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EASTER CAMP AT TOOMS LAKE, 1969

by L. E. Wall

THE Club's annual camp was held this Easter at Tooms Lake in the Eastern Tiers. Twentyfive members attended for some or all of the five days' holiday. A visit to the same area was made by three members of the Club in 1949 and a record of this is published in the "Tasmanian Naturalist", vol. 2, No. 1 (May 1950), to which further reference will be made. Observations during this year's visit were made along the western and northern shores of the lake and for distances of up to three miles from those shores. On the earlier visit only animals (including birds and reptiles) were recorded, but this time more attention was paid to the botany and entymology of the area. No attempt was made to study the aquatic life except that two families benefitted from the introduction of Brown and Rainbow Trout into the lake itself and the Macquarie River flowing from it.

The country is typical of the Eastern Tiers, very rocky and forested with White Gum (Eucalyptus viminalis) and Black Peppermint (E. amygdalina) and a sparse under-storey of sedges and hardy herbs and shrubs. Along the Macquarie River other trees and shrubs were found. The following were in flower :- Correa lawrenciana, Banksia marginata, Cyathodes divaricata, Wahlenbergia (2 species), Eriochilus cuculata, Eucalyptus viminalis, Leptospermum sp., Pterostylis (2 species) Other flowering plants identified were:- Bursaria spinosa, Acacia dealbata, A. melanoxylon, Lomatia tinctoria, Drymophila cyanocarpa, Pittosporum bicolor, Billardiera longiflora, Clematis aristata, Prostanthera lasianthos, Epacris impressa, Coprosma hirtella, Lissanthe strigosa, Acrotriche serrulata, Exocarpis sp., Prasophyllum sp., Bedfordia salicina, Veronica sp., Hakea sp., Cyathodes glauca, Coprosma quadrifida, Diplarrhena moraea, Hovea heterophylla, Stylidium sp.

Grasses were collected and we are indebted to Mrs. J. Townrow, of the Botany Department of the University of Tasmania, for identifying them — Festuca rubra (?) Red fescue, Festuca rubra var. commutata? Chewing's fescue, Holcus lanatus Yorkshire fog-grass, Danthonia pilosa (?) Wallaby grass, Agrostis aemula Bent grass, Agrostis tenuis Brown-top Bent grass, Agropyron pectinatum Comb Wheat grass, Agropyron scabrum Wheat grass, Stipa aphylla Speargrass (endemic), Poa australis Silver tussock, Anthoxanthum odoratum Sweet Vernal grass, Pentapogon quadrifidus Five-awn Speargrass, Dichelachne sciurea Plume grass, Microlaena stipoides Weeping grass, Themeda australis Kangaroo grass, Hierochloe fraseri Mountain Holygrass.

A considerable number of Bennett's Wallaby were seen, but only one of the smaller marsupials (identification unknown) was reported by a junior member. The outlet of the Macquarie River from the lake has been dammed to provide additional water storage (the lake is the source of Ross's water supply) and over this dam is a well-worn track, presumably used over a long period by platypuses which are reported to be common in the lake. No nocturnal animals were seen or heard.

Bird species seen during the camp numbered thirtyfour, not a large count but it must be emphasised that there were only two habitats — the forest and the lake. The latter provided very few bird records because it has very little surface vegetation to attract and provide shelter for birds and there are no reedbeds along its shores. The record of the earlier visit to Tooms Lake listed two species of ducks there but none was seen on this occasion. A few Black Swans were present on both visits. Three other species seen on this occasion are interesting ones — a single Hoary-

headed Grebe noted twice in the vicinity of the camp, a few Little Pied Cormorants at the eastern end of the lake, and a White-breasted Sea Eagle which passed overhead on the last morning of the visit. Four Spur-winged Plovers were seen along the shore. Swallows and Tree Martins were absent on this visit but were recorded on the previous one. Amongst the forest birds there were no unexpected records, but it was encouraging to find that the Spotted Quail-thrush or Ground Bird was by no means scarce. Because of its ground-dwelling habit this bird is becoming increasingly rare close to settlement where it can easily fall victim to domestic cats but there is a large area of the Eastern Tiers well suited to it and where it has maintained its numbers. Of the well-known migrants the Black-faced Cuckoo-Shrike was still present in fair numbers and a few Dusky Wood-Swallows were seen by the roadside some miles west of the lake. A pair of Satin Flycatchers was seen at the lake a month before Easter but had left the area before we arrived. The most common birds were the Yellow-throated Honeyeater, Black-headed Honeyeater and Spotted Pardalote. Excluding the Sea Eagle, three species of birds of prey were recorded – three Wedge-tailed Eagles, a Brown Hawk and a Collared Sparrowhawk.

Mr. I. Lea and his sons were responsible for collections of insects, about which there is reference elsewhere in this magazine.

PSEUDOSCORPIONS
by A. J. Dartnall

DURING the Easter Camp two specimens of a pseudoscorpion, Synsphryonus hanseni, were collected at Tooms Lake and brought to the museum for identification.

False or pseudo-scorpions are harmless, look like tiny tailless scorpions and are often less than a quarter of an inch long. There are about 2000 species of them found in wooded regions throughout the world. They are also found in grass tussocks, under rocks and in caves. One of their intriguing habits is that they can run backwards with great rapidity in contrast to their dignified forward movement with claws outstretched. So far we do not know how many kinds of Tasmanian pseudoscorpions there are. Synsphryonus hanseni is probably the species most commonly met. Dr. J. Morris worked on the species, published on account of its taxonomy (Proc. Roy. Soc. Tas. 1947) and recorded the animal from "Hobart and the surrounding parts ....., near Launceston and in the north-west at the Forth Falls near Sheffield." Specimens in the Tasmanian Museum have been taken from Hobart, Wedge Bay, Cascades, Mt. Nelson, Sandy Bay, Risdon and Maria Island. It is obvious that we still have too little information to get a true picture of the distribution of S. hanseni in the State.

Prof. M. Beier of the Natural History Museum, Vienna recently published a paper, with a detailed key, "on the Pseudoscorpionidea of Australia." Only three species were definitely recorded from Tasmania by Prof. Beier and this emphasises the point that there is much to be learnt about pseudoscorpions in Tasmania. Interesting forms of the family Chthoniidae have recently been found in Tasmanian caves and along with an unusual form called Neopseudogarypus scutellatus (Dr. J. Morris. Proc. Roy. Soc. Tas. 1947) these add weight to the evidence for faunistic links with the Americas in ages past.

SAXILAGA CLEAVERI – Of frequent interest to the naturalist are the fresh water fishes of the family Galaxidae. These small fish are abundantly distributed all over Tasmania and can utilise possibly a wider variety of habitats than any other group of fishes known. Of the eleven species found in Tasmania, most prefer the larger inland rivers and lakes. However, others are found in habitats which range from brackish estuaries and mud pools to high alpine lakes and tarns. One such species, Saxilaga cleaveri, appears to be able to live out of water indefinitely. Originally found buried in damp earth far removed from running water the fish remained in a quiescent state until removed to water when it became active and swam about normally. Even when placed in completely dry conditions this fish has been known to survive for up to three days. Only three specimens of this species have ever been found and naturalists finding small fish buried in mud or damp earth will be welcomed at the Tasmanian Museum.

– A. P. Andrews

THE FURNEAUX ISLANDS

by David Milledge

THE Furneaux Island Group, lying off Tasmania's north-east coast, is a place of immense interest to the naturalist. Biologically fascinating, the Islands are also rich in ship-wrecks, remnants of early colonization and the last records of the Tasmanian Aborigine.

I recently spent two months based on Flinders Island and covered most of the area, yet feel that I have only touched the surface of the wealth of material available and waiting for investigation. Of course, work is already being done on some of the faunal aspects of the Islands, for instance the Cape Barren Goose Cereopsis novaehollandiae is under investigation by the Tasmanian Animals and Birds Protection Board and Monash University, while the Mutton-bird Puffinus tenuirostris Research Programme being undertaken by Dr. D. L. Serventy for the C. S. I. R. O. has gained world-wide fame. Mr. Derek Smith of Whitemark has done much collecting of archaeological value and from time to time Mainland universities have made survey expeditions. Ornithologically, Mr. R. H. Green of the Queen Victoria Museum has made several collecting trips to Flinders Island, the results of which are soon to be published in a paper.

To quote Dr. Serventy (1967), "The Bass Strait Islands are the permanent remnants of intermittent land connections between south-eastern Australia (the home of Australia's richest fauna, the Bassian) and Tasmania. The periodic "make and break" connections across Bass Strait have left enticing speciation problems which are still to be unravelled fully" – this is just one of the fields of investigation open but to my mind one of the most interesting. It involves such species as the Tiger Snake Notechis scutatus and Copperhead Denisonia superba both found on Flinders Island but only one or the other on the smaller outlying islands, never together. Why the absence of species common on the Tasmanian mainland from areas of apparently suitable habitat – the Tasmanian Native Hen Tribonyx mortierii, Tasmanian Devil Sarcophilus harrisii, Yellow Wattle-bird Anthochaera paradoxa and Eastern Rosella Platycercus eximus? This absence may be connected with the "double invasion" phenomena, a result of the Pleistocene glacial-melt fluctuations and their effect in the Furneaux Group – the presence of only one of a pair of closely related species such as the Tasmanian Thornbill Acanthiza ewingii of the Tasmanian-Brown Thornbill A. ewingii – A. pusilla pair, the Marsupial Mouse Antechinus swainsonii of the A. swainsonii – A. minimum pair, the Pigmy Possum Cercartetus nanus of the C. nanus – lepida pair, and so on.

Singularly interesting animals are well represented on Flinders and other islands, the Gannet Sula serrator colony at sea level on Cat Island (although unfortunately now almost gone), the Cape Barren Goose whose taxonomic status is still undecided, the Bass Strait Fur Seal Gypsophoea tasmanica making a comeback in the area and the small, silvery Flinders Island Wombat Vombatus ursinus ursinus. A cave fauna is present in the caves found in limestone country the result of consolidated sand dune. Spiders are well represented, there are two Wolf Spiders Lycosa spp. and a multitude of Orb-weavers Argiopidae which construct their strong lines of webs about the east coast lagoons, Barnett's, North and South Chain and Logans.

Other features worthy of note are the huge populations of Bennett's Wallaby Wallabia rufogrisea and Pademclon Thylogale billardierii, the pale coloured Echidnas Tachyglossus setosus, the very beautiful Paper Nautilus Shells washed ashore on the west coasts of islands, the great variety of bird species (I recorded 110 and know of 39 others) and the abundance of marine fish.

Although I do not feel competent to describe the flora in detail, some points are obvious, one being the very interesting occurrence of both the Tasmanian Blue Gum Eucalyptus globulus and Mainland Blue Gum E. bicostata on Flinders Island and the apparent sharp demarcation of their distributions. A little under fifty per cent of Flinders would be used agriculturally and the remainder supports a coastal heath, dominated in parts by the Grass-tree Xanthorrhaea and Eucalypt scrub which occurs on the hills and in a belt down the east coast. There are however wet gullies, particularly in the Strzelecki Range, where 20 to 30 foot tree ferns (both Dicksonia and Cyathea) occur along with rock orchids, Blackwoods and many species of small ferns.

Three-quarters of an hour from Launceston by Fokker Friendship aircraft, the Furneaux Islands are a must for any naturalist's Tasmanian itinerary.

Ref: D. L. Serventy "The Bass Strait Islands" Australian Museum Magazine, Dec. 1967

THE GOLDEN FURRED WATER-RAT
by Jean A. Dartnall

THE Tasmanian Water Rat Hydromys chrysogaster is a beautiful animal. The fur is short but very thick and, in the specimens which I have seen, a deep rich brown on the back and a golden yellow on the belly. The aquatic adaptations of the animal are evident at first sight. The head is flattened with an almost square muzzle, and the ears are very short, combining with the texture of the fur to form a hydrodynamic shape. The tail is strong, presumably used as a rudder, and all the feet are partially webbed. Hydromys chrysogaster is often called the Eastern Water Rat, for, while the first specimens of this species were collected from Bruny and Maria Islands, its distribution extends along the eastern seaboard to North Queensland.

Unusual among Australian native fauna, the water rats are placental mammals. They are classified in the Order Rodentia and in the same family as the more familiar rats and mice. Yet their aquatic habit, large size and fish diet make them distinct from other rats. Much evolution must have taken place since their separation from typical rodent stocks. The genus Hydromys is almost confined to Australia and it seems reasonable to assume that this evolution has occurred on this continent. A problem is immediately apparent; since so much evidence is available from other sources that there was no land bridge by which rodents could have arrived here, how did they come and from where?

One way to tackle this problem is to investigate relationships between the living water rats and other rodents living in Australia and near by countries. I am attempting one small part of this by investigating the chromosomes of these animals and I hope that my results may ultimately shed a little light on the larger problem.

Unfortunately I have had to stop this work temporarily because of interference with traps. While I sympathise with animal lovers who do not like to see animals caught, it seems a pity when they do not stop to consider whether trapping is merely destructive or may perhaps be part of a project seeking to add to our knowledge. A sound conservation policy can only be based on a thorough knowledge of the creatures we wish to conserve.

THE CAPE PORTLAND APPINITE ROCKS. A new suite of rocks for Tasmania has been discovered in the Cape Portland area, N. E. Tasmania through geological mapping conducted jointly by the Tasmanian Department of Mines and the Tasmanian Museum. These rocks form a small intrusive complex with associated swarm of dykes (fissure fillings) and lava flows. The rocks belong to the appinitic suite and may represent a denuded volcanic centre. Their exact age is uncertain but they appear to belong to the later Mesozoic era (70-150 million years ago). Rocks of this age are very rare in Tasmania and are only known elsewhere in an intrusive complex of syenitic rock at Port Cygnet, southern Tasmania, of Cretaceous age (100 million years).

– E. L. Sutherland

NESTING OF DOMINICAN GULL – FIRST TASMANIAN RECORD. Though it is strongly suspected of doing so, there has not, I believe, been an authentic case of Tasmanian nesting of the Kelp or Dominican Gull Larus dominicanus. However, I have recorded one instance of the species nesting in Tasmania. In the course of field work for the C. S. I. R. O., Division of Wildlife Research, on 4 September, 1962, in company with B. C. Mollison observed a pair calling loudly over Curlew Island, Great Taylors Bay, South Bruny. However, I was unable to visit the island as a dinghy was required. In the following year on 24 August, 1963, I visited the island by dinghy and observed a pair of Dominican Gulls at a nest containing two eggs. I have visited this region several times since 1962 and usually sighted Dominican gulls in the area.

– T. O. Wolfe

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