

out of the water and cross the road rather than go through the culvert. This certainly cannot be due to a dislike for confined spaces, as they use small channels and pipes at Salmon Ponds, or because they avoid dark places, as they are regularly seen in cave systems (Stefen Eberhard, pers. comm.). They may have some sort of dislike of concrete. However, it is possible that increased speed of stream flow at constricted culverts may deter platypus from entering.

The culvert at which we found the most recent road kill, on the Deloraine bypass, was large and three-quarters full of water. The platypus could easily have swum through. The stream appeared to be slow flowing and did not seem to increase in velocity through the culvert.

Reactions of platypus to road culverts thus remain somewhat of a mystery and further investigation of this matter is warranted.

TASMANIAN FIELD NATURALISTS MAMMAL SURVEY GROUP

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INTRODUCTION

The Tasmanian Field Naturalists' Club has recently formed a Mammal Survey Group. This group intends holding monthly excursions as well as encouraging the systematic recording of information gathered from all available sources. Details of activities will appear in the Club's Bulletin and the results published. Similar mammal survey groups have been established in other states for some decades.

The major activity of the mammal survey group on outings will be overnight studies of a nocturnal mammal fauna. Follow-up field studies in the local habitat examining other animals and plants will be encouraged.

OBJECTIVES

The principal aim of mammal survey is the study of faunal distribution. This applies both on a broad scale and locally between different habitats. Additionally a range of ancillary information may be collected in the survey process. For example, careful observation over a period of time may reveal interesting behaviour patterns and repeated surveys in an area may provide an indication of relative abundance and seasonal activity patterns. Other information may be

obtained including factors such as reproductive rate and timing which might in turn determine the ability of populations to recover from bushfires.

Tasmania's mammal species have held up remarkably well since European settlement. Only the thylacine has become extinct in Tasmania. Extinction rates and range reductions of mammals in mainland Australia have been much worse. Despite this there is no room for complacency as the rate of habitat change is still very high and several species have inadequate areas of reserved habitat, for example the eastern bettong.

The conservation of our natural heritage includes a requirement for habitat reservation for our native mammals. Mammal survey work can provide data to aid the identification of habitats occupied by various populations of species.

CAPTURE/RELEASE SURVEY TECHNIQUES

Techniques used during a survey should not harm animals, and should minimise any discomfort imposed. Handling of fauna will be restricted to experienced persons who hold relevant permits. This usually involves trapping animals in cages for a short period before examination and release.

Traps for live animals are available in several sizes. The smallest traps are suitable for mice while larger traps will cope with possums. The traps are usually baited. Peanut butter based baits work well for most small animals while meat or fish attracts medium-sized carnivores. Pitfall traps are also used, often in conjunction with a temporary fence to guide animals to the pit. While they need to be carefully designed they can be useful in suitable conditions for species which do not readily enter cages. Another method is the provision of nest or refuge sites from which animals may freely come and go. Nest boxes are well known for birds but many mammals will also use them. As well as physical boxes such things as suspended Hessian bags, for example, may be colonised by pygmy possums. These sites may be visited later in order to observe or examine the occupants.

DIRECT OBSERVATION TECHNIQUES

Larger mammals, such as wallabies and kangaroos, are easily observed by chance. Smaller mammals require more careful observation. For example, at dusk emerging nocturnal species may be observed in silhouette. By regularly visiting habitats under a range of conditions a careful observer may gain insights not apparent on more casual inspection. One example is platypus observation where patient inspection of quiet pools will often reveal animals in their characteristic feeding dive around dusk and dawn. Basking animals may also be seen under suitable conditions.

Road kills are perhaps the easiest way that wildlife may be seen in Tasmania.

While deaths in this way are unfortunate it at least indicates that there is a population of animals surviving in surrounding areas. Careful recording of details of road killed animals has revealed significant new information about species, and may indicate areas to survey further by other means.

Spotlight observation primarily relies on the reflection of light from nocturnal animals eyes. Good binoculars are important, as are warm clothes and plenty of patience.

Likely animal refuges may often yield useful observations. Common refuges include tree hollows and crevices under bark which are often used by arboreal animals and bats. Hollows are often surrounded by scratchings of animals using or exploring them. These usually seem subject to intense competition for occupation, with users often preferring a size in close proportion to their own body.

TRACKS AND SIGNS RECORDING

Tracks and signs often provide an preliminary indication of which species are present in an area. Tracks are usually footprints while signs may be a range of indirect indications of a species presence. Scats, bones, foraging signs such as diggings, burrows and hair samples are all examples of mammal signs. Sometimes these are clear and almost unmistakable, others are subtle and accurate interpretation relies on experience and deduction.

BOOK REVIEWS

Threatened Birds of Australia

edited by Joost Brouwer and Stephen Garnett

Royal Australian Ornithological Union and Australian National Parks
and Wildlife Service, RRP \$13.95

Reviewed by L.E.Wall

This is an annotated check list prepared at the request of the Royal Australian Ornithological Union and the Australian National Parks and Wildlife Service. It is proposed to produce an amended list as soon as possible and include sub-species where applicable.

As this publication is a collection of species-status estimates, a selection of abbreviated Tasmanian examples is presented in table 1 rather than a