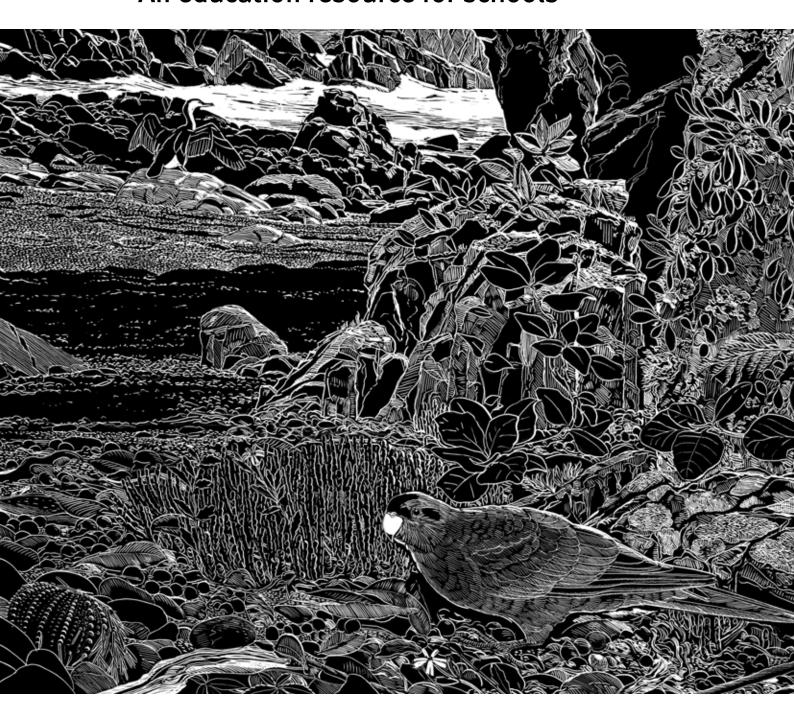
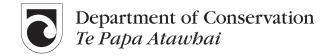


# Tiritiri Matangi

An education resource for schools







#### To the students who will use this kit:

We hope you will be inspired by the Tiritiri Matangi story and become enthused as future caretakers of your environment.

#### **Acknowledgements**

Published by the Auckland Conservancy of the Department of Conservation Private Bag 68 908, Newton, Auckland 1145 Phone (09) 307 9279, Fax (09) 377 2919 www.doc.govt.nz

First edition November 2007 Revised June 2009

The text and illustrations in the Tiritiri Matangi Education Kit are covered by copyright. The kit is designed for bulk photocopying for use only in conjunction with a school teaching programme.

Text and teaching ideas: Sue Reid

Editing and evaluation: Sally Richardson, Simon and Morag Fordham, Chris Green, Merrin Whatley, Ainslie O'Connell, Liz Maire, Fiona Oliphant, Supporters of Tiritiri Matangi

Cover Illustration: Chris Gaskin
Text illustrations: Chris Gaskin (linocuts)
Keith Woodley (plants, birds, insects)

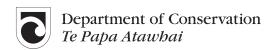
and Ali Teo (cartoons)

**Design:** Verso Visual Communications

**Printing:** Printcare

Printed on chlorine-free paper

ISBN: 978-0-478-14263-1

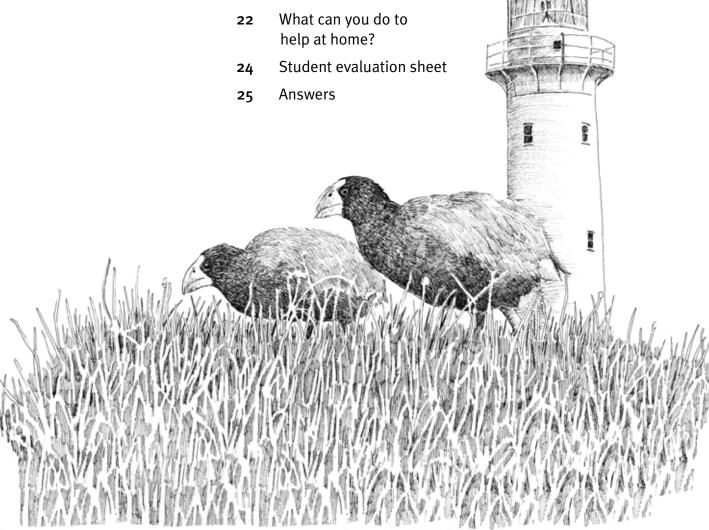




### **Contents**

- 4 Lunchtime activities
- 7 Make a pudding for birds
- 8 Ask an expert
- 9 Traditional foods of Maori
- 10 Tiritiri Matangi word search
- 11 Bird behaviour chart
- 12 Checklist of some Tiritiri Matangi birds
- 13 Matching words to their meanings
- 14 What bird am I?
- **16** Bird search
- Match the names of the birds
- 18 Who's who?
- **20** Trees
- 21 Help or harm?

  Common or endangered?



### Lunchtime activities

#### Inside the centre

Laminated activity sheets are available on the island by request. Contact the guiding co-ordinator, ph 09 476 0010 manager@tiritirimatangi.org.nz

#### **Outside the centre**

To find the answers to these questions, take a walk around the lighthouse, the fence line that lies between the watchtower building and the southeastern paddock, the picket fence and hedge alongside the DOC house, the area in front of the shop, and the courtyard behind the Visitor Centre.

The lighthouse:
In what year was the lighthouse built?
Where was it built?
How tall is the lighthouse?



#### Signs on the fences:

Attached to the white picket fence around the rangers' house there is a cartoon sign. What does the sign warn you about?

Also attached to the white picket fence round the house (towards the public toilets area) there is a photo. What is the photo of? How many people are in the photo?

Courtyard signs:
How many different large colourful signs are there

How many different large colourful signs are there around the outside courtyard of the Visitor Centre?

(a) Takahe/pukeko sign Name the four illustrated differences between takahe and pukeko.

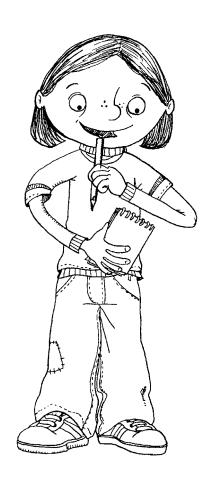


	(b) Takane Story Sign
	When were the takahe rediscovered?
	Where were they rediscovered?
	Who found them?
	Name two causes of takahe decline
	(c) Honeyeaters signs
	How many honeyeaters are listed, and what are their names?
	How do the honeyeaters help the ecology of the forest?
	Name one way you could help New Zealand's honeyeaters.
	One of the honeyeaters signs has an illustration of a predator. What is that predator?
	Brown teal/pateke signs: When do pateke feed?
The state of the s	Why are pateke easy prey for cats and dogs in areas where there are people?
S.	Where is New Zealand's biggest population of pateke?
	Name one way you could help pateke.
	Kiwi signs: What are the five headings on the 'curiosities' sign?
AND MANUAL PROPERTY.	
	How many different kiwis are listed?

17 1 1		•
Kokako	recovery	ı sıgn:

What are the 'continuing threats' listed on this sign?

Name three animals which have a bad effect on kokako numbers.



## Make a pudding for birds

#### You will need:

A pot

2 or 3 1kg plastic honey or yoghurt pottles

A spatula

500g dripping (fat)

stale bread, cake, raisins, broken biscuits, canary seed bacon rinds, cooked meat scraps, cooked rice a plastic net bag with small holes (e.g. golden kiwifruit bag) string

large nail



- Chop up the dripping and melt it in the pot.
- Add bacon rind and/or meat scraps
- Crumble the bread and cake into a bowl and add birdseed, raisins and broken biscuits.
- Add the dry ingredients to the melted fat in the pot. Stir. Keep adding dry ingredients until the pudding looks a bit oozy when pressed with the spatula.
- Pour the mixture into the pottles and leave in the fridge to set.
- Run hot water over the outside of the pottles to help release the pudding, and put the pudding into the net bag.
- Tie strong string to the bag, and suspend the pudding up high enough to prevent cats catching the birds.

# Ask an expert

In your study of endangered endemic birds on Tiritiri Matangi, what questions would you like to ask the people who look after them?

Questions about takahe
Overstiens about hiki
Questions about hihi
Questions about tieke
Questions about toutouwai
Questions about kokako
Overstiens about himi
Questions about kiwi
Questions about pateke
Questions about (your choice)





### **Traditional foods of Maori**

Research question: Tiritiri Matangi was used by Maori searching for food supplies. What foods do you think were gathered by Maori from the island's bush, streams and the surrounding sea?

Fish / animals:		
Plants:		
Other:		

# Tiritiri Matangi word search

Т	А	K	А	Н	Е	Т	0	U	Т	0	U	W	А	I	L
0	U	0	W	L	Р	I	W	Α	K	А	W	А	K	Α	I
М	R	А	Υ	S	U	G	Е	С	K	0	В	R	I	K	G
Т	0	М	Т	I	Т	Р	U	R	ı	R	I	U	W	Α	R
I	U	N	I	А	U	Q	U	Α	I	L	R	R	I	K	Т
Т	M	I	R	0	R	0	В	I	N	Н	D	U	F	Α	Н
F	Α	S	ı	А	R	Α	Р	U	K	Е	K	0	Е	F	0
L	Т	K	Т	K	Α	K	Α	R	I	K	I	Α	R	R	U
Α	Α	ı	ı	M	Α	Н	0	E	Т	U	I	Т	N	Α	S
Х	Т	N	R	В	Е	L	L	В	I	R	D	E	S	Н	E
R	Α	K	I	Р	0	Н	U	T	U	K	Α	W	Α	W	А

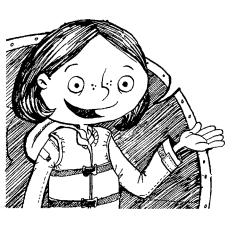
#### Can you find these animals, birds, plants, trees or places in the word search above?

TAKAHE	POHUTUKAWA	RURU
PIWAKAWAKA	KAKARIKI	RAYS
QUAIL	FLAX	WHARF
TUATARA	KIWI	TOUTOUWAI
MAHOE	PURIRI	BELLBIRD
ROBIN	TIRITIRI	TUI
PUKEKO	KAKA	SKINK
MATATA	OWL	MIRO
GECKO	FERNS	WETA
LIGHTHOUSE	BIRD	TOMTIT (2)

### Bird behaviour chart

Observe and gather data on social interactions between birds of the same species. Use a record sheet such as this.

- Using a watch, take a sample of a single bird's behaviour at regular intervals (e.g. every minute, on the minute).
- Select a time interval that suits the nature of the behaviour and the time available to you.
- It is useful for a number of people to study a group at the same time, each observing a different bird, to allow comparisons and provide a total picture of group interactions.
- Use the codes listed to classify the types of behaviour.
- Present the results in table and/or graph format.



Behav	riour codes	Locati	Location codes			
R	resting	Α	airborne			
F	feeding	FF	forest floor			
Pr	preening	WT	water trough			
Fl	flying	U	understorey			
Wl	walking/hopping	C	canopy			
Ag	aggression	Т	track			
Sb	Sb submission		feeder			
OS			open country			

1	11	21	
2	12	22	
3	13	23	
4	14	24	
5	15	25	
6	16	26	
7	17	27	
8	18	28	
9	19	29	
10	20	30	
Species	date	time	
Season	weather		
General commen	ts:		

# Checklist of some Tiritiri Matangi birds

Bird species	Seen	Probably seen	Heard (but not seen)
Bellbird			
Brown teal			
Fantail			
Grey warbler			
Harrier hawk			
Kingfisher			
Little blue penguin			
Kokako			
Ruru			
Kereru			
Pukeko			
Kakariki			
Robin			
Stitchbird			
Takahe			
Tui			
Whitehead			
Other (name)			

# Matching words to their meanings

Draw a line from the word on the left to its meaning on the right

endangered found only in a certain country and nowhere else

fledged brought to New Zealand by people

migrant likely to become extinct if not managed properly

moult an animal that takes birds or their eggs or chicks

fully feathered, able to fly endemic

incubate naturally found or self-introduced

introduced birds in their first plumage

predator a species that moves annually or seasonally

between breeding and non-breeding areas

develop and hatch young birds in eggs by sitting on plumage

them to keep them warm

the annual replacement of feathers native

juvenile a bird's feathers

