

LORIKEETS AND THE FLOWERING OF EUCALYPTS

by J. B. CLELAND

A Purple-Crowned Lorikeet (*Glossopsitta porphyrocephala*), evidently disturbed and killed by a passing motor car as it fed on the wayside flowers of *Eucalyptus baxteri* on the Waitpinga Road at Encounter Bay had an empty stomach but nectar around its bill (I tasted it). This raised two questions. One is, to what extent are this species and its allies dependent on flowering eucalypts for their food supply? The other is, what other sources of food have they? Do they, when one species of eucalypt finishes flowering, then fly, perhaps over long distances, to find another species blooming? Throughout the year is there always, somewhere in their habitat, some species of eucalypt in flower?

I have made desultory notes on eucalypts in flower over many years but the matter should be gone into much more fully. Like the gendarmes (if one laughed, they all did), when one tree of a species is seen to be flowering, will all the other trees of that species also be found doing so? Is a tree that is not in flower at that time probably of another species? My notes show eucalypts in flower somewhere for most of the year. There are eleven species of eucalypts in the Mt. Lofty Ranges. Two of these, *Euc. leucoxylon* (South Australian Blue Gum) and *Euc. fasciculosa* (Pink Gum) may be found in flower during each month of the year. This does not mean, of course, that such will be the case every year, or even often. *Euc. cosmophylla* (Cup Gum) has been found in flower in eight of the twelve months; and *Euc. viminalis* (Manna Gum), *Euc. diversifolia*; and *Euc. odorata* (South Australian Peppermint Gum) in six of the twelve months. *Euc. camaldulensis* (Murray River Red Gum) has been seen in flower from November 17 to April 8 but chiefly in December and January. Only three species were seen in flower in August and in September, and four in June. It thus seems probable that in the Adelaide District (with its Mt. Lofty Ranges) some species of Eucalypts will always be in flower. The

species of Eucalypts in the mallee lands are quite different, but my notes are too fragmentary to indicate the frequency of flowering.

Lorikeets also feed on other blossoms. I was interested to observe, in the Spring of 1966, various lorikeets feeding on almond blossom, and I have been reliably informed that they were also observed that year feeding on bottlebrush (*Callistemon sp.*) blossoms. Moreover, in 1968, my daughter (Mrs. Joan Paton), on July 15, saw a Purple-crowned Lorikeet feeding on the flowers of Flame Heath (*Astroloma conostephioides*) near Athelstone and the Torrens Gorge. This shrub was only about a foot high, and both *Euc. leucoxylon* and *Euc. fasciculosa* were in flower nearby.

The next question to be considered is, where do the Lorikeets get their nitrogen from, so necessary for tissue building? Honey is all right for energy but has no nitrogen. Do the lorikeets get the nitrogen from the pollen or from insects that are met with on gum blossom? I have never seen Purple-crowned, Musk, or Rainbow Lorikeets on the ground. They must get the necessary food in the trees. They cannot catch insects on the wing. Swift Parrots may feed on pears, and Rainbow Lorikeets on fruits, but these are only available over a short period of the year. It is therefore interesting to read that Lendon (*Australian Parrots in Captivity* 1951) has stated that the Rainbow Lorikeet can thrive on seeds alone in captivity, and H. L. Bell (*The Emu*, 66, 1966, page 71) has described this species tearing open ripening *Casuarina* fruits to consume their seeds, near Port Moresby, Papua.

In my own records of the stomach contents of lorikeets I find the following:—

Glossopsitta porphyrocephala, Mt. Lofty Range, May, 1910—Several stamens of *Eucalyptus cosmophylla*, and masses of pollen of this species, which was in bloom at the time (*The Emu*, 11, 1912, p. 81).

Mrs. P. Thomas, who has been examining the bodies of birds for parasites and has fortunately also made notes of the stomach contents, has kindly given me the following notes:—

GLOSSOPSITTA CONCINNA.

- (1) South-East—gizzard contained grubs and insects (adults);
- (2) South-East—gizzard contained grubs and insects;
- (3) South-East—gizzard contained grubs;
- (4) Adelaide—gizzard contained grubs, adult insects.

GLOSSOPSITTA PORPHYROCEPHALA

- (1) Bluett Springs—very little in gizzard, fine debris probably vegetable.

TRICHOGLOSSUS HAEMATODUS.

- (1) Northern Territory (probably Rum Jungle or Coomalie Creek)—seeds and vegetable pieces;
- (2) Northern Territory (probably Rum Jungle or Coomalie Creek)—seeds, caterpillars, veg. bits.
- (3) Northern Territory (probably Rum Jungle or Coomalie Creek)—seeds, vegetable pieces.