

**ANTIPODES ISLAND PARAKEET  
CAPTIVE MANAGEMENT PLAN**  
*(Cyanoramphus unicolor)*



Department of Conservation  
*Te Papa Atawhai*

THREATENED SPECIES  
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**CAPTIVE MANAGEMENT PLAN  
ANTIPODES ISLAND PARAKEET**  
*(Cyanoramphus unicolor)*

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for the Threatened Species Unit

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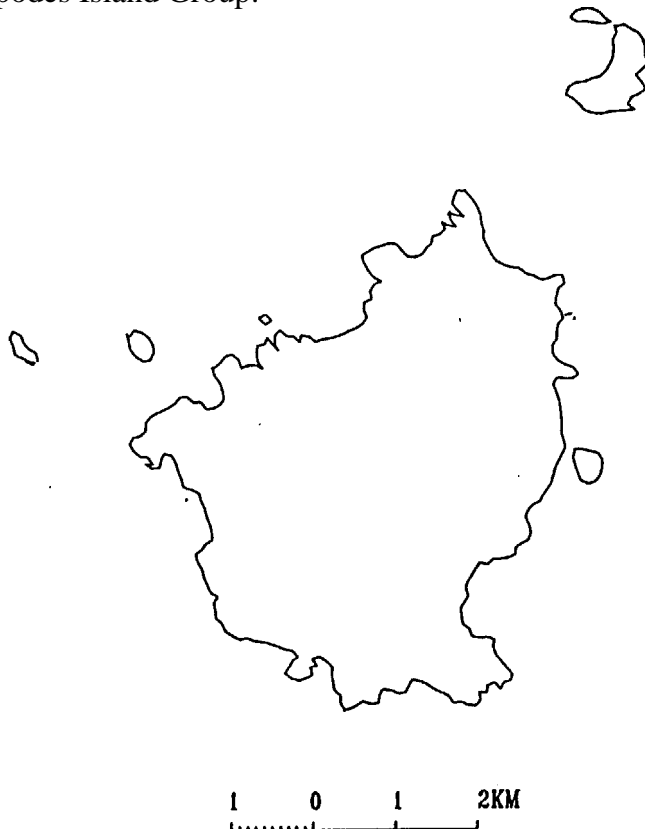
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## **1. Introduction**

### **1.1 Taxonomy**

The Antipodes Island parakeet (*Cyanoramphus unicolor*) belongs to the subfamily Platycercinae which includes the kakarikis, a genus found only in the South Pacific region.

### **1.2 Conservation Status**

The Antipodes Island parakeet is classified as a "Category C" threatened species according to Department of Conservation's threatened species priority ranking system. (*Setting priorities for the conservation of New Zealand's threatened plants and animals. Molloy and Davis 1992. Revised 1994. Department of Conservation, Wellington.*)

Antipodes Island parakeets are not currently covered by a Species Recovery Plan and the department feels there is no immediate need to develop a recovery programme given the relative security of the species and its habitat.

The perceived risks to the species, and thus its conservation status, have changed over the years, resulting in changes of direction for the wild and captive management program.

### **1.3 General Biology**

The Antipodes Island parakeet (*Cyanoramphus unicolor*) is endemic to the Antipodes Islands, which consist of one medium size island (approx 6.7 by 3.8 km) and about 4 smaller islands, the largest of which island is only 1.2 km long. The island group is positioned about 872 km southeast of Bluff at a latitude of 178°45'E and longitude 49°41'S. The wild population is estimated to be stable at 2,000 to 3,000 birds (Taylor 1985).

Antipodes Island parakeets are inquisitive and mischievous birds. They are predominantly ground dwelling birds that have defined territories which they defend. This is in contrast to the more communal nature of New Zealand red crown kakarikis (the behaviour of the Antipodes Island subspecies of red crowns is not known). Their inquisitive nature (especially the males) means that they tend to approach the public, thus they are a good medium for attracting public attention to an exhibit and any message it portrays.

### **1.4 Legal Protection**

Totally Protected under the Wildlife Act 1953.

Holders must be permitted by the Department of Conservation, and must adhere to the guidelines set out in the permit and by the Captive Management Coordinator of the species.

## 1.5 **Legal Availability**

Antipodes Island parakeets are not currently available to the domestic or international commercial animal trade, general aviculture or the overseas zoo industry. The holders of the species are made up of both institutions and private individuals that are part of a cooperative management program, that is overseen by the Department of Conservation.

## 1.6 **Export**

There has been no legal export either direct from the Antipodes Islands or from New Zealand captive stock and it is not envisaged that this will change in the immediate future.

## 1.7 **History in Captivity**

### ***1970s to 1989***

The Wildlife Service removed approximately 11 Antipodes Island parakeets from the islands during the 1970s and 1980s in order to establish a captive population as an insurance against catastrophic loss of the species in the wild. At that time it was felt that the accidental introduction of alien predators (e.g. cats and rats) or diseases could be catastrophic for such an isolated and relatively small population.

The primary aim at this stage was to establish a second free-living population on an island outside the species natural range by the use of captive breeding.

The captive breeding part of the program was a success but the release of six birds on Stephens Island in 1985 was unsuccessful and the surviving two birds were brought back into captivity in 1989. (No documentation is available on the reason for this failure.)

### ***1989 to 1995***

In 1989 the need for establishing a new wild population away from the Antipodes was questioned by the department because it was felt that the distances between the islands in the group would prevent alien predators such as rats from colonising all the islands from a single invasion.

In order to stabilise an expanding captive population and to allow time to assess the future direction of the captive program the department instructed holders in 1992 not to allow successful breeding.

### ***1995 on***

As Antipodes Island parakeets have a life expectancy of about ten years in captivity (going on current observations), the lack of any new progeny over the last 3 years has resulted in an unnaturally skewed age pyramid for the captive population. This management plan is intended to address this situation by allowing selected breeding of high genetic value birds to maintain a stable healthy population for the future.

## 1.8 **Current Status of Captive Population**

The current population in captivity is 75 birds consisting of 23 Females and 52 Males with no immature/unsexed birds. *According to the information available to the*

*coordinator. (The coordinator is aware that some birds have died but has not been supplied details.)*

These birds are held by 22 active permitted holders which comprises 12 public institutions and 10 private aviculturalists.

#### **1.9 Administration of Captive Population**

This is to be met by cooperative management between the permitted holders and the Department of Conservation. Rob West, a private aviculturalist, is the Antipodes Island parakeet Captive Management Coordinator appointed by the Department of Conservation.

Refer to Husbandry Manual for detailed description for duties and responsibilities of the coordinator, holders and Department of Conservation.

## **2 Captive Management Plan**

### **2.1 Goal**

Is to maintain a small self-sustaining population of Antipodes Island parakeets in captivity to meet agreed conservation objectives.

### **2.2 Objectives**

Listed in order of priority:

- (1) To provide birds for display to the public for conservation education and advocacy purposes;
- (2) To refine and document husbandry techniques for maintaining and breeding Antipodes Island parakeets in captivity;
- (3) To provide an accessible population in which to conduct approved research;
- (4) To maintain an insurance population against catastrophic loss in the wild and

#### **2.2a Explanation of Objectives**

- (1) To provide birds for display to the public for conservation education and advocacy purposes;

The display of birds in conjunction with appropriate interpretive material and a captive environment designed to simulate (as far as practicable) the bird's natural habitat, can be used to illustrate the importance of protecting and conserving New Zealand's sub-antarctic islands. To increase public awareness of the high levels of endemism found amongst New Zealand's flora and fauna and the fragility of island ecosystems.

- (2) To refine and document husbandry techniques for maintaining and breeding Antipodes Island parakeets in captivity;

The species is known to breed successfully in captivity but it is important to collate and record the husbandry knowledge acquired to date so it is not lost. Further refinements in captive management techniques through observations of captive birds will provide better understanding of the requirements of this species and would assist close-order management of the wild population in the event of a catastrophe occurring on the Antipodes Islands group.

- (3) To provide an accessible population in which to conduct approved research.
- (4) To maintain an insurance population against catastrophic loss in the wild.

Although the risk is considered low by the department it would be foolish to squander the existing captive resource. It is therefore important to manage the captive population in a nationally coordinated way; to prevent this species from



hybridising with other species of kakariki, to maintain accurate studbook records, to maximise retention of genetic diversity and minimise the levels of inbreeding and adaption to captivity.

### **2.3 Implementation of Objectives**

A small self-sustaining population will be maintained at a level sufficient to achieve the conservation objectives of this Captive Management Plan (as stated above) in a manner that meets the welfare needs of the animals.

Collection of new stock from the islands will not be permitted by the Department of Conservation as sufficient numbers are held in captivity to meet the stated objectives.

As the collection of new stock from the islands is not supported, the generation interval of each bird will need to be extended to ensure that the genetic diversity of the captive population is maximised for the stated target population size and target holder base.

The population is to be managed to minimise genetic inbreeding and the deviation from 'the natural type', as the primary objective of the program is now based on education. Having a captive population with visible mutations on public display would potentially compromise the advocacy message being portrayed.

#### **2.3a Target Population Size**

The target population size is expected to lie within the range of 60 to 100 birds.

Birds considered surplus to breeding and display requirements will not be euthanased but their numbers will be allowed to decline through natural attrition.

#### **2.3b Number of Active Permit Holders**

This population is to be housed in suitable aviaries supplied by between 20 & 30 active permit holders.

Participation in the program is dynamic by nature as holders resign or down size thus the program will need to recruit replacement holders to meet the objectives of the program and the animal welfare obligations. The recruitment of holders will be controlled by the needs of the program.

#### **2.3c Location of Birds**

Priority will be given to maintaining birds where they can best fulfill their roles in conservation education and the long term requirements of the program.

### **2.3d Breeding**

Captive Antipodes Island parakeets are now managed as one population in a controlled breeding program to meet the requirements of this plan.

Breeding will be carefully planned and coordinated to maximise genetic diversity and minimise inbreeding within the captive population and to maintain the captive population as true to the natural type.

Refer to the Husbandry Guidelines for detailed management concepts on breeding.

### **2.3e Non Breeding Birds**

The management of non paired birds (and birds not allocated to breeding) will depend on the skills of the holder, the design of aviary and the characteristics of the individual birds being housed. Thus it is hard to make hard and fast rules for management, but the principal is birds that are not deliberately paired for breeding by the coordinator must not hatch young.

This can be done by either keeping birds in single sex groups, or by keeping mixed populations but stopping successful breeding, for example by selecting birds that are not behaviourally inclined to breed or by some form of approved deliberate human intervention.

### **2.3f Holding Aviaries**

Holding facilities are required to house the part of the population that is, at any one time, not permitted to breed. These facilities can be either on or off exhibit. Aviaries deemed not suitable for breeding will be classed as holding aviaries at all times. Aviaries classed as suitable for breeding may be used as holding facilities as is dictated by the objectives of the program.

### **2.3g Rearrangement of Holder Resource and Stock**

Over the previous three years the captive stock has been managed in a holding pattern, thus considerable regrading of holder resources is now required and the matching of that resource to the requirements of the program and the need of the current stock. Thus in the first year of the plan there will need to be considerable movement of stock and information between holders.

### **2.3h Transfer of Birds**

In the transferring of birds, existing holders who have formally agreed to comply with the captive management plan will generally be given preference over new applicants. Within this group, aviaries on public display will generally be given preference over off exhibit aviaries -simply because birds on public display meet the primary objective of this plan.