

Science Publications 1998

Science & Research Unit
Department of Conservation
PO Box 10-420, Wellington, New Zealand

Cover photo: *Disphyma australe* on cliff top, South Taranaki. Photo by Colin Ogle, Wanganui Conservancy, Department of Conservation

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DOC Science Publications
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Department of Conservation Science Publications

DOC Science Publications group record the output of science investigations undertaken by departmental staff and consultants. Research is published as stand-alone books, posters, pamphlets, and as reports in several series.

DOC Science Publications currently publish the following series:

- *Science for Conservation*—a fully reviewed irregular monograph series, reporting on the operational science investigations of staff and contractors. This series is aimed at scientists and conservation managers.
- *Department of Conservation Technical Series*—instructional guidebooks and data sets, aimed at the conservation officer in the field, reviewed to ensure best-practice standards.
- *Science & Research Internal Reports*—progress reports on scientific matters on-going in the Department.
- *Conservation Sciences Publication* [Series]—single volumes on conservation matters of national interest.
- *Conservation Advisory Science Notes*—notes in response to specific questions asked by Departmental staff, concerning matters which have arisen in the course of their operational duties.

Science Publications also produces a bimonthly newsletter, ConScience, and a monthly update of new publications. If you would like to receive either of these please ask to be put on our mailing list.

Sales catalogue

This catalogue lists the items that were released by Science Publications during 1998. Publications released in previous years are listed in separate catalogues. Also included are a limited selection of other DOC publications, including policy documents and Biodiversity Recovery Unit publications. Please note—science investigations which are published in professional journals are NOT available through our bookshop. Enquiries should be made directly to the journal concerned, or they may be consulted through a library.

To order a publication please contact us at the address below.

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Science for Conservation

98. Johnson, P.N.; Partridge, T.R. 1998. **Vegetation and water level regime at Waituna Lagoon, Southland.** *Science for Conservation: 98.* 51 p. (including 4 colour pages) \$26.00 (incl. G.S.T.)
A survey of the setting, history, geomorphology and catchment, with studies of shore transects of vegetation types in relation to lower-than-natural water level fluctuations. Vegetation changes were assessed from earlier aerial photographs and local knowledge.
97. William, P.A. 1998. **Response of broom (*Cytisus scoparius*) to control measures.** *Science for Conservation: 97.* 10 p. \$12.50 (incl. G.S.T.)
Canopy cover and the broom seed bank were monitored for four years in an area killed off with herbicide. There was no measurable decline in seed density despite emergence of seedlings.
96. Brown, J.A.; Miller, C.J. 1998. **Monitoring stoat (*Mustela erminea*) control operations: power analysis and design.** *Science for Conservation: 96.* 21 p. \$12.50 (incl. G.S.T.)
Tracking tunnel data from North Okarito Forest is used to develop a monitoring programme design and evaluate the success of different survey protocols. Model estimates number of stations and inspections for combinations of error rates, power, target kill, and pre-control density.
95. in press
94. Sutton, S. 1998. **Visitor perceptions of aircraft activity and crowding at Franz Josef and Fox Glaciers.** *Science for Conservation: 94.* 27 p. \$12.50 (incl. G.S.T.)
Analyses of 3,282 visitor questionnaire responses indicate that crowding occurs only during periods of highest visitation, and aircraft annoyance when flights exceed 18 per hour.
93. Cossee, R.O. 1998. **Report on bird banding in New Zealand 1995/1996.** *Science for Conservation: 93.* 24 p. \$12.50 (incl. G.S.T.)
During this banding year 28,918 birds of 116 species were banded, 88 previously banded birds were rebanded, and 4 species not previously banded were added to the list which now totals 241.

92. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the Routeburn Track.** *Science for Conservation: 92.* 48 p. \$22.50 (incl. G.S.T.)
- Perceptions of crowding and social and physical impacts indicate a need for urgent management action. Subsequent application of a booking system had some support from these results.
91. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the Travers–Sabine Circuit Track.** *Science for Conservation: 91.* 52 p. \$22.50 (incl. G.S.T.)
- Walkers on this track in the Nelson Lakes National Park had highly positive visit evaluations suggesting little dissatisfaction or need for urgent management action. Time may be available for information-based approaches to achieve long-term control.
90. Cessford, G.R. 1998. **Canoeist satisfactions, impact perceptions, and attitudes toward management options on the Whanganui Journey.** *Science for Conservation: 90.* 52 p. \$22.50 (incl. G.S.T.)
- Canoeists on the journey through Whanganui National Park had low perceptions of crowding, but campsite congestion and encounters with other groups and motorboats could emerge with increased use levels.
89. Berry, R. 1998. **Reintroduction of kaka (*Nestor meridionalis septentrionalis*) to Mount Bruce Reserve, Wairarapa, New Zealand.** *Science for Conservation: 89.* 25 p. \$12.50 (incl. G.S.T.)
- Releases in 1996 and 1997 of three groups of juvenile kaka were monitored to test survival and dispersal rates between wild-caught, hand-reared, and captive parent-reared juveniles.
88. Dilks, P.; Onley, D.; Kemp, J. 1998. **Ecology and breeding of Chatham Island tui: Progress report October 1996–June 1997.** *Science for Conservation: 88.* 39 p. \$12.50 (incl. G.S.T.)
- Studies on Rangatira Island reveal most birds winter on neighbouring Pitt Island, returning in the spring. Flax nectar appears to be the most important food for breeding. Adult tui are very intolerant of intrusion during nesting, no radiotagged female bred.

87. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the Milford Track.** *Science for Conservation: 87.* 48 p. \$22.50 (incl. G.S.T.)
- Walkers were surveyed during January–February 1994, as part of the Great Walks visitor research programme. Visit evaluations were highly positive. Impact concerns arose from aircraft noise and track congestion. Despite track use-limits there were high perceptions of crowding.
86. Thomas, M.D.; Wright, D.A.; Mason, J.; Briden, K.W. 1998. **Use of bait stations for possum and feral cat control.** *Science for Conservation: 86.* 24 p. (including 2 colour pages) \$14.50 (incl. G.S.T.)
- Part 1: Optimising the use of bait stations for possum control in native forest. Part 2: Evaluation of possum bait stations for feral cat control.
85. Fahey, B.; Wardle, K. 1998. **Likely impacts of snow grooming and related activities in the West Otago ski fields.** *Science for Conservation: 85.* 51 p. (including 5 colour pages) \$27.50 (incl. G.S.T.)
- A comprehensive review of overseas and New Zealand literature to assess the likely impacts of winter recreational activities on vegetation and soil properties on DOC recreational reserve land.
84. Spellerberg, I.F.; Morrison, T. 1998. **The ecological effects of new roads—a literature review.** *Science for Conservation: 84.* 55 p. \$22.50 (incl. G.S.T.)
- Searches of journals, library databases, advertisements in journals and on the Worldwide Web, and information from colleagues. Identifies impacts (construction and use), ways of mitigating impacts, case studies in New Zealand, and future research agendas relevant to the topic.
83. Allen, R.B. 1998. **Reproductive ecology of *Lepidium sisymbrioides* ssp. *matau*.** *Science for Conservation: 83.* 15 p. \$12.50 (incl. G.S.T.)
- A study to determine the reproductive ecology, seed production, establishment, and growth of this perennial plant of dry habitats in the eastern South Island.

82. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the Heaphy Track.** *Science for Conservation: 82.* 54 p. \$22.50 (incl. G.S.T.)

Walkers were surveyed during January–February, and Easter 1994, as part of the Great Walks visitor research programme. Visit evaluations on this track were highly positive. Hut congestion could impact on visit experience with increasing use-levels. Visitors favoured information-based management to address problems caused by increasing use.

81. Gibson, D.; Isakssen, B. 1998. **Functionality of a full-sized marine mammal exclusion device.** *Science for Conservation: 81.* 19 p. (including 3 colour pages) \$15.50 (incl. G.S.T.)

Three escape hatch designs were tested to exclude dummy seals from the cod end. All worked. 100% success rate. Device is cheap, takes little storage space, and can be installed by a competent deckhand in less than 30 minutes. VHS video of tests is available.

80. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the Rakiura Track.** *Science for Conservation: 80.* 54 p. \$22.50 (incl. G.S.T.)

Walkers on this Stewart Island track were surveyed during summer 1993/94, as part of the Great Walks visitor research programme. Visit evaluations on this track were highly positive. Visitors favoured information-based management to address increasing use-pressures.

79. Cessford, G.R. 1998. **Sea-kayaker satisfactions, impact perceptions, and attitudes toward management options in Abel Tasman National Park.** *Science for Conservation: 79.* 50 p. \$22.50 (incl. G.S.T.)

Sea-kayakers were surveyed during summer 1993/94, as part of the Great Walks visitor research programme. Visit evaluations were highly positive. Visit quality would be best improved by addressing minor physical impact concerns (like conflict with motor boats) and improving use of camp sites. Rapid growth in sea-kayaking since the survey may exacerbate some issues.

78. Bell, E.A.; Sim, J.L. 1998. **Survey and monitoring of black petrels on Great Barrier Island 1997.** *Science for Conservation: 78.* 18 p. \$12.50 (incl. G.S.T.)
Monitoring of 100 burrows selected for long-term study, and 3 census areas (1600 m²) set up in 1996. Further study needed to determine the dynamics of the population.
77. Bell, E.A.; Sim, J.L. 1998. **Survey and monitoring of black petrels on Great Barrier Island 1996.** *Science for Conservation: 77.* 17 p. \$12.50 (incl. G.S.T.)
Report on setting up of census areas and banding of adults and chicks. No direct evidence of long-line fishing effects were found.
76. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on Abel Tasman Coastal Track.** *Science for Conservation: 76.* 58 p. \$22.50 (incl. G.S.T.)
Walkers were surveyed during summer 1993/94, as part of the Great Walks visitor research programme. Visit evaluations on this track were highly positive. Visit quality would be best improved by reducing campsite littering, and improving perceptions of water quality and safety. Visitors favoured information-based management, although some wanted controls on motor boats.
75. Elliott, G. 1998. **Monitoring yellow-crowned parakeets.** *Science for Conservation: 75.* 20 p. \$12.50 (incl. G.S.T.)
Monitoring numbers and nesting success in mainland forests. Includes field and analytical techniques to set up a monitoring programme, statistical methods, and sample sizes.
74. Powlesland, R.; Knegtmans, J.; Marshall, I. 1998. **Evaluating the impacts of 1080 possum control operations on North Island robins, North Island tomtits and moreporks at Pureora—preliminary results.** *Science for Conservation: 74.* 23 p. \$12.50 (incl. G.S.T.)
Results of the first two years of a three year programme to determine the costs and benefits of aerial 1080 possum control in the Forest Park.
73. Cessford, G.R. 1998. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the**

Lake Waikaremoana Track. *Science for Conservation: 73.* 54 p. \$22.50 (incl. G.S.T.)

Walkers were surveyed during summer 1993/94, as part of the Great Walks visitor research programme. Visit evaluations on this track were highly positive, but visit quality would be best improved by addressing minor physical impact concerns like improving use of space in huts.

72. Cossee, R.O. 1998. **Report on bird banding in New Zealand 1994/1995.** *Science for Conservation: 72.* 26 p. \$12.50 (incl. G.S.T.)

During this banding year 18,490 birds of 100 species were banded, and 87 previously banded birds were rebanded. Adelle penguin was added to the list of species banded.

71. Douglas, M.E. 1998. **Miniature radio frequency transponder technology suitability as threatened species tags.** *Science for Conservation: 71.* 24 p. \$12.50 (incl. G.S.T.)

Security from unauthorised use can be improved, and radio radiation, interference, and power consumption can be reduced if code sensitive active transponders are used. Other conservation applications (trap monitors, quadrat markers, security tags, safety beacons) are also possible.

70. Cessford, G.R. 1997. **Visitor satisfactions, impact perceptions, and attitudes toward management options on the Kepler Track.** *Science for Conservation: 70.* 54 p. \$22.50 (incl. G.S.T.)

Walkers were surveyed during summer 1993/94, and at Easter 1994. Visit evaluations on this track were highly positive, with little dissatisfaction or need for urgent management action. Future increases in use-levels could damage visit experiences from perceptions of over-crowding.

69. Greene, T.C. 1998. **The effects of compound 1080 on populations of specific non-target species, Waihaha Ecological Area, Pureora Forest Park, winter 1994.** *Science for Conservation: 69.* 25 p. \$22.50 (incl. G.S.T.)

Radio-tagged kaka and blue duck were monitored before, and up to 4 weeks after a 1080 possum control operation. All birds survived. Further study needed to determine any indirect effects.

68. Wright, M. 1998. **Ecotourism on Otago Peninsula**. *Science for Conservation: 68*. 39 p. \$12.50 (incl. G.S.T.)

Preliminary studies to assess any impacts on yellow-eyed penguin (*Megadyptes antipodes*) and Hooker's sea lion (*Phocarctos hookeri*) colonies at Sandfly Bay and Papanui Beach.

Department of Conservation

Technical Series

15. Mander, C.; Hay, R.; Powlesland, R. 1998. **Monitoring and management of kereru (*Hemiphaga novaeseelandiae*).** *Department of Conservation Technical Series No. 15.* 45 p. (including 1 colour page) \$23.50 (incl. G.S.T.)

Sets out the requirements for monitoring at key sites. A practical guide for anyone intending to initiate a monitoring project. Contains background information, and actual methods.

14. in press

Science & Research Internal Report

165. Green, K. (Comp.) 1998. **DOC ongoing Science Project summaries — 1997/1998.** *Science & Research Internal Report No. 165.* 218 p. \$22.50 (incl. G.S.T.)
Executive summaries of ongoing science projects for the financial year, arranged by key output, and indexed by locality.
164. Reid, V.A. 1998. **The impact of weeds on threatened plants.** *Science & Research Internal Report No. 164.* 67 p. \$22.50 (incl. G.S.T.)
Data on how weeds jeopardise threatened plants were collected. This information was then used to define future research needs.
163. Robertson, H.A. 1998. **Conservation of kakerori (*Pomarea dimidiata*).** *Science & Research Internal Report No. 163.* 11 p. \$12.50 (incl. G.S.T.)
A report on overseas travel to Rarotonga, August 1997. Backgrounds the programme to save the kakarori, and reviews the implementation and results from 1987 to 1996.
162. Lloyd, B.R. (Comp.) 1998. **Proceedings of the Second New Zealand Bat Conference, Ohakune, New Zealand, 28–20 March 1998.** *Science & Research Internal Report No. 162.* 22 p. \$12.50 (incl. G.S.T.)
Synopsis of 19 papers presented at the conference, organised by Brian Lloyd. Includes an introduction by Shirley McQueen, and a list of conference and workshop participants.
161. Climo, G. 1998. **Management of a captive kakapo on Maud (Te Hoiere) Island.** *Science & Research Internal Report No. 161.* 20 p. \$12.50 (incl. G.S.T.)
Hoki is a female kakapo hand-reared at the Auckland Zoo, and released into a pen on Maud I. Includes details of diet, physical condition, and behaviour.

160. Harper, G.A. 1998. **Kakapo on Little Barrier (Hauturu) Island. Annual report for the year July 1994–June 1995.** *Science & Research Internal Report No. 160.* 43 p. \$22.50 (incl. G.S.T.)

Report of the results of monitoring breeding activity for the year. Contains recommendations for changes in the supplementary feeding programme.

159. Green, K. (Comp.) 1998. **DOC ongoing Science Project summaries — 1996/1997.** *Science & Research Internal Report No. 159.* 255 p. \$22.50 (incl. G.S.T.)

Executive summaries of ongoing science projects for the financial year, arranged by key outputs, and indexed by locality and researcher.

Conservation Advisory Science Notes

(Priced at \$3.50, incl. G.S.T., except where marked)

220. Stafford, K.; Linklater, W.; Cameron, E. 1998. **Administration of an immunocontraceptive vaccine to Kaimanawa mares.** *Conservation Advisory Science Notes: 220.* 9 p.
219. McIntyre, M. 1998. **Raukumara tusked weta: Field and captive observations.** *Conservation Advisory Science Notes: 219.* 35 p. (including 2 colour pages: \$5.50 incl. G.S.T.)
218. Gibbs, G. 1998. **Raukumara tusked weta: Discovery, ecology and management implications.** *Conservation Advisory Science Notes: 218.* 17 p. (including 3 colour pages: \$6.50 incl. G.S.T.)
217. Jellyman, D. 1998. **Exploitation of freshwater eels in National Parks.** *Conservation Advisory Science Notes: 217.* 4 p.
216. Teulon, D.A.; Stufkens, M.A.W. 1998. **Current status of New Zealand indigenous aphids.** *Conservation Advisory Science Notes: 216.* 23 p.
215. Walls, G. 1998. **Motu-o-kura (Bare Island), Hawkes Bay: Monitoring since rat eradication.** *Conservation Advisory Science Notes: 215.* 13 p.
214. Walls, G. 1998. **The mistletoes of Puketitiri and eastern Kaweka.** *Conservation Advisory Science Notes: 214.* 28 p. (including 8 colour pages: \$11.50 incl. G.S.T.)
213. Walls, G. 1998. **Simply sand? Ocean Beach dunes, Hawkes Bay.** *Conservation Advisory Science Notes: 213.* 51 p. (including 17 colour pages: \$20.50 incl. G.S.T.)
212. Stephenson, G. 1998. **Macroinfauna of Wainui Beach, Gisborne—impact of beach protection structures.** *Conservation Advisory Science Notes: 212.* 18 p.
211. Shaw, W.B. 1998. **Ecosystem-based restoration of Moutohora: Threatened plants.** *Conservation Advisory Science Notes: 211.* 6 p.

210. Rapson, G.L.; Severinsen, M.; White, A. 1998. **Demography of treeline mountain beech as a guide to lahar events.** *Conservation Advisory Science Notes: 210.* 15 p. (including 2 colour pages: \$5.50 incl. G.S.T.)
209. Lyver, P.; Hamilton, S.; McKenzie, M.; Dickson, I.; Doohar, M.; Broad, T.; Moller, H. 1998. **A burrowscope for examining petrel nests in burrows.** *Conservation Advisory Science Notes: 209.* 21 p.
208. Miller, C.; Slater, M. 1998. **Representative areas: Research needs of indigenous forestry.** *Conservation Advisory Science Notes: 208.* 4 p.
207. Warren, P.; Miller, C. 1998. **Issues in bryophyte conservation and research.** *Conservation Advisory Science Notes: 207.* 3 p.
206. Dickie, G. 1998. **Aging live New Zealand sea lions using post-canine teeth.** *Conservation Advisory Science Notes: 206.* 3 p.
205. Pledger, S. 1998. **Monitoring protocols for Hamilton's frogs *Leiopelma hamiltoni* on Stephens Island.** *Conservation Advisory Science Notes: 205.* 15 p.
204. Newman, D. 1998. **Conservation of the world's amphibians and reptiles.** *Conservation Advisory Science Notes: 204.* 14 p.
203. Catsoulis, J. 1998. **Field tests of a geolocation datalogger.** *Conservation Advisory Science Notes: 203.* 3 p.
202. Duckworth, K. 1998. **Response of tuna longline fishers to seabird scaring lines (tori lines).** *Conservation Advisory Science Notes: 202.* 11 p.
201. Nelson, D.I. 1998. **Construction of tori lines for domestic longline vessels.** *Conservation Advisory Science Notes: 201.* 9 p.
200. Walls, G. 1998. **Threatened plants of Hawke's Bay.** *Conservation Advisory Science Notes: 200.* 32 p.
199. Singers, N. 1998. **Rare plant conservation at Tangimoana dunelands.** *Conservation Advisory Science Notes: 199.* 17 p.

198. Buckingham, R. 1998. **South Island kokako search, Abut Head, South Westland.** *Conservation Advisory Science Notes: 198.* 10 p.
197. Walker, S. 1998. **Vegetation changes without grazing, Flat Top Hill, Central Otago.** *Conservation Advisory Science Notes: 197.* 40 p.
196. Bockett, F.K. 1998. **Ungulate effects on tawa (*Beilschmiedia tawa*) forest in Urewera National Park.** *Conservation Advisory Science Notes: 196.* 28 p. (including 1 colour page: \$4.50 incl. G.S.T.)
195. Worthy, T.H. 1998. **Fossil deposits in Megamania Cave, Gunner River, South Island, New Zealand.** *Conservation Advisory Science Notes: 195.* 14 p.
194. Brook, F. 1998. ***Placostylus bongii* at the Mokohinau Islands.** *Conservation Advisory Science Notes: 194.* 7 p.
193. Hitchmough, R.A.; Tutt, K.; Daugherty, C.H. 1998. **Significance of gecko populations on islands in Lakes Wanaka and Hawea.** *Conservation Advisory Science Notes: 193.* 7 p.
192. Walls, G. 1998. **Sixth South Pacific Conference on Nature Conservation and Protected Areas.** *Conservation Advisory Science Notes: 192.* 23 p.
191. West, C.J. 1998. **Southern Connection Congress, Chile, January 1997.** *Conservation Advisory Science Notes: 191.* 23 p.
190. Chisnall, B.L. 1998. **Juvenile grass carp in the Waikato River, May 1997.** *Conservation Advisory Science Notes: 190.* 10 p.
189. Walls, G. 1998. **Ecological survey of the Opotiki Ecological District coastal zone.** *Conservation Advisory Science Notes: 189.* 21 p.
188. Bellingham, P.J. 1998. **A potential network of permanent forest plots for the West Coast Conservancy.** *Conservation Advisory Science Notes: 188.* 21 p.
187. Hamilton, S.; de Cruz, J.; Hunter, C.; Moller, H. 1998. **An infra-red scope for assessing sooty shearwater burrow**

- occupancy.** *Conservation Advisory Science Notes: 187.* 21 p. (including 2 colour pages: \$5.00 incl. G.S.T.)
186. Norton, D.A. 1998. **Impacts of tree coring on indigenous trees.** *Conservation Advisory Science Notes: 186.* 6 p.
185. McDonald, S. 1998. **The parasitology of the black stilt (*Himantopus novaeseelandiae*).** *Conservation Advisory Science Notes: 185.* 36 p.
184. Jones, P.D. 1998. **Analysis of organic contaminants in New Zealand marine mammals.** *Conservation Advisory Science Notes: 184.* 8 p.
183. Davies, T.R. 1998. **Franz Josef Glacier access road — security of road-end facilities.** *Conservation Advisory Science Notes: 183.* 11 p.
182. Chambers, G.K.; Coddington, S.J. 1998. **Molecular systematics of New Zealand fairy tern (*Sterna nereis davisae*) based on mitochondrial DNA sequences.** *Conservation Advisory Science Notes: 182.* 9 p.
181. Lento, G.M.; Baker, C.S. 1998. **Diversity of microsatellite loci in New Zealand otariids: A pilot study.** *Conservation Advisory Science Notes: 181.* 4 p.
180. McCluggage, T. 1998. **Herbicide trials on *Tradescantia fluminensis*.** *Conservation Advisory Science Notes: 180.* 15 p. (including 7 colour pages: \$10.00. incl. G. S.T.)
179. Walls, G. 1998. **Mid Pohangina valley exclosure plots March 1997.** *Conservation Advisory Science Notes: 179.* 7 p.
178. Jamieson, C. 1998. **Distribution of the endangered grasshopper *Sigauss minutus* on the Earnsclough Tailings Historic Reserve.** *Conservation Advisory Science Notes: 178.* 10 p.
177. Polly, B. 1998. **Mosses and lichens of Paengaroa Scenic Reserve.** *Conservation Advisory Science Notes: 177.* 7 p.
176. Burns, B. 1998. **Awaroa wetlands: Value assessment.** *Conservation Advisory Science Notes: 176.* 4 p.
175. Reed, C. 1998. **Review of black stilt management data (1981–1995).** *Conservation Advisory Science Notes: 175.* 17 p.

174. Walls, G. 1998. **Vegetation monitoring in the subantarctic islands.** *Conservation Advisory Science Notes: 174.* 31 p. (including 9 colour pages: \$12.50 incl. G.S.T.)
173. Spurr, E.B.; Wright, G.R.G.; Potts, M.D. 1998. **Persistence of sodium monofluoroacetate (1080) and diphacinone in hen eggs for control of stoats (*Mustela erminea*).** *Conservation Advisory Science Notes: 173.* 6 p.
172. Tennyson, A. 1998. **Large carabid beetles Stephens Island 30 April – 3 May 1996.** *Conservation Advisory Science Notes: 172.* 7 p.
171. Stephens, T.; Barnett, S. 1998. **A review of possum monitoring in Waikato Conservancy.** *Conservation Advisory Science Notes: 171.* 22 p.
170. Ryan, P.A. 1998. **Effects of biologically active discharges into aquatic ecosystems: Review of treatment systems and standards.** *Conservation Advisory Science Notes: 170.* 17 p.

Miscellaneous Science & Research publications

Dingwall, P.R. (Ed.) 1998. **Antarctica in the environmental era.** xii + 38 p. \$20.00 (incl. G.S.T.)

Five papers reprinted from *International Journal of Wilderness* vol.3. no.3, September 1997, to honour the life and Antarctic endeavours of Michael Prebble.

Moorhouse, R.J.; Greene, T.C. 1998. **Research plan for kaka (*Nestor meridionalis*) 1996–2002.** 47 p. \$22.50 (incl. G.S.T.)

A framework for a nationally co-ordinated and prioritised programme of research. Preferred methods and a list of recommendations to standardise work on the conservation of this species.

Pamphlets

Matiu/Somes Island Heavy Anti-aircraft Artillery Battery. 2 p. (Free)

Tuberculosis (Tb) in seals. 2 p. (Free)

Sinclair, L.; Ogle, C.; Clarkson, J. (Comp.) 1998. **Coastal herbfield plants of South Taranaki. An identification guide.** 2nd edition (revised). 15 p. \$8.50 (incl. G.S.T.)

Herbfield patches on South Taranaki sea cliffs are now very small and vulnerable to extinction. Designed to help conservationists recognise many native plants found in coastal herbfields.

Hollingsworth, R.; Sherley, G. 1998. **Weta. Peaceful giants of the insect world.** 4 p. (Free)

Notes and drawings of the principal weta groups in New Zealand. How can we save them?

Science Posters

Price List

	Size	Price
	A0 glossy paper	\$150
	AO plain paper	\$100
	A1 glossy paper	\$40
	A1 plain paper	\$20
	A2 glossy paper	\$20
	A2 plain paper	\$10
	A3 photocopied	\$2

1. Murphy, E. 1998. **Predator research priorities for the Department of Conservation.**
2. Timmins, S.; Foggarty, L. 1998. **Fire: an issue in maintaining New Zealand's indigenous biodiversity.**
3. Simpson, P. 1998. **Restoration ecology: an emerging science for returning natural values to farms and forests.**
4. Moore, P. 1998. **Yellow-Eyed Penguin: a study of foraging habits.**
5. Greene, T.; Moorhouse, R. 1998. **Kaka research: conserving a native parrot at risk from introduced predators and competitors.**
6. Jones, K. 1998. **Aerial archaeology: Central Otago Goldfields.**
7. Williams, M. 1998. **Blue Duck: characteristics of a population.**
8. Williams, M. 1998. **Campbell Island Teal: research to support conservation.**
9. Williams, M. 1998. **Brown Teal: reversing the decline in Northland.**
10. Williams, M.; Robertson, C. 1998. **Campbell Island Teal: from discovery to acceptance.**

11. Jones, K. 1998. **Aerial archaeology of southern Hawke's Bay.**
12. Childerhouse, S. 1998. **New Zealand sea lion: research programme.**
13. Best, H. 1998. **New Zealand fur seals: how much spawning hoki do they eat?**
14. Colbourne, R. 1998. **Kiwi: Incubation behaviour and egg physiology of New Zealand's kiwi.**
15. Robertson, C.J.R.; Jones, P.D. 1998. **Stress causing eggshell thinning: Northern Royal Albatross.**

Biodiversity Recovery Unit publications

Whitaker, A.H. 1998. **Striped skink *Oligosoma striatum* Recovery Plan. 1998–2003.** *Threatened Species Recovery Plan No. 24.* 43 p. \$15.00 (incl. G.S.T.)

This species is poorly known and virtually impossible to find in natural habitats. Emphasis over the next five-year period is on research and survey, rather than management.

Reed, C. 1998. **Management plan for captive Black Stilts.** *Threatened Species Occasional Publication No. 11.* 24 p. \$15.00 (incl. G.S.T.)

Goals, history, current status, objectives, resource requirements and performance measures for the management of the captive breeding plan for black stilts.

Other DOC publications

These publications were produced by other DOC units, but are available through Science Publications. (Not a complete listing.)

Owen, S.J. 1998. **Department of Conservation Strategic Plan for Managing Invasive Weeds.** 86 p.

Describes the long-term goal, objectives, general principles and means by which DOC will seek to protect native species and natural communities from threats posed by invasive weeds.

Owen, S.J. 1998. **Space Invaders. A summary of the Department of Conservation Strategic Plan for Managing Invasive Weeds.** 28 p. (full colour)

Owen, S.J. (Comp.) 1998. **Invasive weed threats. Weed-led and site-led programmes identified by the Department of Conservation, June 1998.** 66 p.

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