



Breeding the Eastern Whipbird at Melbourne Zoo

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Taken from repeated failures to successful breeding, the Curator of Birds tells how intelligent observation of the Whipbirds led Melbourne Zoo to a population of Whipbirds from just one pair.

Introduction

The Eastern Whipbird *Psophodes olivaceus* inhabits the forests of eastern Australia from northern Queensland south to about Melbourne. Both eucalypt forest and rainforest are occupied, with damp gullies and other densely vegetated areas being favoured habitat. The species will also occupy heath and thickets of the introduced lantana and blackberry (Blakers et al, 1984).

The Eastern Whipbird's loud whip-crack is a familiar bush sound, but because of the bird's secretive behaviour it is rarely seen. The distinctive call is produced by the male and is usually followed immediately by a double chirrup from his mate.

The diet consists of insects and other invertebrates (Macdonald 1973, Schodde and Tidemann 1986) but experience with captive birds suggests that nestling birds and small lizards and frogs may be taken opportunistically.

Captive Management

Between 1978 and 1980, the Melbourne Zoo obtained several Eastern Whipbirds as part of the stocking programme for the Great Flight Aviary, a large walk through exhibit extensively planted with native trees, shrubs and ground covers. Two of the birds, obtained as adults of unknown age at that time, are still in the collection and breeding at the time of writing.

The Great Flight Aviary contains numerous bird species some of which are potential nest predators, and following several failed nesting attempts by Whipbirds, a pair of the birds was relocated to a 7m² planted aviary in the hope of successful breeding.

Our Whipbirds are fed on a diet of bird cake, a meat mixture and some live insects, usually meal worms and housefly pupae. In addition they undoubtedly find insects and spiders in the enthusiastic foraging in the leaf-litter and vegetation of the exhibit. They shared the aviary with a number of other birds, none of which posed a threat to nesting Whipbirds. However, we have since discovered that birds below a certain size, such as finches and wrens, may be killed by Whipbirds. They are highly territorial and only one adult pair should be kept in an aviary.

The sexes are identical in colour and markings, but males are slightly larger than females. The best indication of sex is the call. Whipbirds have a weak flight and spend much time on the ground, where they hop with speed and agility. They forage actively, turning over bark and leaf litter in search of insects, and prefer to remain close to cover.



A pair of Eastern Whipbirds, male is at the top.
Whipbirds are skulkers in the undergrowth and very difficult to observe.

Breeding

In July 1981, the female Whipbird was discovered brooding two eggs in a nest of twigs in a bamboo clump. She was fed by her mate, who did none of the incubating. The eggs hatched but the nestlings didn't survive. Despite offering the parents a range of different diets this disappointing result was repeated in subsequent breeding seasons and no young were fledged.

In 1986 the Whipbird pair was moved to a larger aviary measuring approximately 30 x 10m and containing abundant vegetation. They nested and on 8/12/1986 a single chick was successfully fledged. It may be no coincidence that at the time this young bird was being raised large numbers of moths were in evidence in the zoo grounds and many of these probably fell prey to the Whipbirds. This fledgling did not survive to maturity, but we were encouraged to increase our efforts to successfully breed the species.

It is probably a common assumption that, if captive birds are being maintained in healthy condition and indicating a willingness to breed, then their diet is adequate for successful reproduction. This has proven to be a false assumption in the case of our Whipbirds. Our first successful fledgling occurred in a year when insects (moths) were unusually abundant, which led us to suspect that a deficiency in suitable live food was the cause of our failures, despite the provision of what we had considered to be adequate amounts of fly pupae and mealworms daily.

Having arrived at this conclusion we started paying greater attention to the types of insect preferred by our Whipbirds. We found that housefly pupae, maggots and grasshoppers, although eaten, were much less popular than mealworms and crickets, and were rarely given to the young. We therefore expanded our cricket breeding programme and ensured that plenty of mealworms were available when the Whipbirds were breeding.

A careful check was kept on the nesting birds so that suitable live food could be provided as soon as the eggs hatched. Initially this was offered in a dish or scattered upon the ground so that the Whipbirds could forage for it in the substrate and in December 1987 a chick was fledged and subsequently raised to maturity.

The following year breeding was unsuccessful and in 1989 the breeding male died. He was replaced with a male transferred from the Great Flight Aviary. Breeding soon resumed and in early 1990 a young bird was raised to maturity.

Although successful, our feeding methods were extremely wasteful, with much of our precious insect food finishing up in the gizzards of numerous crested pigeons and other non-target birds. This not only cost us dearly in mealworms, but it was difficult to ensure that the Whipbirds got their share, necessitating numerous feeds daily. Obviously a strategy was needed which would give the Whipbirds an advantage over their competitors.

From our knowledge of Whipbird behaviour, a simple solution was devised. A 10 litre bucket was placed in an unobtrusive location in the aviary. In it mealworms and crickets were provided twice daily, buried in several centimetres of leaf litter. Because Whipbirds are curious and love to dig in leaf litter they quickly found the live food whereas the pigeons never have.

Life Span:

Whipbirds appear to be long-lived. Two birds which arrived as adults of unknown age have been in the collection for over twelve years and are still breeding.

Breeding Age:

We have recorded a female laying eggs at eight months of age and before acquiring adult plumage.

Clutch Size:

Two - the eggs are pale grey or blue with dark speckles mostly at the wide end.

Incubation:

Eggs are incubated by the female and hatch in 17 or 18 days.

Development:

Neonates (new born) are covered in black down. They fledge at 10 or 12 days, by which time they have blackish dark olive brown plumage without the white tail tips and cheek patches of adults. At fledging they cannot fly and hide in ground vegetation. Cold, wet weather can be fatal at this stage and often only one chick survives. They start to follow their parents at about 18 days and at around two months of age, start feeding themselves. The moult into adult plumage may start at about five months, but in the case of a female which bred whilst in juvenile plumage the moult was delayed until the 16th month.

We were now able to provide the Whipbirds with all the insects they needed and as a result a succession of young birds has been raised. Two of the first of these, both females were removed from their natal aviary to another enclosure. Here they subsequently built a nest and each laid two (infertile) eggs. Both these females were in juvenile plumage at the time. One of them was later sent to Adelaide Zoo in exchange for an unrelated male to pair with the remaining female. This new pair soon nested and have been breeding ever since.

In July 1992 it was necessary to move this pair to another aviary. After the move a nest was discovered in the vacated aviary containing two eggs, one of which proved to be fertile. This egg was artificially incubated and on 5/08/1992 a tiny Whipbird hatched. It was fed at frequent intervals on crickets and mealworms and successfully raised. This will be the subject of a future article.

References:

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