Crimson Finches feeding repeatedly on nectar

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Abstract

The Crimson Finch (Neochmia phaeton) eats mainly seeds of grasses and forbs and some insects and other arthropods. Here, we report repeated foraging by a flock of these finches on nectar obtained from Desert Bloodwood (Corymbia terminalis) flowers, with observations over four days in Boodjamulla National Park, and provide links to videos of them doing so.

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The Crimson Finch (*Neochmia phaeton*) is a small granivore of riparian areas in northern Australia. It usually feeds on seeds of grasses and forbs but sometimes also insects and other invertebrates (Immelmann 1982; Todd *et al.* 2003; Higgins *et al.* 2006) and there is one report of them visiting flowers to consume nectar (Simon Stirrat in Franklin 1999). Seed is frequently obtained from standing plants but may also be obtained from the

ground, whilst insectivory can include aerial foraging. Here, we report repeated nectarivory by a flock of Crimson Finches observed by PDG over four days (1 to 4 July 2017) in a single specimen of Desert Bloodwood (*Corymbia terminalis*) in the Lawn Hill Gorge campground (18°42'S, 138°29'E) in Boodjamulla (Lawn Hill) National Park, Queensland (Fig. 1).



Figure 1. Male Crimson Finch with head deep in flower of Desert Bloodwood.
Photo: Patrick De Geest.

The first observation was late in the afternoon of July 1, when a flock of about 12 Crimson Finches, comprising adults of both sexes and immature birds, were noted visiting the bloodwood flowers in apparent nectarivory. On July 2, the tree was monitored from 7AM until midday. The finches arrived at 7.30AM and fed intermittently over the next 40 minutes. The flock returned to the bloodwood at 9.30AM and remained in or near it for about 20 minutes, then for eight minutes from 10.17AM and ten minutes from 11.15AM. A similar pattern was observed on July 3 and 4 though observation was not as intense. On all occasions the flock comprised about 12 birds and a mix of adults and immatures of both sexes, so is assumed to have been the same group of finches. Observations were made by PDG using binoculars while sitting quietly at a camping spot about 15 m from the tree, and filmed using a DSLR camera with a 150 to 600 mm zoom lens. The birds were seemingly never disturbed by the observer.

The Crimson Finches were never seen to hold their beaks in the flowers for more than 2 seconds, and probed flowers with their beak apparently closed (Videos 1, 2). When they removed their beak they were seen to swallow, and sometimes they also made made a 'nibbling' movement with their beaks (Video 3) perhaps to both swallow and clean their beak. They moved rapidly from flower cluster to cluster and from flower to flower on each cluster they visited, almost honeyeater-like.

The flock did not stay in the tree for longer than 10 minutes, and at no point was the whole flock in the tree. Some birds flew to the tree to feed and others followed one by one until an alarm call by another species or Crimson Finch was heard, upon which they flew down to the shrubbery near the tree. When present but not feeding in the tree, the finches roosted in the nearby shrubs, preening or sitting quietly. They were not observed at this site seeking seeds either on the ground or standing plants.

Other birds that frequented the flowers of this Desert Bloodwood were: White-gaped Honeyeater (Stomiopera unicolor), Brown Honeyeater (Lichmera indistincta), Rufous-throated Honeyeater (Conopophila rufogularis) and Banded Honeyeater (Cissomela pectoralis).

The detail of observation and video photography in this case leaves no doubt the Crimson Finches were obtaining nectar, and not pollen or insects, from eucalypt flowers. They were clearly and consistently probing the floral tube, not the anthers, and not obtaining insects that would have required a them to open their beak at times. The one previous record of Crimson Finches engaging in apparent nectarivory (Simon Stirrat in Franklin 1999) was from the flowers of Darwin Stringybark (Eucalyptus tetrodonta) in Kakadu National Park in the Northern Territory on 15 July 1995 (DCF unpublished data), but no further details are available. The only other records of an Australian finch visiting flowers in apparent nectarivory are three observations of the Double-barred Finch (Taeniopygia bichenovii) doing so (Franklin 1999); these were at the flowers of Fern-leaved Grevillea (Grevillea pteridifolia) (DCF unpublished data), a species that - unusually for a Grevillea - bears its nectar in an open cup. The short, conical bills of finches are ill-adapted to probing flowers but all the above records involve open cup flowers. Desert Bloodwood is well-documented as a nectar source favoured by honeyeaters, lorikeets and other more-opportunistically nectarivorous birds (as C. opaca in Franklin 1999; Franklin & Noske 2000).

In that the observations of nectarivory by Crimson Finches documented in this paper took place in July, they are consistent with the pattern that opportunistic nectarivory by birds in northern Australia is a feature of the tropical dry season (Franklin 1999). This, Franklin noted, coincides with a time of widespread abundance of nectar in north Australian woodlands (Woinarski *et al.* 2000) and scarcity of many other food sources. It is unclear whether the Crimson Finches at Boodjamulla were facilitated by an abundance of nectar rendering a food source to which they are ill-adapted energetically viable for them to harvest, or to scarcity of their normal food – or both.

Video 1 Crimson Finch nectarivory. Adult male Crimson Finch feeding at the flowers of Desert Bloodwood, Boodjamulla National Park, July 2017. https://vimeo.com/249200347

Video 2 Crimson Finch nectarivory. Female and immature male Crimson Finches feeding at the flowers of Desert Bloodwood, Boodjamulla National Park, July 2017. https://vimeo.com/249200763

Video 3 Crimson Finch nectarivory. Crimson Finch 'nibbling' after withdrawing its beak from a flower of the Desert Bloodwood, Boodjamulla National Park, July 2017. https://vimeo.com/249201032

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