

EXTENSION OF THE KNOWN BREEDING RANGE OF THE SUPERB PARROT

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Targeted surveys were undertaken in the area between Cowra and Dubbo in the spring of 2001 and 2002 in an attempt to determine the breeding season movement patterns and the northern most limit of the breeding range of the Superb Parrot, *Polytelis swainsonii*. This study found that the Superb Parrot was nesting in at least four locations between the Lachlan River and Molong. This extends the known breeding range of the Superb Parrot to the north by approximately 75 kilometres.

INTRODUCTION

The Superb Parrot is known to occur over a wide range in New South Wales. It has been generally accepted that Superb Parrots breed in southern areas within their distribution and migrate north during autumn. South of the Lachlan River their distribution and breeding areas are relatively well known, i.e. the area roughly bounded by "Toganmain Station", Goolgowi and Gulpa Creek in the west and Cowra, Frogmore, Rye Park, Yass, Murrumbateman, Gundaroo and Sutton in the east.

Within this broader region breeding has been confirmed in the area roughly bounded by Cowra, Rye Park, Hall (Australia Capital Territory), Yass, Coolac and west to Grenfell, Young, and Cootamundra. Breeding habitat, typically, includes the River Red Gum *Eucalyptus camaldulensis* forests of both northern Victoria and the Riverina (Webster 1988) and the box-gum woodlands of the south-west slopes of New South Wales (Webster 1988). Garnett 1992 referred to a single breeding record north of 33°S. Subsequent investigation of this record indicates that this was not a breeding record (I. McAllan, pers. comm.).

North of the Lachlan River from Cowra, breeding of the species has not previously been recorded although the species occurs along the Namoi River between Narrabri and Gunnedah, along the Castlereagh River between Coonamble and Gilgandra and in the districts surrounding Hermitdale, Tottenham, Warren and Parkes (Kaveney 1979; Schrader 1980; Forshaw and Cooper 1981; Webster 1988).

The objective of this study was to obtain further records of Superb Parrots north of the Lachlan River, to attempt to determine their movement patterns just prior to, during and after the breeding season and to identify any breeding areas north of the Lachlan River. This is

consistent with actions documented by Garnett and Crowley (2001) and was considered important data required prior to the preparation of the New South Wales Recovery Plan for the Superb Parrot.

METHODS

A network of volunteer observers was established by using radio interviews and rural press articles. Volunteers were requested to note the date, number and sexes of birds seen from August 2001. This information was used to identify possible nesting areas, which were then visited by the author during September, October and November 2001. These sites were revisited in 2002. The National Park and Wildlife Atlas of New South Wales Wildlife was also reviewed for possible breeding locations.

If the species was found at a potential nesting site, individual birds were continuously observed to determine if they were nesting. A tree was assumed to be a nesting tree if one of the following behaviours was observed:

1. A pair of Superb Parrots was seen entering a hollow.
2. A male was seen entering a hollow on its own,
3. A male or female was seen entering a hollow on a number of occasions,
4. A male was observed feeding a female at a hollow entrance or nearby.
5. Young birds were observed at a hollow entrance, as defined by Webster (1988)

RESULTS

Fourteen volunteers regularly responded and together with the author a total of 170 sightings was recorded for the period 21 July 2001 to 8 March 2002. An additional 45 sightings for times outside this period were obtained from diaries kept by volunteers.

Distribution and movement patterns

Superb Parrots were reported from throughout the area surveyed. At Wee Waa in the north-east birds were observed until 12 September 2001 and then were absent until 27 December 2001.

Superb Parrots were also observed at Yuendah Bore south of Narrabri until 21 July 2001 and were then seen back at Narrabri on 8 March 2002. Further south near Collie, birds were observed in July, September, October and December.

Just north of Tottenham on the Bogan River birds were observed regularly through September and early October with no birds observed from 28 October 2001 until their return on 20 December 2001. South of Trangie, Superb Parrots were observed regularly throughout winter and spring. Further investigation is required to determine if these later observations were of juvenile birds, females and young or mixed flocks.

Breeding sites

Four new breeding sites were confirmed north of the Lachlan River. A fifth new breeding site was identified just south of the Lachlan River. This new breeding area north of the Lachlan River is shown in Figure 1. The sites were on private land, Travelling Stock Reserves (TSR) and

associated road reserves and one on the Cowra Town Common. Whilst nest trees were identified at each site no attempt was made to document all nest trees at each site. Therefore, it is not known how many nests there were or how widely distributed they are at these locations.

The five breeding sites identified by the author are described below:

Site One. An area bounded by the Escort Way and Mouse Hole Lane south of Molong (33°14'S, 148°49'E).

In 2001 Superb Parrots were observed to be nesting in mainly Yellow Box *E. melliodora* ($n = 4$) and to a lesser extent Blakely's Red Gum *E. blakeyi* ($n = 1$). Birds were observed flying up to six kilometres from the nest site to feed on eucalypt blossom, wild oats and native grasses. Nearer to the nest site females were observed feeding on Canola *Brassica napus*. Birds were observed utilizing Canola where it grew under or very close to large paddock trees or trees on fence lines. Birds were observed flying to trees and then fluttering down onto the top of the crop. If disturbed they would return to the tree above. The landholder also observed both males and females feeding on spilt grain on the property.

In 2002 Superb Parrots were observed nesting in Blakely's Red Gum *E. blakeyi* ($n = 2$) in the same area as

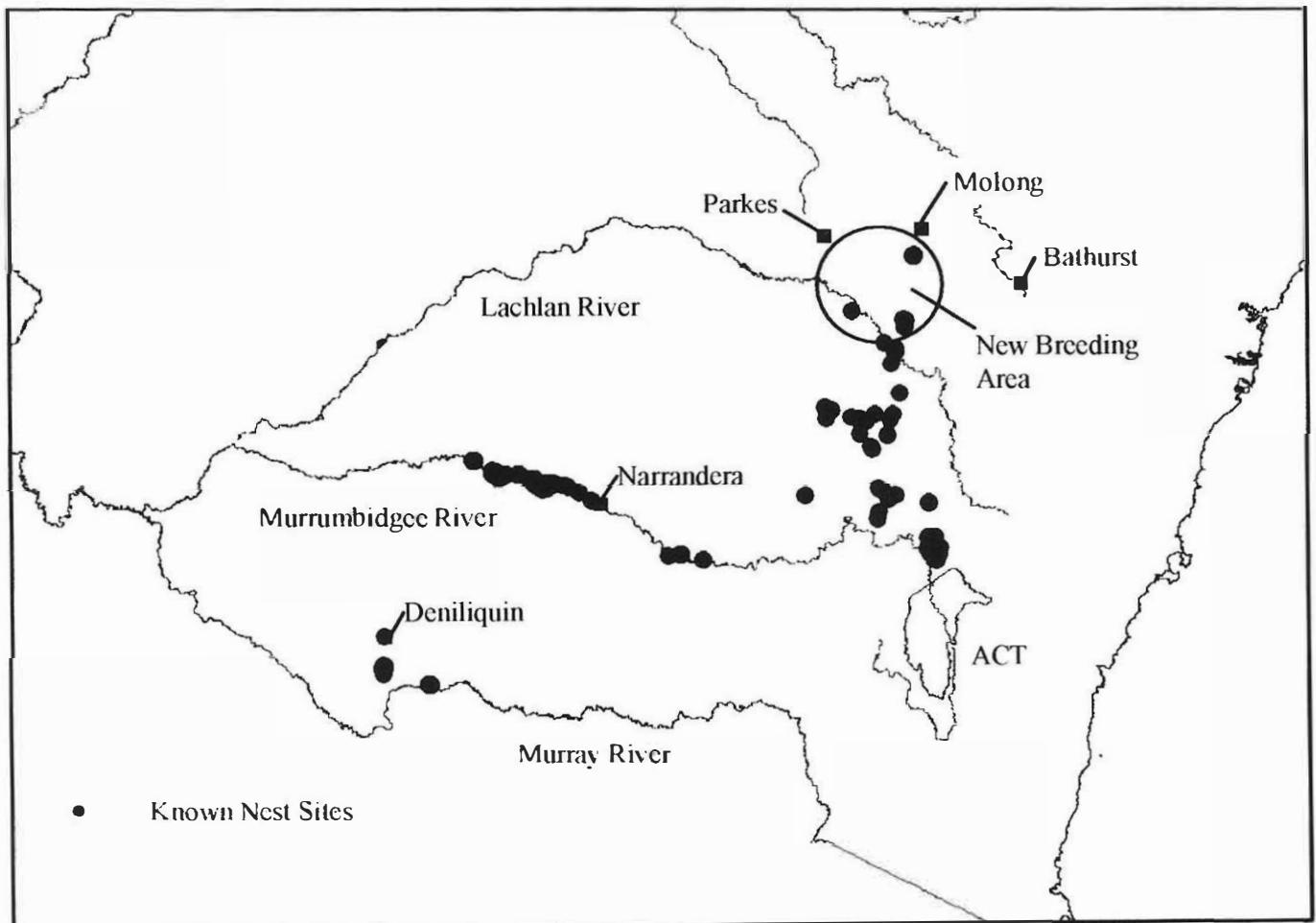


Figure 1. Superb Parrot nest locations.

2001. A further search of the area revealed that this breeding colony extended to the north-east to Mouse Hole Lane and adjacent properties and to the Mouse Hole Creek TSR.

Site Two. George Russel Drive between Canowindra and Woodstock (33°38'S, 148°45'E).

Superb Parrots were observed nesting in a Yellow Box in a Travelling Stock Route adjacent to Tenandra Creek and a Blakelys Red Gum in an adjacent laneway to the west. They were also sighted on a treed hillside on adjacent private land. In 2002 an additional nest was located in a Yellow Box near the Islands Lane intersection with George Russel Drive.

Site Three. Cowra Town Common (33°49'S, 148°41'E).

Superb Parrots were observed to nest in live ($n = 3$) and dead ($n = 3$) white box trees on the Cowra town common adjacent to the Cowra Japanese Gardens. Birds were observed flying into Cowra township and beyond, presumably to feed. Birds were also observed feeding on Cootamundra wattle *Acacia baileyana* in planted gardens on site. Additional male birds were observed flying to the south and north of this site indicating possible additional nesting sites in the vicinity.

Site Four. Logan Road, Cowra (33°46'S, 148°37'E).

Superb Parrots were observed to nest in Yellow Box ($n = 1$) on private land adjacent to Logan Road between Cowra and Billimari. Male birds were frequently observed flying from the Yellow Box to the nearby wooded corridor along the Lachlan River. Whilst the one confirmed nest observation was in Yellow Box, further investigation of whether birds were nesting in River Red Gum along the Lachlan River at this site is recommended.

Site Five. West of Gooloogong (33°35'S, 148°23'E).

A nest site was observed in a Blakelys Red Gum on private land adjacent to a TSR and a wooded road reserve approximately 6 kilometres north-west of Gooloogong on the Lachlan Valley Way. Birds were observed feeding on nearby Oat *Avena sativa* crops. This site was adjacent to the Lachlan River on the southern side where there were numerous hollow bearing River Red Gum trees. Despite their exclusive use of River Red Gum trees for nesting on the Murrumbidgee and Murray River systems, selection of River Red Gum trees on the Lachlan River was not observed at this site.

Unconfirmed sites — Cargo

In 2001 a large flock of Superb Parrots were observed in a Travelling Stock Reserve adjacent to Waree Creek just north of Cargo. The birds were observed using the wooded road reserve south to Cargo and the wooded roadside several kilometres north-west on the main Molong Road. They were also observed using several wooded corridors along creeks and fencelines in the area. Superb Parrots were also sighted at the Cargo Oval and Cargo Reserve. Birds were observed feeding on Oats in adjacent paddocks. Despite observing birds inspecting nest holes no definite nesting was observed. In 2002 a smaller flock was present

in the area with males observed to be flying purposely from one stand of trees to another.

DISCUSSION

During this study Superb Parrots were still observed during the winter in various parts of its range south of the Lachlan River. Therefore it is not possible to determine from which breeding area the birds that travel to the far north of the range are coming.

This study revealed that Superb Parrots breed north of the Lachlan River between Cowra and Molong. This extends the known breeding range of the species to the north by approximately 75 kilometres. Sightings of birds at other sites such as Tomingley, Fifield, Trangie, Collie, Junction Reefs, Mandurama and Angulong either just before or during the breeding season indicate the possibility of other breeding sites north of the Lachlan River. Further investigation of this area for breeding sites is critical to the development of conservation initiatives for the effective regional conservation of this species. Further north at sites such as Tottenham, Narrabri and Yuendah Bore birds were absent during the breeding season, supporting the proposition that birds do not breed in these areas.

It is not known if the new breeding sites observed during this study are traditionally used or whether they are more recent occurrences. At the most northerly site identified the property owner stated that this was only the second year they had been there. Therefore, further studies are required to ascertain nest site fidelity.

This study revealed the following threats to nest trees:

- Competition for tree hollows from Feral bees *Apis mellifera* and Starlings *Sturnus vulgaris*;
- Removal of dead standing trees for firewood, as part of cleaning up activities on farm and as part of residential development and recreational use;
- Loss of paddock trees; and
- Roadside clearing.

To help the protect nest trees and to promote recovery of the species, the following actions need to be implemented across the species range:

- The retention of dead standing trees as nesting habitat;
- The retention of single paddock trees as nesting habitat;

The retention of single paddock trees and trees on fencelines adjacent to paddocks containing native grasses, seeding shrubs and crops such as Oats, Wheat, *Triticum* sp. Canola as these trees are used as staging posts for foraging; and

- The retention of treed lanes and roadways as these were the most important movement corridors at all sites visited.

Given the success of this preliminary study it is essential that further survey work be carried out in subsequent years to confirm site usage, determine new

sites and attempt to map forage habitat in association with nesting habitat.

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