

SHORT NOTE

Nectar feeding by rock wren (*Xenicus gilviventris*)

COLIN F. J. O'DONNELL*

Research and Development Group, Department of Conservation, PO Box 11089, Sockburn, Christchurch 8443, New Zealand

JAMES T. REARDON

Department of Conservation, PO Box 743, Invercargill 9840, New Zealand

JOANNE M. HOARE

Research and Development Group, Department of Conservation, PO Box 11089, Sockburn, Christchurch 8443, New Zealand

During a field trip to Sinbad Gully, Fiordland (167°47' E, 44°39' S) between 17 and 26 Feb 2011, we observed rock wrens (*Xenicus gilviventris*) feeding on nectar from mountain flax (*Phormium cookianum*). Sinbad Gully is a small alpine cirque at 1100-1200 m a.s.l., and is comprised of large boulder fields, snow tussock (*Chionochloa flavescens*) slopes and mixed communities of alpine shrubs and herbs.

Initially, we saw a pair of rock wrens, each bird with their entire foreheads and crowns bright yellow-orange, indicating that they had been in contact with flower-pollen. Only 2 plant species were flowering at the time and had yellow-orange pollen, the yellow ground daisy (*Dolichoglottis lyallii*) and mountain flax. On the 2nd day of our trip, a single rock wren was seen

feeding on the flowering spikes of mountain flax, rapidly probing each open floret.

We made multiple sightings of rock wrens on most days during the trip, but witnessed only 6 direct examples of apparent nectar feeding. These rock wrens only probed flowers briefly and seemed to be visiting single plants at a time. In one instance the bird spent less than 20 seconds on each flower stalk but visited at least 5 florets during that period. The wren quickly looked in at least 2 florets without probing them, suggesting the florets were either past their pollen and nectar production, or the wren was also searching for insects in those places. The rarity of our observations of nectar feeding may be due to the relative scarcity of mountain flax in Sinbad Gully. Mountain flax was generally restricted to shrubland habitats (which was <20% cover in this alpine basin), and in areas of maximum density, single plants were 30-50 m apart. However, during our visit each plant was

Received 14 Apr 2011; accepted 28 Apr 2011

*Correspondence: codonnell@doc.govt.nz

flowering, usually with 1-4 spikes per plant and 6-10 active flowers on each plant.

Rock wrens are regarded as primarily insectivorous, although there are records of them feeding on fruits of several alpine plants, including fruits of *Coprosma* during this field trip and seeds of tussocks (Heather & Robertson 2000; Higgins *et al.* 2001; M. Willans, *pers. comm.*; J. Reardon, *pers. obs.*). Our observations suggest that rock wrens are also potential pollinators of mountain flax and perhaps other flowering plants in an environment where the only other potential avian pollinator is the kea (*Nestor notabilis*). Nectar provided by alpine flowers may provide an important additional energy source for rock wrens in the harsh alpine environment. The observations are also a reminder that many birds, including the other extant member of the Acanthisittidae (rifleman, *Acanthisitta chloris*), that are considered primarily insectivorous also occasionally or regularly consume fruit and nectar (e.g., O'Donnell & Dilks 1989; 1994), thus playing roles as pollinators and seed dispersers in native ecosystems.

ACKNOWLEDGEMENTS

Thank you to Emilie Chavel, Sabine Bernert, Eric Edwards, Les Moran and Megan Willans for assistance in the field and Don Newman for information on diet of rock wrens.

LITERATURE CITED

- Heather, B.D.; Robertson, H.A. 2000. *The field guide to the birds of New Zealand*, 2nd ed. Auckland: Viking.
- Higgins, P.J.; Peter, J.M.; Steele W.K. (eds) 2001. *Handbook of Australian, New Zealand and Antarctic Birds. Volume 5: Tyrant-flycatchers to Chats*. Melbourne: Oxford University Press.
- O'Donnell, C.F.J.; Dilks P.J. 1989. Feeding on fruits and flowers by insectivorous forest birds. *Notornis* 36: 72-76.
- O'Donnell, C.F.J.; Dilks, P.J. 1994. Foods and foraging of forest birds in temperate rainforest, South Westland, New Zealand. *New Zealand Journal of Ecology* 18: 87-107.

Keywords Acanthisittidae; pollination; nectivory; flax; *Phormium*; alpine