passengers and most freight come by plane to Wau, the roads being very bad, and often impassable owing to landslides, &c.

As regards bird population, Pacific Swallows (*Hirundo tahitica*) were by far the most numerous species round Wau. They were a constant moving picture, wherever one went. Sometimes, especially in the evenings, flying fairly high, but most of the time they flew low, just clearing the tops of the long grass. Their flight differs from the Welcome Swallows (*H. neowena*) (the house swallows in Tasmania) in that the wings in flight are often still. Held extended in this position they are curved in an arc, and so the bird cleaves its way through the air. With Welcome Swallows the wings are held more level, or are beating nearly all the time, so that one speaks of their flight as skimming. However in New Guinea I saw no Welcome Swallows—it was the Pacific species that was so numerous.

On our homeward voyage the ship called at Rabaul for three days. Rabaul is the chief port of New Britain, on its northern tip. We heard much of this port during the war, and now the harbour is littered with bombed shipping, lying derelict and protruding at all angles from the water. There is a volcano alongside the harbour, and passing by in the ship one can see a little way into the crater, from which there is always a little plume of steam escaping—the safety valve it is called, and here also the smell of sulphur fills the air. Matape is the name of this volcano, and though it is quiet now, the beaches all round are covered with pumice stone,

evidence of earlier eruptions. Though the volcano is sleeping, earthquakes are a danger here. About fifteen years ago there was a bad earthquake when a hill bigger than the Hobart Domain suddenly appeared where there had been no hill before. The road leading from Rabaul down the coast was the only good road we saw while away, and we remarked on this, and were told, "Its got to be good,—its the only escape route from Rabaul!"—escape from volcano, earthquake, or in time of war, as happened when the Japs arrived.

Near Rabaul I saw the courtship display of the Shining Flycatcher (*Monarcho alecto*). The male bird is shining black satin, with a slight crest. The female is black only on the head. Her back and wings are bright chestnut, and underparts white. About 6 a.m. in a thicket of trees, I heard very excited bird voices. I crept in to see what it was all about, and there in a small tree were six shining black male flycatchers, and near by was a single female. Their beaks were all wide open as they called, so that the bright red gape could be clearly seen. The males were strutting and stretching, each on his bough, wings half open, crest raised, and head so far drawn back that it formed an acute angle with the back. And all the while the eager little fellows were calling "Cheeeee, Cheeeee," (which was their language for "Take me!"). It was a fascinating performance, the one female flitting here and there, and the males strutting, all in the same tree. Presently the female flew into the next tree (just over my head), so close I could easily have touched her. Then she began to answer one of the males. When he called "Cheeee", she answered "Cheeee", and so this chosen one followed her into the tree with me. The rest of the males did not come to this tree, and presently they all disappeared.

You've all heard of the giant snails the Japs brought to these parts, well they were crawling thickly everywhere in the early mornings at Rabaul (but I did not see any of them in New Guinea). Ducks love them, so do the wild pigs. No doubt some of the native birds have taken to them too, or at least to the baby ones. The fully developed snail has a very hard shell the size of a lemon.

Here, too, on the roads one sees giant toads flattened, presumably by cars at night. These huge toads must be horrifying when alive. Space does not allow mention of many other aspects of life in New Guinea.

All too soon the holiday came to an end, but there was still the homeward voyage, which was very enjoyable, and in a fortnight we were back again in Sydney.