

The Painted Finch in New South Wales

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Summary

This note reviews records of the Painted Finch *Emblema pictum* in New South Wales and includes the first records of the species breeding in the State, noted as part of an influx in 2007–08. It is suggested that there has been a southward and eastward extension of the Painted Finch's range in recent decades.

Introduction

The Painted Finch *Emblema pictum* inhabits arid and semi-arid areas of inland Australia from western Queensland (Qld) to the north-western coast and south to the northern Flinders Ranges in South Australia (SA) (Pizzey & Knight 1998; Slater *et al.* 2003; Higgins *et al.* 2006). Across its range it occurs in rocky ranges and associated gorges, gullies or dry creek beds, and less often on sandplains or among sand-dunes. It is often associated with spinifex *Triodia* spp., either as grassland or as a component of the understorey of woodlands dominated by wattles *Acacia* spp., cassias *Senna* spp. or emu-bushes *Eremophila* spp. (Pizzey & Knight 1998; Higgins *et al.* 2006; for plant descriptions see Cunningham *et al.* 1981).

Until 1977 this species was absent from New South Wales (NSW). In 2007 and continuing into 2008, however, there was an influx of Painted Finches into western NSW, with several observations at localities west of the Darling River, as well as at Yanco Creek north of Jerilderie. Included in these records were the first records of this species breeding in the State. This paper lists known sightings, analyses the records, and speculates on the origin of the 2007–08 influx.

Records from New South Wales before 2007

Campbelltown, September 1896: The Painted Finch was first reported in NSW when three individuals of a group of five were collected at Campbelltown in western Sydney by A. Payton in September 1896 (North 1897; Australian Museum specimens). North considered that these birds were driven to the coast by drought; however, this report is generally considered a record of escapees, as until recently there have been no records within 1000 km, and none east of the Great Dividing Range.

Near Tibooburra, January 1977: The first likely record of a wild Painted Finch for the State was when J. Kay from Adelaide saw a bird somewhere between Warri Gate and Milparinka on 10 January 1977 (McAllan & Bruce 1989). Kay entered the record on an Atlas record sheet for the first Royal Australasian

Ornithologists Union (RAOU) Atlas, then running. When contacted by RAOU staff, Kay admitted to having taken no notes but was 'sure of identification'. This record was considered valid by those collecting the Atlas data and was published in the final Atlas text, though strangely absent from the map (Blakers *et al.* 1984). Unfortunately, Kay entered the record on an Atlas sheet covering one degree of latitude and longitude (29–30°S, 142–143°E) and so the exact locality cannot be determined. Nonetheless, the area concerned covers some of the subsequent valid reports of the species from the State.

Between Cameron's Corner and Fort Grey, September 1992: The second record with valid details is a single bird seen by W. Pietsch in red-sand-dune country ~15 km east of Cameron's Corner on the road to Fort Grey on 14 September 1992. The bird was with a group of Crimson Chats *Epthianura tricolor* and was observed for a minute before it flew away. Pietsch submitted a full account of his observation, including a good description of the bird, to the NSW Ornithological Records Appraisal Committee and it was accepted as a valid record (NSW ORAC Case 100, accepted: Morris 1994).

Records in 2007–08

Broken Hill, 5 April 2007: At 0930 h John Fennell and Jared Hawkes were visiting the Living Desert Botanical Reserve, 9 km north of Broken Hill, when they saw approximately nine Painted Finches (NSW ORAC Case 441, accepted), most of which were thought to be males. They observed the birds for ~20 minutes at distances as close as 50 m, and photographs were taken (Plate 2).

Mount Wood Homestead, Sturt National Park, April–May 2007: On 13 April John Rawsthorne was staying at Mount Wood in Sturt National Park. He found a small group of Painted Finches on the Gorge Loop Road opposite the Homestead on the edge of a grassy channel north of the main creekline (J. Rawsthorne pers. comm.). Further observations along this channel revealed another party of Finches, at least one of which was carrying twigs or grass, presumably nesting material. At least ten individuals were seen and, as there was extensive grass in the area, Rawsthorne thought that there were probably more individuals present.

At 1630 h on 7 May, Lynda Hyde flushed a single male Painted Finch from low bushes on the wall of the tank at Mount Wood campground. It flew to a bush only 7 m away, where it was in full view. After ~90 seconds it flew to a nearby dead tree, where both Lynda and Timothy Hyde were able to observe it well (NSW ORAC Case 443, accepted). There were large areas of grass nearby. This Finch was possibly one of those seen the month before by Rawsthorne and, given the behaviour noted by Rawsthorne, it is likely that the birds that he saw had attempted to breed.

The Gorge Lookout, Sturt National Park, April 2007: Graham Turner saw a male and a female Painted Finch at the Gorge Lookout in Sturt National Park on 14 April (G. Turner pers. comm.). They were immediately north of the carpark, where there was little ground-cover though the gully nearby appeared lush and had patches of seeding grasses. Some emu-bushes were also flowering near the carpark. The Finches were quiet, and were reluctant to leave the locality. Turner had seen a pair acting the same way only 5 days earlier at Cooper Creek, SA, when a nest was found, so he considered that the birds at the Gorge Lookout may have been breeding.

Menindee, August–September 2007: On 19 August, BK was conducting a regular quarterly bird survey at Shed Tanks at 32°01'S, 142°19'E on Byrnedale Station, 41 km north of Menindee, when he saw at least three, and possibly as many as five, Painted Finches. He observed the birds from 0910 to 0917 h; two birds seen clearly were males, though females may have been present. The Finches were seen on the ground and atop dead and live Prickly Wattles *Acacia victoriae*. They were initially found on vegetation on the edge of the southern-most of two tanks, near but not with the Zebra Finches *Taeniopygia guttata* that were coming in to drink. The Painted Finches eventually flew non-stop to the south-west and out of view.

After hearing of this record, IMcA and RO'B visited the area with BK. They arrived at Shed Tanks on 25 September at 0900 h. Almost immediately, RO'B identified the calls of the Painted Finch amongst those of the hundreds of Zebra Finches present, and two Painted Finches flying towards the dam were seen by RO'B and IMcA, though these could not be relocated. At ~0930 h, RO'B and IMcA saw another two or three Painted Finches flying away along the creekline north of the tank. The flight of Painted Finches was generally more direct and at a greater elevation than that of the Zebra Finches. At 1015 h IMcA, RO'B and BK saw another two Painted Finches (a pair) flying to the northern inlet dam from the north. Initially these Painted Finches were skulking around the bases of daisies and Shrubby Groundsel *Senecio* spp. around the edge of the dam, before flying away to the north.

Shortly afterwards, IMcA, RO'B and BK left Shed Tanks to visit other sites to the west, but returned at 1300 h. Almost immediately RO'B and IMcA heard, then saw, two Painted Finches fly towards the inlet dam from the north, though they could not be relocated. At 1310 h another five individuals flew in to the middle tank; they were viewed well and photographed, including three in juvenile plumage (Plate 3). The five birds then flew to a dead bush near the inlet dam, where all authors present saw them joined by another two individuals (possibly those that flew in earlier). All seven birds then flew to the middle tank, where they drank before perching in dead Prickly Wattles near the inlet dam, and finally leaving via the creekline to the north.

It thus seems that Painted Finches were visiting Shed Tanks throughout the day but, as they did not appear to be feeding in the immediate vicinity, they were probably not making repeat visits. On this basis there may have been at least 20 Painted Finches within several kilometres of the dam.

Follow-up visits to Byrnedale Station by BK since September 2007 and through to March 2008 failed to record any Painted Finches. All the Byrnedale records were forwarded to NSW ORAC (Case 458, accepted).

Yanco Creek Crossing, north of Jerilderie, August–November 2008: On 29 August, Geoff and Sandra Plumb of Deniliquin observed a pair of Painted Finches at the Yanco Creek Crossing (35°09'S, 145°46'E), north of Jerilderie (NSW ORAC Case 464, accepted). The male was seen first, collecting charcoal from a small camp fire. He then flew to a nest, from which the female exited. The following day DP visited the site and observed the Finches from 0930 h for ~1 h. During this time both the male and the female were seen on the ground, on top of dead and live Cooba *Acacia salicina* and Black Box *Eucalyptus largiflorens* trees, and at the nest-site. Yanco Creek Crossing is 450 km south-east of Menindee.

From 29 August until 16 September, both Finches were seen at the site by numerous observers, including DP and DI [Plates 1 (front cover), 4–5]. While



Male Painted Finch near Broken Hill, 5 April 2007

Plate 2

Photo: John Fennell



Juvenile Painted Finches at Shed Tank, Byrnedale Station, Menindee, 25 September 2007

Plate 3

Photo: Ian A.W. McAllan

one remained on the nest, the other foraged amongst surrounding vegetation. On 16 September, a recently hatched chick was in the nest; the next day, DP arrived at the site at 0915 h to find the nest destroyed and empty. The adults were still present, and foraged on the ground close to the nest-site. After 35 minutes the male flew to the nest, looked briefly about the cavity and then returned to the female.

During subsequent visits to the site by DP during September, and by David Egan during October, Painted Finches were still present but were more difficult to locate, and although one Finch could still be found about the original site the other could not.

On 13 November, DP visited the site again, and flushed what he thought were the two adult Finches from the ground. Immediately after, three more Finches took flight and followed the first two. On closer inspection, it was noted that the adult male had been followed by a juvenile bird, and the later three birds were the adult female and two juveniles. The following day, Sean Dooley observed two adult Finches and four juveniles (S. Dooley pers. comm.).

The last observation of Painted Finches at this site occurred on 28 November, when DP saw the adult male with one juvenile; they were last observed flying south over the creek. During several visits to the site during December 2008, no Finches were seen.

Discussion

The presence of juvenile Painted Finches at Byrnedale Station in September, 5 weeks after the earlier sightings of only adults, indicates that these finches had bred in the vicinity. Painted Finches begin to moult out of juvenile plumage from the age of 7 weeks, attaining adult plumage by 12–16 weeks (Higgins *et al.* 2006). This is thus the first confirmed breeding of the species for NSW, though the observations in Sturt National Park earlier in the year may have involved breeding birds. The later observations of Painted Finches north of Jerilderie, with an initial failed breeding attempt followed by an apparently successful brood, confirm breeding at most of the localities involved with the influx of 2007–08.

The habitat near Shed Tanks consisted of an almost flat plain of desert loam with areas of gravel and stone. The vegetation consisted of annual and perennial chenopods, grasses and forbs rarely exceeding 20 cm in height because of grazing by sheep. Isolated stands of shrubs and trees typical of western NSW were scattered about, e.g. Belah *Casuarina cristata*, Mulga *Acacia aneura*, emu-bush and cassia. The drainage line on which the tanks were situated supported an open stand of Prickly Acacia, then in poor condition. Below this there was a dense cover of a climbing grass, possibly Rat's-tail Couch *Sporobolus mitchelli*, sometimes climbing the bases of the shrubs to the height of 1 m. Patches of Spinifex *Triodia irritans* were found at Scropes Range 7 km to the north-west. Low hills, outliers of Scropes Range, are found ~5 km to the west and north, but there were other watering points closer to these hills so if the Painted Finches were residing in the hills it would be unlikely that they would visit Shed Tanks. However, if the birds had nested in the Spinifex on the Range, it is possible that a lower density of vegetation, and thus less food, caused the newly mobile family groups to move out onto the plain.

Yanco Creek is a distributary of the Murrumbidgee River and commences ~15 km west of Narrandera. Before 1859 it flowed only in floods (Gammage 1986), but in 1859 the first Yanco cutting was made and flows along Yanco Creek from the



Male Painted Finch foraging on ground, Yanco Creek Crossing, 31 August 2008

Plate 4

Photo: Dean A. Ingwersen



Female Painted Finch, Yanco Creek Crossing, 31 August 2008

Plate 5

Photo: Dean A. Ingwersen

Murrumbidgee south to Billabong Creek became almost permanent (Ronald 1960). At the Yanco Creek Crossing north of Jerilderie, there is a riparian corridor dominated by River Red Gum *Eucalyptus camaldulensis*, and on the northern side of the creek there is a small area of Black Box with Cooba. On the southern side, this vegetation community covers a much larger area. A short distance away from the creek, from about 50 m, the vegetation is dominated by Boree (Myall) *Acacia pendula* woodland, with a ground-layer of native grasses, forbs and low chenopods.

Although the Painted Finch is usually found in areas of spinifex, either grassland or as a component of an understorey, there are records where there is no spinifex nearby (e.g. Kovac & Niejalke 2004). In NSW at least three of the Finch records came from sites with sandy rather than rocky substrates, and all sites lacked spinifex in the immediate vicinity. Spinifex is rare in north-western NSW, though not absent, being found at localities in the hills near Broken Hill, Mutawintji National Park and at Scopes Range (IMcA & BK pers. obs.). The possibility remains that the Finch was found in such areas. However, spinifex is absent from the alluvial plain near Yanco Creek. Visits to this site by DP from 2000 to 2007 had not detected Finches, nor has the species been observed in the region by other resident ornithologists. It seems inconceivable that there was a resident population of the Finch in this area that had gone unnoticed.

The most likely origin of the breeding pair observed on Yanco Creek requires some consideration, particularly in relation to whether the observed birds were wild or aviary escapees. The movements of the Painted Finch are poorly known (Higgins *et al.* 2006) and, although considered as largely sedentary or resident, the species demonstrates wide dispersal and irruptive movements, sometimes far outside its usual range (Collins 1995; Donato *et al.* 1997; Higgins *et al.* 2006). The movement of arid-zone species to areas outside their 'typical' range has long been known, and involves many species, for example Flock Bronzewing *Phaps histrionica*, Letter-winged Kite *Elanus scriptus*, Red-tailed Black-Cockatoo *Calyptorhynchus banksii*, Red-browed Pardalote *Pardalotus rubricatus*, Pied Honeyeater *Certhionyx variegatus* and Orange Chat *Epthianura aurifrons* (Morris *et al.* 1981; McAllan 1989, 1996; Morris 2004). Given the earlier records of the Painted Finch from north-western NSW, locations which are south-east of the species' typical range, it is conceivable that a further southerly movement of Finches was observed.

There are several aviculturists in the Riverina, but if the pair of Painted Finches originated from an aviary their survival would be remarkable: after escaping from the aviary, the birds would have needed to find food or face starvation, they would have had to evade both predators and aggressive species, remain together in the wild, and locate suitable habitat in which to breed. Given that the Yanco Creek site is some distance from the nearest known aviary and the lack of known records from the area, we believe that these Finches were wild and were part of the irruption into NSW at this time.

At this stage, although recorded from NSW close to the Qld border, there is only one record of the species from south-western Qld—a sighting 70 km north of Warri Gate in September 2007, ~4 months after the observations in the Sturt National Park area and coinciding with the observations near Menindee (Higgins *et al.* 2006; P. Maher pers. comm.). On this basis, the Finches in NSW, and at Warri Gate, probably came from the west, in SA. The Finch has long been known from north-western SA, with early records from the Musgrave and Everard Ranges (Close & Jaensch 1984). It has also been increasingly reported from localities to the south and east of the Everard Ranges (Condon 1968; Joseph 1975; Bell 1976;

Gee *et al.* 1996; Carpenter *et al.* 2003; Kovac & Niejalke 2004), and it is likely that it now regularly occurs through this area east to the northern Flinders Ranges. The first record from the northern Flinders Ranges was on 23 March 1925, when J. Neil McGilp saw five Finches at 'Poontana', now believed to be on Wooltana Station near 30°25'S, 139°26'E (McGilp in Anon. 1925; Hornsby 1987). There were no further sightings from these Ranges for several decades, although since 1980 there has been an increasing number of records, including an occasional breeding record (Crisp 1974; Blakers *et al.* 1984; Hornsby 1987, 1997; Carpenter *et al.* 2003).

Another record from farther south in the Flinders Ranges is of note: a male bird seen on 24 October 1989 near Mount Remarkable at 32°49'S, 138°04'E (Dennis & Dennis 1995). This record is even farther south than Byrnedale, and this Finch may have come from west of Spencer Gulf, as Painted Finches have been reported from Corunna near Iron Knob (32°42'S, 137°37'E) (Joseph 1975), and at Woomera (31°13'S, 136°49'E) (Bell 1976). Although the Finch from Mount Remarkable can only be considered a vagrant, the irregular but continuing records from the northern Flinders Ranges suggest that the Finch may have colonised that region.

To reach NSW, the Painted Finches evidently crossed from the northern Flinders Ranges over sandplain country, either north or south of Lake Frome. Such dispersal is to be expected from an arid-zone bird that relies on water; most water sources dry up during drought, forcing birds to move. One can only speculate on why the Finches were in NSW in such numbers in 2007 and 2008. Drought had been occurring in northern SA, as well as in Victoria and southern inland NSW, for some years (Bureau of Meteorology data). In March 2007, western NSW received moderate rainfall, with Tibooburra getting 33 mm and Broken Hill 22 mm; comparable rainfall was received at both localities in April 2007. In the same 2-month period, Arkaroola in the northern Flinders Ranges received <20 mm. However, as the timing of the arrival of the Finches in NSW was unknown, it is unclear if this rainfall pattern was the impetus for the Finches to move eastwards and attempt to breed. May 2007 brought some of the wettest conditions ever recorded in western NSW, with 94 mm rainfall at Tibooburra and 91 mm at Menindee (Bureau of Meteorology data). This rain would have increased vegetation growth locally, and may have induced birds in the Menindee area to breed the following spring.

This situation contrasts with the rainfall records from the Yanco Creek area (taken from 'The Yanko' 2 km to the south-west). Drought has continued through 2007 to 2009, with most months recording <30 mm through to November 2008, when there was 55 mm, with another 45 mm the following month. However, there was an almost permanent supply of water at Yanco Creek, supplying stock and domestic water to properties along the system. Thus, breeding of Painted Finches occurred at Yanco Creek in the absence of a significant rainfall event, but in the presence of permanent water.

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