

# Threatened Species of the Northern Territory

## WHITE-THROATED GRASSWREN

### *Amytornis woodwardi*

#### Conservation status

Australia: Not listed

Northern Territory: Vulnerable



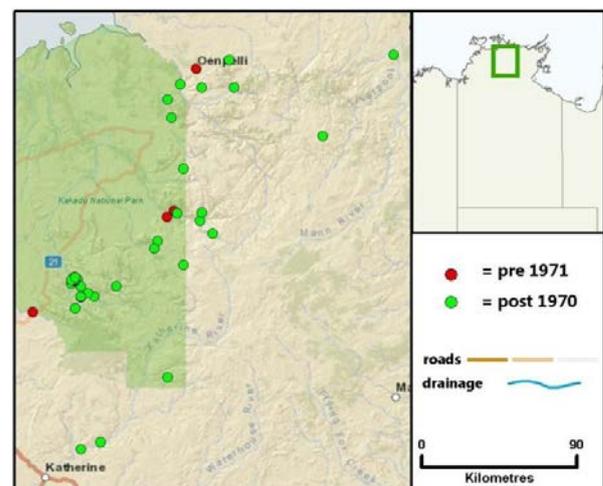
Photo: G. Chapman

#### Description

The white-throated grasswren is a small shy ground-dwelling bird. It is secretive, and most observers get little more than a blurred impression of a mouse-like movement between clumps of spinifex, or darting rapidly behind rocks. This species is noticeably larger than the common red-backed fairy-wren. Its distinctive features include a long tail typically held upright or half-upright when stationary, but lowered when moving; a conspicuous white throat contrasting sharply with the head and upper parts that are black with white streaks, and a dark chestnut brown belly, rump and tail. Its presence is often revealed first by its distinctive call, a mixture of complex trills and chirps, and an alarm call characterised as a sharp “tzzzt”.

#### Distribution

The white-throated grasswren is restricted to the rugged sandstone massif of western Arnhem Land, extending south-west as far as Nitmiluk National Park and northeast as far as the Mann River (Noske 1992a). Within this range of about 32 000 km<sup>2</sup>, it is patchily distributed.



Known locations of the white-throated grasswren

Conservation reserves where reported:  
Kakadu National Park and Nitmiluk National Park.

#### Ecology

The white-throated grasswren is confined to hummock grasslands (“spinifex”), sometimes with open shrubland or woodland overstorey, mixed among dense boulder fields, sandstone pavements (Schodde 1982; Noske 1992a) and escarpment drainage lines (Brennan 2011 pers comms). The diet comprises invertebrates, seeds and other vegetable matter (Noske 1992a).

Like other grasswrens and fairy-wrens, it often occurs in small family groups (typically of 3-6 birds), but also occurs singly or in pairs (Noske 1992a).

Breeding occurs from December to June, and territory size is around 10 ha (Noske 1992a).

### Conservation assessment

There has been some dispute about the status of this species. Based largely on an estimate of the area of potentially suitable habitat, and population density estimates at eight sites, Noske (1992a) estimated the total population at about 50 000 individuals (with a range of between 14 000 and 182 000), and considered that it was not threatened, although with the caveat that “it may be rash to assume that (it) is totally secure despite its apparent abundance”. Woinarski (1992) re-analysed these and additional data, and estimated that the total population size was about 5 000 to 10 000 individuals, and that the species was threatened by broad-scale habitat change associated with altered fire regimes. In response, Noske (1992b) provided a revised estimate of “in excess of 10 000” individuals. In 2000 an assessment by Garnett and Crowley suggested that the total population was 8 000 breeding birds, albeit with a low reliability for this estimate.

Recently a survey in mid 2011 by Kakadu National Park and Department of Land Resource Management and Parks and Wildlife Commission of the NT staff, found several family groups on the Arnhem escarpment within Kakadu National Park. Notably no grasswrens were observed at Gunlom or Lower Yurmikmik survey locations (Mahney et al, 2011), which in the past were popular and fairly reliable places for birdwatchers to see White-throated grasswrens.

It can be regarded as **Vulnerable** (under criteria B2ab(ii,iii) and C2a(i)) due to:

- area of occupancy <2 000 km<sup>2</sup>; severely fragmented;
- continuing decline, observed, inferred or projected;
- population size <10 000 mature individuals; and
- no subpopulation estimate to contain more than 1 000 mature individuals.

In all cases, the decline is presumed based on broad-scale change in habitat quality associated with altered fire regimes (Russell-Smith et al.

2002). The subpopulation structure of the species is not well known, and the fragmentation or continuity of populations across the Arnhem Land plateau is uncertain.

### Threatening processes

Fire regimes in the sandstone environments of western Arnhem Land have changed dramatically over the last 10-50 years, as traditional Aboriginal management has been disrupted or broken down. There is now a markedly increased incidence of extensive late dry season fires, leading to substantial vegetation change. The extent to which this change reduces habitat suitability for grasswrens is uncertain, but the little evidence available suggests that a high frequency of fires is deleterious (Woinarski 1992).

### Conservation objectives and management

The principal research objectives are to:

- i. investigate the relationship between grasswrens, habitat suitability and fire regimes; and
- ii. improve the assessment of total population numbers, distribution and meta-population structure.

Subsequent to results from (i) above, the main management objectives are to:

- i. implement a fire management program that maintains or enhances habitat quality across the range of this species; and
- ii. establish a monitoring program for at least representative populations.

### Compiled by

John Woinarski  
Stuart Young

[updated December 2012]

### References

Garnett, S., T., and Crowley, G.M. (2000). The Action Plan for Australian Birds. 2000. (Environment Australia, Canberra.)

Mahney, T., Brennan, K., Fegan, M., Trikojus, N., Young,

S. and Fisher, A. (2011). Yirlin-kirk-kirr (White-throated grass-wren) Kakadu National Park Survey 2011. Report to Kakadu National Park

Noske, R. (1992a). The status and ecology of the white-throated grass-wren *Amytornis woodwardi*. *Emu* 92, 39-51.

Noske, R. (1992b). Do grasswrens have the numbers?

Reply to Woinarski (1992). *Northern Territory Naturalist* 13, 5-8.

Russell-Smith, J., Ryan, P.G., and Cheal, D.C. (2002).

Fire regimes and the conservation of sandstone heath in monsoonal northern Australia: frequency, interval, patchiness. *Biological Conservation* 104, 91-106.

Schodde, R. (1982). *The fairy-wrens. A monograph of the Maluridae.* (Landsdowne Editions, Melbourne.)

Woinarski, J.C.Z. (1992). The conservation status of the white-throated grass-wren *Amytornis woodwardi*, an example of problems in status designation. *Northern Territory Naturalist* 13, 1-5.