Finger Lickin' Good: Observation of a Little Red Flying-fox (*Pteropus scapulatus*) on a camera trap baited with KFC

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Abstract

A Little Red Flying-fox (*Pteropus scapulatus*) was captured on a camera trap, baited with KFC chicken nuggets at Mount Lewis National Park, north Queensland. While it cannot be determined if the flying-fox was attracted to the bait, this observation presents a behaviour undocumented in megabats.

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Introduction

The Little Red Flying-fox (*Pteropus scapulatus*) is the most widely distributed flying-fox in Australia. It occurs across Australia, from Shark Bay in Western Australia to northern Victoria, with occasional records from South Australia. They inhabit a broad range of environments from tropical and temperate to semiarid (Churchill 2008). The species are highly nomadic, with their movements being strongly associated with the availability of flowers, most typically eucalypt species (Birt 2005; Van Dyck & Strahan 2008). Although they are considered nectarivorous, they have also been documented to eat fruit, leaves, sap (Van Dyck & Strahan 2008; De Geest & Gillanders 2021) and lerps (Law & Lean 1992), the sugary excrement of psyllid invertebrates.

During a targeted research project for Feral Cats (*Felis catus*) at Mount Lewis National Park, north Queensland, a male Little Red Flying-fox was captured on a camera trap. The camera trap (Reconyx PC800 Hyperfire Professional IR) was deployed on the 28th April 2020, positioned at a height of 30 cm on a tree with a bait station 120 cm away. The bait station consisted of a PVC bait container with a wire-mesh ventilated end cap. It was attached to a short fence dropper which was secured in the ground and baited with two commercially obtained 'Kentucky Fried Chicken' (KFC) chicken nuggets. A KFC lure was selected based on previous Australian Wildlife Conservancy surveys in the area, that showed it to be the most effective lure for Feral Cats. While there are no published data, anecdotal information suggests it is used quite widely, due to its scent and durability in the field.

The camera trap was located in an area of dry sclerophyll forest, classified under the Queensland Government vegetation mapping scheme as regional ecosystem 7.12.30 'Lemon-scented gum *Corymbia citriodora*, White Mahogany *Eucalyptus portuensis* woodland to open forest on granite and rhyolite' (Queensland Government 2021b). At the time the camera trap was deployed and collected it was observed that an aggregation of Little Red Flying-foxes was feeding on flowering eucalypt (Narrow-leaved Red Mahogany [E. *resinifera*]) blossoms near the camera trap site.

The Little Red Flying-fox was first captured at 12:46 am on the 30th May 2020, where it can be seen on the ground to the right of the bait station (Fig. 1).

Figure 1. The Little Red Flying-fox on the right as it enters the cameras detection zone on the ground.

Further images revealed that it pulled itself along the ground until it reached the fence dropper, at which point it climbed up and hung aside the bait station (Figs. 2, 3 & 4). In one sequence, the animal appears to lose its grip and fall to the ground before climbing back up and re-attaching itself to the top of the fence dropper. The individual stayed at the bait station for one minute and 22 seconds, triggering the motion sensor eight times which resulted in 24 images (three images per trigger). The individual presumably flew away from the bait station as it was not photographed exiting the site.

The camera had been in place for 32 days prior to the visitation by the Little Red Flying-fox. Given the period since deployment it is unlikely the chicken nugget bait would have been very odorous, as baits lose their efficacy over time (Mills *et al.* 2019). However, upon collection it was noted some baits had greatly deteriorated due to rainfall and become rancid.

Healthy flying-foxes are rarely encountered on the ground and the behaviour of this individual crawling to a low perch is either rare or under documented. Australian bat lyssavirus, which infects flying-foxes and some microbats, produces a range of clinical signs of central nervous system disease including paralysis, paresis and tremors as well as behavioural changes, which increases their likelihood of being encountered on the ground (Queensland Government 2021a), though the health of this individual cannot be ascertained. Additionally, it appears that it is uncommon to capture megabats incidentally on camera traps. A study in Malaysia successfully used camera traps to detect fruit-bats on flowering trees (Aziz *et al.* 2017); however, no similar study or detection has been documented in Australia.

It is not possible to determine what attracted the flying-fox to the camera trap and bait, but it is undoubtedly unusual behaviour for an aerial species. To our knowledge, this appears to be the first documented record of a flying-fox as by-catch during terrestrial camera trapping surveys.

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Figure 2. The Little Red Flying-fox beginning to climb the fence dropper, with attached bait container.

Figure 3. The Little Red Flying-fox appearing to take an interest in the bait.

Figure 4. The Little Red Flying-fox hanging from the bait station.

research took place. These images were obtained through a partnership between the Australian Wildlife Conservancy, Western Yalanji Aboriginal Corporation and Queensland National Parks and Wildlife Service. The research took place under the Queensland Government scientific purposes permit WITK18753218 issued to the Australian Wildlife Conservancy.

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