

An Irruption of *Pictorella Mannikins*

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Summary

We collated sightings of the Pictorella Mannikin *Heteromunia pectoralis* since 31 July 2002 that occurred outside the range of the species, as recorded during the 4 years of data collection for *The New Atlas of Australian Birds* (1998–2002). The widespread nature of the records suggests an irruption of the species.

Introduction

The *New Atlas of Australian Birds* (Barrett *et al.* 2003) provides a snapshot of the distribution of the Pictorella Mannikin *Heteromunia pectoralis* for the 4 years of data collection from 1 August 1998 to 31 July 2002. It shows a widespread distribution across the north of Australia south to about 20°S but excluding the Top End, the eastern Northern Territory and eastern Queensland. This is broadly consistent with the distribution in the first *Atlas* (Blakers *et al.* 1984) based on data recorded ~20 years earlier, in 1977–81. The species has a history of possibly irruptive behaviour (Higgins *et al.* 2006) and, since mid 2002, has been recorded at many locations outside its 1998–2002 distribution, spanning the northern half of Australia, from north-eastern Queensland, through western Queensland and the Northern Territory, west to the Pilbara region of Western Australia. These records are listed here and suggest that the species has undergone an irruption.

Methods

All records of the Pictorella Mannikin since 31 July 2002 located outside the range presented by Barrett *et al.* (2003) were used: our observations, and other records collected and collated from the literature. In some cases we sought, and received, further details from the observers. We approached Bird Observation and Conservation Australia (BOCA), the Townsville Region Bird Observers Club, and Birds Australia (with its Atlas of Australian Birds database), seeking information on records of the species held by them or their members.

Details of sightings

Records of the Pictorella Mannikin since 31 July 2002 outside the range presented by Barrett *et al.* (2003) are listed in Appendix 1 and mapped in Figure 1. They are widespread, from north-eastern Queensland to north-western Western Australia, and in central Australia south almost to the South Australian border. Of note are the numerous records in north-eastern Queensland, although the abundance of records in that area may be an artefact of the number of observers there compared with outback Queensland and the Pilbara area of Western Australia.

Pictorella Mannikins were recorded in the Townsville district of Queensland in the first half of both 2007 and 2008, but we have been unable to find any records

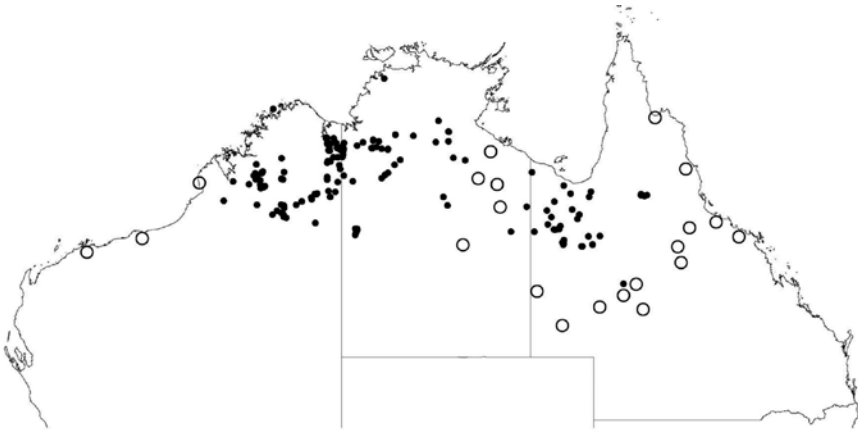


Figure 1. Records of the *Pictorella* Mannikin from *The New Atlas of Australian Birds* (Barrett *et al.* 2003), 1 August 1998 – 31 July 2002 (solid dots) and records since 31 July 2002 (open circles).

there later than that. In both those years the Mannikins were first sighted at about the end of March (31 March in 2007), and were present up to at least May; they were apparently absent between mid 2007 and March 2008 (A. Sutton, W. Holmes pers. comm.).

Breeding

Breeding was recorded at several sites in Queensland. At Gunnado Road, in the Woodstock area near Townsville, *Pictorella* Mannikins were seen carrying nesting material on 1 April 2007 (Janet Robino per Len Ezzy, BOCA records), and were recorded breeding in 2007 and ‘have bred since’ (Joan Wharton *in litt.* 3 December 2008). They also bred in the Georgetown district in March 2008 (Martin Cachard pers. comm.). Most of the ~20 Mannikins coming to water at Willet Swamp in Bladensburg National Park in May 2009 were in juvenile plumage (AL & BT pers. obs.); probable young Mannikins were present in Diamantina National Park in July 2010 (R. & J. Wallace *in litt.* 10 August 2010).

Association with other species

Some observers noted *Pictorella* Mannikins in company with other finch species, although in some cases there were doubts whether the different species were associating or were just in the same general area. In the Townsville district, the *Pictorella* Mannikins ‘seem to be around’ Plum-headed Finches *Neochmia modesta* ‘that come in at about the same time’ and ‘sometimes are near the Chestnut-breasted Mannikins [*Lonchura castaneothorax*]’ (A. Sutton *in litt.* 28 November 2008). In the same area, the *Pictorella* Mannikins ‘sometimes feed in company with Black-throated Finches [*Poephila cincta*]’ (McCullough 2008 per J. Robino). In the Woodstock area near Townsville, there were ‘lots of other finches...including Plum-heads’ on 3 April 2007 (L. Ezzy pers. comm.; BOCA

records). Pictorella Mannikins coming to water at Willet Swamp in Bladensburg National Park on 16 May 2009 were among numerous Zebra *Taeniopygia guttata* and Plum-headed Finches (AL & BT pers. obs.).

Habitat

The observations documented here were in a variety of habitats including Lignum *Muehlenbeckia florulenta* at Cuttaburra Crossing (M. Cachard pers. comm.); in Lignum, along arid drainage lines with Gidgee *Acacia cambadgei*, and in sand-ridge country in and near Diamantina National Park (AL & BT pers. obs.; R. & J. Wallace *in litt.* 10 August 2010); and, following good rains, in lush creekline vegetation in Bladensburg National Park (AL & BT pers. obs.).

Discussion

Higgins *et al.* (2006) pointed to a gap between 134°E and 137°E in the species' range in the north of the Northern Territory, which was identified in the 1970s and which persisted up to and including the time of data collection for the *New Atlas* (Barrett *et al.* 2003); the sightings documented here (Figure 1) include records in this gap.

Irruptions are occasionally recorded for the Pictorella Mannikin, possibly governed by rainfall and the resultant availability of water, and some apparent changes in the species' range in the past may have been better described as such (Higgins *et al.* 2006). For example, the species was recorded in the Townsville district of Queensland around the turn of the 19th century (Smedley 1904) and, as already discussed, was again recorded there in 2007 and 2008 after a long absence. Other possible irruptions occurred around Darwin, NT, in 1970, in the Edward River district on Cape York Peninsula in 1980, and at Richmond in Queensland where the species may be present only during good seasons (Higgins *et al.* 2006). The population of the species may also fluctuate naturally: variation between years in numbers trapped for the live-bird trade between 1968 and 1986 was greater for the Pictorella Mannikin (and the Gouldian Finch *Erythrura gouldiae*) than for other species of finch (Franklin *et al.* 1999).

The species may have increased in abundance at some locations outside the *New Atlas* range. After only a handful of earlier records at Bladensburg National Park, we recorded Pictorella Mannikins at 10 locations in the Park in April 2010. At Diamantina National Park, where we did not record the species in over 10 years of surveys up to 2007, following a single sighting in 2008 it was subsequently recorded at several widely separated sites, with one observation of ~100 individuals (Appendix 1).

Another finch species also appeared far out of its usual range during the period under discussion here: there was an influx of Painted Finches *Emblema pictum* (a new species for the state) into western New South Wales. The first record was at Tibooburra in the north-west in January 2007, followed by several more observations west of the Darling River, and then the confirmed breeding of a pair near Jerilderie, in the Riverina, in late 2008 (McAllan *et al.* 2010).

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Appendix 1

Recent records of the *Picrorella Mannikin* from outside the range identified in data of *The New Atlas of Australian Birds 1998–2002* (Barrett *et al.* 2003). Under Source, Aust. Atlas = data from the Atlas of Australian Birds database (Birds Australia, Melbourne), Birding-Aus = data from the Birding-Aus archive (website bioacoustics.cse.unsw.edu.au/birding-aus). BA = Birds Australia, NP = National Park, Rd = Road, Stn = Station; coordinates are approximate.

Location	Date	No. birds	Source	Comment
North-eastern Queensland				
Knifehole Lagoon, Lakefield NP (14°36'S, 143°55'E)	12 Aug. 2002–16 Jun. 2005	1–14	Holmes & Gosper (2007)	3 records
Georgetown district (18°20'S, 143°30'E)	Mar. 2008		M. Cachard	Breeding
Mareeba (17°03'S, 145°23'E)	2 May 2008	1	D. Cutler, Aust. Atlas	

Appendix 1 continued

<i>Location</i>	<i>Date</i>	<i>No. birds</i>	<i>Source</i>	<i>Comment</i>
North-eastern Queensland contd				
Townsville district, Woodstock area (19°35'S, 146°50'E)	31 Mar. 2007–10 Aug. 2008	Max ~20	A. Sutton, J. Wharton, L. Ezzy, B. Holmes, D. Biggs (Birding- Aus), Aust. Atlas	Locations are Old Flinders Highway, Gunnado Rd, Toonpan Lagoon, Lansdown Stn & Woodstock; many records
Townsville district, Cromarty area (19°30'S, 147°05'E)	30 Mar.–11 Apr. 2008		A. Sutton, J. Wharton, L. Ezzy, B. Holmes, Aust. Atlas	Locations are Reedbeds Rd & Cromarty; many records
45 km SW of Bowen (20°17'S, 147°55'E)	16 Apr. 2008		B. Holmes	
Southwick Stn, 73 km WNW of Charters Towers (19°51'S, 145°34'E)	4 Apr. 2007		B. Holmes, Aust. Atlas	
Moorrinya NP, 90 km SE of Hughenden (21°30'S, 145°10'E)	7 Jun. 2008		L. & C. Ezzy	
Western Queensland				
Cuttaburra Crossing, Eyre Creek, 120 km N of Birdsville (24°30'S, 139°30'E)	19 Jun. 2007 29 Jun. 2010	~50 2	M. Cachard R. & J. Wallace	
Lignum Waterhole, Diamantina NP (23°37'S, 141°17'E)	27 Mar. 2008 6 May 2009 20 Apr. 2010	~20 2 4	AL, BT, K. Wood AL, BT AL, BT	
Gum Hole, Diamantina NP (23°40'S, 140°59'E)	11 Jul. 2009 2 Jul. 2010	 ~100	Wright & Wright (2010) R. & J. Wallace	
Diamantina NP (23°40'S, 141°29'E)	21 Apr. 2010	2	AL, BT	
Brighton Downs Stn (23°14'S, 141°40'E)	20 Apr. 2010	2	AL, BT	Near Diamantina NP
Cravens Peak (22°53'S, 138°18'E)	18–28 Apr. 2008	2–7	BA Southern Queensland (per D. Wells)	7 records
Goneaway NP (23°44'E, 143°21'S)	26 Apr. 2010		AL, BT	
Winton–Jundah Rd (23°01'S, 142°26'E)	19 Apr. 2010	15	AL, BT	

Appendix 1 continued

<i>Location</i>	<i>Date</i>	<i>No. birds</i>	<i>Source</i>	<i>Comment</i>
Western Queensland contd				
Winton–Jundah Rd (23°04'S, 142°25'E)	28 Apr. 2010	3	AL, BT	Adjacent Lark Quarry Conservation Reserve
Torrens Creek (20°45'S, 145°00'E)	7 Jun. 2003		Aust. Atlas	
Bladensburg NP				
Skull Waterhole (22°32'S, 143°01'E)	22 Apr. 2008	2	P. & J. Rogers	
Willet Swamp	16 May 2009	~20	AL, BT	Juveniles present
Bough Shed Waterhole	17 May 2009	1	AL, BT	
Bladensburg NP	15–25 Apr. 2010	1–30	AL, BT	10 records
North-eastern Northern Territory				
Connells Lagoon (18°52'S, 136°32'E)	28 Apr. 2004	4	N. Thompson	
Escarpment Springs (16°14'S, 136°05'E)	29 May 2005		I. Fox	
Whistleduck Creek, Davenport Range NP (20°39'E, 134°46'E)	4–5 Jun. 2006	1	A. & P. Booth	
Cresswell Downs (17°47'S, 136°24'E)	26 Jun. 2006	1	B. Holmes	
912 Lita Road (17°30'S, 135°30'E)	30 Jun. 2006		C. Curson	
North-western Western Australia				
Pardoo Creek (20°22'S, 119°29'E)	27–29 Aug. 2006	5	M. Nield, Aust. Atlas	
N of Broome (17°02'S, 122°13'E)	2006	3	J. Lewis, Aust. Atlas	
	2008	1		
Marrie Pool on Maitland River, 25 km S of Karratha (21°00'S, 116°50'E)	18 Mar. 2008	4	N. Waugh (Birding- Aus)	