

# Threatened species of the Northern Territory

## Partridge pigeon (eastern)

### *Geophaps smithii smithii*

#### Conservation status

##### Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

##### Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976



Credit: M. Gardner

#### Description

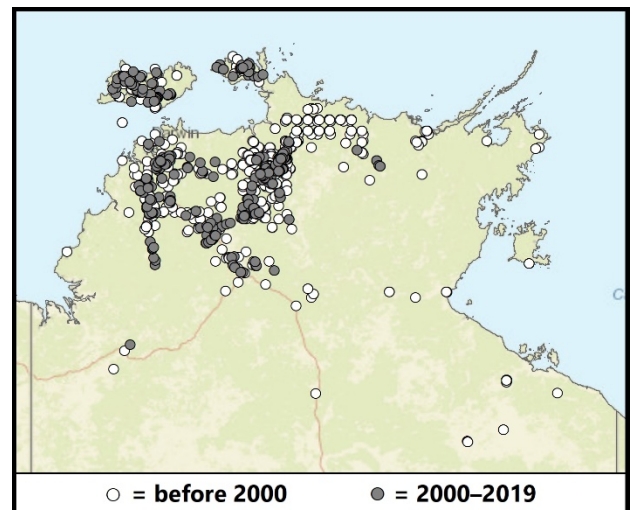
The Partridge Pigeon is an unmistakable ground-dwelling pigeon. It is a medium-sized (slightly smaller than the feral pigeon *Columbia livia*), grey-brown bird with a conspicuous white stripe on the side of the body and in front of the folded wing, and red bare skin on the face.

Two subspecies are recognised. The subspecies occurring in the Northern Territory, *Geophaps smithii smithii*, differs from the other subspecies *G. s. blauwii* found in the Kimberley by having red, rather than yellow, facial skin.

#### Distribution

The Partridge Pigeon occurs across the Top End of the Northern Territory and Kimberley. However it has declined or disappeared from much of the lower rainfall parts of this range over the last century. It is sparsely distributed in eastern and central Arnhem Land.

NT conservation reserves where reported: Blackmore River Conservation Reserve, Butterfly Gorge Nature Park, Garig Gunak Barlu National Park, Judburra/Gregory National Park, Kakadu National Park, Litchfield National Park, Mary River National Park, Nitmiluk National Park, Territory Wildlife Park/Berry Springs Nature Park, Tjuwalyin (Douglas) Hot Springs Park, Umbrawara Gorge Nature Park.



Caption: Known localities of the Partridge Pigeon in the NT ([nrmmaps.nt.gov.au](http://nrmmaps.nt.gov.au))

## Ecology and life-history

Partridge Pigeons occur principally in lowland eucalypt open forests and woodlands, with grassy understoreys. Their diet comprises seeds, mostly of grasses but also from *Acacia* and other woody plants. The species forages entirely on the ground, and flies infrequently. Partridge Pigeons are largely sedentary, although they may make local-scale movements (up to 5-10 km) in response to seasonal variations in water and food availability<sup>1</sup>. They typically occur singly or in small groups, but sometimes form larger flocks, especially around water sources in the late dry season. It nests on the ground, mostly in the early dry season, preferring sites with relatively dense grass cover. In contrast, relatively open (typically burnt) areas are preferred for feeding.

## Threatening processes

Partridge Pigeons face a number of threats, but their relative impacts are not well understood. The most important threat is probably altered fire regimes<sup>2</sup>. Traditional Aboriginal fire regimes were probably far more patchy and fine-scale than contemporary fire regimes. Invasive grasses, which have spread across much of the Top End, including mission grass *Pennisetum polystachion* and gamba grass *Andropogon gayanus*, pose two threats: 1) they reduce the abundance and diversity of native grasses, affecting food resources for the Partridge Pigeon, and 2) increase fuel loads leading to more frequent, extensive and/or intense fires. Other threats include predation by feral Cats *Felis catus*, habitat loss due to horticulture and forestry practices, and habitat degradation by livestock and feral herbivores.

## Conservation objectives and management

The primary conservation management objective for the Partridge Pigeon (eastern) is to maintain extensive areas of eucalypt open forest with intact native grass species composition, and subject to a fine-scale, patchy and relatively frequent fire regime<sup>5</sup>.

The basis of a monitoring program for this species has been established in Kakadu National Park<sup>2,6</sup> and on the Tiwi Islands. Maintenance or expansion of these programs will be necessary to provide a more informed measure of population trends and responses to management.

## References

- <sup>1</sup> Fraser, F.J., 2001. The impacts of fire and grazing on the Partridge Pigeon: the ecological requirements of a declining tropical granivore. PhD thesis. Australian National University, Canberra.
- <sup>2</sup> Fraser, F., Lawson, V., Morrison, S., Christopherson, P., McGreggor, S., Rawlinson, M., 2003. Fire management experiment for the declining Partridge Pigeon, Kakadu National Park. *Ecol. Manag. Restor.* 4, 93-101.
- <sup>3</sup> Johnstone, R.E., 1981. Notes on the distribution, ecology and taxonomy of the partridge pigeon (*Geophaps smithii*) and spinifex pigeon (*Geophaps plumifera*) in Western Australia. *Rec. West Aust. Mus.* 9, 49-63.
- <sup>4</sup> Franklin, D.C., 1999. Evidence of disarray amongst granivorous bird assemblages in the savannas of northern Australia, a region of sparse human settlement. *Biol. Conserv.* 90, 53-68.
- <sup>5</sup> Woinarski, J.C.Z., 2004. National multi- species Recovery Plan for the Partridge Pigeon [eastern subspecies] *Geophaps smithii smithii*; crested shrike-tit [northern (sub)- species] *Falcunculus (frontatus) whitei*; masked owl [north Australian mainland subspecies] *Tyto novaehollandae kimberli*; and masked owl [Tiwi Islands subspecies] *Tyto novaehollandiae melvillensis*, 2004- 2008. NT Department of Infrastructure Planning and Environment, Darwin.
- <sup>6</sup> Woinarski, J., 2004. Threatened plants and animals in Kakadu National Park: a review and recommendations for management. Report to Parks Australia North. PWCNT, Darwin.