



Operational Report for Ship rat Control in the Poulter Valley

25 Sep 2008 - 12 Oct 2008

Department of Conservation
Waimakariri

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1. Operation Summary

Operation Name Ship rat in Poulter Valley
Operation Date 25 Sep 2008 - 12 Oct 2008
Area Office Waimakariri **Conservancy:** Canterbury
Pestlink Reference 0809WMK06

Treatment Area **Size (ha)**
 Poulter Valley 6920.00

Conservation Unit Name(s)	Conservation Unit Number(s)
Arthurs Pass National Park	K33005

Treatment Block Details

Treatment Blocks	Size (ha)	Grid Ref	GIS Ref
Poulter Valley	6920.00		

Contractor Name Amuri Helicopters Ltd

Treatment Dates	Start	Completion
Poulter Valley	25 Sep 2008	12 Oct 2008

Target Pest Details

Treatment Blocks	Target Pests	Control Method	Name
Poulter Valley		Pesticide Aerial	Pesticide - Aerial in Poulter Valley-(1)

Conservation Outcome(s)

1. To ensure the perpetuation of Orange-fronted parakeet throughout their present range. 2. To reduce the Department of Conservation species ranking of OFP from Nationally critical.

Result Target(s)	Treatment Area/Block	What we got
<ul style="list-style-type: none"> Rat tracking will ideally be reduced to 0% initially and below 5% for at least 6 months following treatment. 	Poulter Valley	0%, 0%, 0%, 1.3%

Outcome Targets	What we got
<ul style="list-style-type: none"> Rat populations will be maintained below the threshold density that allows Orange-fronted 	Not available until completion of OFP breeding/monitoring

parakeet populations to recover on the mainland. season.

2. Introduction

2.1 TREATMENT AREA

Non-target species

Common Name	Scientific Name
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Target benefit species

Common Name	Scientific Name
Orange-fronted Parakeet	Cyanoramphus malherbi

Threatened species

Common Name	Scientific Name
Yellow-crowned Parakeet	Cyanoramphus auriceps
Great spotted kiwi	Apteryx haastii
Kea	Nestor notabilis
-	Nestor meridionalis
Bush falcon	Falco novaeseelandiae "bush"

Geographical location

The Poulter Valley is situated 25 km West of Arthurs Pass.

TREATMENT BLOCK DETAILS:

Treatment block	Poulter Valley	
Vegetation type	Mixed beech forest and sub-alpine shrubland	
Bioclimatic zone	sub-alpine	
Climate characteristics:		
Rainfall	3500 mm	
Temperature:	Average Summer	13.0
	Average Winter	4.0
Snow level	1400 m	
Altitude	540-1360 m	
Community and Iwi interests	Site is popular for tramping, hunting and mountain biking. Contains four public huts/bivs.	
Historic sites	None known.	

2.2 MANAGEMENT HISTORY

Management history was not chosen to be shown in this operational report. This history is, however, available via Pestlink

3 Outcomes and Targets

3.1 CONSERVATION OUTCOMES

1. To ensure the perpetuation of Orange-fronted parakeet throughout their present range. 2. To reduce the Department of Conservation species ranking of OFP from Nationally critical.

3.2 TARGETS

3.2.1 Result Targets

The result targets for the treatment area were:

- Rat tracking will ideally be reduced to 0% initially and below 5% for at least 6 months following treatment.

3.2.2 Outcome Targets

The outcome targets for the treatment area were:

- Rat populations will be maintained below the threshold density that allows Orange-fronted parakeet populations to recover on the mainland.

4 Consultation, Consents & Notifications

4.1 CONSULTATION

See DOC DM-343424 for consultation record/plan.

Consultation outcomes

No significant issues raised.

Lessons learned

A multi-year resource consent was already in place for this operation. Most concerns were addressed at the time of applying for the resource consent in 2006.

4.2 CONSENTS

Consent	Consent date	File/DME reference
Resource Consent	16/08/2006	CRC070034
MOH Consent	06/08/2008	2008VTA-230
DOC Consent	17/09/2008	NHT-02-04-04

Lessons learned

Nil

4.3 NOTIFICATION

Public Notice in Christchurch Press and Greymouth Evening Star on 10/09/2008.

Key facts mailout to interested/affected parties.

24 hour notifications to MOH, ECAN and Mt White Station.

Lessons learned

Nil

5 Methods

5.1 TARGET SPECIES

Treatment Block Poulter Valley

Control method	Name	Target pest species
Pesticide - Aerial	Pesticide - Aerial in Poulter Valley-(1)	Ship rat

Treatment Block	Control Method	Name	Target Pest Species
Poulter Valley	Pesticide - Aerial	Pesticide - Aerial in Poulter Valley-(1)	Ship rat
Trade name of pesticide	0.15% 1080 Pellets		
Name of pesticide	Sodium fluoroacetate (1080)		
Type of bait	Cereal pellet		
Toxic loading	1.5 g/kg		
Bait quality sampling	Not Conducted		

Bait Details

	Pre-feed	Toxic
Bait type	Pollard/pellet	Cereal pellet
Lure/mask/deterrent	Cinnamon	Cinnamon
Lure/mask/deterrent	0.30%	0.30%
Dye	None	Green
Individual Bait Weight	6.0g	6.0g

Sowing Rate Details

Pre-feed			Toxic		
Date	Rate(kg/ha)	Wind Speed Direction	Date	Rate(kg/ha)	Wind Speed Direction
25/09/2008	1.00	Moderate NW	12/10/2008	2.00	Light West

Time between pre-feed and toxic 17

End of Caution Period Date 12/04/2009

Aircraft type Hughes 500D or E
Squirrel AS 350

Number of Aircraft 2

Sowing gear details

Description	Capacity
Belt driven buckets with agitators and retractable legs	700 kg

Type of navigational guidance system used Trimble Trimflite III and Trackmap Flight

Loading Method Preloaded dummy hopper lifted by truck mounted Hiab, emptied into spreader bucket whilst detached from helicopter. Hand loading into detached spreader bucket also used at remote loading site.

Complaints and Incidents

GPS tracking system (Trackmap) failed to initiate on one AS350BA helicopter forcing its substitution with a Hughes 500D. The lower capacity of the substitute aircraft resulted in a slower operation and a very long day to complete.

Other Details about this method

-

Deviations from planned operation

-

Lessons Learned

Don't allow operators to bring new/unproven equipment to crucial operations. Proved the worth of having back-up aircraft available.

5.2 ENVIRONMENTAL EFFECTS

5.2.1 Effects on Non-Target Species

Kea mortality through scavenging of baits/carcasses

Performance standard(s)	Followed ?	Monitored ?

5.2.2 Effects on Soil and Water Quality

Toxin in waterways.

Performance standard(s)	Followed ?	Monitored ?

5.2.3 Effects on Ecosystems

-

Effects on Ecosystems Not Applicable

5.2.4 Effects on Human Health

Contamination of hut water supplies. Contact with toxic baits on tracks. Toxin traces in animals being hunted for eating.

Performance standard(s)	Followed ?	Monitored ?
100 metre margin around huts excluded from bait application	Yes	Yes
Bait cleared from tracks following application	Yes	Yes
Operational area included in pesticide summaries provided to recreational hunters and WARO operators. Warning signage and Caution period.	Yes	Yes

6 Monitoring Results and Outcomes

6.1 RESULT MONITORING - TARGET SPECIES

Result target(s)

Rat tracking will ideally be reduced to 0% initially and below 5% for at least 6 months following treatment.

6.1.1 Target Species Monitoring Tracking tunnels

Method:

Species monitored Ship rat - *Rattus rattus* in Poulter Valley

Monitor method details

15 lines of 10 tracking tunnels bait for a single night with peanut butter.

Deviations

Nil

Target pest result details

Pre	During/Post

Monitoring dates	May, June, July, Aug, Sept	Oct, Nov, Jan, Mar
Results	10%, 7%, 4%, 11%, 6%	0%, 0%, 0%, 1.3%

Result target met? Yes

Lessons Learned

Nil

6.2 RESULT MONITORING - ENVIRONMENTAL EFFECTS

6.2.1 Non Target Species

No monitoring of non target species was undertaken.

6.2.2 Soil and Water Quality

No monitoring of soil and water quality was undertaken.

6.2.3 Ecosystems

No monitoring of ecosystems was undertaken.

6.2.4 Human Health

Monitoring of: Bait application exclusions around huts and waterways and removal of bait from walking tracks.

Monitor Method details

Analysis of GPS bait application records. Physical checks on ground.

Deviations

Nil

Monitoring dates 12/01/08 and 13/10/08

Results No bait applied or left in areas where effects on human health are possible.

Lessons Learned

Nil

Effectiveness of performance standards

No adverse effects known or likely.

6.3 OUTCOME MONITORING

Outcome targets

Rat populations will be maintained below the threshold density that allows Orange-fronted parakeet populations to recover on the mainland.

6.3.1 Outcome monitoring : Orange-fronted Parakeet - *Cyanoramphus malherbi*

Monitoring Method(s)

Monitoring information due date 30/04/09

Method details

Orange-fronted parakeet encounter rate lines. OFP nest searching and location.

Monitoring dates

Outcome Results

Not available until completion of OFP breeding/monitoring season.

Outcome target met?

Monitoring ongoing

Lessons Learned

Nil