

Dollarbird departure from the Hunter Region in 2013

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Observations provided by members of the Hunter Bird Observers Club were evaluated to determine the timing of post-breeding departure of Dollarbirds *Eurystomus orientalis* from the Hunter Region. In 2013 the main departure occurred in the first half of February. However, a number of birds, both juvenile and adult, delayed departure for up to a further month and two stragglers were recorded a further six weeks later at the end of April. These results are generally consistent with the prior literature, but some interesting differences and intriguing migration-related behaviours are discussed.

INTRODUCTION

First arrivals and last departures of migrants, particularly the large cuckoos and Dollarbirds, attract the attention of Hunter Bird Observers Club (HBOC) members and are a feature of newsletter observations and Annual Bird Report species accounts (Stuart 2012).

Dollarbirds *Eurystomus orientalis* are widely and regularly recorded in the Hunter Region between September and March (Stuart 2012). The last birds to leave in autumn are juveniles (Fry *et al.* 1992), but these may leave only a few days after adults (Higgins 1999). Hunter Region departure dates (n=9) ranged from 24 February to 18 March (Higgins 1999). Migration of Dollarbirds from eastern Australia involves movement in a north-westerly direction with most birds appearing to winter overseas (Griffioen & Clarke 2002). The analysis of BirdLife Australia Atlas data by these authors indicates that the northward movement is a protracted event spread over two quarters compared with a more synchronised southern migration. A recent paper provides evidence that many migrant bird species now arrive earlier in eastern Australia than they did thirty years ago (Smith & Smith 2012). Changes in the timing of departure and length of stay have also been identified, but no significant trends were found for either arrival or departure of Dollarbirds at Blaxland west of Sydney (Smith & Smith 2012).

The purpose of this note is to determine whether Hunter Bird Observers Club observations could yield new information concerning the migration patterns of Dollarbirds, in this instance departure dates. This objective immediately poses questions

concerning what we are attempting to measure. Is it the departure of the last Dollarbird or the date when the majority of Dollarbirds leave? Do Dollarbirds depart individually or as families? Do the departure dates vary between different locations in the Hunter Region? In the following analysis we provide some insights to these and related questions.

METHODS

Reports of Dollarbirds submitted to Hunterbirding, an online information forum, between February and June 2013 were reviewed. Key contributors were approached and asked to monitor individual Dollarbirds to establish an exact date of departure and where possible to find whether the birds were adult or juvenile.

RESULTS

Dollarbirds spend much of their day statuesque on prominent perches (Higgins 1999). An example was an adult bird habitually perched on wires crossing the Paterson River at Woodville, which was monitored daily by driving over the bridge. Not all Dollarbirds are this easily detected, and juveniles in particular are elusive, favouring less exposed perches. However, they are more active at dusk and occasional calls aid their detection. Unfortunately, random opportunistic observations of Dollarbirds provide more limited insights into the timing of departure. Below I summarise the observations and comments submitted to Hunterbirding and document the departure of Dollarbirds from localities which were watched systematically; ideally on a daily basis during the critical departure period.

Bateau Bay area (Alan Morris): Once the chicks at Bateau Bay (2 sites) fledged, within a few days the parents moved them elsewhere: they don't stay in the breeding territory. Generally speaking the juveniles fledge during the week between Christmas and New Year and by the second week of January they are nowhere to be seen. During the first week of January 2013, the number of Dollarbirds sitting on the power lines along Henry Parry Drive from The Entrance to Budgewoi Road (which, for most of the distance, passes through Wyrabalong National Park and the littoral rainforest patches at Lakes Beach near Norahville and north Budgewoi), rapidly increases from about 2 to 24-30 birds until about the first week in February! Then the numbers drop away once the first southerly in February passes through. This year (2013) 26 Dollarbirds were seen along approximately 14 km on 1 February and by the 6 February, after a southerly change had passed through, numbers had decreased to 17 indicating the commencement of migration of the bulk of the local population.

Ash Island (Liz Crawford): A single adult Dollarbird was observed on powerlines on 13 February and subsequently a single juvenile was observed on 13 March.

Bonnells Bay (Eula McKane): Dollarbirds were regularly observed throughout January with five overhead on the 20th, but no records after the first of February.

Carey Bay, Lake Macquarie (Liz Crawford): Dollarbirds nested in a tree hollow at Carey Bay, frequently perching on a TV aerial nearby. An adult with juvenile was present on 18 January, with all the birds leaving simultaneously around the end of the month.

A single Dollarbird perching on powerlines at Carey Bay was seen regularly until 11 February and not seen thereafter. Single juvenile Dollarbirds were seen perching on powerlines at Teralba on occasions from 9 to 27 February and later, on 11 and 13 March.

Croudace Bay, Lake Macquarie (Gavin Ayre): One Dollarbird, age unknown, was heard and seen on 28th April during late afternoon in trees along a creek line. This is one of two records six weeks later than other Hunter Region records.

Nelsons Plains (Dick Jenkin): The third last Hunter Region record involved a bird, age unknown, on power lines at Nelsons Plains on 16 March.

Myall Lakes Ferry (Simon Gorta): One on 29 April: this was the last record for the Hunter Region, six weeks after all but one other record.

Port Stephens (Trevor Murray and Adam Fawcett): 2 or 3 were reported until 24 February.

Singleton (Peter Alexander): Dollarbirds were present daily at two locations, Allan Bull Reserve (maximum of five birds) and Maison Dieu Industrial Area (maximum of four birds) between 6 October 2012 and 26 January 2013 after which there were no records.

Wingen and Scone (Greg Newling): Up to four Dollarbirds, thought to be a family group (Newling 2013), were regularly present, favouring four perch sites. After a period of absence between 15 and 18 February, the adults finally departed on the 21 February. A juvenile, presumed to be from the family, subsequently used the perch sites intermittently between 23 February and 6 March.

A number of Dollarbirds were seen regularly along a 17 km stretch of road between Wingen and Scone in early February but all had departed by the end of the third week of February 2013.

Woodville and Paterson (Mike Newman and Paul Baird): Dollarbirds are abundant in summer in the Woodville, Paterson, and Brandy Hill areas. Throughout the first half of February 2013 they remained plentiful (e.g. 5 at Tocal on 9 February and 3 perched on wires along Brandy Hill Drive on 10 February). Subsequently, numbers observed while travelling along roads in these areas fell off, although 3 separate birds were seen near the Paterson River at Woodville on 21 February. Subsequent to that date the only three Dollarbirds seen were as detailed below.

Dollarbirds breed around my property at Woodville (MN) allowing regular observation. A weakly flying juvenile was seen on the ground by the dam in January and assumed to have recently fledged. Adults and young were present on 10 February. Two were on wires at the end of the dam, a regular perch, on 14 February when daily observations of this territory commenced. Since that date Dollarbird records have involved one bird, a juvenile, which was elusive and seldom used exposed perches. It was recorded every two or three days, often at dusk, with the last record on 9 March; the first observation for 6 days.

An adult Dollarbird was observed daily perched on wires adjacent to the bridge crossing the Paterson

River at Woodville. It was seen throughout the day and was only absent on one occasion until the afternoon of 1 March. On 2 March it was present in the morning at which time heavy rain had commenced causing the Paterson River to flood. It was subsequently absent until 6 March when it was seen about 100m away on a side road in the company of a juvenile with a yellow bill. The adult was seen again on 7 and 9 March, but only used its habitual perch intermittently (MN). It was not seen after that date despite daily visits (PB).

DISCUSSION

The discussion of Dollarbird migration on Hunterbirding was triggered by a comment that most of the birds have left the Singleton area by the beginning of February (PA). The subsequent focus of comment and data was on birds which departed abnormally late. However, Alan Morris, based on long-term observations at Bateau Bay about 30km south of the Hunter Region, suggests most young are fledged by early January at which time they move from breeding territories forming loose aggregations in localities where feeding conditions are favourable (e.g. above littoral rainforest where there are few trees with hollows). In 2013 in the Bateau Bay area the bulk of the migration commenced at the end of the first week of February following a southerly change in wind direction. Observations at Bonnells Bay (EM) follow this pattern including a small build up in numbers until departure at the beginning of February, a timing which is very similar to that reported for the Singleton birds (PA). The main departure from the Wingen/ Scone area was a little later but essentially complete by mid-February.

The number of Dollarbird observations posted on Hunterbirding after 15 February 2013 progressively decreased until the sighting on 16 March at Nelsons Plains (DJ). The final two records at Croudace Bay and Myall Lakes on 28 and 29 April respectively, six weeks later, appear anomalous.

In several cases it was possible to monitor daily the presence of individual birds using habitual perches and establish approximate departure dates assuming these birds did not move to a staging post as observed by AM for the bulk departure of Dollarbirds from the Bateau Bay area. If so, why do these birds remain after the main departure has taken place? The observations at the Paterson River on 6 March give a possible explanation; the adult bird perched above the river may have been

tending a late-fledged juvenile, possibly from a second clutch.

Adult birds at Woodville favoured perches near water, one over the river and the other at the end of a dam. Perhaps these are optimal foraging locations, which are often favoured by other insectivorous species like the Welcome Swallow *Hirundo neoxena*. It is also possible that there is less need to move from such territories to more favourable foraging areas to build up fat reserves for migration, as was observed at Bateau Bay.

The impression was gained that the bulk departure of Dollarbirds was earlier and the number of late-departing birds fewer in areas away from the coast like Singleton, Scone and Gloucester compared with coastal areas like Port Stephens.

Timing of departure may be determined by local weather systems as evidenced by the Bateau Bay birds leaving following a southerly change. In contrast the Paterson River bird remained until a sequence of east coast systems bringing torrential rain to the Hunter Region had cleared.

Perhaps inevitably the interpretation of information collated from diverse sources, often involving unstructured observations, poses as many questions as it answers. For instance in 2013 most Dollarbirds in the Hunter Region and areas to the immediate south had left in the first half of February, slightly later than 20 January, the mean date of departure from Blaxland west of Sydney during the last thirty years (Smith & Smith 2012) and earlier than the range of Hunter Region departure dates (24 February – 18 March) published in the Handbook of Australian, New Zealand and Antarctic Birds (Higgins 1999). The latter comparison could suggest that Dollarbirds now depart earlier from the Hunter Region, but it may be a consequence of historical records reflecting the tendency to report the abnormal (i.e. late departures), exacerbated by the fact that it requires a conscious effort to record the absence of a bird, whereas a highly vocal arriving migrant heralds its presence in a memorable manner. There were several instances of pre-migratory flocks forming before departure, for which there is only limited literature evidence (Higgins 1999). However, the formation of collaborative feeding groups of Dollarbirds does not occur exclusively immediately before migration. The author and Mick Roderick (pers. comm.) have both seen this occur when fronts are coming through, including instances of a dozen or more Dollarbirds hawking insects with White-throated Needletails

Hirundapus caudacutus at Woodville. After the front passes the Dollarbirds disperse and return to their territories. Alan Morris has suggested the pre-migratory movement to areas of littoral rainforest is because these areas have a good insect supply but few tall trees with hollows suitable for nesting. Thus a picture emerges in which Dollarbirds are highly territorial (Higgins 1999), aggressively defending nest sites (Newling 2013), but also capable of switching to cooperative group behaviour, when this is advantageous.

CONCLUSIONS

The Hunterbirding forum provided insights into the behaviour of departing Dollarbirds. However, the most important observations concerning the timing of main departure came from observers regularly monitoring individual territories and Dollarbird abundance along frequently driven roads. I recommended this approach for generating annual data suitable for temporal analysis based on main departure dates, rather than the timing of last regional observations.

In general the findings are consistent with the prior literature including support for the protracted period of northward migration described by Griffioen & Clarke (2002). However there are discrepancies, for instance the timing of the main departure is earlier than historical records, but this may be a consequence of differences in data acquisition.

This collaborative investigation provided several examples of poorly known behaviours, including differences in the perching habits of adult and

juvenile Dollarbirds, the difficulty of detecting juvenile birds and the tendency of Dollarbirds to form cooperative feeding flocks, particularly immediately before migration. Late-departing birds are not exclusively juvenile.

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