

Compendium of CSL publications, 1995/96 to 2000/01

funded by Conservation Services Levy

Jaap A. Jasperse (Compiler)

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Individual papers in this compendium may be cited as listed on their abstract page, i.e. as a contribution to DSIS (ISSN 1175-6519, First published 2001).

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 progress reports and short communications that are generally peer-reviewed within DOC, but not always externally refereed. Fully refereed contract reports funded from the Conservation Services Levy (CSL) are also included.

Individual contributions to the series are first released on the departmental intranet in pdf form. Hardcopy is printed, bound, and distributed at regular intervals. Titles are listed in the DOC Science Publishing catalogue on the departmental website <http://www.doc.govt.nz> and electronic copies of CSL papers can be downloaded from <http://csl.doc.govt.nz>

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| Reprints from <i>DOC Science Internal Series</i> , Department of Conservation, Wellington, in order of release: | |
| 1 Line-transect survey of Hector's dolphin abundance between Timaru and Long Point, and effect of attraction to survey vessel. DuFresne, S.; Dawson, S.; Slooten, E. 2001. 19 p. | |
| 2 Preliminary modelling of black petrels (<i>Procellaria parkinsoni</i>) to assess population status. Hunter, C.; Fletcher, D.; Scofield, P. 2001. 42 p. | |
| 21 Fine-scale abundance estimates from the 2000/2001 aerial survey of Hector's dolphins on the South Island west coast. Dawson, S.M. 2001. 9 p. | |
| 22 Line-transect survey of Hector's dolphin abundance between Farewell Spit and Motunau. Slooten, E.; Dawson, S.M.; DuFresne, S.; Clement, D. 2001. 15 p. | |
| 28 Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 1998 to 30 September 1999. Robertson, C.J.R.; Bell, E. 2002. 41 p. | |
| 29 Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 1999 to 30 September 2000. Robertson, C.J.R.; Bell, E. 2002. 41 p. | |
| 33 Assessing seasonal differences in Hooker's sea lion locations. Fletcher, D. 2002. 9 p. | |
| 35 Quantifying abundance of Hector's dolphins between Farewell Spit and Milford Sound. Slooten, E.; Dawson, S.M.; Rayment W. 2002. 18 p. | |
| 41 Bycatch of fur seals (<i>Arctocephalus forsteri</i>) in New Zealand fisheries, 1990/91–1995/96, and observer coverage. Manly, B.F.J; Seyb, A.; Fletcher, D.J. 2002. 40 p. | |
| 42 Bycatch of sea lions (<i>Phocarctos hookeri</i>) in New Zealand fisheries, 1987/88–1995/96, and observer coverage. Manly, B.F.J; Seyb, A.; Fletcher, D.J. 2002. 21 p. | |
| 43 Longline bycatch of birds and mammals in New Zealand fisheries, 1990/91–1995/96, and observer coverage. Manly, B.F.J; Seyb, A.; Fletcher, D.J. 2002. 51 p. | |
| 44 Genetic assessment of population boundaries and gene exchange in Hector's dolphin. Pichler, F.B. 2002. 37 p. | |

CONTENTS OF PREVIOUS COMPENDIUM
(DOC 2000)

The *Compendium of published CSL reports, 1995/96 to 1999/2000* (Department of Conservation, Wellington 2000) contains client reports that could be downloaded from the public website of the Department of Conservation, but had not appeared in book form before. These reports are:

Surveying and monitoring of black petrels on Great Barrier Island 1999/2000. Bell, E.; Sim, J. 2000. 20 p.

Surveying and monitoring of black petrels on Great Barrier Island 1998/99. Bell, E.; Sim, J. 2000. 24 p.

Reactions of Hector's dolphins to acoustic gillnet pingers. Stone, G.S.; Cavagnaro, L.; Hutt, A.; Kraus, S.; Baldwin, K.; Brown, J. 2000. 29 p.

Estimation of the Hector's dolphin bycatch from the inshore fisheries, 1997/98 fishing year. Baird, S.J.; Bradford, E. 2000. 20 p.

Surveying and monitoring of black petrels on Great Barrier Island 1997/98. Bell, E.; Sim, J. 2000. 24 p.

Line-transect survey of Hector's dolphin abundance between Motunau and Timaru. Dawson, S.; DuFresne, S.; Sooten, E.; Wade, P. 2000. 17 p.

Inshore Fishery Observer Programme for Hector's dolphins in Pegasus Bay, Canterbury Bight, 1997/98. Starr, P.; Langley, A. 2000. 28 p.

Conservation services

INTRODUCTION

This compendium reports research commissioned by the Department of Conservation and paid for in part by the Conservation Services Levy.

The Conservation Services Levy is a levy paid by the commercial fishing industry to fund research on and mitigation of the effects of commercial fishing on marine species declared protected in New Zealand. Currently protected marine species include all marine mammals, all seabirds except black-backed gulls, red and black corals and the fish spotted grouper.

The levy was established by the Fisheries Amendment Act 1994 and consolidated in the Fisheries Act 1996 and the Fisheries Act 1996 Amendment Act 1999. The nature and extent of the work is detailed in annual Conservation Services Plans which date from 1995.

The Department of Conservation has implemented projects through Conservation Services Levies in the following major areas:

1. Observer coverage targeted at marine mammal and seabird bycatch and selected fisheries;
2. Analysis and estimation of bycatch data for marine mammals and seabirds;
3. Research and development of mitigation measures;
4. Carcass retrieval and autopsy;
5. Monitoring of certain populations of protected species taken as bycatch;
6. Genetic characterisation of populations;
7. Stochastic population models to evaluate management options.

CSL-funded reports from DOC Science Publishing: cumulative listing by year¹

DOC science publications funded by the Conservation Services Levy are listed here by funding year, grouped within seasons in alphabetical order of first author. The same papers are listed as bibliographic entries on p. xiii.

Any of these listed publications can be purchased from DOC Science Publishing, Science & Technical Centre, Department of Conservation, PO Box 10-420, Wellington, New Zealand. Entries with a URL (internet document address) can also be downloaded in full as pdf file, from <http://csl.doc.govt.nz>

An additional list on p. xvii shows all CSL-funded publications in international peer-reviewed journals. These are available through most science libraries.

2000/01 FUNDING YEAR

Fine-scale abundance estimates from the 2000/2001 aerial survey of Hector's dolphins on the South Island west coast. Dawson, S.M. 2001. *DOC Science Internal Series 21*. 9 p. <http://csl.doc.govt.nz/dsis21.pdf> (56 KB). Reprinted in this Compendium.

Solving incidental capture of seabirds on pelagic longline vessels-progress in New Zealand. Molloy, J.; Keith, C.; Anderson, S. 2000. *DOC Science Poster 30*.

Genetic assessment of population boundaries and gene exchange in Hector's dolphin. Pichler, F.B. 2002. *DOC Science Internal Series 44*. 37 p. <http://csl.doc.govt.nz/dsis44.pdf> (359 KB). Reprinted in this Compendium.

Quantifying abundance of Hector's dolphins between Farewell Spit and Milford Sound. Slooten, E.; Dawson, S.M.; Rayment W. 2002. *DOC Science Internal Series 35*. 18 p. <http://csl.doc.govt.nz/dsis35.pdf> (887 KB). Reprinted in this Compendium.

1999/2000 FUNDING YEAR

Surveying and monitoring of black petrels on Great Barrier Island 1999/2000. Bell, E.; Sim, J. 2000. 20 p. <http://csl.doc.govt.nz/CSL3018.PDF> (236 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

¹ As at 1 April 2002

Line-transect survey of Hector's dolphin abundance between Timaru and Long Point, and effect of attraction to survey vessel. DuFresne, S.; Dawson, S.; Slooten, E. 2001. *DOC Science Internal Series 1*, 19 p. <http://csl.doc.govt.nz/dsis1.pdf> (708 KB). Reprinted in this Compendium.

Preliminary modelling of black petrels (*Procellaria parkinsoni*) to assess population status. Hunter, C.; Fletcher, D.; Scofield, P. 2001. *DOC Science Internal Series 2*, 42 p. <http://csl.doc.govt.nz/dsis2.pdf> (939 KB). Reprinted in this Compendium.

Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 1999 to 30 September 2000. Robertson, C.J.R.; Bell, E. 2002. *DOC Science Internal Series 29*, 41 p. <http://csl.doc.govt.nz/dsis29.pdf> (1092 KB). Reprinted in this Compendium.

Line-transect survey of Hector's dolphin abundance between Farewell Spit and Motunau. Slooten, E.; Dawson, S.M.; DuFresne, S.; Clement, D. 2001. *DOC Science Internal Series 22*. 15 p. <http://csl.doc.govt.nz/dsis22.pdf> (484 KB). Reprinted in this Compendium.

1998/99 FUNDING YEAR

Surveying and monitoring of black petrels on Great Barrier Island 1998/99. Bell, E.; Sim, J. 2000. 24 p. <http://csl.doc.govt.nz/CSL3089.PDF> (172 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

Observer reports from squid-jigging vessels off the New Zealand coast 1999. Blezard, R.H; Burgess, J. 1999. *Conservation Advisory Science Note 255*. 7 p.

Feasibility of video monitoring seabird interactions on small domestic tuna longliners. Keith, C. 2000. *Conservation Advisory Science Note 303*. 4 p.

Seabird/fisheries interactions. Final report of advisory officer. Keith, C. 2000. *Conservation Advisory Science Note 295*. 16 p.

Tori line designs for New Zealand domestic pelagic longliners. Keith, C. 1999. *Conservation Advisory Science Note 248*. 14 p.

Counting Campbell Island mollymawk colonies from photographs—data supplements. Moore, P.J.; Blezard, R. 1999. *Science & Research Internal Report 169*. 63 p.

Counting mollymawks on Campbell Island: a guide to techniques and field procedures. Moore, P.J. 1999. *Department of Conservation Technical Series 16*. 89 p.

Photographs of Campbell Island mollymawk colonies: a guide to photopoints, historical comparisons and counting mollymawks. Moore, P.J.; Blezard, R. 1999. *Department of Conservation Technical Series 17*. 106 p.

Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 1998 to 30 September 1999. Robertson, C.J.R.; Bell, E. 2002. *DOC Science Internal Series 28*, 41 p. <http://csl.doc.govt.nz/dsis28.pdf> (1080 KB). Reprinted in this Compendium.

Reactions of Hector's dolphins to acoustic gillnet pingers. Stone, G.S.; Cavagnaro, L.; Hutt, A.; Kraus, S.; Baldwin, K.; Brown, J. 2000. 29 p. <http://csl.doc.govt.nz/CSL3071.PDF> (332 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

Infanticide and cannibalism in the New Zealand sea lion. Wilkinson, I.; Childerhouse, S.; Duignan, P.J.; Gulland, F.M.D. 1999. *DOC Science Poster 27*.

1997/98 FUNDING YEAR

Estimation of the Hector's dolphin bycatch from the inshore fisheries, 1997/98 fishing year. Baird, S.J.; Bradford, E. 2000. 20 p. <http://csl.doc.govt.nz/CSL3024.PDF> (181 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

Surveying and monitoring of black petrels on Great Barrier Island 1997/98. Bell, E.; Sim, J. 2000. 24 p. <http://csl.doc.govt.nz/CSL3085.PDF> (202 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

New Zealand sea lion: research programme. Childerhouse, S. 1998. *DOC Science Poster 12*.

Line-transect survey of Hector's dolphin abundance between Motunau and Timaru. Dawson, S.; DuFresne, S.; Slooten, E.; Wade, P. 2000. 17 p. <http://csl.doc.govt.nz/CSL3072.PDF> (313 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

Aging live New Zealand sea lions using post-canine teeth. Dickie, G. 1998. *Conservation Advisory Science Note 206*. 3 p.

Assessing seasonal differences in Hooker's sea lion locations. Fletcher, D. 2002. *DOC Science Internal Series 33*. 9 p. <http://csl.doc.govt.nz/dsis33.pdf> (79 KB). Reprinted in this Compendium.

Developmental stages of the underwater bait setting chute for the pelagic longline fishery. Molloy, J.; Walshe, K.; Barnes, P. (Comps) 1999. *Conservation Advisory Science Note 246*. 34 p.

Autopsy report for seabirds killed and returned from New Zealand fisheries 1 January 1998 to 30 September 1998. Robertson, C.J.R. 2000. *Conservation Advisory Science Note 294*. 36 p.

Longline sink rates of an autoline vessel, and notes on seabird interactions. Smith, N.W.McL. 2001. *Science for Conservation* 183. 32 p. <http://csl.doc.govt.nz/SFC183.pdf> (659 KB).

Longline sink rates on bottom autoline vessels. Smith, N.W.McL. 1999. *DOC Science Poster* 23.

Inshore Fishery Observer Programme for Hector's dolphins in Pegasus Bay, Canterbury Bight, 1997/98. Starr, P.; Langley, A. 2000. 28 p. <http://csl.doc.govt.nz/CSL3020.PDF> (259 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.

1996/97 FUNDING YEAR

Autopsy report for seabirds killed and returned from New Zealand fisheries 1 October 1996 to 31 December 1997. Bartle, J.A. 2000. *Conservation Advisory Science Note* 293. 43 p.

Survey and monitoring of black petrels on Great Barrier Island 1997. Bell, E.; Sim, J. 1998. *Science for Conservation* 78. 18 p.

Response of tuna longline fishers to seabird scaring lines (tori lines). Duckworth, K. 1998. *Conservation Advisory Science Note* 202. 11 p.

Functionality of a full-sized marine mammal exclusion device. Gibson, D.; Isakssen, B. 1998. *Science for Conservation* 81. 19 p.

Bycatch of fur seals (*Arctocephalus forsteri*) in New Zealand fisheries, 1990/91–1995/96, and observer coverage. Manly, B.F.J.; Seyb, A.; Fletcher, D.J. 2002. *DOC Science Internal Series* 41. 40 p. <http://csl.doc.govt.nz/dsis41.pdf> (600 KB). Reprinted in this Compendium. The supporting datafile is also available: <http://csl.doc.govt.nz/furseal.xls> (1113 KB).

Bycatch of sea lions (*Phocarctos hookeri*) in New Zealand fisheries, 1987/88–1995/96, and observer coverage. Manly, B.F.J.; Seyb, A.; Fletcher, D.J. 2002. *DOC Science Internal Series* 42. 21 p. <http://csl.doc.govt.nz/dsis42.pdf> (535 KB). Reprinted in this Compendium. The supporting datafile is also available: <http://csl.doc.govt.nz/sealions.xls> (124 KB).

Longline bycatch of birds and mammals in New Zealand fisheries, 1990/91–1995/96, and observer coverage. Manly, B.F.J.; Seyb, A.; Fletcher, D.J. 2002. *DOC Science Internal Series* 43. 51 p. <http://csl.doc.govt.nz/dsis43.pdf> (966 KB). Reprinted in this Compendium. The supporting datafile is also available <http://csl.doc.govt.nz/longline.xls> (164 KB).

There may be some difficulty in downloading the Excel datafiles for DSIS41–43. An alternative, compressed version can be obtained: <http://csl.doc.govt.nz/bycatch.zip> (403 KB).

1995/96 FUNDING YEAR

Underwater setting methods to minimise the accidental and incidental capture of seabirds by surface longliners. Report on a prototype device developed by Akroyd Walshe Ltd. Barnes, P.; Walshe, K.A.R. 1997. *Science for Conservation* 66. 21 p.

Autopsy report for seabirds killed and returned from New Zealand fisheries 1 January 1996 to 30 September 1996. Bartle, J.A. 2000. *Conservation Advisory Science Note* 292. 5 p.

Survey and monitoring of black petrels on Great Barrier Island 1996. Bell, E.; Sim, J. 1998. *Science for Conservation* 77. 17 p.

Light-mantled sooty albatross on Campbell Island, 1995-96: a pilot investigation. Moore, P.J. 1996. *Science for Conservation* 41. 23 p.

Construction of tori lines for domestic longline vessels. Nelson, D.I. 1998. *Conservation Advisory Science Note* 201. 9 p.

Underwater setting methods to minimise the accidental and incidental capture of seabirds by surface longliners. Report on a prototype device developed by MS Engineering. Smith, M.; Bentley, N. 1997. *Science for Conservation* 67. 9 p.

CSL-funded reports from DOC Science Publishing: alphabetical listing by author¹

- Baird, S.J.; Bradford, E. 2000: Estimation of the Hector's dolphin bycatch from the inshore fisheries, 1997/98 fishing year. 20 p. <http://csl.doc.govt.nz/CSL3024.PDF> (181 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Barnes, P.; Walshe, K.A.R. 1997: Underwater setting methods to minimise the accidental and incidental capture of seabirds by surface longliners. Report on a prototype device developed by Akroyd Walshe Ltd. *Science for Conservation* 66. 21 p.
- Bartle, J.A. 2000: Autopsy report for seabirds killed and returned from New Zealand fisheries 1 October 1996 to 31 December 1997. *Conservation Advisory Science Note* 293. 43 p.
- Bartle, J.A. 2000: Autopsy report for seabirds killed and returned from New Zealand fisheries 1 January 1996 to 30 September 1996. *Conservation Advisory Science Note* 292. 5 p.
- Bell, E.; Sim, J. 1998: Survey and monitoring of black petrels on Great Barrier Island 1996. *Science for Conservation* 77. 17 p.
- Bell, E.; Sim, J. 1998: Survey and monitoring of black petrels on Great Barrier Island 1997. *Science for Conservation* 78. 18 p.
- Bell, E.; Sim, J. 2000: Surveying and monitoring of black petrels on Great Barrier Island 1997/98. 24 p. <http://csl.doc.govt.nz/CSL3085.PDF> (202 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Bell, E.; Sim, J. 2000: Surveying and monitoring of black petrels on Great Barrier Island 1998/99. 24 p. <http://csl.doc.govt.nz/CSL3089.PDF> (172 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Bell, E.; Sim, J. 2000: Surveying and monitoring of black petrels on Great Barrier Island 1999/2000. 20 p. <http://csl.doc.govt.nz/CSL3018.PDF> (236 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Bleazard, R.H; Burgess, J. 1999: Observer reports from squid-jigging vessels off the New Zealand coast 1999. *Conservation Advisory Science Note* 255. 7 p.
- Childerhouse, S. 1998: New Zealand sea lion: research programme. *DOC Science Poster* 12.
- Dawson, S.M. 2001: Fine-scale abundance estimates from the 2000/2001 aerial survey of Hector's dolphins on the South Island west coast. *DOC Science Internal Series* 21. 9 p. <http://csl.doc.govt.nz/dsis21.pdf> (56 KB). Reprinted in this Compendium.
- Dawson, S.; DuFresne, S.; Slooten, E.; Wade, P. 2000: Line-transect survey of Hector's dolphin abundance between Motunau and Timaru. 17 p. <http://csl.doc.govt.nz/CSL3072.PDF> (313 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Dickie, G. 1998: Aging live New Zealand sea lions using post-canine teeth. *Conservation Advisory Science Note* 206. 3 p.

¹ As at 1 April 2002

- Duckworth, K. 1998: Response of tuna longline fishers to seabird scaring lines (tori lines). *Conservation Advisory Science Note 202*. 11 p.
- DuFresne, S.; Dawson, S.; Slooten, E. 2001: Line-transect survey of Hector's dolphin abundance between Timaru and Long Point, and effect of attraction to survey vessel. *DOC Science Internal Series 1*, 19 p. <http://csl.doc.govt.nz/dsis1.pdf> (708 KB). Reprinted in this Compendium.
- Fletcher, D. 2002: Assessing seasonal differences in Hooker's sea lion locations. *DOC Science Internal Series 33*. 9 p. <http://csl.doc.govt.nz/dsis33.pdf> (79 KB). Reprinted in this Compendium.
- Gibson, D.; Isakssen, B. 1998: Functionality of a full-sized marine mammal exclusion device. *Science for Conservation 81*. 19 p.
- Hunter, C.; Fletcher, D.; Scofield, P. 2001: Preliminary modelling of black petrels (*Procellaria parkinsoni*) to assess population status. *DOC Science Internal Series 2*, 42 p. <http://csl.doc.govt.nz/dsis2.pdf> (939 KB). Reprinted in this Compendium.
- Keith, C. 1999: Tori line designs for New Zealand domestic pelagic longliners. *Conservation Advisory Science Note 248*. 14 p.
- Keith, C. 2000: Feasibility of video monitoring seabird interactions on small domestic tuna longliners. *Conservation Advisory Science Note 303*. 4 p.
- Keith, C. 2000: Seabird/fisheries interactions. Final report of advisory officer. *Conservation Advisory Science Note 295*. 16 p.
- Manly, B.F.J; Seyb, A.; Fletcher, D.J. 2002: Bycatch of fur seals (*Arctocephalus forsteri*) in New Zealand fisheries, 1990/91-1995/96, and observer coverage. *DOC Science Internal Series 41*. 40 p. <http://csl.doc.govt.nz/dsis41.pdf> (600 KB). Reprinted in this Compendium. The supporting datafile is also available: <http://csl.doc.govt.nz/furseal.xls> (1113 KB).
- Manly, B.F.J; Seyb, A.; Fletcher, D.J. 2002: Bycatch of sea lions (*Phocarctos hookeri*) in New Zealand fisheries, 1987/88-1995/96, and observer coverage. *DOC Science Internal Series 42*. 21 p. <http://csl.doc.govt.nz/dsis42.pdf> (535 KB). Reprinted in this Compendium. The supporting datafile is also available: <http://csl.doc.govt.nz/sealions.xls> (124 KB).
- Manly, B.F.J; Seyb, A.; Fletcher, D.J. 2002: Longline bycatch of birds and mammals in New Zealand fisheries, 1990/91-1995/96, and observer coverage. *DOC Science Internal Series 43*. 51 p. <http://csl.doc.govt.nz/dsis43.pdf> (966 KB). Reprinted in this Compendium. The supporting datafile is also available <http://csl.doc.govt.nz/longline.xls> (164 KB).
- Molloy, J.; Keith, C.; Anderson, S. 2000: Solving incidental capture of seabirds on pelagic longline vessels-progress in New Zealand. *DOC Science Poster 30*.
- Molloy, J.; Walshe, K.; Barnes, P. (Comps) 1999: Developmental stages of the underwater bait setting chute for the pelagic longline fishery. *Conservation Advisory Science Note 246*. 34 p.
- Moore, P.J. 1996. Light-mantled sooty albatross on Campbell Island, 1995-96: a pilot investigation. *Science for Conservation 41*. 23 p.
- Moore, P.J. 1999: Counting mollymawks on Campbell Island: a guide to techniques and field procedures. *Department of Conservation Technical Series 16*. 89 p.
- Moore, P.J.; Blezard, R. 1999: Photographs of Campbell Island mollymawk colonies: a guide to photopoints, historical comparisons and counting mollymawks. *Department of Conservation Technical Series 17*. 106 p.
- Moore, P.J.; Blezard, R. 1999: Counting Campbell Island mollymawk colonies from photographs-data supplements. *Science & Research Internal Report 169*. 63 p.
- Nelson, D.I. 1998: Construction of tori lines for domestic longline vessels. *Conservation Advisory Science Note 201*. 9 p.
- Pichler, F.B. 2002: Genetic assessment of population boundaries and gene exchange in Hector's dolphin. *DOC Science Internal Series 44*. 37 p. <http://csl.doc.govt.nz/dsis44.pdf> (359 KB). Reprinted in this Compendium.

- Robertson, C.J.R. 2000: Autopsy report for seabirds killed and returned from New Zealand fisheries 1 January 1998 to 30 September 1998. *Conservation Advisory Science Note 294*. 36 p.
- Robertson, C.J.R.; Bell, E. 2002: Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 1999 to 30 September 2000. *DOC Science Internal Series 29*, 41 p. <http://csl.doc.govt.nz/dsis29.pdf> (1092 KB). Reprinted in this Compendium.
- Robertson, C.J.R.; Bell, E. 2002: Autopsy report for seabirds killed and returned from New Zealand fisheries, 1 October 1998 to 30 September 1999. *DOC Science Internal Series 28*, 41 p. <http://csl.doc.govt.nz/dsis28.pdf> (1080 KB). Reprinted in this Compendium.
- Slooten, E.; Dawson, S.M.; DuFresne, S.; Clement, D. 2001: Line-transect survey of Hector's dolphin abundance between Farewell Spit and Motunau. *DOC Science Internal Series 22*. 15 p. <http://csl.doc.govt.nz/dsis22.pdf> (484 KB). Reprinted in this Compendium.
- Slooten, E.; Dawson, S.M.; Rayment W. 2002: Quantifying abundance of Hector's dolphins between Farewell Spit and Milford Sound. *DOC Science Internal Series 35*. 18 p. <http://csl.doc.govt.nz/dsis35.pdf> (887 KB). Reprinted in this Compendium.
- Smith, M.; Bentley, N. 1997: Underwater setting methods to minimise the accidental and incidental capture of seabirds by surface longliners. Report on a prototype device developed by MS Engineering. *Science for Conservation 67*. 9 p.
- Smith, N.W.McL. 1999: Longline sink rates on bottom autoline vessels. *DOC Science Poster 23*.
- Smith, N.W.McL. 2001: Longline sink rates of an autoline vessel, and notes on seabird interactions. *Science for Conservation 183*. 32 p. <http://csl.doc.govt.nz/SFC183.pdf> (659 KB).
- Starr, P.; Langley, A. 2000: Inshore Fishery Observer Programme for Hector's dolphins in Pegasus Bay, Canterbury Bight, 1997/98. 28 p. <http://csl.doc.govt.nz/CSL3020.PDF> (259 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Stone, G.S.; Cavagnaro, L.; Hutt, A.; Kraus, S.; Baldwin, K.; Brown, J. 2000: Reactions of Hector's dolphins to acoustic gillnet pingers. 29 p. <http://csl.doc.govt.nz/CSL3071.PDF> (332 KB). Printed in: *Compendium of published CSL reports, 1995/96 to 1999/2000 funded by Conservation Services Levy*. Department of Conservation, Wellington 2000.
- Wilkinson, I.; Childerhouse, S.; Duignan, P.J.; Gulland, F.M.D. 1999: Infanticide and cannibalism in the New Zealand sea lion. *DOC Science Poster 27*.

CSL-funded publications in international peer-reviewed science journals since 1997¹

Listed below are all CSL-funded publications in international peer-reviewed journals to date. These are available through most science libraries; they cannot be purchased from DOC Science Publishing.

- Anonymous 2000: International forum in Auckland for longline fishers – Fishers Forum, 6th to 9th November 2000, Auckland. *Seafood New Zealand* 8(10): 10–12.
- Cherel, Y.; Waugh, S.M.; Hanchet, S.; Weimerskirch, H. 2000: Albatross predation of juvenile southern blue whiting (*Micromesistius australis*) on the Campbell Plateau. *New Zealand Journal of Marine and Freshwater Research* 33: 437–441.
- Childerhouse, S.; Dix, B.; Gales, N. 1999: Diet of New Zealand sea lion *Phocarctos hookeri* at the Auckland Islands. *Wildlife Research* 28: 291–298.
- Childerhouse, S.; Gales, N. 1998: The historical and modern distribution and abundance of the New Zealand sea lion *Phocarctos hookeri*. *New Zealand Journal of Zoology* 25: 1–16.
- Childerhouse, S.; Gales, N. 2001: Fostering behaviour of New Zealand sea lion *Phocarctos hookeri*. *New Zealand Journal of Zoology* 28: 189–195.
- Clark, P.; Duignan, P.J.; Boardman, W.; Wilkinson, I. 2001: Blood cells of otariids: characteristics of cell morphology based on light and electron microscopy. Poster. *Proceedings: Veterinary Conservation Biology and Wildlife Health and Management in Australasia Joint Conference, Taronga Zoo, Sydney, Australia, 2–6 July 2001*, p. 283.
- Clark, P.; Duignan, P.J.; Wilkinson, I. *submitted*: Ultrastructural characteristics of cells from the blood of the New Zealand sea lion (*Phocarctos hookeri*). *Comparative Haematology*.
- Costa, D.; Gales, N.; Crocker, D. 1998: Blood volume and diving ability of the New Zealand sea lion *Phocarctos hookeri*. *Physiological Zoology* 71: 208–213.
- Costa, D.; Gales, N. 2000: Foraging energetics and diving behaviour of lactating New Zealand sea lions, *Phocarctos hookeri*. *Journal of Experimental Biology* 203: 3655–3665.
- Crocker, D.; Gales, N.; Costa, D. 2001: Swimming speeds and foraging strategies of New Zealand sea lions. *Journal of Zoology, London* 254(2): 267–277.
- Dickie, G.; Dawson, S. M. *in press*: Age and reproduction in New Zealand fur seals and New Zealand sea lions. *Canadian Journal of Zoology*.
- Donoghue, M. 1997: Conservation Services Levies—Mitigation of Marine Mammal By-catch. *Seafood New Zealand* 5: 31–32.
- Duignan, P.J.; Gales, N.; Alley, M.; Hunter, J.E.B.; Fenwick, S.; Garthwaite, I. 1999: New Zealand sea lion mass mortality event, January/February '98: II, Review of diagnostic tests (Poster). Society for Marine Mammalogy, Annual Conference, Maui, U.S.A., Nov. 29–Dec. 3, 1999, p. 50.
- Duignan, P.; Dupont, C.; Cousins, D.; Gibbs, N.; McLachlan, S.; Collins, D.; Murray, A. 2001: Tuberculosis in New Zealand pinnipeds. Poster. *Veterinary Conservation Biology, Wildlife Health and Management in Australasia, 2–6 July, Taronga Zoo, Sydney, Australia. Proceedings*, pp. 284–285. Produced by Australian Veterinary Association Conference Organizing Service, Kingston, ACT, Australia.

¹ As at 1 April 2002; compiled by Caren Schröder

- Gales, N.; Childerhouse, S. 1999: Field observations and sampling regime. In: Baker, A. (ed.) Unusual mortality of the New Zealand sea lion, *Phocarcos bookeri*, Auckland Islands, January-February 1998. Department of Conservation, Wellington, pp. 8-19.
- Gales, N.; Fletcher, D. 1999: Abundance, distribution and status of New Zealand sea lion, *Phocarcos bookeri*. *Wildlife Research* 26: 35-52.
- Gales, N.; Mattlin, R. 1997: Summer diving behaviour of lactating New Zealand sea lions, *Phocarcos bookeri*. *Canadian Journal of Zoology* 75: 1695-1706.
- Gales, N.; Mattlin, R. 1998: Fast, safe field-portable gas anaesthesia for otariids. *Marine Mammal Science* 14: 355-361.
- Gibbs, N.; Duignan, P.J.; Jones, G.W.; Wilkinson, I.; Childerhouse, S. 2001: New Zealand sea lion: age, sex, and reproductive status of bycatch, 1997-2000. Poster. Southern Hemisphere Marine Mammal Conference, 29 May-1 June 2001, Phillip Island, Victoria, Australia. Proceedings p. 107.
- Hunter, J.E.B.; Duignan, P.J.; Dupont, C.; Fray, L.; Murray, A. 1998: First report of potentially zoonotic tuberculosis in fur seals in New Zealand. *New Zealand Medical Journal* 111: 130-131.
- Hunter, C.M.; Scofield, R.P.; Fletcher, D.; Bell, E. *in press*: Assessing conservation status of the black petrels (*Procellaria parkinsoni*) in New Zealand. *Conservation Biology*.
- McNally, N.; Heinrich, S.; Childerhouse, S. 2001: Distribution and breeding of New Zealand sea lions on Campbell Island. *New Zealand Journal of Zoology* 28: 79-87.
- Peat, N. 1997: Sea lions: pride of the sea. *New Zealand Geographic* 33: 88-105.
- Robertson, C.J.R.; Bell, D.; Nicholls D.G. 2000: The Chatham albatross (*Thalassarche eremita*): at home and abroad. *Notornis* 47(3): 174.
- Stone, G.; Brown, J.; Yoshinaga, A. 1995: Diurnal patterns of movement as determined from cliff-top observation. *Marine Mammal Science* 11(3): 95-402.
- Stone, G.; Goodyear, J.; Hutt, A.; Yoshinaga, A. 1994: A new non-invasive tagging method for studying wild dolphins. *Marine Technology Society Journal* 28(1).
- Stone, G.; Hutt, A.; Brown, J.; Yoshinaga, A.; Joy, L.; Burleigh, R. 1998: Respiration and movement of Hector's dolphin from suction-cup VHF radio tag telemetry data. *Marine Technology Society Journal* 32(1).
- Stone, G.; Kraus, S.; Hutt, A.; Martin, S.; Yoshinaga, A.; Joy, L. 1997: Reducing by-catch: can acoustic pingers keep Hector's dolphins out of fishing nets? *Marine Technology Society Journal* 31(2): 3-7.
- Stone, G.; Yoshinaga, A. 2000: Hector's dolphin (*Cephalorhynchus hectori*) calf mortalities may indicate new risks from boat traffic and habituation. *Pacific Conservation Biology* 6(2): 162-171.
- Stratton, M.; Duignan, P.; Forester, N.; Gibbs, N.; Lumsden, J.; O'Toole, P.; Alley, M.; Gales, N. 2001: New Zealand sea lion mass mortality: Investigating the role of potentially pathogenic bacteria. Poster. Veterinary Conservation Biology, Wildlife Health and Management in Australasia, 2-6 July, Taronga Zoo, Sydney, Australia. Proceedings p. 279. Produced by Australian Veterinary Association Conference Organising Service, Kingston, ACT, Australia.
- Walker, K.J.; Elliott, G.P.; Nicholls, D.G.; Murray, M.D. 1995: Satellite tracking of wandering albatross (*Diomedea exulans*) from the Auckland Islands: Preliminary results. *Notornis* 42: 127-137.
- Walker, K.; Elliott, G. 1999: Population changes and biology of the wandering albatross *Diomedea exulans gibsoni* at the Auckland Islands. *Emu* 99: 239-247.
- Waugh, S.M. 1998: Dye-marking of New Zealand black-browed and grey-headed albatrosses from Campbell Island. *New Zealand Journal of Marine and Freshwater Research* 32: 545-549.

- Waugh, S.M.; Cossee, R.; Sagar, P. 1999: New Zealand black-browed albatross *Diomedea melanophrys* and grey-headed albatross *D. chrysostoma* banded at Campbell Island: Recoveries from the South Pacific Region. *Emu* 99: 29-35.
- Waugh, S.M.; Weimerskirch, H.; Cherel, Y.; Shankar, U.; Prince, P.A.; Sagar, P.M. 1999: Exploitation of the marine environment by two sympatric albatrosses in the Pacific Southern Ocean. *Marine Ecology Progress Series* 177: 243-254.
- Waugh, S.M.; Weimerskirch, H.; Cherel, Y.; Prince, P.A. 2000: Contrasting strategies of provisioning and chick growth in two sympatrically breeding albatrosses at Campbell Island, New Zealand. *Condor* 102: 804-813.
- Waugh, S.M.; Weimerskirch, H.; Moore, P.; Sagar, P. 1999: Population dynamics of black-browed and grey-headed albatrosses (*Diomedea melanophrys* and *D. chrysostoma*) at Campbell Island, New Zealand, 1942-1996. *Ibis* 141: 216-225.
- West, I. F.; Molloy, J.; Donoghue, M. F.; Pugsley, C. 1999: Seabird and marine mammal bycatch reduction through fishing industry funded research: The New Zealand Conservation Services Levy Programme. *Marine Technical Society Journal* 33(2): 13-18.
- Wilkinson, I.; Childerhouse, C.; Duignan, P.; Gulland, F. 2000: Infanticide and cannibalism in the New Zealand sea lion. *Marine Mammal Science* 16(2): 494-500.