

### PIED BUTCHERBIRDS IN THE NEAR NORTH WEST OF SOUTH AUSTRALIA.

Five recent personal records of the Pied Butcherbird *Cracticus nigrogularis* south and south-east of Oodnadatta (27°33'S, 135°27'E) in South Australia's (SA) North West are presented, supporting the notion that the species is increasing in range and abundance in the State (see Reid *et al.* 1997; Eckert 2006, this issue; Black 2006, this issue). A review of the historical literature and recent biological survey data place these observations and those in the online Atlas database (Birds Australia 2006) in context, and help to clarify the species' known range limits and status in the Coober Pedy (29°01'S, 134°44'E), Oodnadatta, and Mt Dare (26°05'S, 135°16'E) regions, the 'near North West'. The new observations (JR) follow:

1. On 1 April 2002, two adults were at Mathieson Waterhole, Neales River (27°39'S, 135°24'E), in coolibah *Eucalyptus coolabah* riparian woodland around the waterhole which held water. This locality is c. 11 km SSW of Oodnadatta, on the Coober Pedy road.
2. On 18 February 2003, two, presumably the same pair, were at Mathieson Waterhole in similar habitat.
3. On 29 October 2002, one was seen from the moving vehicle on the Oodnadatta Track c. 1 km E of the Coober Pedy turnoff, and 5 km S of Oodnadatta at 27°36'S, 135°28'E. Habitat: floodplain and washouts of a minor alluvial land type, associated with the Dingo Creek, with gibber interfluves; the bird was seen in a gidgee *Acacia cambagei*-river cooba *A. stenophylla* tall riparian shrubland with sparse emergent coolibah.
4. On 23 February 2003, two adults were c. 2 km S of Algebuckina, c. 52 km SE of Oodnadatta (27°54'S, 135°50'E), on the east side of the Oodnadatta Track. Habitat: low dunes and minor watercourse, adjacent to a denser mulga *A. aneura* scrub to the immediate south.
5. On 12 August 2006, a pair was heard calling at dawn on the northern banks of Algebuckina Waterhole, Neales River (27°53'S, 135°49'E), in tall coolibah riparian woodland.

The last two records around Algebuckina are particularly noteworthy because the species was not recorded there in six previous week-long visits

made from April 2000 to April 2002. Also interesting is that I did not record the species in the Oodnadatta region until April 2002, despite the five previous visits to that point. Over this period I was conducting research in the southern Lake Eyre Basin into the relationships between river flows and water-dependent biotic groups, namely aquatic plants and animals (including waterbirds) and the riparian vegetation and its associated birds. Seven visits, each of 7–10 days duration, to portions of the Neales River, Arckaringa Creek (28°11'S, 135°18'E) and Peake Creek (28°02'S, 135°40'E) drainages were undertaken as part of the larger study.

Pied Butcherbirds occur widely in Australia but have had a limited range in SA until relatively recently, and are now frequently recorded, north and west of Oodnadatta in South Australia (Blakers, Davies and Reilly 1984; Close and Jaensch 1984; Barrett *et al.* 2003; Copley *et al.* 2003; Higgins, Peter and Cowling 2006; Birds Australia 2006), although this was not the case historically it seems. In the far North West, the Anangu-Pitjantjatjara (AP) lands, it is regarded as an 'increaser' species by Copley *et al.* (2003), based on its limited reporting early in the twentieth century by two renowned ornithologists (S.A. White and J.N. McGilp: see Close and Jaensch 1984 for details), and its frequent recording in the past 30 years. To the east of the above observations the species is not known to occur in the Lake Eyre region (Badman 1979; Reid *et al.* 1990; Read and Badman 1999). For instance, Badman (1979) did not record the species east of 135°E, but he had five observations at four localities west to the Stuart Highway, from Eringa (Ruin) (26°17'S, 134°43'E) south to Copper Hill Station about the Evelyn Creek (27°57'S, 134°15'E). There are also more than 20 recent Atlas records from this area north of Coober Pedy and west of 135°E to the Stuart Highway (Birds Australia 2006), but few further east. These online Atlas locality records extend east only to about Mt Dare; Dalhousie Springs (26°31'S, 135°29'E), Ross Waterhole (on Macumba Station, at 27°08'S, 135°33'E) and Allandale Station (c. 15 km SE of Oodnadatta). Note that two recent Atlas records of Pied Butcherbird—at Coward Springs (29°24'S, 136°49'E) and Coober Pedy—were considered unreliable by Higgins *et al.* (2006), based on advice received from SA ornithologists. Coward Springs is about 180 km SE of Algebuckina and a similar distance from the nearest records in the

northern Flinders Ranges region. While Coober Pedy lies within the species' recorded range in the North West, the natural habitat there (gibber plain) appears unsuitable. However, the species is frequently found near human habitation and in rural townships (pers. obs.), and so both these reports may yet be confirmed.

Eckert (this issue) detailed four twentieth century published records of the species at localities east of (or about) 135°E:

1. Eckert quoted Cleland's (1927) observations of Pied Butcherbird in the near North West and beyond as, 'Common on the Macumba, thence up to Alice Springs' (see later for a discussion of this general comment). Cleland collected an immature female specimen at Ross Waterhole, indicating recent breeding. Ross Waterhole is on the Macumba River, 48 km N of Oodnadatta.
2. In 1947 McGilp (1949) recorded the species at Brumby Creek, c. 60 km S of Coober Pedy (at c. 29°32'S, 134°42'E).
3. Eckert details a clutch of eggs of this species taken in 1966 from Allandale Station.
4. Eckert documents his own observation of the species some 50 km N of Coober Pedy in 1982 (along Algebullcullia Creek, 28°25'S 134°58'E, c. 135 km SSW of Oodnadatta).

Given its date McGilp's record from Brumby Creek is particularly noteworthy being a long way south and east of the species' customary range in the North West.

There are four other published records from the late nineteenth and early twentieth centuries from the region between Oodnadatta and Mt Dare. A record was documented by North and Keartland (1896: 70) from the Horn Expedition: an immature male was collected (presumably by Keartland) at Stevenson Creek, whether on the outward journey (May 1894) or return (August 1894) is unknown. Because the expedition followed the Old Telegraph Line north from the railhead at Oodnadatta we can assume that the locality was near Ilbunga Siding (26°25'S, 135°02'E, noting the railway had not been constructed then). In a search of the *South Australian Ornithologist*, I could find only one other locality where the species had been recorded in the near North West, east of longitude 135°: Condon (1938) noted four Pied Butcherbirds at Rockhole (a waterhole, 26°09'S, 135°11'E), on or near Abminga Creek, c. 13 km SSW of Mt Dare. White (1921) recorded Pied Butcherbird at two localities between

Macumba Homestead and Mt Dare: 2+ on Opossum Creek, possibly on Opossum Waterhole (26°24'S, 135°18'E) on 12–13 July 1921; 2+ at an unspecified location between Dalhousie Springs and Ten Mile Waterhole (26°57'S, 135°31'E) on 22 July 1921. These localities fill in the gap between Ross Waterhole (Cleland 1927) and Rockhole (Condon 1938), and are in the eastern catchment of the Stevenson Creek. I have not undertaken a thorough search of the journal *Emu* in which White published these observations, and there are probably other early historical records of Pied Butcherbird from these whereabouts. For instance, I recall reading an account of the species at Stewart Waterhole on the Neales River, 12 km SSW Oodnadatta, very close to Mathieson Waterhole (see my record 1 above), an account that I cannot source or verify now. Many other workers, including J.B. Cleland on other trips than that documented in Cleland (1927), passed through or lived in this region and presented complete bird lists without recording Pied Butcherbird. For example, H. Simpson worked on the railway line ('Old Ghan') in the 1930s and contributed many letters published under 'Bird Notes' in the *South Australian Ornithologist*. He was stationed at Edward Creek Siding (28°20'S, 135°51'E, c. 100 km SSE of Oodnadatta) and at Oodnadatta for several years, and knew the Pied Butcherbird from Indulkana (240 km WNW of Oodnadatta) and Finke (25°34'S, 134°35'E), Northern Territory (NT) (Simpson 1933a,b), but did not record the species in the Oodnadatta region. Furthermore, when Cleland's (1927) article is scrutinised further and despite the general comment quoted above, I suggest there is doubt over whether he observed any Pied Butcherbirds in South Australia other than the specimen from Ross Waterhole. As was his custom, Cleland documented all species he observed along sequential 'legs' of his journeys. He recorded many Pied Butcherbirds on seven northern legs, including two seen on the Bloods Creek (26°16'S, 135°17'E) (SA) to New Crown Station (25°40'S, 134°50'E) (NT) outward leg (and thence north to Alice Springs) and the one sighting on the return Horseshoe Bend (25°13'S, 134°50'E) (Finke River, NT) to Bloods Creek leg—but we cannot know on which side of the state border these three birds were seen: Bloods Creek is c. 30 km S, New Crown 35 km N and Horseshoe Bend 80 km N of the border. We do know that Pied Butcherbirds are frequently seen and widespread north of the

NT/SA border (e.g. Rix 1970; Blakers *et al.* 1984; Eldridge and Reid 1998; Brandle and Reid 1998; Barrett *et al.* 2003). Journeying between Oodnadatta and Hermannsburg in 1923, Whitlock (1924) stated it was a 'fairly common and generally distributed bird, becoming less numerous south of the Finke River', but he did not specifically record any localities for this species. The species was recorded at 17 of 30 biological survey sites in the NT located within 40 km of the border between 134°20'E and 135°20'E, in the area between the Beddome Range (25°54'S, 134°27'E) and the Simpson Desert (Eldridge and Reid 1998). Although the species is common along the NT/SA border from the lower Finke River west to the NT/Western Australian border (pers. obs.), it does not inhabit the Simpson Desert dunefields except where riverine habitat intrudes, such as the Finke River floodouts. The Finke River floods out into the Simpson Desert in two areas, one in the NT known as the Snake Creek system (Duguid *et al.* 2005) and where I have recorded Pied Butcherbirds (Eldridge and Reid 1998; JR July 2006, pers. obs.), and the other in SA east of Mt Dare along the mapped course of the river. There do not appear to be any records of the species from this latter area even though the habitat seems suitable, and so currently the known north-eastern limit of the Pied Butcherbird in this portion of SA is marked by the record at Rockhole, 11 km SW of Mt Dare. I am confident that the species will soon be recorded at Mt Dare and in the Finke River floodout immediately to its east; for instance, there are online Atlas records from the vicinity of both Mt Dare and Dalhousie Springs (Birds Australia 2006). The species is absent from a considerable contiguous area of the Simpson Desert and all of the Lake Eyre and far North East regions of SA (e.g. Blakers *et al.* 1984; Reid *et al.* 1990), the most arid core of Australia in terms of mean annual rainfall.

To summarise the foregoing the Pied Butcherbird is plentiful and widespread along the NT/SA border to the west of the Simpson Desert; it is also widespread in the far North West of SA, west of 135°E and north of 28°30'S (about half-way between Coober Pedy and Cadney Park), at least in the vicinity of the Stuart Highway, and more generally north of Marla (27°27'S) where suitable habitat is provided by the southernmost occurrence of the central Australian ranges and associated streams that flow to the east and south-east towards Lake Eyre. Eckert (this issue)

provides more details about the species' likely patchy and sparse distribution further south in the AP lands, i.e. south of 28°S. To the east of 135°E, Pied Butcherbird records dwindle rapidly, and the two observations in the vicinity of Algebuckina (135°49'E) documented at the outset mark this population's known eastern range limits in the region. As suggested by Eckert (this issue) the provision of artificial permanent waters may have allowed the species to become more abundant in the North West historically. Its preferred habitat in the region appears to be riparian coolibah and river red gum (*E. camaldulensis*) woodland in particular, but also tall acacia shrubland associated with smaller watercourses. Tall mulga shrubland is another preferred habitat of Pied Butcherbird in the near North West (Brandle and Reid 1998), and this formation is only extensive to the west of Oodnadatta where the species is more frequently recorded. The species is also a common dweller in towns across central, northern and eastern Australia, and so it may well inhabit the towns and roadhouses along the Stuart Highway north from Coober Pedy (and perhaps William Creek and Oodnadatta on the Oodnadatta Track). The species' south-eastern range limits appear to have altered only slightly over the past 100 years, judging by the historical records from near Mt Dare (North and Keartland 1896; Condon 1938), Ross Waterhole (Cleland 1927) and Brumby Creek south of Coober Pedy (McGilp 1949), but Pied Butcherbirds appear to be becoming more abundant in the region and the species has spread east to the Algebuckina region.

Given the Pied Butcherbird is absent from the most arid core of central Australia under the current climate—the Simpson Desert, Lake Eyre and far North East regions of SA and adjacent NT—it is possible that the species did not occupy any part of northern SA during the last glacial maximum, c. 18,000 years ago, when continental aridity was at its peak (Magee and Miller 1998). Therefore, the species may have colonised the North West since then, perhaps since c. 12,000 years ago when the Lake Eyre region became abruptly wetter (Magee and Miller 1998). It has been suggested that the central Australian ranges, particularly the West MacDonnell Ranges, NT, were a refuge for many plants and animals during the arid glacial maxima of the Pleistocene (e.g. Schodde 1982), and so we might assume that the Pied Butcherbird maintained a population there through recent hyper-arid climatic cycles. The

larger rivers emanating from the central Australian ranges, particularly the Finke and Alberga drainages, may well have provided pathways for the species to colonise and occupy the otherwise arid near North West of SA. The species would then have had to make short jumps south to occupy the Neales River and its headwater streams that shed off the northern end of the Stuart Shelf (between Coober Pedy and Welbourn Hill Station, 27°21'S, 134°6'E). Northern tributaries of the Neales are very proximate to the Alberga River in the vicinity of Todmorden Station (27°08'S, 134°45'E) for instance. The Macumba River is simply the lower reaches of the Alberga after its junction with Hamilton Creek and Stevenson Creek from the north. There are several published Pied Butcherbird records (Badman 1979; Eckert, this issue) from small streams (such as Evelyn Creek) in the headwaters of Lora Creek (28°10'S, 135°22'E) which meets Arckaringa Creek to form the Peake Creek, itself a major tributary of the Neales River, and this junction occurs a short way downstream of Algebuckina. I am not proposing that the species gradually colonised the region from north to south by following circuitous routes by extending downstream along watercourses to confluences and thence upstream and so on. Rather, given the species' greater abundance west of Oodnadatta where extensive stands of mulga occur, it is likely that the bird dispersed generally through these shrublands and along the structurally similar stands of gidgee and red mulga (*A. cyperophylla*) along minor headwater watercourses. Smaller numbers of birds have dispersed downstream into the more arid, gibber-dominated landscapes in the east and here appear to be largely confined to the vicinity of larger waterholes. Since European settlement the provision of permanent artificial waters may well have allowed the species to become more abundant generally and extend the limits of its range slightly.

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#### REFERENCES

- Badman, F.J. 1979. Birds of the southern and western Lake Eyre Drainage. *South Australian Ornithologist*, 28 (2, 3): 29-81.
- Barrett, G., Silcocks, A., Barry, S., Cunningham, R. and Poulter, R. 2003. *The new atlas of Australian birds*. Birds Australia, Melbourne.
- Birds Australia. 2006. *Birddata* [Internet]. Birds Australia, Melbourne. Available from: <http://www.birddata.com.au> [Accessed 1 October 2006].
- Black, A.B. 2006. Status of the Pied Butcherbird in the Lower North East (Olary Plains) of South Australia. *South Australian Ornithologist*, 35 (1 & 2): 57-58. [This issue].
- Blakers, M., Davies, S.J.J.F. and Reilly, P.N. 1984. *The atlas of Australian birds*. Melbourne University Press, Melbourne.
- Brandle, R. and Reid, J. 1998. Birds. In *A biological survey of the stony deserts of South Australia, 1994-1997*. R. Brandle (ed.), Department of Environment, Heritage and Aboriginal Affairs, South Australia, and National Parks Foundation of South Australia Inc., Adelaide, pp. 183-234.
- Cleland, J.B. 1927. Birds seen between Oodnadatta and Alice Springs. *South Australian Ornithologist*, 9 (3): 84-89.
- Close, D.H. and Jaensch, R.P. 1984. Birds of the north-west of South Australia. *South Australian Ornithologist*, 29 (4): 81-99.
- Condon, H.T. 1938. Some birds of the South and Central Australian border. *South Australian Ornithologist*, 14 (6): 146-151.
- Copley, P.B., Baker, L.M., Nesbitt B.J., Pedler, L.P., Hopton, D. and Foulkes, J.N. 2003. Birds. In *A biological survey of the Anangu Pitjantjatjara lands, South Australia, 1991-2001*. Robinson, A.C., Copley, P.B., Canty, P.D., Baker, L.M. and Nesbitt B.J. (eds). Department for Environment and Heritage, Adelaide, pp. 243-294.
- Duguid, A., Barnettson, J., Clifford, B., Pavey, C., Albrecht, D., Risler, J. and McNellie, M. 2005. *Weilands in the arid Northern Territory*. A report to the Australian Government Department of the Environment and Heritage on the inventory and significance of wetlands in the arid NT. Northern Territory Government Department of Natural Resources, Environment and the Arts, Alice Springs.
- Eckert, J. 2006. Expansion of range by the Pied Butcherbird in South Australia. *South Australian Ornithologist*, 35 (1 & 2): 52-56. [This issue].
- Eldridge, S. and Reid, J. 1998. *A biological survey of the Finke floodout region, Northern Territory*. Arid Lands Environment Centre and National Estates Grants Program, Alice Springs.
- Higgins, P.J., Peter, J.M. and Cowling, S.J. (eds). 2006. *Handbook of Australian, New Zealand and Antarctic birds. Volume 7, boatbill to starlings*. Oxford University Press, Melbourne.
- Magee, J.W. and Miller, G.H. 1998. Lake Eyre palaeohydrology from 60 ka to the present: beach ridges and glacial maximum aridity. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 144: 307-329.
- McGilp, J.N. 1949. Birds on the fringe of cattle country, N.E. South Australia. *South Australian Ornithologist*, 19 (5): 42-50.
- North, A.J. and Kearthland, G.A. 1896. Aves. In *Report on the work of the Horn scientific expedition to central Australia*. Volume 2 (facsimile). B. Spencer (ed.). Melville, Mullen and Slade, Melbourne, pp. 53-111.
- Read, J.L. and Badman, F.J. 1999. The birds of the Lake Eyre South region. *Lake Eyre South Monograph Series: 3*. Royal Geographical Society SA Inc., Adelaide.
- Reid, J.R.W., Badman, F.J. and Parker, S.A. 1990. Birds. In *Natural history of the North East*. M.J. Tyler, C.R. Twidale, M. Davies and C.B. Wells (eds). Royal Society of South Australia, Adelaide, pp. 169-182.

- Reid, J., Brissenden, P., Puckridge, J., Carpenter, G. and Paton, P. 1997. Comments on the distribution of five bird species in the Flinders Ranges: some new data and a reappraisal of historical records. *South Australian Ornithologist*, 32 (7): 113-118.
- Rix, C.E. 1970. Birds of the Northern Territory. *South Australian Ornithologist*, 25 (6): 147-190.
- Schodde, R. 1982. Origin, adaptation and evolution of birds in arid Australia. In *Evolution of the flora and fauna of arid Australia*. W.R. Barker and P.J.M. Greenslade (eds). Peacock, Adelaide, pp. 191-224.
- Simpson, H. 1933a. Bird notes. *South Australian Ornithologist*, 12 (1): 33-36.
- Simpson, H. 1933b. Bird notes. *South Australian Ornithologist*, 12 (2): 48-49.
- White, S.A. 1921. A central Australian expedition. *Emu*, 21: 84-94.
- Whitlock, F.L. 1924. Journey to central Australia in search of the Night Parrot. *Emu*, 23: 248-281.
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