

A BREEDING RECORD OF BOURKE'S PARROT SOUTH OF LAKE FROME, WITH A REVIEW OF ITS DISTRIBUTION IN SOUTH AUSTRALIA. At around 0830 h on 14 May 2001 my wife Margaret and I were walking near the southern base of Black Hill on the Glenorchy block of Mt Victor Station (31°57'S, 139°43'E) when we noticed a Bourke's Parrot *Neopsephotus bourkii* perched on a dead mulga *Acacia aneura* shrub.

From the extent and brightness of its pink plumage and distinct facial markings it was recognised as an adult male. After a short time an adult female was identified with less extensive colouration, as well as three juvenile birds characterised by only minimal pink in the underparts, pale bills and generally indistinct facial and other markings. The family party was observed for over five minutes at a range of around 20–30 m before they flew away to the east. The birds had generally been silent apart from an occasional soft twittering. This call was heard in the same vicinity and at around the same time the following morning although no birds were seen on the second day.

The habitat was chenopod shrubland with patches of black oak *Casuarina pauper* and scattered bullock bush *Alectryon oleifolius*, (mostly dead) mulga, other acacias and other shrubs such as senna *Senna* sp. and hakea *Hakea* sp.

The observation was made about 2.5 km east of Black Hill Dam and I felt it likely the birds had been drinking at the dam at around dawn each morning.

The condition of the country at the time was dry, but patchy heavy rain had fallen in the locality in a summer thunderstorm in February, causing some local flooding. Bourke's Parrots assume adult plumage at around three to four months of age (Higgins 1999) and it seemed possible that breeding had taken place nearby following the rainfall of three months before, although at Mt Victor Homestead there had been just 5 mm of rain, the only fall in a period of over five months (J. McLachlan pers. comm.).

The usual range of Bourke's Parrot has been clearer since Eckert (1975) established what was known and unknown about its range 26 years ago (e.g. see Figure 1). It is common to the north and west of Oodnadatta (27°34'S, 135°27'E); and is also found to the south (Badman 1981) and west, e.g. to Vokes Hill, Observatory Hill and

Wynbrina on the eastern margin of the Great Victoria Desert and Yellabinna Dunes (Black and Badman 1986); and further south to Woomera (Eckert 1975), the mulga and especially myall *Acacia papyrocarpa* woodlands north-west of Port Augusta (Eckert 1975; A. Black pers. obs.) and the northern Gawler Ranges (Joseph 1984; Matthew and Carpenter 1993). This population extends through the central Australian Ranges (Close and Jaensch 1984) and Gibson Desert into the extensive acacia (chiefly mulga) woodlands of south-central Western Australia (Blakers, Davies and Reilly 1984; Higgins 1999) largely avoiding the dune fields of the Great Victoria and Sandy Deserts. The eastern limits of this population are at the western edge of the Simpson Desert and Lake Eyre, i.e. 136° to 137°E (Badman 1979; 1981). Further south the usual eastern limit may be Lake Torrens, with F. Badman (pers. comm.) failing to record it further east despite living in Marree for many years.

The only records east of Lake Torrens are those of G.B. Ragless and others near Lyndhurst (30°17'S, 138°21'E) (Eckert 1975), and 50 plus Bourke's Parrots, with many of them nesting, on Witchelina Station (30°01'S, 138°02'E) recorded by J. Bourne (SAOA 1987a). While the species is listed in a number of publications as occurring rarely in the Flinders Ranges (Carpenter 1985; Parker 1985; Reid, Carpenter and Pedler 1996; Higgins 1999), although not by Paton (1980), my enquiries indicate that these reviews all depend upon the cited occurrences near Lyndhurst, a locality on the plains immediately west of the Flinders Ranges: they are thus relevant to only the general region of the Flinders Ranges. I am unable to locate any record from the Flinders Ranges themselves and there is only a single record (specimen) between the Flinders Ranges and Lake Frome (Balcanoona Station near the lake shore, c. 30°34'S, 139°33'E) (Eckert 1975).

Another population of Bourke's Parrots occupies an extensive part of south-west Queensland and north-west New South Wales (26°–32°S and 141°–146°E) (Blakers *et al.* 1984; Higgins 1999). Observations from the Upper Cooper (North-west Branch and Coongie Lakes) and in miniritchie *Acacia cyperophylla*-lined water-courses northwards (c. 26°–28°S, 140°–141°E) are attributed to that population (Badman 1989). So too are the two reports from Mutooroo Station (32°28'–44'S, 140°38'–45'E) (Mack 1970; Glover

1973), the record from 31°–32°S, 140°–141°E in Blakers *et al.* (1984) and that of J. and G. Gloster (SAOA 1983) who, despite making regular bird observations between 1975 and 1989

on Plumbago Station (32°04'S, 139°53'E) immediately east of Mt Victor Station, recorded only this single bird soon after the first good rainfall for fifteen months (J. Gloster, pers. comm.).

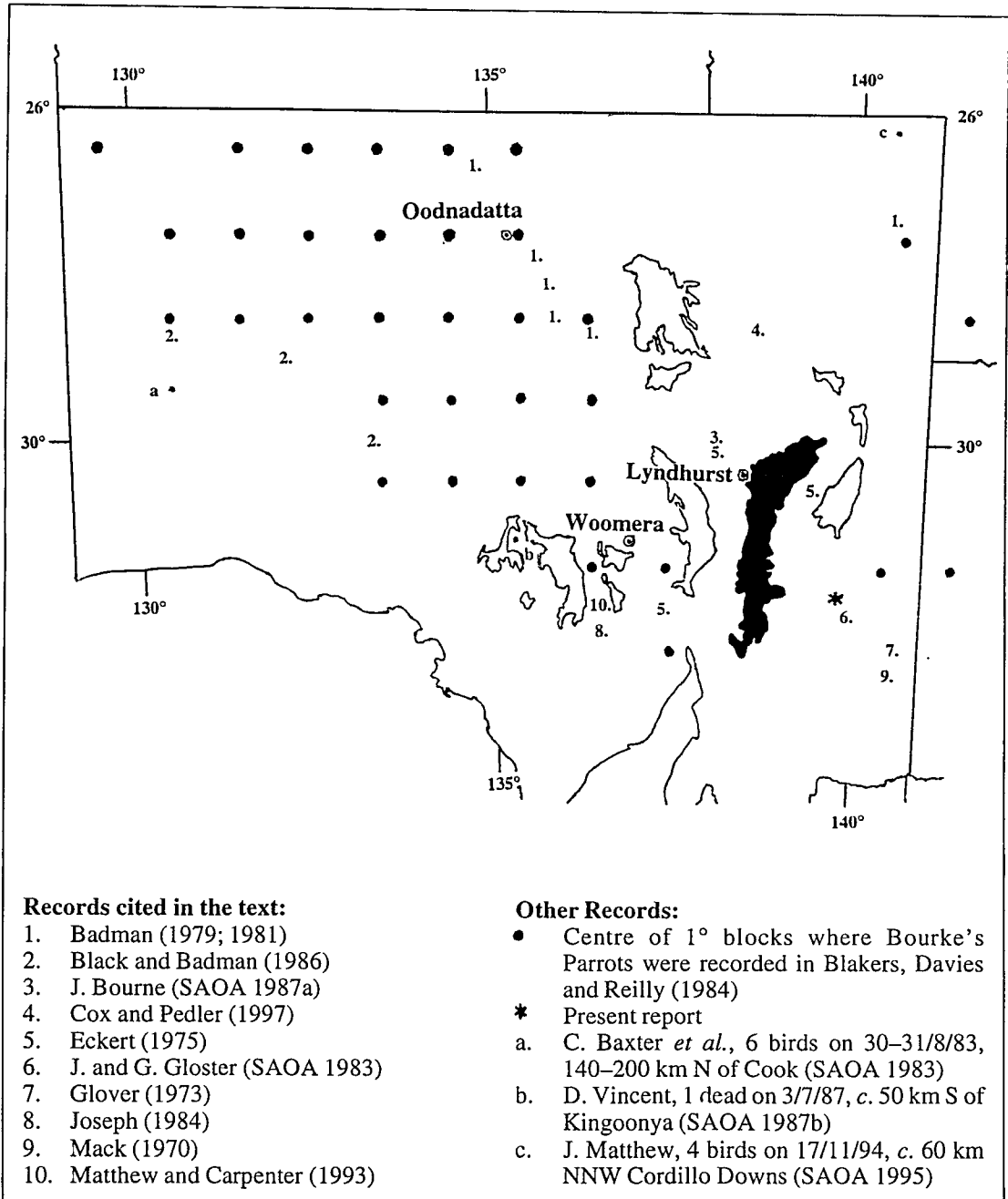


Figure 1. The distribution of Bourke's Parrot in South Australia. ■ indicates North Flinders Ranges, land 500 m or more above sea level.

An exceptional record from the Lower Cooper (28°43'S, 138°38'E). (Cox and Pedler 1977) may be a further example of the evident nomadism of this species (Ford 1961; Forshaw 1969). The records from the Upper Murray (Mack 1961; Glover 1973) are also exceptional and may have a similar explanation, but it remains uncertain whether the possibility of aviary escapes was considered seriously as an alternative (Eckert 1975).

The locality of the present and Plumbago reports is about 150 km south of the Balcanoona/Lake Frome record (Eckert 1975) and about 120 km west of those from Mutooroo (Mack 1970; Glover 1973). While the two populations of the Bourke's Parrot appear to be separated, their disjunction by the Eyrean biogeographical barrier has not resulted in differentiation into subspecies, suggesting that gene-flow is maintained or that it has been maintained until recent times (Forshaw 1969; Higgins 1999). Between Lakes Eyre and Torrens and the near vicinity of the State's eastern border, i.e. beyond 140°E, a distance of 300 km and more, there are only a handful of records, viz. the Lower Cooper, Witchelina-Lyndhurst, Balcanoona, Mt Victor and Plumbago. Notwithstanding the recognised nomadism of the species including the occurrence of breeding records towards the limit of or beyond its usual range, e.g. J. Bourne (SAOA 1987a) and this report, the opportunity for genetic interchange between the eastern and western populations appears very limited. The present report of breeding on or near Mt Victor Station is nearly 250 km from the Witchelina/Lyndhurst records with the North Flinders Ranges intervening (see Figure 1). The eastern population appears to be the likely origin of the parental birds described here, but it remains possible that individuals from eastern and western populations do interbreed, thus maintaining gene flow and preventing subspecific differentiation. Reports of Bourke's Parrots in the gap between eastern and western populations defined in this paper are encouraged: likewise any authenticated record from the Flinders Ranges will be of interest.

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