



Conservation Management of Seabirds

A Biology Programme for
Secondary Students
at the **Royal Albatross Centre**

Student Work Sheets

2011

Conservation Management of the Northern Royal Albatross

Programme Focus

– to look at the 3 main concepts of conservation management.

Protection = aspects that minimize detrimental human effects

Enhancement = aspects that improve on nature

Monitoring = regular checks to monitor bird health and determine long-term trends

What are the threats facing albatross?

Why is Taiaroa Head an important site for the Northern Royal Albatross ?

Monitoring Activity

Monitoring – regular checks to determine long term trends

Department of Conservation Rangers monitor the Royal Albatross at Tairaroa Head - **LOOK OUT THE WINDOW AND RECORD WHAT YOU SEE.**

Date: _____ Time: _____ Observer: _____

Weather
% cloud cover: _____ Wind direction: _____ Wind Speed: _____
Precipitation: _____ Temperature: _____

Number & location of nests in view.	Chick age and behaviours observed	Adults present (identify colour bands) and behaviours observed

Notes (eg. other wildlife observed, traps for pest species observed):

LOOK AT THE DOC MONITORING CHART ON THE WALL AND ANSWER THE QUESTIONS BELOW...

How many pairs returned to this side of the headland to breed this year?

What are the weights of the chicks?

How old is the oldest breeding bird?

How old is the youngest breeding bird?

What animals are being trapped and why?

DOC's main objective is to increase the number of chicks fledging. Good conservation management depends on good baseline data. What are the problems associated with collecting extensive baseline data on Royal Albatross?

Research programmes in combination with the monitoring activity is very important to help the survival of the Albatross. Look around for evidence of a research project that is presently being carried out.

One of the ways that the DOC rangers monitor the health of the chicks is to weigh them - two to three times per day during the guard stage to once a week until fledging (chick permitting).

Weight the chick models to find out what the average weight is for the different stages of growth.

Albatross Growth

Age	Weight (grams)
Chick - Newborn	
Chick - 2 weeks	
Chick - 5 weeks	
Chick - 3 months	
Adult – feeding a 3 month chick	

Enhancement Activity

Enhancement – aspects that improve on nature

There may be more than one answer to each method.

1.

Intervention Methods

Effect of these Methods

1. Dummy Eggs

A. Used to reduce disturbance during courtship and egg laying

2. Revegetation

B. Used as a training tool for those pairs who consistently break eggs

3. Incubator

C. Hand removal of maggots before they enter the body cavities

4. Hand Rearing

D. Birds that do not succeed in their first flight and are unhurt are returned to the colony for a second try

5. Fostering

E. Mint added to the nest is effective in repelling flies about the hatching period - preventing fly strike on young.

6. Flight Rescue

F. Fog spraying of water over sitting birds and surrounding vegetation to raise humidity and reduce temperature through evaporation to prevent heat stress.

7. Supplementing Nesting Material

G. Used to hold pairs at nest, after something has happened to their egg, to provide natural foster parents when needed.

8. Trapping

H. Introduction of hay bales around the nest to protect very young chicks from foul weather and introduction of large screens to provide sun shade for young chicks in hot weather.

9. Security Fence

I. Used to control bronchial infections, treat fungal and bacterial infections, and wounds from bites.

10. Restricted Viewing

J. Deserted eggs or chicks are placed in the nest of pairs who have lost their offspring or are better parents.

11. Window tinting

K. Chicks are hatched in an environment where the membranes are kept moist and there is no fear of fly strike.

12. Banding

L. Used to control or eradicate introduced pests (blowflies) and predators (cats, mustelids) that affect the survival of the eggs and young

13. Drug Treatment

M. Removal of introduced plants like thistles, possibly decreases blowfly numbers. Introduction of native plants could increase the moisture in soil and areas of shade as well as increase the nesting material available.

14. Manual Treatment

N. Chicks fed by wildlife rangers when one or both parents do not return to the nest.

15. Microhabitat Manipulation

O. Used to reduce visual disturbance to nesting birds (*evident in long term data set which showed a change in where juveniles were displaying*)

P. Used to keep a reliable record of bird presence, breeding attempts, family history and immigrants to the population.

Q. Used to control access of humans and canines to the nesting area

Outline any negative aspects to these management techniques?

2. How can the rangers tell if the birds are stressed?

3. Do you think these enhancement techniques should be used to increase the fledging rate of Royal Albatross at Taiaroa Head?

- ≡ *Management has increased the fledging rate by ~20%*
- ≡ *75% of non managed offspring survive to 5 years, only 60% of those that are managed survive to 5 years*

What would happen if?

Protection = aspects that minimise detrimental human impacts

Method:

1. In groups of 2 or 3 people review the “What would happen if...” scenarios you have been given. Record them in the first column of the table below and the complete.
2. Report you ideas to the class during discussion.

What would happen if...	Impact	Management Techniques	How can YOU help prevent it happening or help with the management of the situation?