

## RECOVERY OUTLINE

# Plains-wanderer

1	Family	Pedionomidae
2	Scientific name	<i>Pedionomus torquatus</i> Gould, 1840
3	Common name	Plains-wanderer
4	Conservation status	Endangered: C2b

### 5 Reasons for listing

The widely dispersed single population contains fewer than 2,500 mature individuals in times of drought. Given the declines in area of suitable habitat, this minimum population is probably declining (Endangered: C2b).

	Estimate	Reliability
Extent of occurrence	35,000 km <sup>2</sup>	medium
trend	stable	medium
Area of occupancy	1,000 km <sup>2</sup>	low
trend	decreasing	medium
No. of breeding birds	2,500	medium
trend	decreasing	medium
No. of sub-populations	1	high
Generation time	3 years	low

### 6 Intraspecific taxa

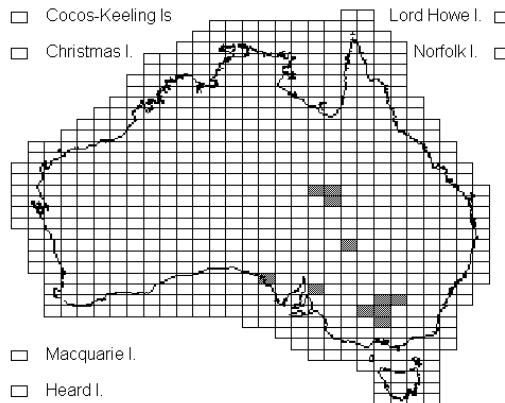
None described.

### 7 Past range and abundance

Historically, recorded regularly from western and north-central Victoria, southern and eastern South Australia, including Adelaide Plains, Yorke and Eyre peninsulas, south-east and north-east, southern and eastern New South Wales, including Riverina, inland slopes of Great Dividing Ra. and eastern tablelands, N. S. W., and west-central and south-east Queensland (Baker-Gabb, 1998).

### 8 Present range and abundance

Total population is thought to vary between 8,000 in good years down to 2,500 after years with lower than average rainfall (Baker-Gabb, 1998). Highest densities currently in Riverina region, where the population may be as high as 5,500 after good years, but decline to about 1,000 in poor years (Baker-Gabb, 1998). In northern Victoria there were fewer than 500 individuals (Maher and Baker-Gabb, 1993) at four sites. By 2000 three of the four had been rendered unsuitable by ploughing, though one more site had been discovered (R. Webster). There are low densities in south-western and central Queensland, where there have been no recent surveys (Baker-Gabb, 1998). Scattered records outside these areas are thought to be dispersing individuals. The species is effectively extinct in south-west Victoria, south-east South Australia,



eastern New South Wales and south-east Queensland (Baker-Gabb *et al.*, 1990).

### 9 Ecology

Plains-wanderers live in sparse grasslands that have about 50% bare ground, widely spaced plants up to 10 cm high and remaining standing vegetation less than 5 cm in height. Habitat structure, however, is more important than floristics. Plains-wanderers occasionally use cereal stubble but cannot persist in an agricultural landscape. Suitable habitat tends to be restricted to small (50-300 ha) patches that do not support dense pasture growth under any seasonal conditions (Baker-Gabb 1987, 1998). They feed on seeds throughout the year, supplementing their diet with arthropods in spring. The species is sedentary for as long as the habitat remains suitable. It lays 3-5 eggs in a shallow, grass-lined scrape (Baker-Gabb, 1998, Marchant and Higgins, 1993).

### 10 Threats

The main threat to the Plains-wanderer is cultivation of native grassland which, even if left to recover, remains unsuitable for decades. Cultivation has all but eliminated the species from southern South Australia and Victoria and is increasing across the Riverina. Even where patches of habitat remain, they may be too few and dispersed to be effective refuges during drought (Baker-Gabb, 1998). Overgrazing causes the species to leave an area when grassland is reduced to a remnant less than 2-3 cm high with 60% or more bare ground (Baker-Gabb *et al.*, 1990), probably because the species becomes too vulnerable to predators (Baker-Gabb, 1987). Such overgrazing is particularly likely to take place during droughts. Fenitrothion and other

pesticides are occasionally used in large quantities to spray locust plagues, particularly in the Riverina, and may kill Plains-wanderers directly or indirectly through the food chain. Foxes may be significant predators near crops, where fox densities are high (Baker-Gabb, 1998).

### 11 Information required

- 11.1 Refine estimates of numbers in Queensland and northern South Australia.
- 11.2 Determine the effects of locust control spraying on Plains-wanderers.

### 12 Recovery objectives

- 12.1 Halt further loss of habitat and population decline.
- 12.2 Halve population fluctuations and declines during droughts.
- 12.3 Increasing population size by 2,000 by improving management of 100 km<sup>2</sup> of suitable habitat in new reserves and refuge areas.

### 13 Actions completed or under way

- 13.1 Extensive surveys have been undertaken in N. S. W., Vic. and south-east S. A.
- 13.2 Detailed research has been completed on habitat requirements.
- 13.3 Recovery planning is undertaken in N. S. W. and Vic.
- 13.4 A draft management plan to reduce Fenitrothion impact has been produced by the Australian Plague Locust Commission.

- 13.5 Habitat has been incorporated into the protected area estate in Qld and Vic.

### 14 Management actions required

- 14.1 Purchase a Plains-wanderer reserve of at least 20,000 ha in the Riverina.
- 14.2 Survey more properties for suitable habitat in N. S. W. and Qld, and identify areas of high conservation value for Plains-wanderer.
- 14.3 Negotiate refuge areas in N. S. W., S. A. and Qld, ensuring Plains-wanderer habitat is not cultivated, has a 2 km buffer from cultivated land, is not overgrazed during drought and is integrated into a regional conservation plan.
- 14.4 Monitor population and habitat condition and provide feedback to land-holders.
- 14.5 Establish and manage a Recovery Team.

### 15 Organisations responsible for conservation

New South Wales National Parks and Wildlife Service, Queensland Parks and Wildlife Service, South Australian Department of Environment and Heritage, Victorian Department of Natural Resources and Environment.

### 16 Other organisations involved

New South Wales Department of Land and Water Conservation, Parks Victoria, Australian Plague Locust Commission, New South Wales Rural Land Protection Boards, Western Riverina Vegetation Committee, Royal Australian Navy, local government, Landcare groups, private land-holders, Birds Australia.

### 17 Staff and financial resources required for recovery to be carried out<sup>1</sup>

<i>Staff resources required 2001-2005</i>	1.0	<i>Project Officer</i>
	2.5	<i>Extension Officer</i>

*Financial resources required 2001-2005*

<i>Action</i>	<i>Conservation agencies</i>	<i>Other funding sources</i>	<i>Total</i>
<i>Surveys</i>	\$300,000	\$100,000	\$400,000
<i>Property planning</i>	\$1,250,000	\$250,000	\$1,500,000
<i>Monitoring</i>	\$250,000	\$50,000	\$300,000
<i>Determine effects of locust spraying</i>	\$50,000	\$0	\$50,000
<i>Manage recovery process</i>	\$60,000	\$0	\$60,000
<b><i>Total</i></b>	<b>\$1,910,000</b>	<b>\$400,000</b>	<b>\$2,310,000</b>

<sup>1</sup> All costings from NSW NPWS (1999); does not include cost of land purchase (est. \$3,000,000)

### 18 Bibliography

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Text adapted from  
Baker-Gabb (1992).

Comments received from  
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