

# Eurasian Hobby *Falco subbuteo*: A review of recent records from Western Australia and Australian external territories

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**Abstract.** All Australian records of the Eurasian Hobby *Falco subbuteo* are summarised. Before 2016, the only Australian records of the Eurasian Hobby were on external territories to the north-west of the mainland. Each year between 2016 and 2021 a single Eurasian Hobby was observed as an austral summer visitor to the Swan Coastal Plain in south-western Western Australia. These sightings involved an adult in 2016, 2019 and 2020, and single immature birds in 2017–2018. The age of the Hobby seen in 2020–2021 was undetermined. As it appears that multiple individuals have been recorded across years, it is likely that the species is now more than just an accidental vagrant to Australia.

## Introduction

The main distribution for the Eurasian Hobby *Falco subbuteo* extends from Europe, eastwards through central and northern Asia, and Africa (White *et al.* 1994). The majority of Eurasian Hobbies from Europe and Russia spend the Northern Hemisphere winter in central and southern Africa and southern Asia (White *et al.* 1994; Meyburg *et al.* 2011). This species is a long-distance trans-equatorial migrant that is often recorded outside its normal range; for example, there are sightings from the eastern and western coasts of the United States of America (Maybank 2004; West 2008; Strandberg *et al.* 2009; eBird 2021a) and recently in mainland Australia (Greatwich 2019). This paper discusses records of the Eurasian Hobby on the Australian mainland and surrounding offshore (external) territories, with a focus on recent observations on the Swan Coastal Plain in south-western Western Australia.

## Methods

Records of the Eurasian Hobby were obtained from multiple sources, including eBird (2021b), *Western Australian Bird Notes* (Anon. 2018a,b; 2019a,b; 2020), Western Australian Museum (Johnstone & Storr 1998, 2004), BirdLife Australia Rarities Committee (BARC; known as Birds Australia Rarities Committee before 1 January 2012) records and Atlas of Living Australia (ALA 2021). BARC assesses the validity of records and rarities reported within Australia and its external territories. This includes areas at sea that are within Australia's Exclusive Economic Zone, which is 200 nautical miles offshore or to agreed international boundaries such as those with Papua New Guinea, Timor-Leste and Indonesia.

Plumage diagnostics of individual birds were assessed from numerous photographs taken of the Eurasian Hobby in Australia each year, including in flight and perching. From these photographs, sourced from eBird (2021b), some birds could be aged and sexed (e.g. Blasco-Zumeta & Heinze 2014). The figures shown in the present review are selected images from 2017–2021.

## Results

BARC has accepted two observations (Case Nos 682 and 903) of the Eurasian Hobby from Australia's north-western external territories and two from mainland Australia (Case Nos 917 and 1068) (Table 1). A further two records (Case Nos 414 and 533) were not accepted. Case No. 414 concluded that the sighting related to a Peregrine Falcon *F. peregrinus* (probably a Northern Hemisphere migratory form, which is more hobby-like in appearance), and in Case No. 533 insufficient data were available to validate the identification.

Information relating to a further seven observations of the Eurasian Hobby appear in various sources that have not been assessed by BARC: three from external territories and four from the Swan Coastal Plain, Western Australia (Table 2). The records from external territories are listed below as are all records from the Swan Coastal Plain.

### *Australian External Territories*

1. A single bird tentatively identified as a Eurasian Hobby by John Darnell was observed between Scott Reef and Rowley Shoals at 15°20'S, 120°43'E on 25 November 1997. It was considered to be in subadult or first-winter plumage. Darnell was familiar with this species as it was a common winter visitor when he resided near its wintering grounds whilst he lived in South Africa (Johnstone & Storr 1998). This record is included in the Checklist of the Terrestrial Vertebrate Fauna of Western Australia maintained by the Western Australian Museum (2020).
2. A falcon provisionally identified as a Eurasian Hobby was observed by J. Reid in November 1997 on Christmas Island (Johnstone & Storr 2004); see also James & McAllan (2014).
3. There is an unconfirmed record from Margaret Knoll lookout, Christmas Island, made by Norton Gill and John Baas on 14 December 2017 (Baas 2017; Gill 2017). Photographs taken (but not submitted to BARC for validation) indicate that this bird could possibly be an immature Eurasian Hobby as it showed two

**Table 1.** Records of Eurasian Hobby assessed by the BirdLife Australia Rarities Committee (BARC) covering Australia and Australian external territories. IOT = Australia's Indian Ocean Territories, WA = Western Australia. Dates are shown as day/month/year.

<i>Date/duration of observations</i>	<i>Location</i>	<i>State or territory</i>	<i>BARC</i>	<i>Case No.</i>
2/11/2003	West Island, Ashmore Reef	WA	Not accepted	414
3/3/2007	Christmas Island	IOT	Not accepted	533
5/12/2010	Cocos (Keeling) Islands	IOT	Accepted	682
4/2/2014	Cocos (Keeling) Islands	IOT	Accepted	903
6/2–12/3/2016 (36 days)	South Lake, Perth	WA	Accepted	917
10/12/2018–4/3/2019 (84 days)	North Lake	WA	Accepted	1068

**Table 2.** Records of Eurasian Hobby not submitted to BirdLife Australia Rarities Committee (BARC) covering Australia and Australian external territories. The duration of observations was based on the first and last reported sighting on eBird (2021b) and in *Western Australia Bird Notes* (Anon. 2018a,b; 2019a,b; 2020). IOT = Australia's Indian Ocean Territories, WA = Western Australia. See text for further information on the records for November 1997 and for 14 December 2017. Dates are shown as day/month/year.

<i>Date/duration of observations</i>	<i>Location</i>	<i>State or territory</i>	<i>Reference</i>
Nov. 1997	Scott Reef/Rowley Shoals	WA	Johnstone & Storr (1998)
Nov. 1997	Christmas Island	IOT	Johnstone & Storr (2004)
14/12/2017	Christmas Island	IOT	Gill (2017)
21/1–20/3/2017 (59 days)	North Lake	WA	eBird (2021b)
12/1–6/2/2018 (26 days)	North Lake	WA	eBird (2021b)
1/12/2019–18/1/2020 (49 days)	North Lake	WA	eBird (2021b)
5/12/2020–10/1/2021 (37 days)	North Lake	WA	eBird (2021b)

noticeable pale-cream areas on the nape separating the crown and mantle, with the crown joining the mantle via a central dark line from the crown (see Small 1992).

### *Swan Coastal Plain region of Western Australia 2016–2021*

Since 6 February 2016, numerous records and reports have been made of a Eurasian Hobby seen in the Swan Coastal Plain, Western Australia (Greatwich 2019; eBird 2021b). The Swan Coastal Plain (which is bisected by the Swan River) is located between the Darling Range and the Indian Ocean and contains a chain of ephemeral wetlands that run from north to south. Observations were made at four lakes: North Lake, Bibra Lake, South Lake and Lake Joondalup. South Lake and North Lake are separated by ~3 km and located ~18 km south of Perth, and Bibra Lake is situated between them. Lake Joondalup is located 23 km north of Perth. The durations of the Eurasian Hobbies' presence on the Swan Coastal Plain are shown in Tables 1 and 2.

Photographs from eBird (2021b) and from photographers' private collections were consulted to analyse plumages of the Eurasian Hobbies seen on the Swan Coastal Plain. These indicate adult birds in 2016, 2019 and 2020 and immature birds in 2017 and 2018. A description of the plumage characteristics of the bird in 2016 is given by Greatwich (2019), and this suggests an adult male. Plumage characteristics and individual features of the

birds noted in 2017, 2018, 2019, 2020 and 2021 are described below. Aging of the birds based on plumages follows descriptions from Blasco-Zumeta & Heinze (2014) and Zuberogoitia *et al.* (2018).

#### 1. Plumage and individual features identified in 2017 (immature) (21/1/2017 to 20/3/2017)

The Eurasian Hobby present in 2017 was easily recognisable as large parts of the middle tail-feathers (rectrices R1 to R3) were missing (Figure 1). There was



**Figure 1.** Eurasian Hobby (immature) in flight at North Lake, showing missing rectrices, pale undertail-coverts and pale-fringed secondaries on trailing edge of wings, January 2017. Photo: Geoffrey Groom

no change in the pattern of the missing rectrices during the 2 months that the Hobby was observed. This suggests that the rectrices were damaged as opposed to going through a moult stage.

The undertail-coverts had the faintest wash of a pale apricot colour. Heavy streaking on the upper breast formed a necklace most noticeable when the bird was in flight (Figure 2). In flight, some pale dots were visible from above on two of the outer primaries (P9 and P7). The head pattern was fully black and the supercilia were white. The mantle was dark brown. The pale fringe on the underneath



**Figure 2.** Eurasian Hobby (immature) with dragonfly at North Lake, 14 March 2017. Photo: Geoffrey Groom

of the secondaries gave each wing a light trailing edge. No moult was visible on primaries or secondaries. The bird lacked the slate-grey upperparts and red undertail-coverts of adult plumage.

## 2. Plumage and individual features identified in 2018 (immature) (12/1/2018 to 6/2/2018)

The head and crown patterns were fully black, the forehead black except for a faint lighter area above the beak, and the eye-rings and cere were yellow (Figure 3). Heavier



**Figure 3.** Eurasian Hobby (immature) at North Lake, 20 January 2018. Photo: Geoffrey Groom

streaking at the top part of the breast formed a necklace most noticeable in flight. The undertail-coverts had the faintest wash of a pale apricot colour. The upperparts were dark brown. No moult was visible on primaries or secondaries. The bird lacked the slate-grey upperparts and red undertail-coverts of adult plumage.

## 3. Plumage and individual features identified in 2018-2019 (adult) (10/12/2018 to 4/3/2019)

The head and crown patterns were fully black, the forehead black except for a faint lighter area above the beak, supercilia were white and eye-rings and cere were yellow (Figure 4). The legs were bright yellow. The breast was white with black streaks. There was a light-brown area on the lower throat where it joins the breast. The central undertail-coverts showed a pale apricot colour when viewed from the front (early January). Thighs were a deep rusty red when viewed from the side and no streaks on thighs were noticed, indicating a possible male. Upperparts were slate-grey, and when the wings were folded the tips of the primaries appeared black. When the bird was perched, the ends of the wings extended past the tail. Each wing had a dark trailing edge extending over the primaries and secondaries. A dark trailing edge of the underwing is indicative of an adult (Blasco-Zumeta & Heinze 2014). Middle rectrices R1 were uniform grey and of full length; the other rectrices were undergoing moult as visible on a photograph taken on 5 January 2019.

The adult Eurasian Hobby starts moulting in the breeding grounds, arrests moult to migrate and continues moult once in the winter quarters. The duration of the suspended moult is >1 month, and the complete moult cycle consists of two season moult cycles (Zuberogoitia *et al.* 2018). The Hobby sighted in late 2018 and early 2019 was an adult that seemed to have a mix of old adult and new adult primaries and secondaries [i.e. it had started its second (+) moult session].



**Figure 4.** Eurasian Hobby in adult plumage at North Lake, 6 January 2019. Photo: John Baas



**Figure 5.** Eurasian Hobby in adult plumage in bushland located immediately south of North Lake, December 2019. Photo: Ken Glasson

#### 4. Plumage and individual features identified in 2019–2020 (adult) (1/12/2019 to 18/1/2020)

The Eurasian Hobby that arrived for the 2019–2020 season had adult plumage (Figure 5). Barring on the underside of the rectrices showed that the individual bars ran parallel right up to the feather shaft, indicating that this was an adult male. Adult males usually tend to have thighs and undertail-coverts unstreaked or with poorly marked streaks and deep-reddish underparts whereas adult females tend to have thighs and undertail-coverts streaked and underparts a duller reddish colour (Blasco-Zumeta & Heinze 2014). The deep-red thighs and undertail-coverts did not show any discernable streaking. A photograph taken on 4 January 2020 shows only three barred outer rectrices, indicating that moult of rectrices R2 and R3 was in progress (Zuberogoitia 2018; Adekola *et al.* 2021).

#### 5. Plumage and individual features identified in 2020–2021 (5/12/2020 to 10/1/2021)

There were insufficient photographs available to classify the age of the Eurasian Hobby seen in 2020–2021 (Figure 6). Dark-grey upperparts were visible. No light fringes on any feathers were distinguishable. The undertail-coverts were an orange-apricot colour. Moult of the outer rectrices was evident and these were about half length (Adekola *et al.* 2021). Moult of rectrices was observed in the Eurasian Hobbies seen during 2018–2019 to 2020–2021. This Eurasian Hobby was most likely an adult.

## Discussion

Before 2016, there had been two confirmed sightings of the Eurasian Hobby in Australian external territories but none on the mainland. Intriguingly, since 2016 this species has been recorded on the Swan Coastal Plain for six consecutive austral summers (2016–2021), and evidence suggests that it is not the same individual returning. Adult Hobbies were identified in years 2016, 2019 and 2020



**Figure 6.** Eurasian Hobby observed at the southern side of North Lake, 5 December 2020. Photo: Jason Abuso

and an immature in 2017 and 2018. This means that at least two different individuals were involved in the migration to the Swan Coastal Plain. Factors that are driving these apparent arrival and departure dates (which are broadly consistent with known migration patterns in southern Africa) to the Swan Coastal Plain are unknown and open to speculation.

The frequency of sightings made at both North Lake and South Lake suggests that the Eurasian Hobby remained near these lakes during the periods when the birds were regularly seen. The longest continuous period that a Hobby was observed in any single season was 12 weeks, whereas the Hobbies usually spend 4–6 months on their wintering grounds (Cramp 1980; Meyburg *et al.* 2011). The period when sightings were made falls between 1 December and 20 March, with the last observations coinciding with departure dates for the species' northern migration from Africa (Meyburg *et al.* 2011). Interestingly, all confirmed sightings across the Australian mainland and external territories fall within the period that Eurasian Hobbies normally spend at their wintering grounds (austral summer). The many sightings at North Lake late in the evening suggest that the bird probably roosted nearby.

The ephemeral wetlands on the Swan Coastal Plain seem to provide high-quality habitat with a wide range of suitable foraging sites and abundant food, as Eurasian Hobbies were observed catching and feeding on large dragonflies (Odonata), which were numerous at the lakes. Several photographs were taken of the Eurasian Hobby with prey of dragonflies, which were tentatively identified as Australian Emperor *Hemianax papuensis* or Blue-spotted Hawker *Adversaeschna brevistyla*, based on size, location and identifying markers (Figure 2).

Several Australian Hobbies *Falco longipennis* were regularly seen feeding on dragonflies at the same site. North Lake had a reasonably large population of

dragonflies even when the lake had little water or was dry in the autumn (Wynton Maddeford pers. comm.). This habitat quality is likely a major factor for the regular occurrence of Eurasian and Australian Hobbies at the site. As it is evident that multiple Eurasian Hobbies have been observed at this locality (i.e. not just the same individual returning), it is possible that the species is now a regular, albeit rare, visitor to the Western Australian mainland and external territories, with different individuals attracted to the rich food source at this particular site in different years. Areas with similar habitat quality to the Swan Coastal Plain deserve vigilant observations for the species during the austral summer and autumn.

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