

# Science Publications 2004

Published by  
Department of Conservation  
PO Box 10-420  
Wellington, New Zealand

© Copyright January 2005, New Zealand Department of Conservation

ISBN 0-478-22650-0

In the interest of forest conservation, DOC Science Publishing supports paperless electronic publishing. Recycled paper is used for printing wherever possible.

This catalogue was prepared for publication by DOC Science Publishing; editing and layout by Sue Wilkins. Publication was approved by the Chief Scientist (Research, Development & Improvement Division), Department of Conservation, Wellington.

# Contents

Introduction	5
DOC Science Internal Series	6
DOC Technical Series	10
Miscellaneous	11
Science for Conservation	12
Science Posters	14
Threatened Species Publications	15
Index	16
Order form	21

## ***Department of Conservation science publications***

DOC science publications record the output of science investigations undertaken by departmental staff and consultants. We publish stand-alone books, science posters, pamphlets, and reports in several series.

Current series:

- *DOC Science Internal Series* is a published record of scientific research carried out, or advice given, by Department of Conservation staff or external contractors funded by DOC. It comprises reports and short communications that are peer-reviewed.
- *Department of Conservation Technical Series* presents instructional guide books and data sets, aimed at the conservation officer in the field. Publications in this series are reviewed to ensure they represent standards of current best practice in the subject area.
- *Science for Conservation* is a scientific monograph series presenting research funded by New Zealand Department of Conservation. Manuscripts are internally and externally peer-reviewed; resulting publications are considered part of the formal international scientific literature.
- *Science Posters* have usually been presented at conferences by staff of DOC's Science and Research Unit.

DOC Science Publishing also produces monthly updates of new publications, both in print and electronic form. These are free of charge. If you would like to receive this please ask to be put on our mailing list.

## ***Sales catalogue***

This catalogue lists the items that were released by DOC Science Publishing during 2004. Also included are a limited selection of other DOC publications, such as those from the Biodiversity Recovery Unit.

Publications released in previous years are listed in separate catalogues. The cumulative listing from 1987 to 2003 (inclusive) can be found on the internet. Check out *Science and Research* at <http://www.doc.govt.nz> under *Publications*.

The form provided on page 23 can be used to order any of our publications.

DOC science staff also publish research in professional journals and other external publications: these are NOT available from DOC Science Publishing.

## ***Contact details***

DOC Science Publishing  
Research, Development and Improvement Division  
Department of Conservation  
PO Box 10 420  
Wellington, New Zealand

Phone: +64 4 471 0726 Fax: +64 4 496 1929

Email: [science.publications@doc.govt.nz](mailto:science.publications@doc.govt.nz)

Web address: *Science and Research* at <http://www.doc.govt.nz> under *Publications*

# Introduction

Once again, it has been a very productive year for DOC Science Publishing as this annual publications catalogue testifies. Although the numbers of titles and pages are down on previous years, some very major works have seen the light of day.

In addition to many regular contributions to our main monograph series *Science for Conservation*, and the more journal-style *DOC Science Internal Series*, some notable miscellaneous publications reflect a major input of effort by the team (in addition to that of the authors, of course): Waters of National Importance (Rivers), Wetland Types of New Zealand, the Animal Marking 'Book' and 'Booklet', the Campbell Island Musterer's Diary, and the Bannockburn Heritage Study are good cases in point.

In 2004, the team has also contributed significantly to a revision of the DOC Publication Standards, and to a formal review of the Head Office Division to which the Publishing Unit belongs. The implications of both activities are mostly internal, except that the Division of Science, Technology and Information Services (STIS) has ceased to exist. From 10 January 2005, DOC Science Publishing reports to the Chief Scientist in the new Research, Development & Improvement Division (RD&I).

At this point it is appropriate to acknowledge the work of Dr Rob McColl, who was Science Business Manager in the now-disestablished Science & Research Unit (1998-2004). He was largely responsible for the development of, the processes in, and series from, DOC Science Publishing; and for the healthy position he leaves us in as the divisional publisher of scientific and technical works.

Jaap Jasperse (Dr)  
DOC Science Publishing Manager

# DOC Science Internal Series

- 155. Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 2001 to 30 September 2002: birds returned by Ministry of Fisheries observers to the Department of Conservation.**  
C.J.R. Robertson; E. Bell; P. Scofield. 43 p.
- 156. Conservation of *Olearia gardneri*.**  
C. Ogle. 48 p.
- 157. Clearcutting and burning trials to maintain frost-flat communities, Rangitaiki, Central North Island.**  
M.C. Smale; N.B. Fitzgerald. 12 p.
- 158. Cetacean research in New Zealand 2002/03.**  
S. Childerhouse. 21 p.
- 159. Antifeedant effects of diethyl toluamide and neem oil on native cave weta, cockroaches, and amphipods.**  
P.G. McGregor; P.G. Peterson; P.H. Berben; G.C. Arnold; E.B. Spurr. 14 p.
- 160. Evidence of flexible recruitment strategies in coastal populations of giant kokopu (*Galaxias argenteus*).**  
B. David; L. Chadderton; G. Closs; B. Barry; A. Markwitz. 23 p.
- 161. Can echolocation devices be used to define harbour use by Maui's dolphins?**  
F. Jonker; S.M. Ferreira. 21 p.
- 162. Use of herbicidal gels on woody weeds.**  
B.G. Ward; R.F. Henzell. 21 p.
- 163. Stoat captures in a year of heavy mountain beech seedfall.**  
A. Byrom. 10 p.

164. **Aquatic vegetation of Chatham Island (Rekohu).**  
P.D. Champion; J.S. Clayton. 20 p.
165. **Attempts to distinguish morphotypes of Canterbury-Otago non-migratory *Galaxias* species complex.**  
R.M. McDowall; J.E. Hewitt. 19 p.
166. **A review of research on *Undaria pinnatifida* in New Zealand and its potential impacts on the eastern coast of the South Island.**  
M.D. Stuart. 40 p.
167. **Conservation of kakerori (*Pomarea dimidiata*) on the Cook Islands in 2002/03.**  
H.A. Robertson; E.K. Saul. 16 p.
168. **Effects of removing grazing from native grasslands in the eastern South Island, New Zealand: a literature review.**  
R. Ewans. 25 p.
169. **Potential translocation sites for kokako in Taranaki.**  
D. Ravine. 26 p.
170. **A review of public attitudes towards marine issues within and beyond New Zealand.**  
A. Arnold. 25 p.
171. **Diseases and pathogens of stoats and other wildlife in New Zealand.**  
R.A. McDonald; M.J. Day; R.J. Birtles. 23 p.
172. **North Island kokako (*Calleas cinerea wilsoni*) translocations and establishment on Kapiti Island, New Zealand.**  
K.P. Brown; R.A. Empson; N. Gorman; G. Moorcroft. 24 p.
173. **Experimental seeding trials for the root parasite *Dactylanthus taylorii*.**  
A.S. Holzapfel; J. Dodgson. 14 p.

- 174. Feral cats on Stewart Island/Rakiura: population regulation, home range size and habitat use.**  
G.A. Harper. 35 p.
- 175. Effects of a non-toxic bait application on birds: assessing the impacts of a proposed kiore eradication programme on Little Barrier Island.**  
T.C. Greene; P.J. Dilks. 16 p.
- 176. Autopsy of cetaceans incidentally caught in commercial fisheries, and all beachcast specimens of Hector's dolphins, 2001/02.**  
P.J. Duignan; N. Gibbs; G.W. Jones. 28 p.
- 177. An inventory of stoat trapping operations in 2001/02 and an assessment of the data collection methods.**  
J.E. Christie; E.C. Murphy; I. Westbrooke. 13 p.
- 178. Research summary and options for conservation of kaka (*Nestor meridionalis*).**  
T.C. Greene; R.G. Powlesland; P.J. Dilks; L. Moran. 26 p.
- 179. Status of Kermadec red-crowned parakeets and the likely effects of a proposed kiore eradication programme: Macauley Island expedition July 2002.**  
T.C. Greene; R.P. Scofield; P.J. Dilks. 33 p.
- 180. Predicting archaeological sites in New Zealand.**  
G. Elliott; J. Kemp. 17 p.
- 181. Effect of hunting and predation on kea, and a method of monitoring kea populations: results of kea research on the St Arnaud Range.**  
G. Elliott; J. Kemp. 17 p.
- 182. Diet of kakapo in breeding and non-breeding years on Codfish Island (Whenua Hou) and Stewart Island.**  
D.J. Wilson. 18 p.

- 183. Feasibility of biological control of grey willow *Salix cinerea*.**  
H.M. Harman. 29 p.
- 184. Risk assessment system for pesticides used by Department of Conservation.**  
M.D. Crowell; K. Broome. 10 p.
- 185. Historic building appraisal, St Bathans, Otago: Post Office, Bank of New South Wales Gold Office, Stone Cottage and Public Hall.**  
N. Harwood; P. Woodmansey. 38 p.
- 186. Identifying pre-dispersal seed predators and seed dispersers of shrubby tororaro (*Muehlenbeckia astonii* Petrie).**  
G. Udy. 10 p.
- 187. Using colour to increase stoat (*Mustela erminea*) trap catch.**  
B. Hamilton. 15 p.
- 188. Anticoagulant residues in rats and secondary non-target risk.**  
P. Fisher; C.E. O'Connor; G. Wright; C.T. Eason. 29 p.
- 189. Evaluating the attractiveness of pest-control baits and lures to captive short-tailed bats (*Mystacina tuberculata*).**  
A. Beath; J. Thorne; A. Robertson. 19 p.
- 190. Preliminary assessment of hook sink rates using two branchline types aboard F.V. *Ikatere*.**  
S. Anderson. 13 p.
- 191. Photographic identification of individual Archey's frogs, *Leiopelma archeyi*, from natural markings.**  
K.S. Bradfield. 36 p.
- 192. Indirect effects of marine reserve protection on New Zealand's rocky coastal marine communities.**  
N.T. Shears; R.C. Babcock. 48 p.

**193. Ecology, management and history of Whirinaki Conservation Park, New Zealand: an annotated bibliography.**

A.E. Beveridge; M.C. Smale; B.R. Christensen; G.A. Steward. 140 p.

## DOC Technical Series

**30. Tracking wildlife radio-tag signals by light fixed-wing aircraft.**

P.J. Seddon; R.F. Maloney. 23 p.

**29. Assessing the social effects of conservation on neighbouring communities.**

C. Cosslett; D. Buchan; J. Smith. 68 p.

# Miscellaneous

**A musterer's sojourn on Campbell Island: the diary of Alfred Austin, 1919–1921.**

P.R. Dingwall; J.G. Gregory (Eds). 135 p. \$35.

**Conservation of lizards in West Coast/Tai Poutini Conservancy.**

T. Whitaker; J. Lyall. 93 p.

**Identifying freshwater ecosystems of national importance for biodiversity: criteria, methods and candidate list of nationally important rivers.**

W.L. Chadderton; D. Brown; T. Stephens. 112 p.

**Marking amphibians, reptiles and marine mammals: animal welfare, practices and public perceptions in New Zealand.**

D.J. Mellor; N.J. Beausoleil; K.J. Stafford. 55 p.

**Methods for marking New Zealand wildlife: amphibians, reptiles and marine mammals.**

N. Beausoleil; D.J. Mellor; K.J. Stafford. 148 p. \$50.

**Restoration plan for Korapuki Island (Mercury Islands) New Zealand, 2004–2024.**

D.R. Towns; I.A.E. Atkinson. 52 p.

**Threatened plants of Northland.**

L. Forester; A.J. Townsend. 80 p.

**Threatened plants of Waikato.**

A. Brandon; P.J. de Lange; A.J. Townsend. 92 p.

**Wetland types in New Zealand.**

P. Johnson; P. Gerbeaux. 184 p. \$40.

# Science for Conservation

236. **Predicting spatial patterns of animal pest abundance: a case study of the brushtail possum (*Trichosurus vulpecula*).**  
K.W. Fraser; J. Overton; B. Warburton; D. Rutledge. 57 p.
237. **Risk assessment of stoat control methods for New Zealand.**  
J. Parkes; E. Murphy. 38 p.
238. **Habitat for female longfinned eels in the West Coast and Southland, New Zealand.**  
E. Graynoth; K. Niven. 33 p.
239. **Risk of Feracol baits to non-target invertebrates, native skinks, and weka.**  
L.H. Booth; P. Fisher; V. Heppelthwaite; C.T. Eason. 18 p.
240. **Impacts of diquat herbicide and mechanical excavation on spring-fed drains in Marlborough, New Zealand.**  
R.G. Young; N.B. Keeley; K.A. Shearer; A.L.M. Crowe. 50 p.
241. **Research and monitoring plan for the kiwi sanctuaries.**  
H.A. Robertson. 24 p.
242. **Abundance and population trends of mollymawks on Campbell Island.**  
P.J. Moore. 62 p.
243. **Use of population viability analysis in conservation management in New Zealand.**  
R. J. Keedwell. 60 p.
244. **Bannockburn heritage landscape study.**  
J. Stephenson; H. Beauchop; P. Petchey. 118 p.

**245. Community composition and structure of shallow subtidal reefs in northeastern New Zealand.**

N.T. Shears; R.C. Babcock. 65 p.

**246.** To be published in 2005.

**247. Community consultation processes for aerial 1080 applications.**

C.H. Wilson; J. Cannon. 52 p.

# Science Posters

70. **Effectively managing weeds: Department of Conservation's weed management system.**  
K.W. Briden; S.M. Timmins.
69. **Weed eradication – when is it feasible?**  
S.M. Timmins; D. Panetta.
68. **Controlling bone-seed (*Chrysanthemoides monilifera*) seedlings with clopyralid.**  
K.W. Briden; I. Popay.
67. **Distribution and biology of the Mandarin dogfish in New Zealand waters.**  
C. Duffy; S. Bishop; K. Yopak.
66. **Demystifying Mystacina: radio-tracking lesser short-tailed bats in New Zealand.**  
J.E. Christie.
65. **Kakapo: management and recovery.**  
J. Hamill.
64. **Distance sampling populations of New Zealand birds: estimating kaka and kereru abundance.**  
T.C. Greene.
63. **Radio-transmitters impose energetic costs on a flightless bird.**  
J.D. Godfrey; D.M. Bryant; M.J. Williams.
62. **Survival and dispersal of shoveler in New Zealand.**  
R. Barker; M. Williams.
61. **Refloatation rates recorded in the New Zealand Whale Stranding Database.**  
T.M. O'Callaghan; A.L. van Helden; A.J. Baker.

# Threatened Species Publications

**Recovery plan for threatened grassy plants of dry fertile sites, 2003–2013.**

C. Jones 2004. *Threatened Species Recovery Plan 52*. 28 p.

**New Zealand non-migratory galaxiid fishes recovery plan. 2004.**

*Threatened Species Recovery Plan 53*. 45 p.

**Captive management plan for kiwi. 2004.**

*Threatened Species Occasional Publication 24*. 42 p. (Out of print)

# Index

1080 13

## A

amphibians  
    marking 11  
amphipod 6  
Anderson, S. 9  
anticoagulant 9  
archaeological sites 8  
Archev's frog 9  
Arnold, A. 7  
Arnold, G.C. 6  
Atkinson, I.E.A. 11  
Austin, Alfred 11

## B

Babcock, R.C. 9, 13  
bait 8, 9  
    Feracol 12  
Baker, A.J. 14  
Bannockburn 12  
Barker, R. 14  
Barry, B. 6  
bat  
    lesser short-tailed 14  
Beath, A. 9  
Beauchop, H. 12  
Beausoleil, N.J. 11  
Bell, E. 6  
Berben, P.H. 6  
Beveridge, A.E. 10  
Birtles, R.J. 7  
Bishop, S. 14  
bone-seed 14  
Booth, L.H. 12  
Bradfield, K.S. 9  
Brandon, A. 11  
Briden, K.W. 14

Broome, K. 9  
Brown, D. 11  
Brown, K.P. 7  
brushtail possum 12  
Bryant, D.M. 14  
Buchan, D. 10  
Byrom, A. 6

## C

*Calleas cinerea wilsoni*. *See*  
    kokako: North Island  
Campbell Island 11, 12  
Cannon, J. 13  
cat  
    feral 8  
cave weta 6  
cetacean 6, 8  
Chadderton, W.L. 6, 11  
Champion, P.D. 7  
Chatham Island 7  
Childerhouse, S. 6  
Christensen, B.R. 10  
Christie, J.E. 8, 14  
*Chrysanthemoides monilifera*. *See*  
    bone-seed  
Clayton, J.S. 7  
clopyralid 14  
Closs, G. 6  
cockroaches 6  
Codfish Island 8  
Cosslett, C. 10  
Crowe, A.L.M. 12  
Crowell, M.D. 9

## D

*Dactylanthus taylorii* 7  
David, B. 6  
Day, M.J. 7  
de Lange, P.J. 11

diethyl toluamide 6  
Dilks, P.J. 8  
Dingwall, P.R. 11  
diquat 12  
Dodgson, J. 7  
drain 12  
Duffy, C. 14  
Duignan, P.J. 8

## E

Eason, C.T. 9, 12  
echolocation 6  
ecosystem  
    freshwater 11  
eel  
    longfinned 12  
Elliott, G. 8  
Empson, R.A. 7  
Ewans, R. 7

## F

Ferreira, S.M. 6  
Fisher, P. 9, 12  
Fitzgerald, N.B. 6  
Forester, L. 11  
Fraser, K.W. 12  
frost-flat communities 6

## G

*Galaxias argenteus*. *See*  
    giant kokopu  
*Galaxias* species 7  
galaxiid 15  
Gerbeaux, P. 11  
giant kokopu 6  
Gibbs, N. 8  
Godfrey, J.D. 14  
Gorman, N. 7  
grassland 7  
grassy plants 15  
Graynoth, E. 12

Greene, T.C. 8, 14  
Gregory, J.G. 11  
grey willow 9

## H

Hamill, J. 14  
Hamilton, B. 9  
Harman, H.M. 9  
Harper, G.A. 8  
Harwood, N. 9  
Hector's dolphin 8  
Henzell, R.F. 6  
Heppelthwaite, V. 12  
Hewitt, J.E. 7  
historic building 9  
Holzapfel, A.S. 7  
hunting 8

## I

invertebrate 12

## J

Johnson, P. 11  
Jones, C. 15  
Jones, G.W. 8  
Jonker, F. 6

## K

kaka 8, 14  
kakapo 8, 14  
kakerori 7  
Kapiti Island 7  
kea 8  
Keedwell, R.J. 12  
Keeley, N.B. 12  
Kemp, J. 8  
kereru 14  
kiore 8  
kiwi 15  
    sanctuary 12

kokako 7  
North Island 7  
Korapuki Island 11

## L

landscape 12  
*Leiopelma archeyi*. *See*  
Archey's frog  
Little Barrier Island 8  
lizard 11  
lure 9  
Lyall, J. 11

## M

Macauley Island 8  
Maloney, R.F. 10  
Mandarin dogfish 14  
marine communities 9  
marine issues 7  
marine mammal  
marking 11  
marine reserve 9  
marking  
methods 11  
Markwitz, A. 6  
Marlborough 12  
Maui's dolphins 6  
McDonald, R.A. 7  
McDowall, R.M. 7  
McGregor, P.G. 6  
Mellor, D.J. 11  
Mercury Islands 11  
mollymawk 12  
Moorcroft, G. 7  
Moore, P.J. 12  
Moran, L. 8  
*Muehlenbeckia astonii*. *See*  
shrubby tororaro  
Murphy, E.C. 8, 12  
*Mustela erminea*. *See* stoat  
Mystacina 14

*Mystacina tuberculata*. *See*  
short-tailed bat

## N

neem oil 6  
*Nestor meridionalis*. *See*  
kaka  
Niven, K. 12

## O

O'Callaghan, T.M. 14  
O'Connor, C.E. 9  
Ogle, C. 6  
*Olearia gardneri* 6  
Overton, J. 12

## P

Panetta, D. 14  
parakeets  
Kermadec red-crowned 8  
Parkes, J. 12  
pesticide 9  
Petchey, P. 12  
Peterson, P.G. 6  
*Pomarea dimidiata*. *See*  
kakerori  
Popay, I. 14  
Powlesland, R.G. 8

## R

radio-tag signals 10  
radio-transmitters 14  
Rakiura 8  
Rangitaiki 6  
rat 9  
Ravine, D. 7  
reef  
subtidal 13  
reptile  
marking 11

river 11  
Robertson, A. 9  
Robertson, C.J.R. 6  
Robertson, H.A. 7, 12  
Rutledge, D. 12

## S

*Salix cinerea*. See grey  
willow  
Saul, E.K. 7  
Scofield, R.P. 6, 8  
seabird 6  
Seddon, P.J. 10  
Shearer, K.A. 12  
Shears, N.T. 9, 13  
short-tailed bat 9  
shoveler 14  
shrubby tororaro 9  
skink 12  
Smale, M.C. 6, 10  
Smith, J. 10  
Spurr, E.B. 6  
St Arnaud Range 8  
St Bathans 9  
Stafford, K.J. 11  
Stephens, T. 11  
Stephenson, J. 12  
Steward, G.A. 10  
Stewart Island 8  
stoat 6, 9  
    control methods 12  
    diseases and pathogens 7  
    trapping 8  
Stuart, M.D. 7

## T

Thorne, J. 9  
threatened plants  
    Northland 11  
    Waikato 11  
Timmins, S.M. 14

Towns, D.R. 11  
Townsend, A.J. 11  
*Trichosurus vulpecula*. See  
brushtail possum

## U

Udy, G. 9  
*Undaria pinnatifida* 7

## V

van Helden, A.L. 14

## W

Warburton, B. 12  
Ward, B.G. 6  
weed 14  
weka 12  
Westbrooke, I. 8  
wetland types 11  
whale stranding 14  
Whenua Hou 8  
Whirinaki Conservation Park  
    10  
Whitaker, T. 11  
Williams, M. 14  
Williams, M.J. 14  
Wilson, C.H. 13  
Wilson, D.J. 8  
Woodmansey, P. 9  
woody weeds 6  
Wright, G. 9

## Y

Yopak, K. 14  
Young, R.G. 12





## Order form

Most DOC science publications are now mounted on the DOC website in pdf format; hard copy is available free of charge while stocks last. However, where a title has a price listed, payment must accompany the order. There is a **postage and packaging** charge of \$2.00 for one such publication, or \$4.00 for two or more. Outside of NZ please contact us for postage and packaging charge before placing order. **This does not apply to free orders.**

Science Posters are available in the following sizes: A0 (\$50), A1 (\$20), A2 (\$10), A3 (\$5.00).

**Send your order to:** DOC Science Publishing, Department of Conservation, PO Box 10 420, Wellington, New Zealand, or fax us on +64 4 496 1929. Email us on science.publications@doc.govt.nz.

Website: [www.doc.govt.nz](http://www.doc.govt.nz) > Publications > Science and research

Name: \_\_\_\_\_

Delivery address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Your Ref: \_\_\_\_\_

### Please send me the following publications:

Title & Series	Quantity	Price

	P&P:	\$ _____
<b>Payment Options</b>	Total:	\$ _____

- I have enclosed a cheque for \$ \_\_\_\_\_  
(Make cheques payable to Department of Conservation, in NZ dollars.)

- Please charge \$ \_\_\_\_\_ to my credit card (MasterCard or Visa only).

Card number:

Expiry date:

Name:

Signature:

