

## Predation of House Mice by the Tawny Frogmouth *Podargus strigoides*

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The diet of the Tawny Frogmouth *Podargus strigoides* appears to be well known, with the majority of food taken from the ground (Serventy 1936). Terrestrial invertebrates supplemented with frogs and the occasional rodent constitute the majority of food items found in stomachs (Schodde & Mason 1980, Hollands 1991, Higgins 1999).

For various reasons House Mice *Mus domesticus* appear to be a minor component of the diet. Although live mice are readily taken when fed to captive birds (Fleay 1925, Coleman 1946), there is no description of how this is done. Dead mice are also readily taken if suspended above the bird but not if lying immobile on the cage floor.

Vestjens (1973) examined an unknown number of Tawny Frogmouth stomachs collected during a mouse plague and found that the birds had fed on mice only. Rose & Eldridge (1997) suggested that the foraging behaviour of the Frogmouth deserves study. As observations of predation events by many species are rare, they are worth noting when they are seen.

During a survey for owls at Lake Burrendong (32°42'S, 149°10'E) we observed one such predation event. At 2330 h on 3 February 2000, as we came over a wooded rise, a Tawny Frogmouth took off from a perch about 8 m above the ground in a tree. The bird flew with a few wing-flaps, glided for about 100 m down a slope through a clearing and went to the ground, disappearing into dense thistles 1 m high. We stopped near where the Frogmouth had landed and searched the area with a spotlight. About one minute later the Frogmouth took to the air and landed on a branch in a nearby dead tree. With a pumping head movement, its bill pointing skywards, and occasional shaking of its body to settle ruffled feathers, the Frogmouth slowly swallowed a mouse, the tail of which was particularly obvious as it slowly disappeared from view. Two minutes later, and with a final ruffling of feathers, the bird took flight and disappeared.

A study, using Elliott traps to estimate abundance, indicated that House Mouse numbers at the time and within a similar habitat were about 27 per 100 trap nights over 0.25 ha, a density regarded as high for the area.

Whether the Frogmouth had located the mouse from a perch 100 m away or whether the mouse was located as the bird flew over the thistle-patch is unknown. However, this successful predation event on a dark night with no moon required skill and experience. The Frogmouth's small and weak feet appear to be functionally inadequate to capture a live mouse; the mouse might have been captured with the bill as the Frogmouth plunged headlong into the thistle-patch, a most unusual way for birds to capture live prey. It is interesting to speculate whether the prey was seen or heard. The Tawny Frogmouth responds little to sounds of squeaks or the rustling of leaves caused by mice (Swanson & Sanderson 1999), yet, if the mouse had been seen, rather than heard, by the Frogmouth here, this was from approximately 100 m on a dark night and in a dense thistle-patch.

This observation suggests that Tawny Frogmouths are capable of taking mice despite their unusual foot and beak structure. The majority of Frogmouth stomach contents examined to date have been from road-kills and, although difficult to

assess from the literature, many of these kills may have been from areas that did not favour mice (for example, where Frogmouths were hunting insects under street-lights). Because of the small number of stomach contents examined and possible biases in the material, the importance of mice in the diet of the Tawny Frogmouth may be underestimated.

## References

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