

THE



SUNBIRD



Journal of the

**QUEENSLAND ORNITHOLOGICAL SOCIETY
(Birds Queensland)**

Volume 50

Pages 1-4

2023

THE SUNBIRD

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ISSN 1037-258X

Queensland Ornithological Society Inc.

Front Cover: Little Corella © Stephan and Martie Labuschagne

Little Corellas *Cacatua sanguinea* feeding on fruits of the Grey Mangrove *Avicennia marina*

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Abstract

A flock of Little Corellas was observed feeding on the propagules (fruits) of Grey Mangroves *Avicennia marina* that had washed up on Kakadu Beach, Bribie Island, in June-July 2022. They appeared to eat the seed encased by the large cotyledons covering the fruit. These observations constitute the first known record of this novel, natural food source being used by Little Corellas, which traditionally feed on the small seeds of native and introduced grasses.

Introduction

Originally a species of arid and semi-arid parts of Australia, the Little Corella *Cacatua sanguinea* has undergone a massive range expansion since at least the 1950s, due to forest clearing and conversion of tall native grasslands to short pasture, and provision of water (Ford 1985; Higgins 1999; Cooper *et al.* 2016). During the 20 years between the first (1977-1981) and second (1998-2002) national Atlases of Australian birds, there was a 73% increase in reporting rates (Barrett *et al.* 2003).

In addition, populations have established in each of the eastern state capital cities, possibly originating from aviary escapees or deliberately released birds (Burgin & Saunders 2007; Cooper *et al.* 2016). Although the species traditionally feeds on the seeds of native and introduced grasses, supplemented by shoots, roots, and insects and their larvae (Higgins 1999), urban birds have been found to consume tree seeds more frequently, and the seeds, flowers and leaves of herbaceous plants less frequently than their non-urban counterparts (Temby 2010; Polly & Lill 2020; Spennemann 2023).

In Southeast Queensland, Little Corellas were first reported from Kogan and Jandowae on the Western Downs in 1958 and 1966, respectively, when severe droughts affected inland areas (Nielsen 1969). Early records from coastal Southeast Queensland include small numbers in Belmont and Indooroopilly in 1984 and 1985, respectively, and 43 birds at Hope Island, Gold Coast in 1985 (Palliser 1985; Niland 1986). It was first noted on the Redcliffe Peninsula in 1990 (Bielewicz & Beilewicz 1996).

Observations and Discussion

On 12 June 2022, the first author observed a flock of 96 Little Corellas flying across Pumicestone Passage to the shorebird high tide roost and refuge area at Kakadu Beach (27°02'57"S, 153°08'03"E), Bribie Island. After landing on the beach, the birds were watched with the aid of a Swarovski 25 x 50 scope as they proceeded to feed on the fruits (or more precisely, propagules) of Grey Mangroves *Avicennia marina* that had washed up in large numbers there (Plate 1). They seemed particular about which fruit they processed, often discarding those that were presumably spoilt or unripe. The fruits were held in one foot while

the bill tore away the cotyledons to access the large seed (Plates 2, 3). Only a minute or less was needed to access each seed, before picking up the next fruit. Although tiny insects often infest the cotyledons of Grey Mangrove fruits (N. Duke, *in litt.*), it is unlikely that the corellas were targeting them as food, as fruits inspected outside the roost were largely free of insects and observations indicated the birds were devouring the seed.

Since the first observation, the corellas were photographed foraging in the tidewrack on Kakadu Beach on 25 June, 1 July, 12 July and 17 July 2022 (T. Burgess, pers. comm.). By the last day the birds were apparently picking out and chewing over partially eaten fruits as there were no fresh ones arriving with the high tides.

The fruit of Grey Mangroves is a flattened, roundish green capsule (20-25 mm in diameter) that consists of two large, fleshy cotyledons surrounding a single dark green seed, which often germinates on the tree, falls and disperses with the tides (Duke *et. al.* 1984; Duke 1990). During the fruiting season, the high tides wash up considerable numbers of these fruits which become trapped in the sea grass and tidewrack, making them easily accessible to crabs, sea turtles, and other seed predators (N. Duke, pers. comm.). In Moreton Bay, Grey Mangroves flower in late summer, and shed their mature fruits mostly from June to August (Davie 1982), which accords with their appearance in the tidewrack at Kakadu Beach during the period of our observations.

The Little Corella has been shown to readily adapt to foraging in new environments and exploiting novel food sources in urban Melbourne (Polly & Lill 2020). Studies of the closely related Tanimbar Corella *C. goffiniana*, both in captivity and on its native Indonesian island, demonstrate that it has sophisticated cognitive skills, learning how to use a range of new tools to exploit food sources (Auersperg *et. al.* 2012; O'Hara *et. al.* 2019, 2021). Our observations of Little Corellas on Bribie Island suggest that this flock has learned to exploit a novel food resource (mangrove fruits) in a habitat very different from the species' traditional habitat. Although the flock seen on the first day of observations arrived from the mainland, the species is known to be a very common breeding resident on the island, where it is presumed to have become established from aviary escapees (Ford 2013).



Plate 1. Part of flock of Little Corellas foraging in tidewrack, Bribie Island, 25 June 2022 (T. Burgess)



Plate 2. Little Corellas feeding on Grey Mangrove fruits, Bribie Island, 23 June 2022 (Terry Burgess)

Acknowledgements

We thank Terry Burgess and Greg Harrison for additional information and photographs. Heather Janetski (Qld Museum), Greg Czechura, Jan Nargar and Norman Duke kindly commented on an earlier version of this manuscript.



Plate 3. Little Corella feeding on Grey Mangrove fruit, Bribie Island (Greg Harrison)

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