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OBSERVATIONS ON PLATYPUS

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The Inland Fisheries Commission operates a trout hatchery at Salmon Ponds adjacent to the Plenty River in the Derwent Valley. A series of wide cement lined channels run through the two large ponds where fish are kept for public display. These ponds are joined by a cement culvert approximately 50 cm in diameter and blocked at both ends by a metal grid. The channels also have metal grids across them at intervals separating them into different sections. A series of troughs are also present, separate from the channels, for raising fry. The drainage pipes from these run into a small channel which flows into the river but is filtered by a fine screen.

Greg French, a former employee at Salmon Ponds, estimates there are four pairs of platypus in the 450m section of the Plenty River adjacent to the trout hatchery. Platypus are regularly seen in the ponds and channels of the hatchery. There are distinct runways which the platypus use to come out of the river. They then go through holes in chicken wire netting inside a hawthorn hedge which runs alongside the river for much of the length of the hatchery complex. Platypus have been captured by officers of the Department of Parks, Wildlife and Heritage by simply placing treadle-activated cage traps, without bait, on the runways. With 10 traps two platypus can usually be caught in a night.

Staff regularly see platypus walk across the lawns and enter the ponds and channels during the day. Platypus have to come out of the channels to get around the grids and obvious wear marks are present at these places. These are particularly obvious where the main pond enters the culvert. At these exit points faeces can often be found, being flatish with a black waxy, plastic appearance.

On one occasion at 8.00 a.m., a platypus was observed coming out of the main pond next to the culvert and was followed across a gravel driveway alongside a building. It then entered the other pond and went into the channel getting out of the water, onto the bank and re-entering the water to get around each metal grid.

The channels have a cement bottom but a lot of debris has built up in them. Staff consider that the platypus feed on oligochaete tubifex worms which can be extremely abundant in the channels and ponds. Normally, the small channel which drains the dry troughs needs to be cleaned regularly. However, when platypus are present in this channel cleaning has been found not to be necessary. A platypus was once disturbed in this small channel and it sought refuge in an outlet pipe which consisted of a six inch diameter pipe with a two inch pipe within it. The platypus squeezed between the two pipes.

Platypus have also been observed in other areas moving between water bodies. Graham Sargison (Forestry Commission) reports seeing platypus on the road on the steep slope above the Tarraleah Power Station. There are also reports of platypus sliding across the snow at Ben Lomond and tracks can sometimes be found crossing between tarns here and at Mt Field. Ron Mawbey (University of Tasmania) has found a dead platypus beside a tarn at Mt Field and it appeared to have been fed upon by an eagle (probably *Aquila audax*). Andrew Sanger (Inland Fisheries Commission) has seen a platypus at Carters Lake on the Central Plateau come out of the water onto a small grassy island and re-enter the water about a minute later on the other side of the island.

In the river opposite the ponds at Salmon Ponds an old burrow and a burrow with recent diggings were located in a high bank about one metre above the water. Hawthorn occur here providing cover above the burrow entrance. There is a layer of rocky material in the lower layer of the soil extending down beneath the water level. The burrows were present in the upper layers of soil where no rock was present, about 40cm below the top of the bank. The burrows are an oval shape which mirrors the body outline of platypus.

Two decayed platypus carcasses were once found at Salmon Ponds in a four inch PVC outlet pipe which ran from a pond to the creek. A valve was present across the pipe at the channel end and at the creek outlet the pipe was overgrown by willow roots. It is presumed that the two animals squeezed into the pipe at the outlet but could not get out again due to the root blockage and their inability to turn around in the narrow pipe.

It is interesting to note that platypus at Salmon Ponds utilize channels made of concrete, even, according to staff, at times when little debris is present. We have found about six platypus killed on roads above concrete culverts at various locations around Tasmania. The platypus in these cases appear to prefer to get

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