

OBSERVATIONS OF THICK-BILLED GRASSWRENS ON THE NORTH OLARY PLAINS

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ABSTRACT

The current core distribution of the Thick-billed Grasswren *Amytornis textilis modestus* is in the chenopod shrublands of the lower basins of Lakes Eyre and Torrens and of the smaller Lakes Gregory, Blanche and Callabonna in South Australia. Continuous distribution between the plains bordering Lake Torrens, where it remains common, and northern NSW has been questionable; moreover the NSW population is now presumed extinct. The observations reported here confirm the presence of Thick-billed Grasswrens on the north Olary Plains. If future study of the north Olary Plains population proves it to be distinct, its morphological affinities with or differences from the three other populations of chenopod-dependent grasswrens (*A.t. textilis*, *A.t. myall* and *A.t. modestus*) may help determine whether there are one or two species.

INTRODUCTION

The Thick-billed Grasswren *Amytornis textilis* is primarily a species of chenopod shrubland plains, but in Western Australia (WA) it is also in mallee, heath and acacia shrublands (Parker 1972; Schodde 1982a, 1982b; Brandle 1999), with a once-extensive range across the southern half of the Australian rangelands. It is absent from the hummock-grassed ranges, sand-dune deserts and riverine swampy plains where Dusky *A. purnelli*, Short-tailed *A. merrotsyi*, Striated *A. striatus*, Eyrean *A. goyderi* and Grey *A. barbatus* Grasswrens are found.

Three sub-species are currently recognised: *A.t. textilis*, which formerly extended from the western edge of the Nullarbor Plain through much of southern WA but is now virtually restricted to the Shark Bay district; *A.t. myall* in north-eastern Eyre Peninsula and the Gawler Ranges; and *A.t. modestus* which formerly occurred as far north as the valleys of the MacDonnell Ranges (Schodde 1982b), e.g. to near Hermannsburg (23°57'S, 132°47'E) and Mereenie Bluff (23°40'S, 131°47'E) (see Parker 1972) through the Lake Eyre and Lake Torrens basins, as well as in north-western New South Wales (NSW) to the lower Namoi River and near Ivanhoe (Blakers, Davies and Reilly 1984; Schodde and Mason 1999; Higgins, Peter and Steele 2001).

Its core distribution now is in the chenopod

shrublands of the lower basins of Lakes Eyre and Torrens and of the smaller Lakes Gregory, Blanche and Callabonna. Figure 1 shows the historical records in South Australia (SA) cited by Parker (1972) including the nearest NSW record, observations made during the survey of SA's Stony Deserts in the period November 1994 to November 1996 (Brandle 1999 and pers. comm.), and observations at other times in the period 1992–1999 that are recorded in the Department for Environment and Heritage database. The latter includes Julian Reid's observation of a small group seen on several visits to the Finke River floodout c. 15 km NW of Mt Dare homestead (25°58'S, 135°08'E) in mid-April 1994, this being the only recent report from the Northern Territory (R. Brandle and J. Reid, pers. comms). Additional observations of Lynn Pedler (pers. comm.) complement the above data in defining its current core distribution (see Table). Continuous distribution of *A.t. modestus* between the plains bordering Lake Torrens, where it remains common, and northern NSW has been questionable; moreover the NSW population is now presumed extinct (Blakers *et al.* 1984; Schodde and Mason 1999).

OBSERVATIONS ON THE NORTH OLARY PLAINS

David and Peter Vincent reported seeing three Thick-billed Grasswrens in saltbush 80 km S of Lake Frome on Curnamona Station (c. 31°45'S, 139°25'E) in May 1975. This new locality for the species (Reid 1976) was the first possible link between populations in the Leigh Creek–Marree area and those of northern NSW, the nearest NSW record being in 1912 from Wyarra Tank on Pimpara Lake Station south of Milparinka, i.e. c. 200 km N of Broken Hill (Parker 1972). Schodde (1982b) referred to a subsequent (unconfirmed) sighting by his colleague Richard Weatherly in the mid-1970s from Paratoo (c. 32°35'S, 139°05'E).

During a fourteen-year period of observations on Plumbago Station (1975–1989), Joanna and Gerald Gloster recorded single Thick-billed

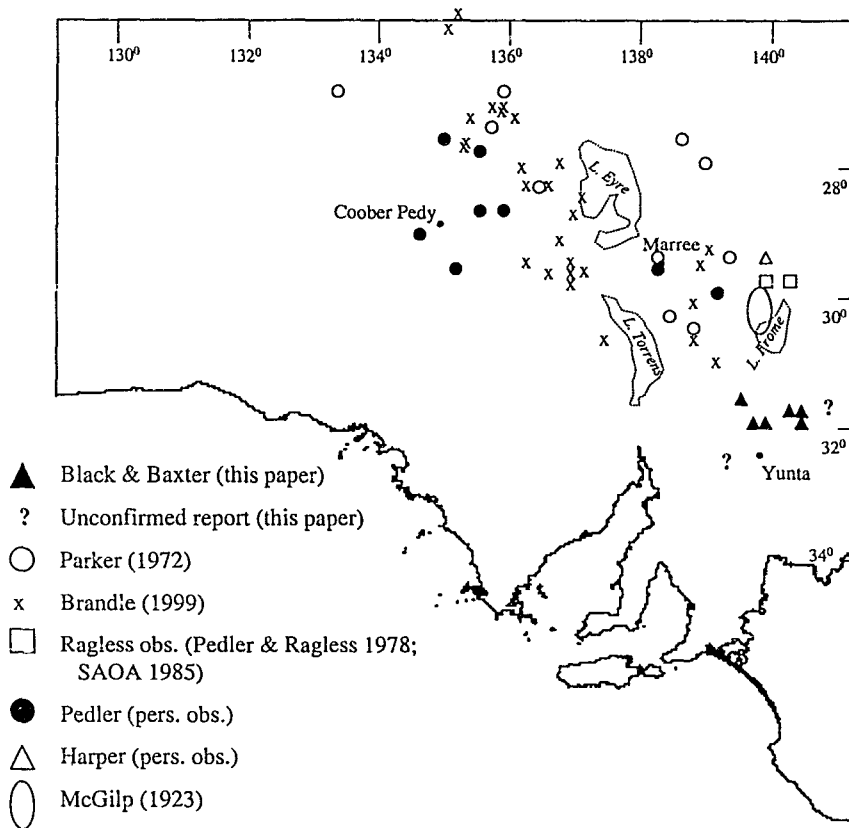


Figure 1. The distribution of *Amytornis textilis modestus* in South Australia, including: its core distribution (Parker 1972; Brandle 1999; L. Pedler, pers. obs.); the observations reported on the north Olary Plains (this paper); and linking observations (McGilp 1923; Pedler and Ragless 1978; SAOA 1985; the most south-easterly record, by D. Hopton, in Brandle 1999; D. Harper pers. obs.). The records indicated by 'Black and Baxter (this paper)' are D. and P. Vincent in 1975, J. and G. Gloster during 1976–1979, CIB in 1996 and 1999, and ABB and Margaret Black in 2001. Also shown are the only recent record from the Northern Territory (the most northerly record, by J. Reid, in Brandle 1999) and the NSW record nearest to SA (Parker 1972).

Table. Observations made by Lynn Pedler of Thick-billed Grasswren within its core area of distribution as shown in Figure 1.

| Location | Number of Birds | Date |
|---|------------------|---------|
| Mt Curtis Creek, Strzelecki Track (30°05'S, 138°52'E) | 4 | 4/7/99 |
| Witchelina Station (29°49'S, 138°04'E) | 2 | 5/7/99 |
| Near Mt Soward, Stuart Highway (29°46'S, 135°08'E) | 2 | –/7/90 |
| Near Mt Soward, Stuart Highway (29°46'S, 135°08'E) | 1 | 10/8/99 |
| Near Long Creek Waterhole c. 20 km W of Coober Pedy (29°06'S, 134°31'E) | 1 | 12/8/99 |
| c. 54 km NW of William Creek (28°37'S, 135°57'E) | 5 (or more) | 14/8/99 |
| c. 40 km NW of William Creek (c. 28°43'S, 135°59'E) | 19 (at least) | 10/7/90 |
| c. 40 km NW of William Creek (c. 28°43'S, 135°59'E) | c 10 | 14/8/99 |
| 12 and 16 km NW of William Creek (c. 28°50'S, 136°17'E) | 2 + 6 (at least) | 10/7/90 |
| Nilpinna Station c. 60 km NW of William Creek (c. 28°42'S, 135°55'E) | 3 | 30/8/90 |
| 18 km S of Oodnadatta (c. 27°42'S, 135°27'E) | 3 | 11/7/90 |
| 39 km NW of Oodnadatta (c. 27°21'S, 135°06'E) | 3 | 28/8/90 |

Grasswrens on four occasions, in September 1976, February 1977, and January and February 1979. The February 1977 observation was near the southern boundary with Mt Victor Station near Gums Well (32°06'S, 139°43'E) in and around a swamp with saltbush *Atriplex* sp., bluebush *Maireana* sp., nitre-bush *Nitraria billardierei*, and lignum *Muehlenbeckia florulenta*. The bird was very shy, scuttling along the ground from bush to bush. The other three observations were in the vicinity of and west of Koolka Hill (31°52'–56'S, 140°01'E) on an open plain of saltbush and bluebush. Field notes with the third observation recorded:

'very shy; head and body flecked, pale streaks; cocked dark-brown tail and lighter under parts; disappeared into a saltbush; no voice heard' (J. Gloster, pers. comm.).

On 2 October 1996 CIB saw five Thick-billed Grasswrens scurrying about and perching atop chenopod bushes (predominantly blackbush *Maireana pyramidata*) along a small dry watercourse next to a rocky rise, 2.5 km W of Triangle Hill, Bimbowrie Station (31°58'S, 140°12'E). They were observed for several minutes, and the birds were approached as close as five metres. Recognising the significance of this observation, CIB made the following field notes:

'pretty brown overall with white streaks and erect cocked tails; gave high pitched contact calls and other soft vocals; large handsome wren, very active, cheeky and quick between bushes. Like those seen recently at Davenport Range and Lyndhurst, i.e. race *modestus*'.

On 25 May 1999 CIB saw two Thick-billed Grasswrens very briefly in chenopod (blackbush association), turpentine bush *Eremophila sturtii* and scattered elegant wattle *Acacia victoriae*, next to a station track in the NE sector of Plumbago Station (c. 31°56'S, 140°03'E). The following day he observed another three Thick-billed Grasswrens in blackbush and other scattered chenopod bushes growing along dry erosion channels on an almost treeless gibber flat, c. 2 km SW of Poodla Dam, Bimbowrie Station (32°01'S, 140°10'E).

On 13 April 2001 on Kalkaroo Station (31°47'S, 140°34'E) ABB briefly glimpsed what appeared to be a grasswren in an acacia-vegetated low-lying area amongst chenopod shrubland between the homestead and Oonatra Creek. Attempts to relocate the species over the following two days

and subsequently were unsuccessful and although originally submitted to RAOU's current Australian Bird Atlas Project, the record was later withdrawn because it was unconfirmed. The probability of the sighting was enhanced by the following. On 13 May 2001 at around 1600 h, ABB and Margaret Black observed a single Thick-billed Grasswren 2.3 km N of Mt Victor homestead (32°02'S, 139°38'E) for three or four minutes at distances of 5–10 m. The bird was seen standing and running on open ground between scattered but large (to 0.8 m high) and dense blackbush (see Figure 2). The description in ABB's field notes reads:

'striations on blackish upper parts and browner lower parts; ran between shrubs and seen on 5 or 6 occasions before flying off (at ground level)—seeming much paler brown'.

This location is c. 15 km NW of the above-mentioned observation of J. and G. Gloster in February 1977.

DISCUSSION

The observations reported here confirm the presence of Thick-billed Grasswrens on the north Olary Plains. The population size is quite uncertain but presumably small, e.g. none were detected during a recent biological survey of the region (Playfair and Robinson 1997). Its distribution may nonetheless be continuous with the main population of *A.t. modestus* through the plains surrounding the northern Flinders Ranges, and with the doubtfully extant NSW population. Additional reports below support this view.

During his fifteen-year period of observations in the Lake Frome district McGilp (1923) saw 'an undoubted example of (*Diaphorillas*) a few times'. Unless he observed the Eyrean or Short-tailed Grasswren in the dunes east of Lake Frome or in the North Flinders Ranges respectively, it is likely he was referring to the Thick-billed Grasswren. In the absence of a defined locality or habitat description, which McGilp might have included for the first two possibilities, it seems likely he made these observations on the plains of Moolawatana Station or nearby (c. 30°00'–30'S, 139°40'–50'E). One reason for his unwillingness to name the species would have been the great uncertainty about its identification at a time when *A.t. modestus* and *A.t. textilis* were considered separate species.

A little to the north of Lake Frome, Gordon

Ragless located a grasswren in cane-grass and bluebush on a plain east of Lake Callabonna at Callabonna ruins (c. 29°45'S, 140°15'E) in April 1977 (Pedler and Ragless 1978). He also identified two Thick-billed Grasswrens on the sandy western shore of Lake Callabonna (c. 29°40'–50'S, 139°55'E) on 25 July 1985 (SAOA 1985). Slightly further north David Harper (pers. comm.), Rob Kernot and others closely observed three or four Thick-billed Grasswrens crossing the Strzelecki Track at a saltbush vegetated creekline c. 15 km NW of Montecollina Bore (c. 29°30'S, 139°55'E) on 24 April 1993.

South of the area observed by McGilp, Deb Hopton identified Thick-billed Grasswrens 2.3 km WNW of Wirrealpa homestead (31°07'S, 138°56'E) on 22 and 24 March 1999 in a low open shrubland of grey bluebush *Maireana astrotricha* and brilliant hop-bush *Dodonaea microzyga* var. *microzyga* (Brandle pers. comm.).

Bimbowrie and Plumbago Stations have been the centre of ongoing and widespread 1080 fox baiting over the past ten years, this being part of the NPWSA integrated predator/competitor control programme aimed at removing feral animals (foxes, goats, rabbits) and their detrimental impacts on remnant colonies of the Yellow-footed Rock-wallaby *Petrogale xanthopus*. It is likely that this management programme has also been beneficial to small terrestrial vertebrates such as the Thick-billed Grasswren (CIB, pers. obs.).

The limited number of observations of the grasswren in the southern Lake Frome basin is

consistent with a sparse and patchy distribution there (R. Schodde, pers. comm.). The observations further to the north, on either side of Lake Callabonna and west of Lake Frome, suggest that it may well extend to the core distribution of Thick-billed Grasswrens in the Lake Eyre drainage (see Figure 1).

Only seven specimens were obtained of the NSW population and there has been debate about its taxonomic status. Parker (1972) found NSW and WA (i.e. *A.t. textilis*) specimens to be similar, with Lake Eyre region (*A.t. modestus*) specimens paler and with deeper bills, while earlier, Mathews (1922–23) had found a close affinity between NSW (*inexpectatus*) and Eyre Peninsula (*myall*) birds. Neither Schodde (1982b) nor Schodde and Mason (1999) could substantiate Parker's observations, and instead included the NSW population with *A.t. modestus*, showing a continuous distribution which was both 'historical' and 'potential' (R. Schodde, pers. comm.). The same authors provided evidence of substantial differences between *A.t. textilis* (including *myall*) and *A.t. modestus*, the latter duller, shorter-tailed and lacking the pronounced sexual dimorphism of *textilis* (in terms of tail-length), again raising the possibility that two species are involved. If future study of the population reported here proves it to be distinct, its morphological affinities with or differences from the three other populations of chenopod-dependent grasswrens may help determine whether there are one or two species.



Figure 2. ABB indicating grasswren habitat of scattered, but large and dense, blackbush near Mt Victor homestead, May 2001 (Photographer M.L. Black).

ACKNOWLEDGMENTS

We are most grateful for support and advice in the preparation of this paper by Dr Richard Schodde. We also acknowledge help from Dr Philippa Horton and Graham Carpenter, the latter particularly for his distributional knowledge and for preparation of the map for publication. We are grateful too to the reviewers, Julian Reid and Lynn Pedler, both of whom supplied additional information concerning observations which are included in the paper.

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Received 24 August 2002; accepted 12 October 2002