

Recent Honeyeater Migration in Southern Australia

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Abstract

*A conspicuous migration of honeyeaters particularly Yellow-faced Honeyeater, *Lichenostomus chrysops*, and White-naped Honeyeater, *Meliphreptus lunatus*, was observed in the SE of South Australia during May and June 2007. A particularly significant day was 12 May 2007 when both species were observed moving in mixed flocks in westerly and northerly directions in five different locations in the SE of South Australia. Migration of Yellow-faced Honeyeater and White-naped Honeyeater is not limited to following the coastline in the SE of South Australia, but also inland. During this migration period small numbers of Fuscous Honeyeater, *L. fuscus*, were also observed. The broad-scale nature of these movements over the period April to June 2007 was indicated by records from south-western Victoria, various locations in the SE of South Australia, Adelaide and as far west as the Mid North of SA.*

INTRODUCTION

Little is known about the large scale or migratory movements of Australian land birds (Munro, Wiltschko & Wiltschko, 1993; Griffioen and Clarke, 2002; Dingle 2008), especially population changes and movements in honeyeaters (Ford 1977; Simpson & Day, 1996). However, the migratory nature of the Yellow-faced Honeyeater and White-naped Honeyeater is well documented (Schodde and Tidemann, 1986) and to a lesser extent that of Fuscous Honeyeaters (Higgins, Peter and Steele 2001). Hence large and restless flocks of Yellow-faced Honeyeater and White-naped Honeyeater can

be seen moving through areas of south-eastern Australia during autumn (Ford 1983; Simpson & Day 1996). On occasions Fuscous Honeyeaters have been reported migrating in company with Yellow-faced Honeyeaters, but only in small numbers (Blakers et al., 1984).

Movements of honeyeaters throughout southern Australia are also predominantly up the east coast with birds moving from Victoria and New South Wales (Hindwood 1956; Munro, Wiltschko and Wiltschko 1993; Munro and Munro 1998) into southern Queensland. The timing and direction at which these movements occur has been under considerable study with findings that birds (heading up the east coast) actually change from a north-easterly to north-westerly direction during this migration period. This change in direction is partly dictated by changes in landscape features, but when Yellow-faced Honeyeaters are held captive during this same period their flight tendencies also display this same directional change (Munro, Wiltschko and Ford, 1993). These seasonal movements are assisted by the abundance in flowering of forest and woodland trees and understorey plants, but are not limited to them (Ford 1983). Seasonal movements of honeyeaters are also well known to occur in the Mount Lofty Ranges (SA) with birds moving 10 to 100 km in search of food (Paton, Rogers & Harris, 2004).

Despite the predominant east coast movement of honeyeaters a proportion of Yellow-faced Honeyeater and White-naped Honeyeater populations also make their way into South Australia from south-western Victoria. Hood and Attiwell (1958) and Haywood (2003) both observed Yellow-tufted Honeyeater, *L. melanops*,

a species only known as a vagrant to South Australia (SAOA 2008) in amongst flocks of other honeyeater species during this migratory period. Other previous conspicuous mass movements and/or migration events of honeyeaters in South Australia have been reported by Ford (1977), Hardy (1980) and Paton (1988).

Hood and Attiwell (1958) remarked on annual flights of wattlebirds (*Anthochaera* sp.) and various small honeyeaters from the end of April to May each year in the mid SE of South Australia (Naracoorte district). On 11 May 1958 Yellow-tufted Honeyeaters were seen amongst these flights in the Joanna area (15 km east of Bool Lagoon). Haywood (2003) reported a similar occurrence on 10 May 2002 when a Yellow-tufted Honeyeater was seen further south at Moorak (5 km SW of Mt Gambier) presumably arriving amongst the flocks of migrating Yellow-faced Honeyeaters seen during that early May period.

Ford (1977) noted that in autumn 1976 the migration by both Yellow-faced Honeyeaters and White-naped Honeyeaters was more noticeable than in previous years with reasonable numbers being seen in Adelaide suburbs, far northern Mount Lofty Ranges and Murray Mallee districts. Hardy (1980) also reported conspicuous numbers of White-naped Honeyeaters 21 km N of Adelaide during March and April 1978. Numbers dwindled as the season broke in late April.

Paton (1988) remarked on mixed flocks of honeyeaters (including Yellow-faced Honeyeater and White-naped Honeyeater) and their direction of flight at Cape Jervis on 3 May 1986. Paton (1988) also detailed how he believed that migration events in the SE of South Australia may follow the coastline. This coastal movement also appears normal for Yellow-faced Honeyeater in southern and eastern Victoria (Higgins et al. 2001) whereby birds moving along the coastline have to travel east to north-east.

This paper compiles observations of mixed flocks of honeyeaters (especially Yellow-faced Honeyeater and White-naped Honeyeater) from early April to late June 2007 from SW Victoria, various locations in the SE of South Australia, Adelaide and as far as the Mid North of the S.A.

MIGRATION EVENT OF AUTUMN/WINTER 2007

Initial observations

In the Portland district (SW Victoria) in April "large flocks (100's) of Fuscous Honeyeater and Yellow-faced Honeyeater were observed together. In separate large flocks White-naped Honeyeaters and much smaller numbers of Yellow-tufted Honeyeaters and Tawny-crowned Honeyeaters, *Glyciphila melanops*, were also moving together. Fuscous Honeyeaters were observed feeding on lerps and the other honeyeater species fed mainly on blossom of Swamp Gum, *Eucalyptus ovata*. Flocks were erratic but general movement was in a southerly or easterly direction" (R. Farnes pers. comm. 2007).

Flocks of Yellow-faced Honeyeater (20-100 flocks per day) and small numbers of White-naped Honeyeater were flying north over Black Forest (suburban Adelaide) during April. "This occurs most years although numbers are usually less and confined to about two weeks in late April - early May. Birds were only observed moving from early to mid morning and flock sizes ranged from 2 to 20 birds" (G. Carpenter pers. comm. 2007).

Large numbers (many 100's) of honeyeaters were observed flying through different parts of the SE of South Australia by several observers on 12 May 2007 (Table 1). The flocks observed were mixed but dominated by either Yellow-faced Honeyeater or White-naped Honeyeater. Observations ranged from mid morning through to mid afternoon. The sites where this was observed included Port MacDonnell, Piccaninnie Ponds Conservation Park (CP), Moorak, Bool Lagoon area, and Butcher Gap CP (Figure 1). Observers noted that the flocks

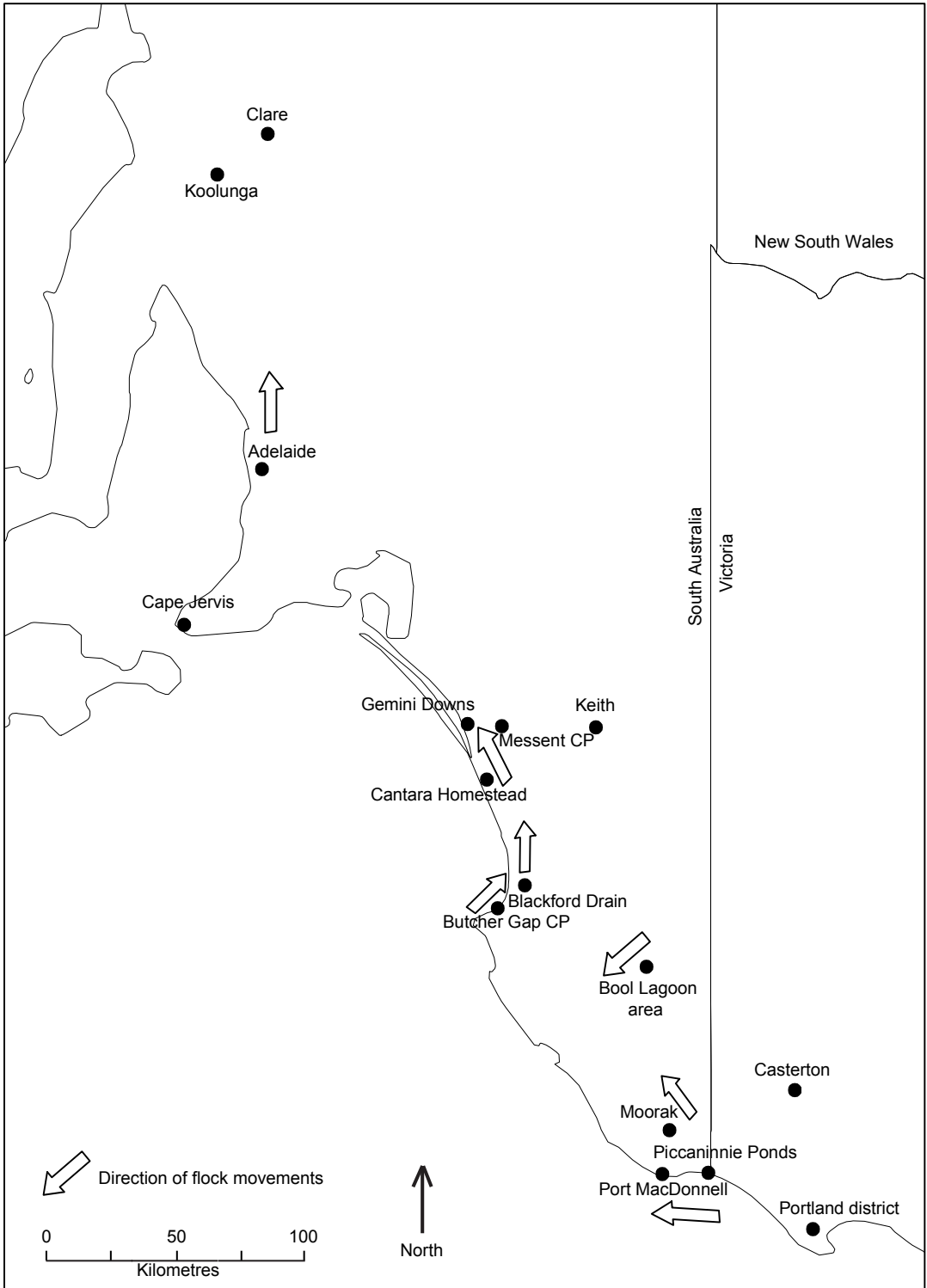


Figure 1. Locations of Honeyeater movements in autumn/winter 2007

never sat for longer than a minute or two, but generally only a few seconds. On occasions other honeyeater species were observed, but with little time and opportunity to identify them.

In SW Victoria on 16 May 2007 in the Cape Nelson area (Portland district) erratic movements of large mixed flocks of Yellow-faced Honeyeater and smaller numbers of White-naped Honeyeater and some Tawny-crowned Honeyeaters were observed on 26 May 2007 at Drajurk State Forest, (20 km west of Casterton). Many hundreds of Yellow-faced Honeyeater and Eastern Spinebill, *Acanthorhynchus tenuirostris*, and good numbers of Tawny-crowned Honeyeater were all seen mainly feeding near the ground on Flame Heath, *Astroloma sp.*, and to a lesser extent on flowering Brown Stringybark, *E. baxteri* (R. Farnes pers. comm. 2007).

Subsequent observations

Despite the numerous flocks of Fuscous Honeyeater in SW Victoria during this time, on only four occasions were Fuscous Honeyeaters confirmed to be amongst flocks of Yellow-faced Honeyeaters and White-naped Honeyeaters in South Australia (Table 1).

Fuscous Honeyeaters observed at Telford Scrub CP were feeding on flowering Swamp Gum, *E. ovata* (R. Green pers. comm. 2007). The two sightings in or near the Coorong were of birds feeding in flowering Coastal White Mallee, *E. diversifolia*, an abundant resource during that period.

Mid North observations

On 23 May 2007 Yellow-faced Honeyeaters, White-naped Honeyeaters and Eastern Spinebills were all observed at Neagles Rock, on the western side of Clare township (200 km north of Adelaide) (D. Potter, pers. comm, 2007). At a farming property near Koolunga during early May to June 2007 White-naped

Honeyeaters were observed, up to four at a time and apparently passing through. Two were feeding in flowering Peppermint Box, *E. porosa*, in a small heritage block on the same property on the 24 May and one or two others were heard near the farmhouse that day. In late June at least a couple were still present feeding in flowering SA Blue gum, *E. leucoxydon*, near the farmhouse and along the Broughton River about a kilometre to the north. White-naped Honeyeaters have only been previously recorded once near Koolunga, in May about ten years ago. On 30 June 2007 an Eastern Spinebill was observed near the house. This species has never previously been recorded between the Tothill Ranges and the Beetaloo area of the southern Flinders Ranges. Also Yellow-faced Honeyeaters have never been recorded between Clare, where they are regular, and the Beetaloo area (L. Pedler pers. comm. 2007).

Upper South-east observations

Interestingly approximately 50 km inland (from the Coorong) at Keith, this migration event particularly on 12 May 2007 (of Yellow-faced Honeyeater and White-naped Honeyeater) was not observed. However Red Wattlebirds, *Anthochaera carunculata*, were reported some weeks earlier in larger numbers than usual (D. Sando pers. comm. 2007).

Two further observations in early June were made of large numbers of Red Wattlebird in the upper SE. Several hundred Red Wattlebirds were observed in Messent CP on 11 June 2007 feeding on flowering Desert Banksia, *Banksia ornata*, in an area burnt in autumn 2002. Amongst them were large numbers of New Holland Honeyeaters, *Phylidonyris novahollandiae*, and occasional Tawny-crowned Honeyeaters.

Over 120 Red Wattlebirds in three flocks were observed at Cantara Homestead (southern Coorong) heading south over the inland edge of coastal dunes on 13 and 14 June 2007. On subsequent days similar numbers were

91 – Compilation of Honeyeater flock observations from April to June 2007.

Date	Species	Approx. Nos.	Location	Movement Direction	Observer/s
Apr	Yellow-faced Honeyeater Fuscous Honeyeater White-naped Honeyeater Tawny-crowned Honeyeater	100s 100s 100s few	Portland District, VIC	S to E	R Farnes
Apr/May	Yellow-faced Honeyeater White-naped Honeyeater	100s 10s	Adelaide	N	G Carpenter
Apr/May	Red Wattlebird	100s	Keith	NW	D Sando
12 May	Yellow-faced Honeyeater White-naped Honeyeater	100s 100s	Moorak	NW	B Haywood
12 May	Yellow-faced Honeyeater White-naped Honeyeater	100s 100s	Bool Lagoon area	variable	J & P Bourne
12 May	Yellow-faced Honeyeater White-naped Honeyeater	100s 100s	Port MacDonnell	W	J Campbell
12 May	Yellow-faced Honeyeater White-naped Honeyeater	100s 100s	Piccaninnie Ponds CP	W	R Green
12 May	Yellow-faced Honeyeater White-naped Honeyeater	100s 1000+	Butcher Gap CP	NE	V Natt
16 May	Yellow-faced Honeyeater White-naped Honeyeater Tawny-crowned Honeyeater	100s 10s few	Cape Nelson, Portland District, VIC	variable	R Farnes
23 May	Yellow-faced Honeyeater White-naped Honeyeater Eastern Spinebill	few few few	Neagles Rocks, Mid North	variable	D Potter
25 May	Yellow-faced Honeyeater White-naped Honeyeater Fuscous Honeyeater	10s 10s few	Blackford drain, Kingston	variable	C Tzaros
26 May	Yellow-faced Honeyeater Eastern Spinebill Tawny-crowned Honeyeater	100s 100s 10s	Drajurk SF, VIC	variable	R Farnes
27 May	Fuscous Honeyeater White-naped Honeyeater	few 10s	Telford Scrub CP	variable	J Starks & G Jackson
May Jun	White-naped Honeyeater	few	Koolunga, Mid North	variable	L Pedler
8 Jun	Fuscous Honeyeater Yellow-faced Honeyeater White-naped Honeyeater	few few few	Bool Lagoon area	variable	J & P Bourne
9 Jun	Fuscous Honeyeater Yellow-faced Honeyeater White-naped Honeyeater	few 10s 10s	Gemini Downs, Coorong	NW	B Haywood
11 Jun	Red Wattlebird New Holland Honeyeater Tawny-crowned Honeyeater	100s 100s few	Messent CP, Coorong	variable	B Haywood
13/14 Jun	Red Wattlebird	120	Cantara, Coorong NP	S then N	T Dennis
30 Jun	Eastern Spinebill	1	Koolunga, Mid North	variable	L Pedler

observed flying in the opposite direction (T. Dennis pers. comm. 2007).

DISCUSSION

Higgins, Peter and Steele (2001) refer to regular autumn movements of Yellow-faced Honeyeater and White-naped Honeyeater and it is not uncommon for Fuscous Honeyeaters to be amongst them. In two of the last seven years (2002 and 2007) conspicuous/mass movements of honeyeaters have been observed in the SE of South Australia and Fuscous Honeyeaters have also been reported from the region (Birds SE database, unpublished), but not in any other years during this period. In 2002, numerous sightings of Fuscous Honeyeater occurred from as far south as Moorak to Bordertown in the SE of the State from April to October. This same year a Yellow-tufted Honeyeater was observed for five days at Moorak after presumably coming through with migrating Yellow-faced Honeyeater (Haywood 2003).

Paton (1988) remarked that migration in the SE of South Australia is likely to occur along the

coastline. This remark has been substantiated here, however migration is not limited to the coast in this region as observers some 30-100 km inland saw flocks of honeyeaters clearly on migration in 2007 and also previously (Hood and Attiwell 1958). The origin of these honeyeater flocks is likely to be from south western Victoria due to the proximity of these sites to the SA/VIC Border. Paton also has never observed migratory flocks of Yellow-faced Honeyeater or White-naped Honeyeater in Ngarkat CP since beginning ornithological studies there in 1990 (D Paton pers. comm., 2008), but both species have been recorded in several years.

The two sightings of Fuscous Honeyeater near the Coorong are much further west than previously noted for this species in the mid to upper SE of South Australia, although Fuscous Honeyeater has been observed in eastern Ngarkat CP (6 km E of Pertendi Hut) on 19 July 1994 (D Paton pers. comm., 2008).

It is of interest to note that studies have shown captive Yellow-faced Honeyeaters during this migratory period show a flight orientation that suggests they change direction during migration from north-east to north-west (Figure 2). Does this change in direction explain why we observe

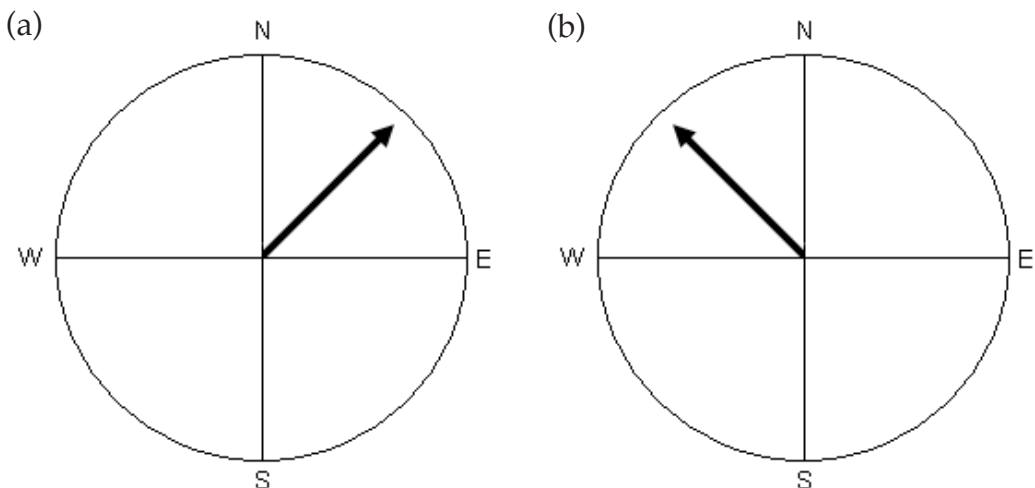


Figure 2 – Showing a significant change of flight orientation in migratory direction by the Yellow-faced Honeyeater during indoor experiments in Armidale (NSW). (a) during March and April, (b) during May and June (adapted from Munro, Wiltschko and Ford 1993).

birds moving in the SE of South Australia in a west to north-westerly direction at this time of year?

Dingle (2008) suggested that changes in temperature and rainfall are influential in initiating migration in birds. Further analysis of monthly through to weekly changes in temperature and rainfall in the lead up to conspicuous movements along with flowering of suitable food plants could improve our understanding of migration in Yellow-faced Honeyeaters and White-naped Honeyeaters, and other lesser migratory species like Fuscous Honeyeaters and Yellow-tufted Honeyeaters. Large disturbance events such as wildfire could also be a factor because in south-western Victoria a large wildfire could have contributed to honeyeaters moving away from a lost resource into South Australia in 2007 (D. Paton, pers. comm, 2009). A large fire in the Grampians National Park (~200 km from SA) burnt over 50% of the 167 000ha reserve in January 2007.

Further research could include; where does migration begin for birds that end up moving into South Australia or into New South Wales for that matter? Purchase (1985) reported that banded Yellow-faced Honeyeaters have been captured in excess of 740 km from their original banding location. This would suggest that a common breeding ground of SW Victoria for this species easily accounts for an individual moving into the Mount Lofty Ranges or even the Mid North of South Australia. However this conjecture cannot be substantiated here as birds moving in the Adelaide and the Mid North districts are thought to be local aggregations of honeyeaters from the Mount Lofty Ranges rather than from the SE (D Paton, pers. comm 2009). This highlights the need for further banding studies in south-western Victoria and south-eastern South Australia.

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