

**BANDING PROJECT REPORT****No.1****Agnes Banks Nature Reserve, New South Wales**(Abridged version – full paper can be obtained from: [www.absa.asn/index.php/agnes-banks-nr](http://www.absa.asn/index.php/agnes-banks-nr))

**Aim:** Ornithological research at Agnes Banks Nature Reserve is a component of a longitudinal study to document and then monitor the avian faunas in the north-western section of remnant Cumberland Plain woodland communities.

**Location:** 33°38'S; 150°41'E. Elevation 32 metres asl. Approximately 10 kilometres south of Richmond and two kilometres east of the Hawkesbury River.

**Description:** Agnes Banks Nature Reserve (Fig. 1) conserves 122 hectares of two remnant Cumberland Plain woodland communities<sup>1,2,3</sup>: Castlereagh Scribbly Gum Woodland and Agnes Banks Woodland. The latter community is listed as an *Endangered Ecological Community*<sup>4</sup> and is situated on ancient (Pliocene-Pleistocene) wind-blown sand dunes<sup>5</sup> and covers the western section of Agnes Banks Nature Reserve (see Fig. 1).

**Status:** Agnes Banks Nature Reserve was gazetted in 1982.

**Duration of Project:** December 1998 – June 2001 (31 months – 1<sup>st</sup> study period); August 2008 – July 2009 (12 months – 2<sup>nd</sup> study period).

**METHODS**

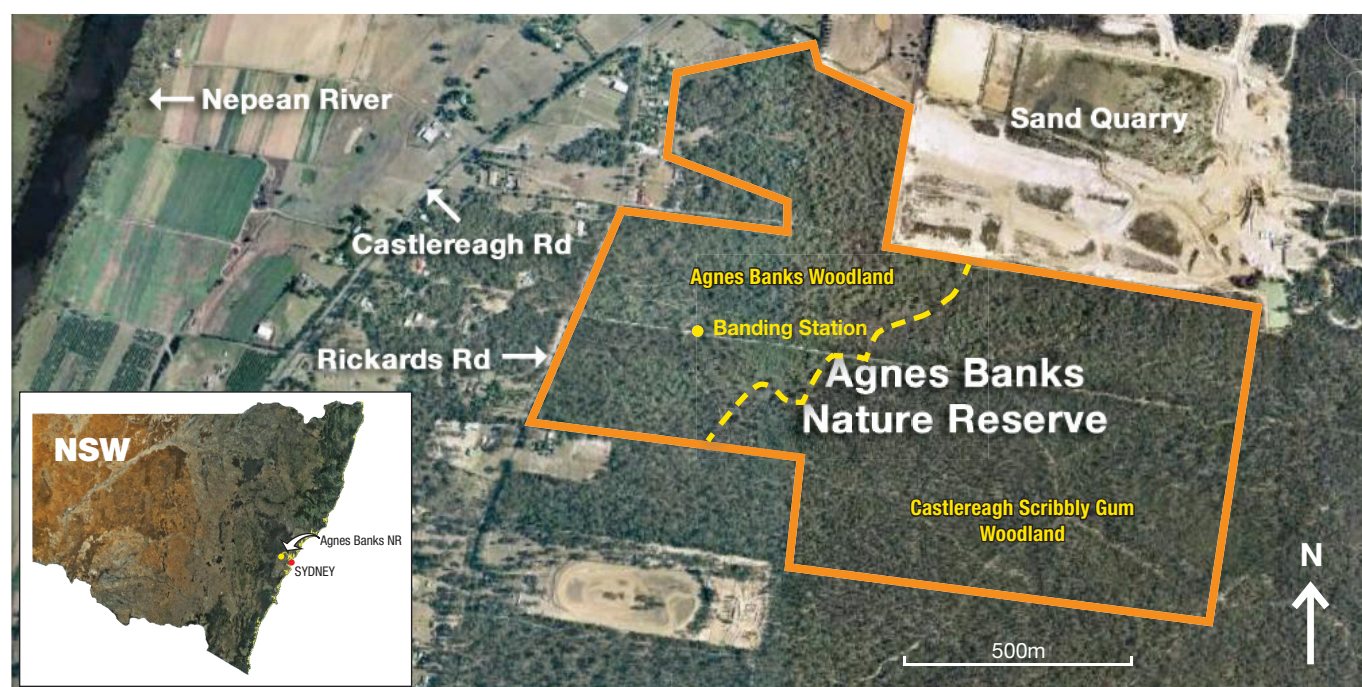
Weather permitting; banding was carried on the second Sunday each month. Nets were erected at the same sites for both periods and located within the Agnes Banks Woodland. On most occasions 15 nets were erected totalling 234 metres in length by 2.7 metres high and were open from sunrise for an average of 5.2 hours.

**RESULTS AND DISCUSSION**

Ninety-five species were recorded in Agnes Banks Nature Reserve during this study with 1189 individuals of 46 species captured and banded. Nectarivorous species increased from 47 percent of all birds captured in the first period to 58 percent in the second period, while insectivorous species decreased from 44 percent to 41 percent.

*Re-traps*

The total re-trap percentage for all species was 19.2. Although the majority of birds banded during 1998–2001 were honeyeaters, none of these were re-trapped on our return in 2008–2009.



**Figure 1.** Satellite image of Agnes Banks Nature Reserve and adjacent sand quarry. Image courtesy of Google Earth.

Only five birds banded during our first study period were re-trapped during our second study period – one Golden *Pachycephala pectoralis* and two Rufous Whistlers *P. rufiventris* and two Eastern Yellow Robins *Eopsaltria australis*.

#### Movements

Overall capture rates show a marked increase during March and/or April. This is a reflection of the influx of many nectarivores into the Reserve, which coincided with the blooming of the four species of *Banksia* growing at the banding site.

No birds captured at Agnes Banks Nature Reserve were subsequently re-trapped away from the site.

From the data collected it appears that when Rufous Whistlers arrive at the site most of the Golden Whistlers depart. Rufous Whistlers arrive in September/November and depart in March/April while Golden Whistlers generally arrive at Agnes Banks in April/May and depart in September/October.

#### Changes from first to second study period

Twenty-six species that were recorded in 1998–2001 were not recorded in the 2008–9 study period while nine additional species were recorded during the second period.

Of special note was the absence of any records of the Gang-gang Cockatoo *Callocephalon fimbriatum* in the Reserve since 2001.

White-browed Scrubwrens *Sericornis frontalis* were not recorded in our study until August 2000 and then not seen after April 2001.

Of the five introduced species recorded in the Reserve the Spotted Dove *Streptopelia chinensis*, Common Blackbird *Turdus merula* and Common Starling *Sturnus vulgaris* were not recorded in our second study period while the Red-whiskered Bulbul *Pycnonotus jocosus* and Common Myna *Sturnus tristis* were recorded less frequently.

The disappearance of the Double-barred Finch *Taeniopygia bichenovii* from our banding site and the reduction in capture rate and sightings of the Red-browed Finch *Neochmia temporalis* were noted. The Double-barred Finch was regularly trapped during our first study period but not seen on our return. The Red-browed Finch has declined in numbers since April 1999 and was captured only once during our second study period.

The Superb Fairy-wren *Malurus cyaneus* capture rate has shown a gradual decline during the period of our study. The capture rate of the Variegated Fairy-wren *Malurus lamberti*, however, showed a slight increase during our second study period. Whether the Variegated Fairy-wren is slowly taking over this niche from the Superb Fairy-wren remains to be seen.

The number of sightings of White-cheeked Honeyeaters *Phylidonyris niger* was much lower on the second study period as was their overall capture rate. They did however return in comparable numbers during April/May 2009 when the four species of *Banksia* were flowering.

## ACKNOWLEDGEMENTS

We wish to thank our associates: Debbie Saunders, Nina Svedin, Catherine Young, Josephine Dessmann, Katy Wilkins, Kim Maute, Mylene Mariette, the late Keith Egan and all the people who assisted on a casual basis. It was always a pleasure to work with such an enthusiastic team. Thanks go to Anthony Saunders, Records Officer for the Cumberland Bird Observers Club Bird Atlas Database, for providing sighting records for Agnes Banks Nature Reserve, to the staff of the Australian Bird and Bat Banding Scheme for their support and supplying bands, and to the personnel at the Department of Environment and Climate Change at Scheyville National Park for allowing access to this site. David Drynan gave valuable comments on a draft of this report. A special thanks to Judy and Peter Smith, Alan Leishman and Graham Fry for working with the compilers in designing a format and for assistance in deciding the main aspects to include. Comments on the final draft of this report from Alan Leishman, Catherine Young and James Brazill-Boast were very much appreciated.

## BIBLIOGRAPHY

1. Benson, D. H. (1981). Vegetation of the Agnes Banks sand deposit, Richmond, New South Wales. *Cunninghamia* 1: 35–57.
2. Benson, D. H. (1992). The natural vegetation of the Penrith 1:100 000 map sheet. *Cunninghamia* 2: 541–596.
3. Tozer, M. (2003). The native vegetation of the Cumberland Plain, western Sydney: systematic classification and field identification of communities. *Cunninghamia* 8: 1–75.
4. Threatened Species Conservation Act (1995). NSW Government. NSW Legislation. <http://www.legislation.nsw.gov.au/viewtop/inforce/act+101+1995+FIRST+O+N/> Accessed 22/6/2012.
5. Gobert, V. (1978). Proposed nomenclature for the Cainozoic sediments of the Penrith-Windsor area. *Quarterly notes of the Geological Survey of New South Wales* 32: 1–9.

#### Compilers:

J. R. Farrell 73 Ellison Road, Springwood, NSW 2777.  
E-mail: [jfarrell@pnc.com.au](mailto:jfarrell@pnc.com.au)

J. W. Hardy 23 Lindsay Avenue, Ermington, NSW 2115.  
E-mail: [jw.hardy@knightgraphics.com.au](mailto:jw.hardy@knightgraphics.com.au)

D. McKay 79 Fenwick Street, Bankstown, NSW 2200.  
E-mail: [sternaalbifrons@unwired.com.au](mailto:sternaalbifrons@unwired.com.au)

K. Gover 31 Kerry Road, Blacktown, NSW 2148.  
E-mail: [MargotG@bigpond.com](mailto:MargotG@bigpond.com)