

TASMANIA'S OWN BIRDS

By M. S. R. Sharland.

FOURTEEN species of birds are recognised as being confined to Tasmania and its dependencies, King Island and the Furneaux Group, in Bass Strait. Various so-called races and sub-species need not concern us in this review of the indigenous birds, but if we took account of them as they existed before the publication of the Australian "Checklist," which eliminated some, they would number nearly 20 different kinds.

It might be possible for an energetic observer to see all 14 species of indigenous birds in one day, in the course of an outing, yet this is most unlikely, as, while Tasmania is not a large island, the time taken to traverse even a small part of it is quite out of proportion to its size. Mountains make travel slow, and sometimes laborious compared with what prevails in most other States, and the birds themselves are not well dispersed, a few being found only in isolated localities. The most I have seen in any one outing has been 10, and to do this it has been necessary to travel a considerable distance.

The 14 species listed as being confined to Tasmania are:—

- Native Hen (*Tribonyx mortierii*).
- Green Rosella Parrot (*Platycercus caledonicus*).
- Dusky Robin (*Amaurodryas vittata*).
- Ewing's Thornbill (*Acanthiza ewingii*).
- Brown Scrub Wren (*Sericornis humilis*).
- Scrub Tit (*Acanthornis magna*).
- Forty-spotted Pardalote (*Pardalotus quadragintus*).
- Yellow-throated Honeyeater (*Meliphaga flavicollis*).
- Black-headed Honeyeater (*Melithreptus affinis*).
- Strong-billed, or Bark, Honeyeater (*Melithreptus validirostris*).
- Yellow Wattle Bird (*Anthochaera paradoxa*).
- Black Magpie (*Strepera arguta*).
- Black Jay (*Strepera fuliginosa*).
- Masked Owl (*Tyto castanops*).

Because of its close similarity with the Brown Thornbill (*Acanthiza pusilla*)—so close, in fact, that I find the utmost difficulty in distinguishing it in the field as well as in the skin—there is doubt in my mind whether the Tasmanian, or Ewing's, Thornbill is a valid species. The history of this little bird goes back to John Gould's day. Gould originally described it in his "Birds of Australia" (1848), but in his subsequent "Handbook" (1865), he changed his mind and made it synonymous with the Brown Thornbill. However, in 1903, when an Australian Ornithologists' Union Congress was held at Hobart, specimens were again examined, and it was decided to re-establish the bird as a species, and it continues to be so regarded.

The Tasmanian Museum collection is lamentably deficient in skin material, and indeed, only one example of *Ewingii* appears to

be there, and a most dilapidated specimen it is, quite useless for study. However, I have examined skins of the species, both in Melbourne and Sydney, and also compared them with skins of the Brown Thornbill. What differences there are, both in measurements and plumage pattern, seem to be so slight that I cannot find adequate justification for separating them. Nor can I reconcile certain so-called hallmarks of each species as have been specified by North, A. G. Campbell, and Mack, for it appears that none is agreed as to the primary and positive diagnostic features of the Ewing and Brown Thornbills.

Once I had accepted a bird with a brick red forehead, with its habit of frequenting dark, scrubby places, as Ewing's Thornbill, and this appeared to possess a tail slightly longer than the one with dull forehead which I had seen frequently in my garden, and which I had considered to be the Brown Thornbill. However, field observation has shown birds with full foreheads to be mixed with birds with red foreheads, in several types of country, highlands as well as lowlands; and, therefore, I feel that when birds of such close similarity inhabit the same localities and cannot be distinguished from one another in the field there is no valid reason for splitting them into separate species.

Plumage variations are superficial, and close study of the species would probably reveal that these were due to age. The structure of the nest varies also, yet not enough to justify a claim sometimes advanced that it is diagnostic.

It is, therefore, unlikely that an observer will be able to recognise the Ewing Thornbill on an outing, which reduces his possibilities to 13, and of these some are difficult to find.

There is the Forty-spotted Pardalote. It is probably the rarest of our indigenous birds. It has been recorded from Eaglehawk Neck, Mt. Direction, Old Beach, and Risdon, in the South, as well as on Mt. Rumney. I also have a record from Long Beach (Sandy Bay) given me by the late A. L. Butler, but I have myself seen it on one occasion only. This was in a wooded gully running up under Mt. Rumney, from the direction of Rokeby, the date being January 21, 1950. While climbing the steep edge of this gully to cross to another one, I heard a call I thought was different from that of the common Spotted Pardalote (*Pardalotus punctatus*), coming from a patch of Blue Gum. These trees were actually growing from the bottom of the gully, but their foliage swept close to the high bank, and when I lay on the bank and looked up, I saw several small Pardalotes flying about. Imitating their calls, I soon had them at the tips of the foliage within about 15ft of my head, and distinguished them plainly as this rare little species which I had not seen before.

It is a bird which inhabits the higher parts of trees, and, therefore, requires much searching for, with a keen ear to distinguish its calls.

ANOTHER species not common in the neighbourhood of settlement is the Scrub Tit, a pleasantly variegated bird possessing also a sweet song. It is still to be found in the Fern Tree (Mt. Wellington) district, inhabiting blackberry bushes and fern gullies, but one needs a sharp eye to distinguish it from the Brown Scrub Wren, which it resembles in a general way, though the white throat, slender body, long bill, and also its distinctive call, will help to identify it if one can get a good look at it before it flits out of sight. The Scrub Tit is plentiful in remote gullies, and it has been noted in considerable numbers round the western edge of

Lake St. Clair, at the Franklin River crossing on the Lyell Highway, as well as in Golden Valley, near Deloraine. Usually there are one or two pairs to be seen, after a little patient watching at Fern Tree Bower.

The Brown Scrub Wren is well dispersed. Nests will be found in cluttered places, such as blackberry hedges, bracken fern, fallen



Brown Scrub Wren.

branches, and in cutting-grass. The male of the species possesses a superciliary stripe; this is absent in the female. This stripe is not so well marked as that in the White-browed Scrub Wren of other States.

This reminds me that Dr. D. L. Serventy gave me a note about a bird seen by him at Lady Barron, Furneaux Group. This reads.—“On March 16, 1947, at Lady Barron, just near the school, I called up a *Sericornis*, which was yellow-buff in parts, black and white on wing and a white eyebrow. It was definitely too light to be *Sericornis humilis*, and I consider it to be a form of *Sericornis frontalis*.” *S. frontalis* is the Australian species, and hitherto has not been recorded in Tasmanian territory.

K. A. Hindwood and A. R. McGill (Sydney), who were at Lady Barron, also confirmed Serventy's observation that a bird resembling the Australian *Sericornis* had been seen on Flinders Island. Hindwood's note reads.—“After seeing *Sericornis humilis* I am convinced that the Flinders Island bird is different: white eyebrow visible, yet none at all on *S. humilis*, while the last named is a much darker bird than the one on Flinders.”

This bird at Lady Barron may have been the Forsyth Scrub Wren (*S. longirostris insularis*) as recognised by Lord, in *A Descriptive List of the Birds of Tasmania and Adjacent Islands, 1917*—a species since rejected by the Checklist Committee and made synonymous with *S. humilis*.

Had it not been, as is said, much lighter in colour than *S. humilis*, one would have been inclined to say that it was in fact a male of *S. humilis* with the white eyebrow stripe well developed as in birds seen so frequently about Hobart. In any case, I consider that *S. humilis* retains its specific rank on slender ground, and that eventually it will be accepted as an insular race of *S. frontalis*. For the sake of simplifying bird study, the fewer "species" we have the better.

The Masked Owl is another native bird of which we see little, in life. I say "in life," because we most frequently see it in death, after it has crashed into power wires or telegraphic lines along country roads. Many dead specimens find their way into museums, but the bird also is caught in rabbit traps and is often released undamaged, except for a broken foot or injured leg. We may recognise it at once by its large, round mask-like face, and its size compared with the much smaller and more common Spotted Owl (*Ninox novae-seelandiae*).

Mentioning owls brings to mind the fact that there are but one or two records for Tasmania of the Barn Owl (*Tyto alba*), and these relate to about 40 years ago. This is a species which should be watched for.

Generally, it can be stated, that the remaining species of Tasmania's indigenous birds as listed are common, and familiar to most observers. The Yellow-throated Honeyeater is distributed throughout the State. About Hobart, the Black-headed and Strong-billed Honeyeaters may be seen almost any time in favoured localities, but the Strong-billed, while mixing with the Black-headed on Mt. Wellington, rarely, if ever, is seen on the eastern side of the Derwent, a district very popular with the other.

The Dusky Robin is not as common as it was some 30 years ago, and there are localities to-day, popular in the past, where it is not seen at all. It prefers burnt areas and new clearings, with stumps on which to perch. It was once numerous on the lower slopes of Mt. Wellington, but only a few isolated pairs are found there to-day.

The Native Hen, common in marshes and bracken paddocks, is holding its own and breeds freely, laying up to 10 eggs to a clutch. A good many birds are run over by motor traffic on the roads.

The Yellow Wattle Bird, largest of the Honeyeater group, is still subjected to an "open season," though the Fauna Board has been pressed, unsuccessfully, to accord it full protection. Its numbers are much reduced compared with the position 40 years ago, according to reports.

The Green Rosella is well known. It is more common to-day than the Eastern Rosella, frequenting forest country as well as open lands. It travels in flocks, whereas the colourful Eastern Rosella is not often seen, other than in pairs, or threes and fours.

The hill country contains the so-called Black Jay (*Strepera*) in ample numbers, whereas its close relative, the so-called Black Magpie, favours the lowlands. At Lake St. Clair, however, both species intermingle, and thus their recognition marks can be compared. The Jay is generally black, with white tips to wing feathers and tail; the Black Magpie also is black, but this tone is relieved by white patches in the wings, as well as white beneath the tail.

MT. WELLINGTON SUMMIT PLANTS

By Kelsey Aves.

MT. WELLINGTON has a considerable range of vegetation, regulated by variety of climate—as indeed all vegetation is regulated. Mountains in the track of rain-bearing clouds have greater precipitation on their slopes, and this normally causes a climax vegetation of forest. On exposed summits and plateaux wind and other factors reduce plants to rounded shrubs, rosette, and cushion plants, and “elfin” trees, stunted and twisted with their growing tips away from the direction of the prevailing wind.

The plant formations of Mt. Wellington have been divided (*Vegetation of Mt. Wellington*, D. Martin, Proc. Royal Society, 1939) into three types—1, Eucalypt forest, 2, Microthermal rain-forest, 3, Austral-Montane. The plant ecology of the area has been dealt with extensively by Martin in the paper referred to.

The following brief notes for novices are given on plants within the Austral-Montane area. This is broadly the summit plateau, and our particular location will be the col between the Pinnacle and Mt. Arthur in the swamp from which the North-West Bay River takes its origin. Pools lie everywhere, and frequently at their margins we see neatly rounded cushion plants from a few inches to several feet in diameter. They are bright emerald green and so hard that a boot makes little impression on them. They are composed of the growing tips of *Abrotanella forsterioides*. The leaves are about $\frac{1}{2}$ in. long, narrow, and overlapping each other. The flowers are not easily noticeable, and are of small tubular florets, the plant belonging to the Compositae family.

This habit of growth is an extremely effective one where conditions are as severe as they are here. The rounded compact form presents the least possible obstruction to the high winds. The overlapping, hard, linear leaves lose very little water by transpiration at an altitude where rarefied atmosphere, constant air movement, and brilliant sunshine all tend to cause rapid evaporation. Furthermore, the leaves of previous years die within the plant, ultimately forming humus which is all reserved for the parent plant. So effective are these arrangements that several other plants have evolved in so exactly similar a way that, where they grow side by side on other mountains in Tasmania, it is almost impossible to tell them apart unless they are in flower. Then it is simple, since they are members of quite different families.

There are other examples of environment causing similar development of habit and leaf. In this same area, rounded bushes about 3 ft. high, with revolute leaves rather similar to those of Rosemary, may be either *Olearia ledifolia* or *Orites revoluta*—totally different families, yet difficult to distinguish apart from flower or fruit. Identification in this case is simplified, however, by the fact that plants of the *Orites* will almost always bear the woody cases of the fruit of previous years. Yellow Bush (*Orites acicularis*) is also a prominent inhabitant of this area. Its cylindrical, pointed leaves and stems are of a distinctive yellow colour, which makes it stand out from a considerable distance.

Another of the rounded shrubs, which seems to prefer the eastern side of the watershed, is *Ozothamnus ledifolius*, also with the Rosemary-like leaf, but not so narrow, and having a rich, sweet scent, which is very apparent on a hot, sunny day, and still more so if the leaves are crushed in the fingers. A twig brought home and left in the sun will increase its output of scent and remind us of the tonic air and sunshine of the mountain top. While on the subject of *Ozothamnus*, we notice Kerosene Bush (*O. Hookeri*) with its minute leaves of sage green. It is one of the relatively few mountain plants in Tasmania which have a vernacular name. The collection, sifting, and even invention of such names, is a task which the Field Naturalists' Club might well initiate.



Mountain Rocket.

SEVERAL *Richeas* grow in and around the swamp. *R. acerosa* is common near "Dead Island," and *R. scoparia*, *R. Gunnii* and *R. sprengeloides* are scattered here, the first especially seeming to be quite capable of resisting any amount of exposure. All of these *Richeas* have very sharp, pointed leaves, overlapping each other and widening out to clasp the stem. They all have their petals combined into a cone which drops off in one piece like a rice grain as the flower matures. With *R. dracophylla* growing in the forest below, Mt. Wellington can boast of all the eight species in Tasmania except two (*R. Milligani* and *R. pandanifolia*).

Mountain Rocket (*Bellendena montana*) is prominent on the moor here. The red capsules of its fruit are almost as showy as its pink or white flower. It belongs to the same family as Waratah.

The Gentian (*Gentiana saxosa*) is an attractive feature of the swamp with its fleshy stem, opposite stem-leaves and rosette of radical leaves and its creamy white to pale blue flowers. It may

vary from two to three inches in height to nearly 2 ft. in height. Gentians are a large mountain-loving genus spread over the world, but Australia has only this one species as a native. The brilliant blue *Gentiana acaulis* of our gardens is a European species.

Characteristic of most of our mountains are Pineapple, or Snow, Grass (*Astelia alpina*) and Button Grass (*Mesomelaena sphaerocephala*). The former is everywhere where there is sufficient water from about 3,000 ft. upwards. A member of the Lily family, it has bright red berries about $\frac{1}{2}$ in. long. Button Grass forms a glorious foreground to most of the peaks of the south and west, but Mt. Wellington's soil is not consistently wet enough, and it does not occur there.

Mountain Yew (*Podocarpus alpina*) is the only native Conifer which grows on Mt. Wellington, except for rare examples of Celery-top. Mountain Yew is a low, fairly horizontally growing shrub with narrow oblong leaves about $\frac{1}{2}$ in. long, and it can be seen amongst boulders near the Wellington Ski Club's hut. Again, the rainfall is evidently not sufficient to maintain the other native Conifers (Dwarf and Creeping Pine, Pencil Pine, etc.), which grow plentifully on ranges quite near (Mt. Field, Hartz., etc.).

Snow Gum (*Eucalyptus coccifera*) grows on exposed places on the plateau, but it does not like marshy ground. Hence we see it on the ridges and escarpments, and on the little hillock called "Dead Island" in the midst of the marsh. Martin points out that it is very frost-resistant, and can withstand icing of its leaves for several days. A balance between sufficient water supply and adequate drainage, however, is necessary. Its twisted, gnarled trunks standing up through the sweeping curves of windswept snowfields form the characteristic background of the Tasmanian ski-er.

Space does not permit of further comment on such things as the lovely heaths, sedges, and grasses with which the moors of Mt. Wellington abound, but, perhaps, even in this brief article, something has been said to justify the writer's belief that, in having such an amenity as Mt. Wellington on the outskirts of their city, Hobartians are amongst the most fortunate of people.

R.A.O.U. CONGRESS: Members who recall the pleasant time spent at Lake St. Clair with the ornithologists' camp last year may be interested to know that the next congress and camp of the Royal Australasian Ornithologists' Union will be held in New South Wales. Business sessions open in Sydney on Tuesday, 24th October, and delegates will leave for camp, in the Barraba district, on 26th October. The camp will extend until Monday, 6th November. Actual camping site will be at Derra Derra station, some miles from Barraba, in the north-west. Subscription to the R.A.O.U. is 25/- a year. Further information can be obtained from the State Secretary for Tasmania, 141 Hampden Road, Hobart.

FOR SALE: Back Numbers of *The Tasmanian Naturalist*. See the Editor.

TRIP TO LAKE TOOMS

By Leonard Wall.

LAKE TOOMS, one of the lesser lakes in which Tasmania abounds, is on the Eastern Tiers, about 15 miles from Swansea on the East Coast. Its only access, however, and that by the roughest of roads, is from the Midland Highway, between Hobart and Launceston.

Last September, three members of the Club spent a week-end in the area for the purpose of learning what numbers of native fauna are to be found in the sanctuary established there some years ago in an endeavour to save the Forester Kangaroo from extinction. For those readers who have access to old copies of "Wild Life," a map showing the lake and the boundaries of the sanctuary appears on page 395 of the September, 1948, issue.

The party left Hobart by car on Friday evening, hoping to reach the lake that night, and devote the whole of Saturday and Sunday to exploring the area. These hopes were not realised, however, and it was on the advice of a local landowner that camp was pitched about eight miles short of the objective. His warning that the road was bad proved to be a decided understatement.

The camp site that night was on a timbered hillside overlooking an extensive river flat and the rolling parklands so characteristic of the Midlands. As the evening meal was prepared by the bright moonlight, Spurwinged Plover and Native Hen could be heard calling along the river flat, and the distinctive "Morepork" call of a Spotted Owl from farther along the hillside. From the first light of dawn next morning the air was full of the songs of birds rejoicing in the joy of a Spring day. The trees seemed full of Yellow Wattle Birds, Noisy Miners, White-backed Magpies, Grey Thrushes, Rosellas (both Eastern and Green), and other bushland birds, while from the flat below came the calls of the Spurwinged Plover and the Native Hen. As we walked down to the river to fill our billies, a pair of Mountain Ducks and a White-faced Heron flew upstream and Banded Plover were heard from some cultivated paddocks.

A little later, during breakfast, a Brown Hawk alighted on a dead tree nearby, much to the annoyance of a Noisy Miner, and soon afterwards several Collared Sparrowhawks were seen and heard as they flew swiftly over the hilltop.

This was a most interesting locality, on the border of open parklands, which stretched away to the west and the rocky forest areas of the East Coast. Birds of both habitats mixed freely here, while a short distance to the east the White-backed Magpie, Noisy Miner, Eastern Rosella, and Spurwinged Plover, all lovers of the open, had been entirely displaced by the forest birds.

After striking camp, we travelled about half a mile to the top of the ridge, only to find that the road forked. As seems always to be the way, we chose the wrong fork, as it petered out in a small marsh about a mile and a half away, so we left the car and climbed to the top of a hill in an endeavour to get our bearings. While this did not relieve our minds of the problem of the moment, it was profitable from other aspects, as twelve birds were added to

our list. These included Honeyeaters, Black Cockatoo, Black Magpie (Clinking Currawong), Flame Robin, and Blue Jay (Cuckoo-shrike).

It was a surprise to find the Kookaburra here, this bird having been introduced from the Mainland some 20 or 30 years ago, and liberated in Epping Forest about 35 miles to the north-west. It has since been learned that Tunnack (about 14 miles to the south-west of Lake Tooms) is apparently the southernmost point to which it has spread, a fact for which we may well be thankful, as its presence is seldom counted as a blessing. It seems that Tasmanian conditions are not entirely suited to it, otherwise it would have spread much farther in the time.

It was here, too, that the first marsupials were seen. By the side of the track was a dead Bennett's Wallaby (generally known as kangaroo), and a short distance away was another, long since dead, which had become entangled in a wire fence. Yet another of these animals was disturbed from its midday rest under a log soon afterwards.

We returned to the car and prepared lunch, but this was disturbed by a shower of rain, which threatened to set in for the day. It became urgent then to retrace our tracks to a roadway which would give promise of a safe passage in any weather. We returned to the turnoff and briefly explored the right track, and then decided that the safest course, after all, was to leave the car and to walk the remainder of the journey. So we set off on the last lap not long before 4 o'clock.

The track lies through low forested hills, separated by small marshes, covered with coarse sedges and with occasional small clumps of tea-tree. The rocky nature of the country does not allow of any luxuriant undergrowth, and the forest consists of White Gum and Narrow-leaved Peppermint, with an undercover of sage. It crosses the watershed between the streams flowing east into Oyster Bay, and those flowing north, the latter being tributaries of the Macquarie River.

ABOUT midway along the track, we were fortunate enough to see, on the edge of one of these watercourses, a fine pair of Forester Kangaroo, the only ones seen on the trip. They showed extreme timidity, and bounded away as soon as disturbed.

Intermittent light rainshowers continued throughout the afternoon, but they ceased soon after the lake was reached, and night had closed in. By the time camp was pitched and dinner prepared, the weather showed definite signs of breaking, and the full moon struggled through the clouds. A few Black Swan and a pair of Spurwinged Plover were heard calling, and these were the only signs of life. It was disappointing that no calls of the Masked Owl or other nocturnal birds were heard, nor was there any evidence of their presence.

In the hope of discovering what nocturnal animals might be about, it was decided to leave some food at the base of a tree, covered only by a tin plate, which would rattle if interfered with, but this remained untouched throughout the night. It would seem from this that at best the area is sparsely populated by such animals as Possums, Kangaroo-rats, Native Cats, and Tasmanian Devils, though there seems no adequate reason for this. The scarcity of larger game might account for the absence of the Devil.

but the Native Cat feeds largely on small birds and lizards which abound, and the others are purely vegetarian in diet.

Dawn on Sunday was heralded by the incessant calls of countless birds. One of the calls was not familiar to any of the party, so a search in the half-light was begun. The owner proved to be a Yellow-throated Honeyeater, a bird indigenous to Tasmania, and one which possesses a surprising repertoire.

During the morning, the western and southern shores of the lake were explored, but time would not permit of further observation. No signs of marsupials were found, but our "Lizard Wizard" unearthed the following.—*Egernia whitii*, metallic skink, Entrecasteaux's Skink, the Spotted Sand-skink, and the Yellow-striped Frog, Brown Tree-frog, and Brown Froglet. Additions to the bird list included Tree Martin, Welcome Swallow, Olive Whistler, Black Duck, and Chestnut Teal.

So far as waterfowl were concerned, the lake proved disappointing. Many years ago the level of the lake was raised by damming to regulate the flow of the Macquarie River, and the shores are now lined with dead trees, some of them standing in water, ghostly reminders of what can happen in "the progress of civilisation." Before man took a hand there may well have been extensive reed-beds sheltering countless ducks and other birds, but these do not exist to-day. The only waterfowl seen were five Black Swan, two Black Duck, and five Chestnut Teal. A pair of Spur-winged Plover was found on a small grassy flat in the south-west corner of the lake.

The walk back to the car that afternoon was uneventful, and the only observation of note was of a Tasmanian Pademelon (generally known as a wallaby), which was seen only at a distance.

The trip was not entirely encouraging. During two full days, in what should have been favourable country, only two Foresters, three Bennett's Wallabies (two of them dead), and one Pademelon were seen. It is not a satisfactory list, but it must be remembered that the party barely entered the reserve itself — the western boundary skirts the western shore of the lake, and the reserve lies almost entirely to the north and east. Also, an open season for the taking of kangaroo (except Foresters, which are totally protected), wallabies, and brush and ringtailed possums had just closed, and it is known that thousands of skins had been taken from that part of the island. In view of this, it is reasonable to suppose that the animals would have made their way well into the reserve to avoid the hunters. However, it will need further investigation before any conclusion regarding the effectiveness of the sanctuary can be reached.

SPECIMENS FOR EXHIBITION: Members are reminded that specimens are always required for display at monthly club meetings. Members are expected to describe them and indicate where they were collected. In cases where the object is not known, specimens will be identified at meetings when possible.

SUBSCRIPTIONS: Club subscriptions are due at each annual meeting in February, but may be paid at any time. Adults, 5/-; juniors, 2/6. Funds are needed. Please keep up-to-date with your dues.

NATURALISTS' CAMP, 1950

Easter at Eaglehawk Neck.

FOR some years to come members of the Tasmanian Field Naturalists' Club who attended the 1950 Easter Camp will probably be heard to remark with feeling: "Do you remember Eaglehawk Neck?" And it won't be so much a question as an exclamation!

The weather wasn't pleasant at Easter. It was cold and wet, and the wind, which had stropped its edge on the snow that lay on the mountains throughout the State, now cut sharply enough to be uncomfortable. The surf broke with audible violence on the beach at Pirates Bay, and reverberated among the arches, gaps, and blowholes in the headlands across the bay. Mud was underfoot, and tents dripped water here and there — always, as it happened, when one was either here or there! It was an occasion for complete discomfort, and a perfect excuse for all to be dispirited and irritable. Yet the philosophy of accepting the bad with the good in which Tasmanians are well tutored, since climatic vagaries are unaccountable, stood all in good stead.

Camping has been enjoyed in better conditions, nevertheless the campers this Easter made light of the unseasonable weather. The dampness underfoot and in the sky proved no damper to good fellowship and camping fun. There was little interruption to the general programme; there were the usual excursions and outings, and surfing between the showers (by a few), and the large dining tent proved an admirable substitute location for night entertainments which otherwise would have been held round the camp fire. Indeed, all members appeared determined not to allow the weather to mar their fun. The pursuit of natural history was, of course, affected to some extent.

There were 62 under canvas, including several juniors, and the camp was held at a spot in protecting scrub, overlooking the beach, on the property of Mr. W. H. Clemes, whom we welcomed to the camp "evenings" for his interesting stories about the geology and natural history of the district.

Some reference should be made to the financial result of the camp. The club had to meet increased costs in all items this year. The increase was estimated at 25 per cent. compared with what the camp cost in 1949. Food bills, transport, every item in fact, was higher, and the Club may congratulate itself on showing a profit of a few pounds, this in spite of the fact that the normal fee for members (£4 15s.) was not increased. If costs continue to soar, as appears likely, higher fees will be unavoidable.

We should not overlook the value of the preliminary work performed by the advance party, in clearing the area, erecting tents, and providing general amenities, and also of the organising work done before this by the Camp Committee, for this, in fact, represents a saving of many pounds, which otherwise would have to be covered by camp fees. With increasing costs, it appears likely that higher fees will be necessary to avoid a loss, and also in order to preserve the continuity of the annual camp, which, except for a period during the last war, has been a feature of the Club since 1904. Fees may have to be higher for both adults and juniors, and juniors, incidentally, might well, in future, be classified as those of 12 years and under.

When the main party of campers arrived on Thursday night, they found the tents ready for them, and the camp ship-shape, beds made up, a lighted lamp in each tent, and a hot supper waiting—thanks to the advance party, some of whom had been working on the site since the previous Saturday.

A large chart pinned in the dining tent directed them to their particular tents. Each tent had a number, and was located in one or other of the following thoroughfares.—Lipstick Parade, Powderpuff Row, Cash's Corridor, Pendennis Parade, and such sections as The Kennels (which had reference to the chain of dogs that once stretched across Eaglehawk Neck in convict days), and Paradise Regained, including one site known as The Reptile House. Wooden notice boards simplified the finding of each domicile.

EAGLEHAWK NECK has not only an interesting and somewhat lurid historical background as being the gateway to the natural penitentiary of Tasman Peninsula in the days of Port Arthur, and as such was guarded by a chain of ferocious dogs and armed sentries to intercept absconding prisoners, it possesses also some attractive scenery, being hilly almost to mountainous, with a picturesque coastline. The coast nearby is geologically classic as regards the action of the sea on the land. There are few coasts which can tell a more typical story of sea invasion than this eastern coast of the peninsula reaching from the northern side of Pirates Bay round to Cape Pillar. It is honeycombed with caves and blowholes.

The cliffs of mudstone with harder sandstone here and there, rising to 600 or 700 ft., and faulted conspicuously, are carved impressively by the sea, which continually assails them, and this carving has given us the wonderful Tasman Arch, the Devil's Kitchen, and Blowhole, with its scalloped edges, and the curious Tessellated Pavement at the other end of the bay. An article by Mr. Clemes in this issue deals more specifically with these coastal features.

We witnessed the sea in storm one day and watched the waves spurting high in foam as they smashed against these cliffs, the spray rising for more than 100 ft. at times.

The hills behind the camp yielded interesting plant life, including examples of Club Moss, which resembled dwarf pines. The scrub here was dense and tough and difficult to penetrate if one left the tracks. Mr. Clemes was our guide for excursions to Waterfall Bay, Cash's Lookout, and a fire tower on Mt. Montagu, on the other side of the Neck.

Bird life was fairly plentiful. Honeyeaters were common; heath and Banksia were in flower to attract them. Miss Mosey recorded all the smaller species except the Tawny-crowned Honeyeater, and there was also one of the larger kind in the Brush Wattle Bird. Other observers were Len Wall, Hugh Wilson (on a visit from Melbourne), Terry Cashion, L. Vernon, M. S. R. Sharland, and Mrs. C. H. Elliott.

Roving above the beach was a Sea Eagle, which occasionally flew within observation distance of camp—certainly well within range of Mr. Simson's telescope, which was also useful in watching other species, as well as examining remote parts of the coastline and the Hippolyte Rock out to sea.

The waters of the bay, broken so violently by the wind, also yielded the sight of an albatross, probably the Black-browed species, as well as the Australian Gannet. Along the rocky parts of the foreshore five Sooty Oystercatchers were in constant attendance, always a handsome group. Some of the migrants were still there, the Tree Martin and Cuckoo-shrike.

On the edge of the camp a party of Brown Quail took shy peeps at what was going on and stayed relatively close. There were several here as well as along the Blowhole road.

Although rain precluded a thorough examination of the area, members, nevertheless, found much of interest, and there is a suggestion that they should return sometime to explore it again—in fine weather, let us hope!

The social side of the camp was up to standard. The evening concerts and "acts" were well arranged, and often extremely funny. The president (Kelsey Aves) and his concert leader, Burn Widdicombe (with baton), did good work in this direction. And, as a bedtime prelude, there was always hot coffee, cakes, or buns prepared by our indefatigable chef, Charles Theobald.

A popular and highly competitive event was the nature study exhibition. It brought forth a surprising variety of specimens, several of which were unearthed at the camp site, these being aboriginal artefacts. It was found that the tents had been pitched on a former midden.

Each morning and at meal times, the challenging and rather forbidding call from Harold Sargison's brass horn summoned us to rise and eat, and the campers, listed below, will all probably agree that they could wish for nothing better than that they should hear it again, next Easter, at this very pleasant camping site.

Messrs. H. K. Aves, H. F. Sargison, E. W. Cruickshank, M. S. R. Sharland, A. Brownell, C. B. Widdicombe, A. Hewer, A. Craike, H. Wilson, F. A. Peterson, L. Wall, J. A. Simson, L. Vernon, J. B. Thwaites, F. Green, T. Cashion, G. Taylor, J. Mitchell, G. L. Propsting (visitor), Prof. C. S. King.

Mesdames C. H. Elliott, Widdicombe, Brownell, Fleming, McMillan, Goldfinch.

Misses S. Sargison, E. Sharland, F. Moorehouse, N. Moorehouse, R. Aschman, J. Bignell, — Bond, H. Dresdner, B. Godfrey, M. Gorringer, N. Gorringer, M. Griffiths, C. M. Hurford, J. King, H. Lake, B. Mulcahy, H. Mosey, D. Piggott, M. Scott, M. Shepley, C. Shepley, A. Wall.

Juniors: D. Widdicombe, J., R., and G. Brownell, D. Wilson, K. Sargison, M. Reid, A. Fleming, L. Goldfinch, M. Jackson, E. Widdicombe, S. Aves.

Chef: C. Theobald. Assistants: D. Andrews and B. McDougall.



FEATURES OF EAGLEHAWK NECK

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

AS a detailed description of the Geology of Eaglehawk Neck has already appeared in the Club's journals, I shall confine my remarks to some of the features to be seen between the Blow Hole and Waterfall Bay.

The ordinary tourist, paying a hurried visit to the main scenic attractions, does not realise that there is a network of caves underneath that have been formed by the sea cutting along the many fault planes that cross the strata in this area. These faults occur at intervals in an approximately East to West direction, but there is another major fault which starts between the Blow Hole and the Tasman Arch, and runs in a North to South direction, cutting across the back of the Arch and the Devil's Kitchen.

Along this fault the sea has cut some notable caves parallel to the coast, and some distance inland. The beginning of this fault is first noticed in a cave, the gulch leading to which can be seen on the cliff track coming from the Blow Hole to the Arch. To get to this cave, it is necessary to climb down into the gulch about a quarter of a mile from the Blow Hole. Since fires have destroyed the bushes, it is now necessary for inexpert and elderly climbers to have a rope attached to a tree to give a secure hand hold.

A trip along a slippery scree leads on to a broad platform under the cliffs. Farther on, a small cave blocks the way, as there is a drop of about 16 ft. to the rubble floor of the cave. The usual practice is to take along two long poles and construct a ladder on the spot. A further walk along a broad platform leads you to the cave. It runs in for about 200 ft. and has the appearance of a lofty railway tunnel with parallel sides and a flat roof about 36 ft. high.

To descend into Tasman Arch, it is necessary to find a way down the outside cliff. It is not a difficult or dangerous feat, but the 200 ft. climb is strenuous enough. A 60 ft. rope is useful. On the first descent, about 200 ft. of rope was used, and we worked our way backwards and forwards along the cliff until the only possible way down was found. Since then, numbers of people, including many ladies, have reached the bottom safely, and there has not been an accident. On one occasion a large cocker spaniel joined the party and got down safely, but had to be hauled up some of the more precipitous parts by force.

It is only from the bottom that one gets a true picture of its grandeur, graceful contours, and size. It is hard to realise that the Memorial Church in Brisbane Street, Hobart, with its spire, could stand under the archway. The roof is flat and strongly buttressed on either side. Very little fallen rock is ever found. To reach the back of the Arch, a rather nasty gulch has to be crossed, which looks more hazardous than it really is.

On both sides of the Arch caves have been cut deep into the Cliff, and, meeting the North to South fault, have cut along it at right angles, to emerge into the main entrance. If you stand at the back you have waves coming at you from both sides as well as from the front. There are also other minor caves.

One day a large black snake was found at the bottom. It was still alive after its terrible fall, though desperately thin, as it had only a drip of water from above to keep it alive. Another time a moulting Crested Penguin was found, though in those days we did not realise what it was. A favourite bathing place was in one of the side gulches. You could get wonderful high dives from the cliffs into the beautifully clear, deep water. A friendly swell would lift you over the kelp on to the ledges again.

THE Devil's Kitchen is more easily climbed. A narrow ledge leads down on to the Fernery. Here a 60 ft. rope is attached to a tree, and, with the help of steps cut in the bank, you can reach a scree which slopes steeply down to the bottom. Long grass gives good handholds. There is a regular way to be followed or the climb would be more difficult. On reaching the bottom, you are surprised to see right through the point into the next bay. On the Kitchen side, the entrance is quite small, but inside it opens into an immense cave, with roof stretching up into the darkness.

Running back into the cliff at the back of the Kitchen, is the most notable cave of all. The sides run in parallel, about a chain across, with a flat roof about 100 ft. high. I have paced out 150 yds. without climbing on the boulders which block the end. A small cross gulch blocks the way into the cave. This is crossed by balancing a spar or plank about 10 ft. long across it. The difficulty is that you have to get along the cliff on a 6 in. ledge, and somehow poke the pole over and rest the near end on the same precarious foothold. It usually takes the full strength of the party to accomplish this. The plank we kept in readiness has unfortunately been lost into the water, and is now reposing up in the cave, so near and yet so far.

Another interesting cave is found on the sea-side with a real blowhole in it.

Paterson's Arch is notable in that the sea passes right down the outer support of the archway. It is possible, on a calm day, to go right through and round the arch in a motor boat.

The Stack farther along the coast is another curious feature, not only on account of its height, about 250 ft., but its slender structure. It is difficult to imagine how it has survived the carving away from the cliff and subsequent battering by storms.

Waterfall Bay, with its 600 ft. cliffs covered with vegetation from top to bottom, is a glorious sight. It is so large that the mind fails to grasp its size. Rising above it is the Peak which has yet to be named. A party of three of us first climbed it in 1895, and built a cairn in commemoration. There is a small flat top on which to picnic. On the seaward side it drops over a 1,000 ft. almost sheer into the water below. Maria Island can be seen to the North.

A track from Waterfall Bay to the Peak would open up a coastal panorama of wonderful beauty.

CLUB FIELD OUTINGS

By Marjorie Scott.

DURING the year, eleven day outings were held by club members, as well as two long-week-end camps, and the Christmas-New Year camp.

Alpine plants were the objective for the outings in February and May. These outings were led by Mr. Aves, to the Mt. Wellington plateau, via the Organ Pipes in February and the Zig-zag Track in May.

Mr. Hewer led the March outing up Myrtle Gully to Mr. Dan Griffith's hut, where we had hoped to see his tame birds—unfortunately, he was out. Berries were particularly good on this trip, especially Heart Berries (*Aristotelia peduncularis*). On the trip back, *Anaspid*es were seen in New Town Creek.

The April outing was of geological interest—the sandstone arch near Sky Farm, Abbotsfield Road (Claremont). Mr. Hewer, our leader, found many lizards and snakes under rocks near this arch.

A Sunday trip to Richmond was arranged by Mr. Wilson in May—bird-observing towards Cambridge. The most common birds seen on this trip were Black Swan and Spurwinged Plover. An irregular visitor, White Egret, was seen on this trip.

In June, we walked from Risdon to the Ship's Graveyard, the object being bird-observing. We ended up by playing cricket!

The outing in July was led by Mr. Sharland, along the beach from Bellerive to Howrah, then inland over the Rokeby Road to the rifle range, back to Bellerive. Birds were numerous on this trip, and orchid leaves were beginning to shoot.

In August, films on salmon were shown at the monthly meeting so an outing was arranged to the Salmon Ponds, Plenty, to see the development of the fish from egg to maturity. The September outing was led by Mr. Gilbert, who gave the lecture at the meeting on Eucalypts. He took us to Mt. Wellington to illustrate in the field the differences in eucalypts that he had described in his lecture.

The October outing was to Bruny Island, from Denne's Point to Killora. Spring flowers were beginning to come out, which made the outing of interest to botanists. A bus was hired for the November outing, to take the party to Chauncy Vale. The party split into smaller groups to see various parts of the sanctuary, most members going to the cliffs.

The first long week-end trip was in March, at the Orford Youth Hostel. From the Hostel we had day trips along the Prosser River and to Spring Beach. We walked along the old East Coast Road to the remains of an old convict settlement near the Prosser River. The black sandy soil on the way to Spring Beach was an excellent place for heaths, especially the common heath (*Epacris impressa*). On the Monday morning, we walked to the point between Orford and Triabunna.

For the November long week-end, Mr. Green led a small party to Variety Bay, on Bruny Island. We were taken to see a convict church built in 1846, also to convict brick kilns and bakehouse

ruins near Variety Bay. We found many penguins nesting on the banks and under rocks on the shore on our trip towards the Neck.

A camp was arranged at Fortescue Bay, between Christmas and New Year. The party was to leave by fishing boat on Boxing Day, but, unfortunately, the boat did not leave till Thursday, 28th December. Three members went by this boat and the other seven walked in from Oakwood on the Saturday. The vegetation was typical of wet coastal area scrub with the tracks lined with cutting grass (*Gahnia psittacorum*).

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. The annual meeting is held in February.

Annual Subscription: Adults 5/-; juniors 2/6.

Anyone interested in Nature Study is welcomed to membership.

Application for election should be made to the Hon. Secretary, c/o Sargison's, Jeweller, 21 Elizabeth St., Hobart, or direct to Mr. A. M. Hewer on meeting nights. Subscriptions may be paid to Mr. H. F. Sargison, 21 Elizabeth St., or to Secretary.

Lectures, field outings, wild life show, and nature study camps, are the chief activities of the Club.

PROTECTION FOR TASMANIAN TREES.

WE already have laws for the protection of native birds and furred animals, many of which have benefited accordingly, and the time has come when there should also be laws extending protection to native trees and native vegetation generally. Birds, particularly, are so linked with trees through mutual partnerships that the welfare of one is dependent on the other. Extensive tree destruction brings in its train diminution in bird life and a consequent increase in insect pests normally controlled by birds.

Aside from this economic aspect, there is the aesthetic side of trees; they add much to the beauty of our landscape as well as our lives, and it is regrettable to observe the amount of destruction and mutilation which still proceeds with trees of all kinds, much of which could be avoided with due thought and care.

Our highways are beautified by trees, our streets and parks would be dull without them, our bushlands are still pleasant places with Eucalypts, Banksia, and Wattle. There is a growing section of the community ready to safeguard and further beautify its environment by planting and preserving trees, but so widespread is the vandalism of another section, particularly that of public instrumentalities, which sacrifice trees, often to little purpose, that the need is for tree-lovers to band together and endeavour to instil into the public mind the necessity for a changed and enlightened outlook.

Whether or not the Field Naturalists' Club should organise a campaign in favour of tree preservation, it is urgent that steps be taken to crystallise the popular feeling that indiscriminate tree destruction has proceeded too far. The most effective measure would, perhaps, be to form a body to be called a "tree-wardens' league," with the specific object of tree protection. Much could be done by such a body, membership of which should be State-wide. It is hoped that members of the Club will sponsor formation of a body of this kind and thus initiate a step which would most likely have far-reaching benefit to the State. Let us begin now—M.S.

TASMANIAN FIELD NATURALISTS' CLUB.

Annual Report for 1949-50.

FINANCIAL membership of the Tasmanian Field Naturalists' Club is now 115, consisting of 105 seniors and 10 juniors. It is with regret that we record the passing of Messrs. B. H. Edgell and J. H. Wall.

The annual meeting and nine ordinary monthly meetings were held during the year, the average attendance being 80.

Many interesting talks were given during the year—the subjects covered being:—An outline of the History of the Club, Federation Peak, Easter Camp at Saltwater River, Macquarie Island, Identification of Eucalypts, Naming of Plants, Bird Observing at South Arm, Lake Tooms, The Kimberleys, Our National Heritage, Documentary Films showing Wild Life and Birds in Canada. Also a film entitled "Salmon Run." The lecturers who assisted were:—Messrs. M. S. R. Sharland, J. B. Thwaites, H. K. Aves, N. R. Laird, M. Gilbert, Miss M. Scott, Messrs. L. Wall, J. Levis, A. M. Hewer, and Crosbie Morrison.

Field outings were quite successful under the leadership of various members. Several week-end camps were held. The Easter Camp (1949) was held at Plunkett Point, the site of the old Convict Coal Mine at Saltwater River. The weather was perfect, and much valuable information was collected. A highlight of the Camp was the "Museum" Competition. A prize was offered for the best exhibit collected in the vicinity of the Camp. The senior section was won by Miss A. Wall, and the Junior by Eleanor Widdicombe.

A Wild Nature Show was to have been held in October, but had to be postponed because of the risk of an epidemic of Poliomyelitis. No. 4 of the new series of the Club's magazine, *The Tasmanian Naturalist*, was published in May, 1949. During the year, two sub-committees were appointed. A committee of three was appointed to give evidence on behalf of the Club, to the Joint Parliamentary Select Committee, on the Florentine Valley and National Park Bill.

Another sub-committee was formed to work on behalf of the Club in the cause of Fauna Conservation. This Committee has held several meetings in conjunction with similar committees from the Walking Club and the R.S.P.C.A. Members of this Committee will be elected annually.

The Club has undertaken to carry out Phenological observations in co-operation with the Hobart Weather Bureau. Notes on the animals and plants suggested for observation have been duplicated.

During the year a demonstration on Botany and Marine Biology was staged by the University of Tasmania for the special benefit of the Club. About 70 members and friends attended. As a new venture, several film evenings were held. All were successful.

A most enjoyable camp in rough country was held at Fortescue Bay between Christmas, 1949, and the New Year, 1950. Some very interesting information was collected.

The statement of receipts and expenditure shows that cash in hand at the end of the year amounted to £49 0s. 2d., as against £91 17s. 9d. at the commencement. This is again due largely to the increased cost of publishing the Club's Journal.