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THE AUGUST SEABIRD WRECK

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In the Royal Australasian Ornithologists Union "Newsletter" for September 1984, Mike Carter gives some details of "An unprecedented invasion and wreck of Blue Petrels, *Halobaena caerulea* and Kerguelen Petrels, *Pterodroma brevirostris*" in Southern Australian waters during the previous month. He does not mention other species.

On 19 August Denis Whitchurch reported (pers. comm.) large numbers of Blue Petrels, Kerguelen Petrels and albatross off the west coast of King Island. In the following three weeks the Queen Victoria Museum received 113 beachwashed birds of 17 species, collected on the shores of King Island by D. Whitchurch, Northern Tasmania by P. Rosevears, R. Walters, P. Atkinson, J. Briggs, G. Briggs, M. Briggs and M. McBain and Eastern Tasmania by P. Duckworth and T. McMannus. All this material has been accessioned into the Museum's research collection as skins (35), skeletons (29), wet specimens (6) and desiccated remains (43).

Table 1 lists all specimens received by the Museum. Collectors reported many more carcasses found but were selective in what they picked up. For example, 84 Little Penguins and 34 Shorttailed Shearwaters *Puffinus tenuirostris* were found near Port Sorell on 2 September but not collected.

One Kerguelen Petrel was found dead about 70km inland, near Longford. One Common Diving-Petrel, found on Waterhouse Beachm, had oiled plumage.

The head and wings of a freshly dead Barn Owl was found beachwashed on Porky Beach, King Island on 19 August. This further supports the suggestion of Green (1981) "of winter dispersal across Bass Strait, following which they were unable to survive".

All birds sent to the Museum from this wreck were "light", lacking the usual fat deposits of healthy seabirds. Some Blue Petrels, Kerguelen Petrels and Great-winged Petrels had squid remains in their guts. Lice were collected from six species.

The gut of a Blue Petrel was found to contain the remains of several beetles. These were determined by Mr. Peter McQuillan, Tasmanian Department of Agriculture, as Red-headed Pasture Cockchafer *Adoryphorus couloni* (fam. Scarabidae). Adults of this insect are very common in northern Tasmania during September when they undertake their mating flights.

Reference:

Green, R.H. 1981. Barn Owl in Tasmania.

Australian Bird Watcher 9 (3), 94-95.

Table 1. Beachwashed birds accessed by the Queen Victoria Museum in August-September 1984.

Common Name	Scientific Name	Number of specimens
Little Penguin	<i>Eudyptula minor</i>	4
Royal Albatross	<i>Diomedea epomophora</i>	1
Shy Albatross	<i>Diomedea cauta</i>	1
Southern Fulmar	<i>Fulmarus glacialis</i>	1
Cape Petrel	<i>Daption capense</i>	2
Great-winged Petrel	<i>Pterodroma macroptera</i>	24
White-headed Petrel	<i>Pterodroma lessonii</i>	2
Kerguelen Petrel	<i>Pterodroma brevirostris</i>	20
Blue Petrel	<i>Halobaena caerulea</i>	29
Lesser Broad-billed Prion	<i>Pachyptila salvini</i>	1
Antarctic Prion	<i>Pachyptila desolata</i>	2
Slender-billed Prion	<i>Pachyptila belcheri</i>	4
Fairy Prion	<i>Pachyptila turtur</i>	12
Common Diving-petrel	<i>Pelecanoides urinatrix</i>	5
Little Pied Cormorant	<i>Phalacrocorax melanoleucos</i>	1
Crested Tern	<i>Sterna bergii</i>	3
Barn Owl	<i>Tyto alba</i>	1

FERNS OF THE DOUGLAS RIVER

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The Douglas River streamside area has a large variety of ferns and related species with a total of 35 species being recorded by the author on the one field trip. The probable reasons for the abundance of species are habitat, geographical location and climate.

Situated on the central east coast approximately 12km north of Bicheno, the Douglas River has its headwaters in the Thompsons Marshes 500m up in the Eastern Tiers. From here it drains in a generally southerly direction for 10km cutting down through the tiers to turn roughly eastwards under Nichols Cap to

flow a further 6km to the sea. The predominate rock type of the tiers is Jurassic dolerite which makes up most of the outcropping and from which the soil is derived. Along the lower reaches, the river has cut into and exposed a considerable depth of underlying strata of sandstone.

Climatically the area is of a mild coastal type, overall with temperature ranges of 21-23°C mean January maxima and 3-5°C mean July minima. The rainfall is moderate being within a range of 600mm to 1200mm per annum. Local climatic effects would occur with average temperatures being cooler and the frost effect more marked on the upper reaches of the river. The streamside vegetation of the lower reaches is dry sclerophyll open forest while with increasing altitude and more sheltered aspects, wet sclerophyll tall open forest occurs with a dense understorey. Rainforest is found in small patches in some very sheltered gullies.

The preceding factors combine to produce a diversity of micro-habitats with characteristic fern species. Within the area visited by the author two separate regions of ferns appear to exist. Below the 200m level on the river, species occur that are virtually confined to the milder east and north coast regions of Tasmania. These species are *Adiantum aethiopicum*, *Lastreopsis shepherdii*, *Blechnum patersonii*, *Doodia* sp., *Cyathea australis*, *Culcita dubia*, *Pteris tremula*, *Cheilanthes tenuifolia*, and *Pellaea falcata*. Above this level species which are more abundant in the colder wetter regions of the island occur such as *Blechnum chambersii* and *Blechnum fluviatile*. *Dicksonia antarctica* and *Polystichum proliferum* become more abundant above the 200 metre level, with the contrasting distributions of the two tree ferns *Dicksonia antarctica* and *Cyathea australis* being most evident. A mixing zone of the two species occurs between 100 and 200m altitude. The mountain-occurring fern *Blechnum penna-marina* is found at intervals along the river and has been recorded as low as 60m altitude (Macphail and Moscal, 1981). This species is thought to be a remnant species from the last ice age, that has survived in the cool moist river environs.

Table 1 lists all of the ferns recorded on one field trip from near sea level to the waterfalls at 400m altitude. Nomenclature follows Jones and Clemesha (1976). In addition to the species listed by the author *Asplenium hookerianum*, *Gleichenia microphylla*, *Hymenophyllum rarum*, *Lindsaea linearis* and *Selaginella uliginosa* were recorded by Duncan (1983). The Douglas River area is proposed as a national park and the diverse and ecologically interesting fern population adds further weight to the case for preservation of this area.

Table 1. List of the species of Pteridophyta recorded from the Douglas River streamside area.

ADIANTACEAE

Adiantum aethiopicum. A colony growing amongst *Lepidosperma* sp. tussocks in open forest near sea level.

ASPLENIACEAE

Asplenium bulbiferum. Scattered plants in rainforest remnants in the upper reaches.

A. flabellifolium. Frequent in cracks and soil on dolerite and sandstone rocks. Also occasionally on understorey trees.

ASPIDACEAE

Lastreopsis shepherdii. Frequent on damp banks beside the river particularly in sheltered situations on the side of Possum and Maysons Creek.

Polystichum proliferum. Ground cover in sheltered forest situations becoming more abundant at higher altitudes.

BLECHNACEAE

Blechnum chambersii. Frequent on wet sandstone rockfaces on Possum and Maysons Creek.

Blechnum fluviatile. Scattered in moist soakage areas by the river on the upper levels.

Blechnum minus. Abundant on all stretches of the river amongst riverbed rocks.

Blechnum nudum. Common along the more open aspects of the river.

Blechnum penna-marina. One plant amongst river rocks near the junction of Possum Creek. Recorded at different levels on the river (Macphail and Moscal, 1981).

Blechnum patersonii. Amongst river rocks up to about the 300m level and much more abundant on wet sandstone on Possum and Maysons Creek.

Blechnum watsii. Frequent along the banks of the upper reaches.

Doodia sp. One colony on a shady bank and a few plants amongst river stones all below 100m altitude.

CYATHEACEAE

Cyathea australis. Frequent along the lower reaches of the river up to the 200m level. One very tall plant of 13m height.

DENNSTAEDTIACEAE

Histiopteris incisa. In damp forested situations.

Hypolepis sp. Frequent in damp forested situations.

Pteridium esculentum. Abundant in more open forest areas.

DICKSONIACEAE

Culcita dubia. A colony in open forest on river flats by the lower reaches.

Dicksonia antarctica. Common above the 200m level.

GLEICHENIACEAE

Gleichenia dicarpa. In a damp soak by the river in an open area.

Sticherus tener. In the same location as *Gleichenia dicarpa*.

GRAMMITIDACEAE

Ctenopteris heterophylla. Frequent on understorey tree trunks in wet sclerophyll by the middle and upper reaches.

Grammitis sp. Occasional on trunks of *Dicksonia* and wet sclerophyll understorey by the upper reaches of the river.

HYMENOPHYLLACEAE

Hymenophyllum cupressiforme. On boulders in sheltered moist situations up to 200m altitude by the river.

Hymenophyllum australe. On mossy rocks in wet sclerophyll forest in the upper reaches.

Hymenophyllum flabellatum. On *Dicksonia* trunks in wet sclerophyll forest by the upper reaches.

Polyphlebium venosum. On *Dicksonia* trunks at Masons Creek.

LYCOPODIACEAE

Lycopodium varium. One plant on dolerite cliffs by the waterfalls.

OSMUNDACEAE

Todea barbara. One small plant amongst river stones near the confluence with Maysons Creek. More common in a side creek on the lower reaches (Moscal, pers. comm.)

PSILOTAECIAE

Tmesipteris billardieri. On *Dicksonia* trunks in remnant rainforest at Maysons Creek.

PTERIDACEAE

Pteris tremula. Scattered amongst rocks on the river up to the 300m level.

SINOPTERIDACEAE

Cheilanthes tenuifolia. Amongst cracks and pockets of soil on sun exposed sandstone slabs in dry sclerophyll by the lower reaches.

Pellaea falcata. Large patches on rocks in underscrub on the middle reaches up to the 200m level.

DAVALLIACEAE

Rumohra adiantiformis. Frequent on rocks and understorey trunks along the upper reaches.

POLYPODIACEAE

Microsorium diversifolium. Common on dolerite rocks and understorey trunks along the upper reaches.

References:

- Duncan, F. 1983. *Plant Communities of The Douglas River Region*. Wildlife Division Technical Report 83/3, National Parks and Wildlife Service, Tasmania.
- Jones, D.L. and Clemesha, S.C. 1976. *Australian Ferns and Fern Allies*. Reed, Sydney.
- Macphail, M.K. and Moscal, A. 1981. *Podocarpus* and other highland plants in eastern Tasmania - relicts from last glacial times? *Pap. Proc. Roy. Soc. Tas.* 115, 1-3.

AN ELEPHANT BEETLE IN TASMANIA

XYLOTRUPES GIDEON (COLEOPTERA : SCARABAEIDAE)

Alison Green

Tasmanian Museum, Hobart

Occasionally a representative of an invertebrate species from the mainland of Australia is found unexpectedly in Tasmania. One such example received by the Tasmanian Museum is an elephant beetle, *Xylotrupes gideon* (Linnaeus).

On the 28th February, 1984, Mr. T. Blackaby found a large, live beetle in his garden in Sedgewick Street, Queenstown, Tasmania. He sent the beetle to Murray High School, Queenstown, where it remained for several weeks. In seeking to identify the specimen the school's Vice-Principal, Mr. T. McGee, contacted the museum. By means of a photograph the insect was identified, tentatively, as an elephant beetle, *Xylotrupes gideon*.

On the 30th April, Mr. Blackaby presented the beetle, still alive, to the Tasmanian Museum. Here it was examined by Dr. G.F. Bornemissza, of the C.S.I.R.O., Hobart, who confirmed its identity as *Xylotrupes gideon*. In Australia this species has been recorded from Darwin, N.T., Clarence River, N.S.W., and

many localities in Queensland (Carne, 1957, p.190). *Xylotrupes* does not occur naturally in Tasmania. However, the way in which our beetle travelled from Queensland (or thereabouts) to Queenstown is not known.

The elephant beetle is a male, 53mm long (cephalic process included) and 27mm wide. Its dorsal surface is glossy and black. There are two large, curved, bifid processes, one on its head and the other on its thorax. (A female elephant beetle does not have these processes.)

During its stay in Murray High School the beetle was cared for by the school's Laboratory Technician, Mrs. Kerri Friberg. She fed it on fruit:- pear, nectarine and banana, especially the last of these. It would also eat apple but it preferred a softer fruit. It was not interested in lettuce or sliced carrot.

While alive in the Tasmanian Museum our specimen was fed on sliced banana, as recommended by Dr. Bornemissza. Damp paper tissues provided a source of moisture.

The exotic beetle was placed on display in the museum for a fortnight, much to the interest of visitors. It died, of natural causes, on the 2nd June, 1984, and is now in the Tasmanian Museum's reference collection.

Thanks are due to Miss Barbara Wilson, who provided the photograph which illustrates this article, to Dr. G.F. Bornemissza for his identification and advice, to Mrs. Kerri Friberg for her information about the beetle's diet, and to Mr. T. Blackaby for his unusual gift to the Tasmanian Museum.

Reference:

Carne, P.B. 1957. Systematic revision of the Australian Dynastinae (Coleoptera : Scarabaeoidea). 284 pp. C.S.I.R.O., Melbourne.



BOOK REVIEW**Mammal Tracks and Signs - A fieldguide for South-eastern Australia**

by Barbara Triggs. Published by Oxford University Press, Melbourne, 1984, 193 pp.

Hardback \$25.00 (ISBN 0 19 554430 7); paperback \$12.99 (ISBN 0 19 554429 3).

Reviewed by R.W.G. White

This compact field guide provides useful information on the native and introduced mammals found in Victoria, New South Wales and Tasmania as well as the far south-eastern corners of South Australia and Queensland.

For each species details are given of those signs of an animal a person might find without actually seeing the live animal. These are the tracks, scats, hairs, skulls and nests. Apart from the odd possum or wallaby spotted in the car headlights or a bandicoot in the potato patch, many of us rarely see a mammal outside of a wildlife park. However, we often come across tracks in sand or fresh snow, a scat near the campsite or a cleaned skull in the bush. Using Barbara Triggs' guide it should now be possible to interpret these 'signs', with various levels of confidence, and identify which mammals occur within a particular area.

After a brief introduction there is a useful chapter entitled 'How to Use this Book'. Unless you are already very able at interpreting tracks, identifying scats and naming skulls, this chapter is essential reading. Not only does this chapter carefully explain the ways of getting the best out of the book, it also gives some useful biological background data. The one aspect which I would have liked to have seen stressed more clearly is the problem of comparing the rather poorly defined footprint one might find in the bush with the very clear impressions which were the basis for the illustrations in the book. The footprints shown in this handbook were obtained by dipping the foot of a restrained animal into food dye and then carefully applying a print to paper. Presumably, this technique was repeated until a 'perfect' print was obtained. Rarely, if ever, are such clearly defined prints seen in the environment. One has only to recall the controversy arising from the publication of a photograph of presumed thylacine footprints in snow on the front-page of 'The Mercury' in the winter of 1984 to appreciate the difficulties which even experts can experience in positively identifying the tracks of some animals.

The main part of the text is made up of a series of accounts of the groups of Australian animals, native and introduced, which occur in the area covered by the fieldguide. The accounts are of standard format with a silhouette sketch of the animal, a map of its distribution within the south-eastern Australian region, drawings of the footprints and track patterns and a written description of the tracks and scats. These latter accounts also contain an amount of general biological information on the animal. For those animals which use or construct a shelter or nest, these are also described. For each major group, e.g. possums or kangaroos, a drawing is given of a representative skull.

Towards the centre of the book there is a key, based on colour paintings, to the scats of the animals. This is generally useful but it must be remembered

that typical scats are illustrated and there exists an amount of variation within any one species.

The book concludes with a useful bibliography to the general literature on Australian mammals and illustrated summary guides to the nests and skulls of the animals treated in the fieldguide.

The book is produced in the A5 format and so fits easily into a day-pack or large pocket. At \$12.99, the paperback edition represents a well priced and useful addition to the fairly limited popular literature on Australian mammals.

MORE ON THE WANDERING ALBATROSS

(Editor's note: Some illustrations of the Wandering Albatross by Alison White appeared in the Tasmanian Naturalist No. 80. Fig. 1 shows another illustration by the same artist.)

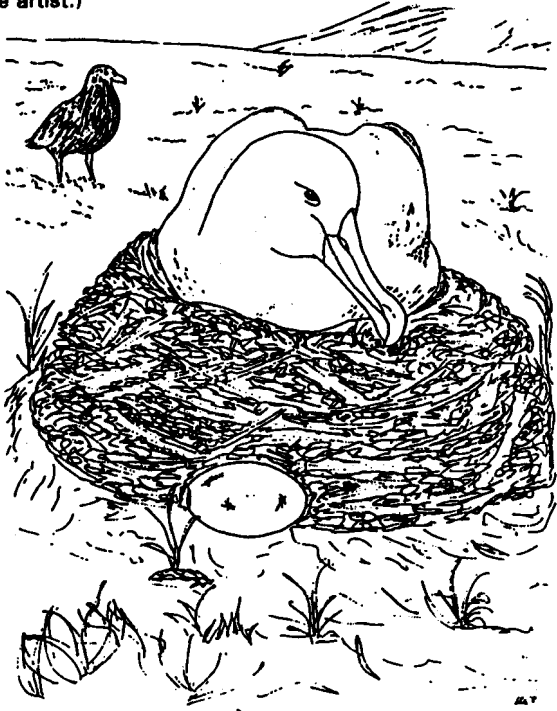


Figure 1. An ever-present, relentless skua waits patiently for an egg to be left unprotected. This male and his mate incubated an artificial experimental egg made by Nigel Brothers.