

Threatened Species of the Northern Territory

THICK-BILLED GRASSWREN (north-western subspecies)

Amytornis modestus indulkana

Conservation status

Australia: Vulnerable (as *A. textilis modestus*)

Northern Territory: Critically Endangered



Photo: G. Chapman

Description

This thick-billed grass-wren is a small bird (length 15-20 cm) with a long tail. The upperparts are dull brown in colour with the underparts being paler fawn. Feathers are streaked with white. The female has a chestnut patch on either side of the breast. The eyes are dark brown, the bill and feet are dark grey. It is distinguished from other subspecies by the particulars of its tail, and from the closely-related western grass-wren by its lighter body colour and heavier bill.

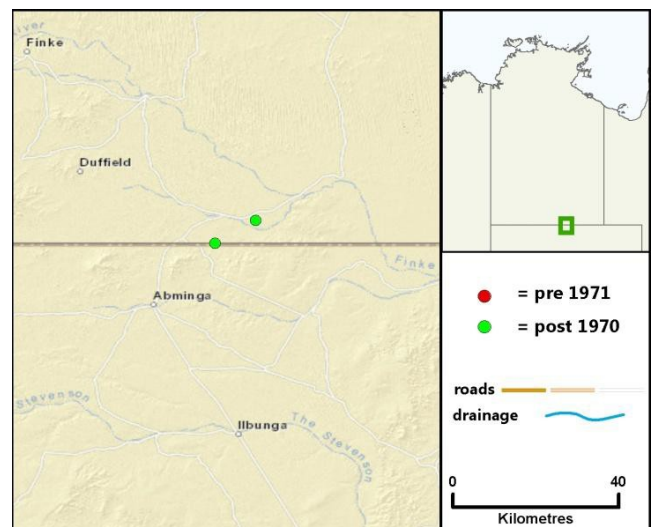
Distribution

A recent taxonomic review separates

A. modestus and *A. textilis* as distinct species (Black et al. 2010). The thick-billed grasswren

A. modestus occurred as three subspecies in arid and semi-arid regions of southern Australia (Higgins et al. 2000), two of which have been recorded in the Northern Territory (NT).

The north-western subspecies occurs in river systems draining into Lake Eyre, reaching the Stuart Shelf in the west and crossing into the western Lake Torrens Basin in the south. In April



Known locations of the north-western thick-billed grass-wren

1994 a small isolated population was located in the NT just south of Charlotte Waters along a drainage line. Birds have been resighted during subsequent surveys (Eldridge and Reid 2000; Eldridge and Pascoe 2004) and the species is now known from four locations within a 25 km² area of chenopod vegetation (S. Eldridge pers. comm.).

The MacDonnell Ranges subspecies

A. m. modestus was formerly present in the Finke River drainage but is now considered extinct.

The closely-related western grasswren *A. textilis* comprises two subspecies, one in the Gawler Ranges and upper Eyre Peninsula in South Australia (SA) and the other had a wide distribution in southern Western Australian but is now found only in the Shark Bay region.

Conservation reserves where reported:

None.

Ecology

The north-western subspecies of the thick-billed grasswren inhabits the chenopod shrublands of inland Australia, particularly those dominated by saltbush *Atriplex* and bluebush *Maireana*. The population near Charlotte Waters is located along drainage lines in run-on areas dominated by the saltbush *Atriplex nummularia*. Other common chenopod species are *Maireana aphylla*, *Einadia nutans* ssp. *eremaea*, and *Chenopodium auricomum*.

The subspecies is sedentary and pairs usually occupy a home range of 20-40 ha. Birds feed on the ground where seeds and invertebrates are obtained.

Breeding takes place in spring or summer. The nest is usually a semi-dome constructed of twigs, grasses and fibres and built within the foliage of a shrub, usually a bluebush or saltbush. Two to three eggs are laid.

Conservation assessment

The current evidence suggests that there is only one population of the north-western subspecies of the thick-billed grasswren in the NT. Targeted surveys (including mist-netting and call playback) have been carried out in this area in 2002, 2003, 2004, 2005 and 2008. This work has clearly established that the population is very small in size (less than 50 mature individuals).

The species qualifies as Critically Endangered in the NT (under criteria B2ab(iii)+C2(ai)+D) due to:

- population size estimated at <50 mature individuals;
- highly fragmented with birds being recorded at four sites; and
- decline in the quality of available habitat due to increased cattle activity.

The NT population occurs very close to the SA border and, therefore, may be the target of immigration from sites in northern SA where it is more widespread and locally common. Given that the subspecies has a lower global conservation status, i.e. vulnerable, then such immigration would be justification for down-grading its Territory-wide status based on current IUCN guidelines (Gärdenfors 2001).

However, immigration cannot be confirmed based on current information, therefore, the status of the thick-billed grasswren in the NT should remain as Critically Endangered.

Threatening processes

Thick-billed grasswrens have disappeared from western NSW since 1912 and have contracted in range in South Australia and probably the NT. No threatening process has yet been associated with this decline.

Habitat degradation resulting from high stocking rates of livestock, and severe drought, may result in the extinction of small, isolated populations (Garnett and Crowley 2000).

This is of concern for the current NT population as there has been an active expansion of watering points and an associated increase in cattle occurrence within the *Atriplex nummularia* habitat occupied by this population since the change in ownership and management of New Crown Station in 2007.

However, the thick-billed grasswren occurs on pastoral lease throughout its range and is known to survive in areas of sparse cover degraded by sheep, rabbits and drought (Garnett and Crowley 2000).

Therefore, research is needed before a definite cause of decline can be established.

Conservation objectives and management

A survey and monitoring program for the thick-billed grasswren in the NT commenced in 2002 and is ongoing. The program is carried out jointly by the Flora and Fauna Division of Department of Land Resource Management and the Alice Springs Desert Park.

Management priorities for the species in the NT are:

- i. define the area of occupancy of the known population on New Crown Station including searches for additional sub-populations;
- ii. assess the size of the population and effects of any possible threatening processes, and continue regular monitoring; and
- iii. develop husbandry methods at the Alice Springs Desert Park.

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References

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