

# Publications and Presentations by NIWA Staff, 1999

Compiled by Janice Meadows

**NIWA Information Series No. 17**  
**ISSN 1174-264X**  
**2000**

# **Publications and presentations by NIWA staff, 1999**

**Compiled by Janice Meadows**

**NIWA Information Series No. 17  
2000**

**Published by NIWA  
Wellington  
2000**

Inquiries to:  
Science Communication, NIWA,  
PO Box 14-901, Wellington, New Zealand

**ISSN 1174-264X  
ISBN 0-478-23229-2**

**© NIWA 2000**

Citation: Meadows, J. (comp.) (2000).  
Publications and presentations by NIWA staff, 1999.  
*NIWA Information Series No. 17. 98 p.*

*The National Institute of Water and Atmospheric Research  
is New Zealand's leading provider  
of atmospheric, marine,  
and freshwater science.*

Visit NIWA's website at <http://www.niwa.cri.nz>

# **Publications and presentations by NIWA staff, 1999**

## **Introduction**

Each year staff at the National Institute of Water and Atmospheric Research (NIWA) produce papers that range from client reports for commercial contracts to articles in international, refereed journals, to articles in popular magazines and newspapers. Staff also make presentations ranging from talks at international conferences to demonstrations to school children.

This report lists material published or presented at meetings in 1999. It does not include NIWA internal reports or client reports, which are regarded as confidential; nor does it include in-house presentations or seminars. In many cases there is no written record retained of presentations; information on proceedings or conference preprints is included only when it has been provided by the author. Externally published material (as in journals, magazines, and newspapers) will be available in many libraries or through the library interloan system. Material published by NIWA (such as in-house series) is available on loan or purchase from NIWA. For more information on obtaining NIWA publications visit the NIWA website at [www.niwa.cri.nz/charts\\_posters\\_pubs/pub.html](http://www.niwa.cri.nz/charts_posters_pubs/pub.html) or contact Science Communication, NIWA, PO Box 14 901, Wellington.

The list is divided as follows.

<b>Papers published in refereed journals and in books</b>	page 5
Includes national and international scientific journals, book chapters, and books. Refereed papers in proceedings are generally listed in Section 3: Conference presentations, or in Section 4: Seminar and workshop presentations.	
<b>Reports and NIWA series</b>	21
Includes government-commissioned reports. NIWA series range from refereed monographs to information leaflets.	
<b>Conference presentations and proceedings</b>	27
Includes open-invitation conferences (national and international) and published proceedings (where the conference took place in 1999).	
<b>Seminar and workshop presentations and proceedings</b>	55
Includes presentations at research organisations, at smaller meetings designated as 'workshops', at meetings of select groups (such as scientific committees), lectures to university classes, as well as published proceedings from the meetings.	
<b>Popular articles and public appearances</b>	73
Includes NIWA-authored articles in non-scientific or popular-science magazines, interviews on radio or television, presentations to non-scientific audiences.	
<b>Other popular articles about NIWA research</b>	87
Includes news articles about NIWA staff and research, but without author credit to NIWA staff member.	





## 1. Papers published in refereed journals and in books

Includes national and international scientific journals, book chapters and books. Refereed papers in proceedings are generally found in Section 3: Conference presentations, or in Section 4: Seminar and workshop presentations.

- Allibone, R.M. (1999). Impoundment and introductions: their impacts on native fish of the upper Waipori River, New Zealand. *Journal of the Royal Society of New Zealand* 29(4): 291–299.
- Andrew, N.L. (ed.) (1999). Under southern seas: the ecology of Australia's rocky reefs. University of New South Wales Press, Sydney. 243 p.
- Arai, T.; Otake, T.; Jellyman, D.J.; Tsukamoto, K. (1999). Differences in the early life history of the Australasian shortfinned eel *Anguilla australis* from Australia and New Zealand, as revealed by otolith microstructure and microchemistry. *Marine Biology* 135(2): 381–389.
- Ayers, G.P.; Gillett, R.W.; Caine, J.M.; Dick, A.L. (1999). Chloride and bromide loss from sea-salt particles in Southern Ocean air. *Journal of Atmospheric Chemistry* 33: 299–319.
- Bardsley, W.E.; Pearson, C.P. (1999). An experiment in subjective graphical quantile estimation applied to the generalised extreme value distribution. *Hydrological Sciences Journal* 44(3): 399–405.
- Barnes, P.M.; Audru, J.-C. (1999). Quaternary faulting in the offshore Flaxbourne and Wairarapa Basins, southern Cook Strait, New Zealand. *New Zealand Journal of Geology and Geophysics* 42(3): 349–367.
- Barnes, P.M.; Audru, J.-C. (1999). Recognition of active strike-slip faulting from high-resolution marine seismic reflection profiles: Eastern Marlborough fault system, New Zealand. *GSA Bulletin* 111(4): 538–559.
- Barnett, C.W.; Pankhurst, N.W. (1999). Reproductive biology and endocrinology of greenback flounder *Rhombosolea tapirina* (Gunther, 1862). *Marine and Freshwater Research* 50(1): 35–42.
- Barr, R.; Stubbe, P.; Rietveld, M.T. (1999). ELF wave generation in the ionosphere using pulse modulated HF heating: initial tests of a technique for increasing ELF wave generation efficiency. *Annales Geophysicae* 17: 759–769.
- Basher, R.E. (1999). Data requirements for developing adaptations to climate variability and change. *Mitigation and Adaptation Strategies for Global Change* 4: 227–237.
- Beentjes, M.P.; Francis, M.P. (1999). Movement of hapuku (*Polyprion oxygeneios*) determined from tagging studies. *New Zealand Journal of Marine and Freshwater Research* 33(1): 1–12.
- Bergey, E.A. (1999). Crevices as refugia for stream diatoms: effect of crevice size on abraded substrates. *Limnology and Oceanography* 44: 1522–1529.
- Berthe, F.C.J.; Bureson, E.M.; Hine, P.M. (1999). Use of molecular tools for mollusc disease diagnosis. *Bulletin of the European Association of Fish Pathologists* 19(6): 277–278.
- Bhaskaran, B.; Mullan, A.B.; George, S.E. (1999). Modelling of atmospheric climate variations at NIWA. *Weather and Climate* 19: 23–36.
- Biggs, B.J.F.; Smith, R.A.; Duncan, M.J. (1999). Velocity and sediment disturbance of periphyton in headwater streams: biomass and metabolism. *Journal of the North American Benthological Society* 18(2): 222–241.
- Biggs, B.J.F.; Tuchman, N.C.; Lowe, R.L.; Stevenson, R.J. (1999). Resource stress alters hydrological disturbance effects in a stream periphyton community. *Oikos* 85(1): 95–108.
- Black, K.P.; Parry, G.D. (1999). Entrainment, dispersal, and settlement of scallop dredge sediment plumes: field measurements and numerical modelling. *Canadian Journal of Fisheries and Aquatic Sciences* 56(12): 2271–2281.
- Boothroyd, I.K.G. (1999). Description of *Kaniwhaniwhanus* gen. n. (Diptera: Chironomidae: Orthocladiinae) from New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(3): 341–349.
- Boothroyd, I.K.G. (1999). Life history of *Kaniwhaniwhanus chapmani* Boothroyd (Chironomidae: Orthocladiinae): population dynamics, emergence, and drift. *New Zealand Journal of Marine and Freshwater Research* 33(3): 351–359.

- Bormann, N.; Marks, C.J. (1999). Mesoscale rainfall forecasts over New Zealand during SALPEX96: characterization and sensitivity studies. *Monthly Weather Review* 127(12): 2880–2893.
- Boubée, J.A.T.; Jowett, I.; Nichols, S.; Williams E. (1999). Fish passage at culverts – a review, with possible solutions for New Zealand indigenous species. Department of Conservation, Wellington. 117 p.
- Boyd, I.S.; Bodeker, G.E.; Connor, B.J.; Swart, D.P.J.; Brinksmma, E.J. (1999). An assessment of ECC ozonesondes operated using 1% and 0.5% KI cathode solutions at Lauder, New Zealand. *Geophysical Research Letters* 25(13): 2409–2412.
- Boyd, P.W.; Harrison, P.J. (guest editors) (1999). Canadian Joint Global Ocean Flux Study in the NE Subarctic Pacific. *Deep-Sea Research II* 46(11/12): 2345–3029.
- Boyd, P.W.; Harrison, P.J.; Johnson, B.D. (1999). The Joint Global Ocean Flux Study (Canada) in the NE Subarctic Pacific. *Deep-Sea Research II* 46(11/12): 2345–2350.
- Boyd, P.W.; LaRoche, J.; Gall, M.; Frew, R.; McKay, R.M.L. (1999). Role of iron, light, and silicate in controlling algal biomass in subantarctic waters SE of New Zealand. *Journal of Geophysical Research* 104(C6): 13,395–13,408.
- Boyd, P.W.; Newton, P.P. (1999). Does planktonic community structure determine downward particulate organic carbon flux in different oceanic provinces? *Deep-Sea Research* 46(1): 63–91.
- Boyd, P.W.; Sherry, N.D.; Berges, J.A.; Bishop, J.K.B.; Calvert, S.E.; Charette, M.A.; Giovannoni, S.J.; Goldblatt, R.; Harrison, P.J.; Moran, S.B.; Roy, S.; Soon, M.; Strom, S.; Thibault, D.; Vergin, K.L.; Whitney, F.A.; Wong, C.S. (1999). Transformations of biogenic particulates from the pelagic to the deep ocean realm. *Deep-Sea Research II* 46(11/12): 2761–2792.
- Bradford-Grieve, J.M. (1999). New species of benthopelagic copepods of the genus *Stephos* (Calanoida: Stephidae) from Wellington Harbour, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(1): 13–27.
- Bradford-Grieve, J.M. (1999). Sub-order: Calanoida; Family: Acartiidae; Genera: *Acartia*, *Paracartia*, *Pteriacartia*. *ICES Identification Leaflets for Plankton* 181. 19 p.
- Bradford-Grieve, J.M.; Boyd, P.W.; Chang, F.H.; Chiswell, S.; Hadfield, M.; Hall, J.A.; James, M.R. Nodder, S.D.; Shushkina, E.A. (1999). Pelagic ecosystem functioning in the Subtropical Front region east of New Zealand in austral winter and spring 1993. *Journal of Plankton Research* 21(3): 405–428.
- Bradford-Grieve, J.M.; Markhaseva, E.L.; Rocha, C.E.F.; Abiahy, B. (1999). Copepoda. In: Boltovskoy, C. (ed.) South Atlantic zooplankton, vol. 2, pp. 869–1098. Backhuys Publishers, Leiden.
- Broekhuizen, N. (1999). Simulating motile algae using a mixed Eulerian–Lagrangian approach: does motility promote dinoflagellate persistence or co-existence with diatoms? *Journal of Plankton Research* 21(7): 1191–1216.
- Burns, N.M.; Rutherford, J.C.; Clayton, J.S. (1999). A monitoring and classification system for New Zealand lakes and reservoirs. *Journal of Lake and Reservoir Management* 15(4): 255–271.
- Butler, M.J.; MacDiarmid, A.B.; Booth, J.D. (1999). The cause and consequence of ontogenetic changes in social aggregation in New Zealand spiny lobsters. *Marine Ecology Progress Series* 188: 179–191.
- Cainey, J.M.; Ayers, G.P.; Sievering, H.; Gillett, R.W.; Hooper, M.A. (1999). The use of magnesium as a marker for sea salt at Cape Grim. In: Gras, J.L.; Derek, N.; Tindale, N.W.; Dick, A.L. (eds). Baseline Atmospheric Program (Australia) 1999, pp. 7–14. CSIRO, Division of Atmospheric Research, Melbourne.
- Carbines, G.D. (1999). Large hooks reduce catch and release mortality of blue cod *Parapercis colias* in the Marlborough Sounds of New Zealand. *North American Journal of Fisheries Management* 19(4): 992–998.
- Carter, L.; Sedimentology Group (1999). Lithostratigraphy. In: Carter R.M.; McCave, I.N.; Richter, C.; Carter, L.; et al. Chapter 8. Site 1124, Rekohu Drift – from the K/T Boundary to the Deep Western Boundary Current. *Proceedings of the Ocean Drilling Program, Initial Reports* 181: 1–137 (on CD-ROM and [www-odp.tamu.edu/publications/181\\_IR/chap\\_08/chap\\_08.htm](http://www-odp.tamu.edu/publications/181_IR/chap_08/chap_08.htm)).

- Carter, L.; Sedimentology Group (1999). Lithostratigraphy. In: Carter, R.M.; McCave, I.N.; Richter, C.; Carter, L.; et al. Chapter 9, Site 1125, Productivity under Subtropical Convergence on North Chatham Rise. *Proceedings of the Ocean Drilling Program, Initial Reports 181* (on CD-ROM and [www-odp.tamu.edu/publications/181\\_IR/chap\\_09/chap\\_09.htm](http://www-odp.tamu.edu/publications/181_IR/chap_09/chap_09.htm)).
- Carter, L.; Sedimentology Group. (1999). Lithostratigraphy. In: Carter, R.M.; McCave, I.N.; Richter, C.; Carter, L. et al. Chapter 3. Site 1119, Drift accretion on Canterbury slope. *Proceedings of the Ocean Drilling Program, Initial Reports 181* (on CD-ROM and [www-odp.tamu.edu/publications/181\\_IR/chap\\_03/chap\\_03.htm](http://www-odp.tamu.edu/publications/181_IR/chap_03/chap_03.htm)).
- Carter, L.; Wilkin, J. (1999). Abyssal circulation around New Zealand – a comparison between observations and a global circulation model. *Marine Geology* 159(1–4): 221–239.
- Carter, R.M.; McCave, I.N.; Richter, C.; Carter, L.; Shipboard Party (1999). *Proceedings of the Ocean Drilling Program: Initial Reports 181*. 80 p. + CD-ROM; also available at [www-odp.tamu.edu/publications/](http://www-odp.tamu.edu/publications/)
- Chang, F.H. (1999). *Gymnodinium brevisulcatum* sp. nov. (Gymnodiniales, Dinophyceae), a new species isolated from the 1998 summer toxic bloom in Wellington Harbour, New Zealand. *Phycologia* 38(5): 377–384.
- Chang, F.H.; Garthwaite, I.; Anderson, D.M.; Towers, N.; Stewart, R.; MacKenzie, L. (1999). Immunofluorescent detection of a PSP-producing dinoflagellate, *Alexandrium minutum*, from Bay of Plenty, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(4): 533–543.
- Cherel, Y.; Waugh, S.; Hanchet, S.M. (1999). Albatross predation of juvenile southern blue whiting *Micromesistius australis* on the Campbell Plateau. *New Zealand Journal of Marine and Freshwater Research* 33(3): 437–441.
- Chinn, T.J. (1999). New Zealand glacier response to climate change of the past 2 decades. *Global and Planetary Change* 22(1–4): 155–168.
- Chiswell, S.M.; Booth, J. (1999). Rock lobster *Jasus edwardsii* larval retention by the Wairarapa Eddy off New Zealand. *Marine Ecology Progress Series* 183: 227–240.
- Chiswell, S.M.; Moore, M.I. (1999). Internal tides in the southwest Pacific Ocean near the Kermadec Ridge. *Journal of Physical Oceanography* 29: 1019–1035.
- Clark, M.R. (1999). Fisheries for orange roughy (*Hoplostethus atlanticus*) on seamounts in New Zealand. *Oceanologica Acta* 22(6): 593–602.
- Cole, R.G. (1999). Trophic relationships between fishes and benthic organisms on northeastern New Zealand reefs. *Vie et Milieu* 49(4): 201–212.
- Cole, R.G.; Syms, S. (1999). Using spatial patterns to distinguish causes of mortality: an example from kelp in northeast New Zealand. *Journal of Ecology* 87(6): 963–972.
- Collier, K.J.; Baillie, B.R. (1999). Decay state and orientation of *Pinus radiata* wood in streams and riparian areas of the central North Island. *New Zealand Journal of Forestry Science* 29(2): 225–235.
- Collier, K.J.; Champion, P.D.; Croker, G.F. (1999). Patch- and reach-scale dynamics of a macrophyte–invertebrate system in a New Zealand lowland stream. *Hydrobiologia* 392: 89–97.
- Connor, B.J.; Bodeker, G.E.; McKenzie, R.L.; Boyd, I.S. (1999). The total ozone anomaly at Lauder, New Zealand, in 1997. *Geophysical Research Letters* 26(2): 189–193.
- Cranfield, H.J.; Michael, K.P.; Doonan, I.J. (1999). Changes in the distribution of epifaunal reefs and oysters during 130 years of dredging for oysters in Foveaux Strait, southern New Zealand. *Aquatic Conservation: Marine and Freshwater Ecosystems* 9: 461–483.
- Currie, K.I.; Hunter, K.A. (1999). Seasonal variation of surface water CO<sub>2</sub> partial pressure in the Southland Current, east of New Zealand. *Marine and Freshwater Research* 50(5): 375–382.
- d'Hondt, J.-L.; Gordon, D.P. (1999). Entoproctes et Bryozoaires Cheilostomida (Pseudomalacostegomorpha et Cryptocystomorpha) des Campagnes MUSORSTOM autour de la Nouvelle Calédonie. In: Crosnier, A. (ed.) Résultats des Campagnes MUSORSTOM, Volume 20. *Mémoires du Muséum National d'Histoire Naturelle* 180: 169–251.

- Danilin, M.Y.; Rodriguez, J.M.; Hu, W.; Ko, M.K.W.; Weisenstein, D.K.; Kumer, J.B.; Mergenthaler, J.L.; Russell, J.M.; III; Koike, M.; Yue, G.K.; Jones, N.B.; Johnston, P.V. (1999). Nitrogen species in the post-Pinatubo stratosphere: model analysis utilizing UARS measurements. *Journal of Geophysical Research* 104(D7): 8247–8262.
- Davies-Colley, R.J.; Donnison, A.M.; Speed, D.J.; Ross, C.M.; Nagels, J.W. (1999). Inactivation of faecal indicator micro-organisms in waste stabilisation ponds: interactions of environmental factors with sunlight. *Water Research* 33(5): 1220–1230.
- Dean, T.L.; Richardson, J. (1999). Responses of seven species of native freshwater fish and a shrimp to low levels of dissolved oxygen. *New Zealand Journal of Marine and Freshwater Research* 33(1): 99–106.
- Dedual, M.; Jowett, I.G. (1999). Movement of rainbow trout (*Oncorhynchus mykiss*) during the spawning migration in the Tongariro River, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(1): 107–117.
- DeWitt, T.H.; Hickey, C.W.; Morrissey, D.J.; Nipper, M.G.; Roper, D.S.; Williamson, R.B.; Van Dam, L.; Williams, E.K. (1999). Do amphipods have the same concentration-response to contaminated sediment *in situ* as *in vitro*? *Environmental Toxicology and Chemistry* 18(5): 1026–1037.
- Diggles, B.K.; Carson, J.; Hine, P.M.; Hickman, R.W.; Tait, M.J. (1999). *Vibrio* species associated with mortalities in hatchery-reared turbot (*Colistium nudipinnis*) and brill (*C. guntheri*) in New Zealand. *Aquaculture* 183: 1–12.
- Dijkstra, L.H.; Jellyman, D.J. (1999). Is the subspecies classification of the freshwater eels *Anguilla australis australis* Richardson and *A. a. schmidtii* Phillipps still valid? *Marine and Freshwater Research* 50(2): 261–263.
- Dodds, W.K.; Biggs, B.J.F.; Lowe, R.L. (1999). Photosynthesis–irradiance patterns in benthic microalgae: variations as a function of assemblage thickness and community structure. *Journal of Phycology* 35: 42–53.
- Drury, J. (1999). Mapping and classification of marine habitats. *Hydro International* 3(6): 6–7.
- Duckworth, A.R.; Battershill, C.N.; Schiel, D.R.; Bergquist, P. (1999). Farming sponges for the production of bioactive metabolites. *Memoirs of the Queensland Museum* 44: 155–159.
- Duncan, M.J.; Suren, A.; Brown, S.L.R. (1999). Assessment of streambed stability in steep, bouldery streams: development of a new analytical technique. *Journal of the North American Benthological Society* 18(4): 445–456.
- El Sayed, K.; Mayer, A.M.S.; Kelly, M.; Hamann, M.T. (1999). The biocatalytic transformation of furan to amide in the marine natural anti-inflammatory antibacterial palinurin. *Journal of Organic Chemistry* 64(25): 9258–9260.
- Elliot, M.B. (1999). Modern pollen–vegetation relationships in Northland, New Zealand. *New Zealand Journal of Botany* 37: 131–148.
- Fasham, M.J.R.; Boyd, P.W.; Savidge, G. (1999). Modelling the relative contributions of autotrophs and heterotrophs to carbon flow at a Lagrangian JGOFS station in the Northeast Atlantic: the importance of DOC. *Limnology and Oceanography* 44(1): 80–94.
- Fisher, G.W. (1999). Natural levels of hydrogen sulphide in New Zealand. *Atmospheric Environment* 33(18): 3078–3079.
- Ford, R.B.; Thrush, S.F.; Probert, P.K. (1999). Macrobenthic colonisation of disturbances on an intertidal sandflat: the influence of season and buried algae. *Marine Ecology Progress Series* 191: 163–174.
- Francey, R.J.; Manning, M.R.; Allison, C.E.; Coram, S.A.; Etheridge, D.M.; Langenfelds, R.L.; Lowe, D.C.; Steele, L.P. (1999). A history of  $^{13}\text{C}$  in atmospheric  $\text{CH}_4$  from the Cape Grim air archive and Antarctic firn air. *Journal of Geophysical Research* 104(D19): 23,631–23,643.
- Francis, M.P.; Mulligan, K.P.; Davies, N.M.; Beentjes, M.P. (1999). Age and growth estimates for New Zealand hapuku, *Polyprion oxygeneios*. *Fishery Bulletin* 97(2): 227–242.
- Francis, M.P.; Ó Maolagáin, C. (1999). Age, growth and maturity of a New Zealand endemic shark (*Mustelus lenticulatus*) estimated from vertebral bands. *Marine and Freshwater Research* 51(1): 35–42.

- Francis, M.P.; Shallard, B. (1999). New Zealand shark fishery management. *FAO Fisheries Technical Paper* 378/2: 515–551.
- Francis, M.P.; Worthington, C.J.; Saul, P.J.; Clements, K.D. (1999). New and rare tropical and subtropical fishes from northern New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(4): 571–586.
- Francis, R.I.C.C. (1999). Optimum design for catch sampling of eels. *Marine and Freshwater Research* 50(4): 343–353.
- Francis, R.I.C.C.; Jellyman, D.J. (1999). Are mean size data adequate to monitor freshwater eel fisheries? *Marine and Freshwater Research* 50(4): 355–366.
- Francoeur, S.N.; Biggs, B.J.F.; Lowe, R.L. (1999). Inhibition of algae and invertebrates by malathion from insecticide-diffusing substrata. *Journal of Freshwater Ecology* 14(2): 179–186.
- Francoeur, S.N.; Biggs, B.J.F.; Smith, R.A.; Lowe, R.L. (1999). Nutrient limitation of algal biomass accrual in streams: seasonal patterns and a comparison of methods. *Journal of the North American Benthological Society* 18(2): 242–260.
- Fu, X.; Schmitz, F.J.; Kelly, M. (1999). Halisulfate 7, a new sesterterpene sulfate from the sponge *Coscinoderma* sp. (Order Dictyoceratida, Family Spongiidae). *Journal of Natural Products* 62: 1190–1191.
- Fu, X.; Schmitz, F.J.; Kelly, M. (1999). Swinholides and new acetylenic compounds from an undescribed species of *Theonella* (Order Astrophorida, Lithistid Family Theonellidae). *Journal of Natural Products* 62: 1336–1338.
- Fu, X.; Schmitz, F.J.; Kelly, M. (1999). Tamosterone sulfates: a C-14 epimeric pair of polyhydroxylated sterols from a new oceanapiid sponge genus (Order Haplosclerida, Family Oceanapiidae). *Journal of Organic Chemistry* 64: 6706–6709.
- Fujibe, F.; Saito, K.; Wratt, D.S.; Bradley, S.G. (1999). A numerical study on the diurnal variation of low-level wind in the lee of a two-dimensional mountain. *Journal of the Meteorological Society of Japan* 77(4): 827–843.
- Gall, M.; Hawes, I.; Boyd, P.W. (1999). Predicting rates of primary production in the vicinity of the Subtropical Convergence east of New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(3): 443–455.
- Gao, H.; Kelly, M.; Hamann, M.T. (1999). Bromotyrosine-derived metabolites from the sponge *Aiolochoia crassa*. *Tetrahedron* 55: 9717–9726.
- Gillanders, B.M.; Ferrell, D.J.; Andrew, N.L. (1999). Ageing methods for yellowtail kingfish (*Seriola lalandi*, Carangidae) and results from age- and size-based growth models. *Fishery Bulletin* 97: 812–827.
- Gillanders, B.M.; Ferrell, D.J.; Andrew, N.L. (1999). Size at maturity and seasonal changes in gonad activity of yellowtail kingfish (*Seriola lalandi*, Carangidae) in New South Wales, Australia. *New Zealand Journal of Marine and Freshwater Research* 33(3): 457–468.
- Gimson, N.R. (1999). Particulate pollution in Christchurch: a model for emission reduction planning. *New Zealand Science Review* 56(1–2): 17–25.
- Glasby, C.J. (1999). The Namanereidinae (Polychaeta: Nereididae). Part 1. Taxonomy and phylogeny. *Records of the Australian Museum, Supplement* 25: 1–129.
- Glasby, C.J. (1999). The Namanereidinae (Polychaeta: Nereididae). Part 2. Cladistic biogeography. *Records of the Australian Museum, Supplement* 25: 131–144.
- Glasby, C.J.; Alvarez, B. (1999). Distribution patterns and biogeographic analysis of austral Polychaeta (Annelida). *Journal of Biogeography* 26(3): 507–533.
- Glova, G.J. (1999). A test for competition between two *Gobiomorphus* species (Teleostei: Eleotridae) in artificial channels. *Ecology of Freshwater Fish* 8: 70–77.
- Glova, G.J. (1999). Cover preference tests of juvenile shortfinned eels (*Anguilla australis*) and longfinned eels (*A. dieffenbachii*) in replicate channels. *New Zealand Journal of Marine and Freshwater Research* 33(2): 193–204.
- Godley, B.J.; Thompson, D.R.; Furness, R.W. (1999). Do heavy metal concentrations pose a threat to marine turtles from the Mediterranean Sea? *Marine Pollution Bulletin* 38: 497–502.

- Gordon, D.P. (1999). Bryozoan diversity in New Zealand and Australia. In: Ponder, W.; Lunney, D. (eds). *The other 99%. The conservation and biodiversity of invertebrates*, pp. 32–37. Royal Zoological Society of New South Wales, Mosman, NSW.
- Gordon, D.P.; Taylor, P.D. (1999). Latest Paleocene to earliest Eocene bryozoans from Chatham Island, New Zealand. *Bulletin of the Natural History Museum, Geology Series* 55(1): 1–45.
- Gordon, D.P.; Wear, R.G. (1999). A new ctenostome bryozoan ectosymbiotic with terminal-moult paddle crabs (Portunidae) in New Zealand. *New Zealand Journal of Zoology* 26(4): 373–380.
- Goring, D.G.; Bell, R.G. (1999). El Niño and decadal effects on sea-level variability in northern New Zealand: a wavelet analysis. *New Zealand Journal of Marine and Freshwater Research* 33(4): 587–598.
- Gorman, R.M.; Neilson, C.G. (1999). Modelling shallow water wave generation and transformation in an intertidal estuary. *Coastal Engineering* 36: 197–217.
- Graynoth, E. (1999). Improved otolith preparation, ageing and back-calculation techniques for New Zealand freshwater eels. *Fisheries Research* 42(1–2): 137–146.
- Graynoth, E. (1999). Recruitment and distribution of juvenile salmonids in Lake Coleridge, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(2): 205–219.
- Green, J.D.; Boothroyd, I.K.G. (1999). Ann Chapman – inspirational limnologist (foreword). *New Zealand Journal of Marine and Freshwater Research* 33(3): 333–340.
- Green, M.O. (1999). Test of sediment initial-motion theories using irregular-wave field data. *Sedimentology* 46: 427–441.
- Green, M.O.; Black, K.P. (1999). Suspended-sediment reference concentration under waves: field observations and critical analysis of two predictive models. *Coastal Engineering* 38: 115–141.
- Grischenko, A.V.; Gordon, D.P.; Taylor, P.D. (1999). A unique new genus of cheilostomate bryozoan with reversed-polarity zooidal budding. *Asian Marine Biology* 15: 107–119.
- Guzzi, D.; Morandi, M.; Santacesaria, V.; Stefanutti, L.; Agostini, P.; Liley, B.; Wolf, J.P. (1999). Four years of stratospheric aerosol measurements in the northern and southern hemispheres. *Geophysical Research Letters* 26(14): 2199–2202.
- Hall, J.A.; James, M.R.; Bradford-Grieve, J.M. (1999). Structure and dynamics of the pelagic microbial food web of the subtropical convergence region east of New Zealand. *Aquatic Microbial Ecology* 20(1): 95–105.
- Hanchet, S.M. (1999). Stock structure of southern blue whiting (*Micromesistius australis*) in New Zealand waters. *New Zealand Journal of Marine and Freshwater Research* 33(4): 599–609.
- Harrison, P.J.; Boyd, P.W.; Varela, D.E.; Takeda, S.; Shiimoto, A.; Odate, T. (1999). Comparison of factors controlling phytoplankton productivity in the NE and NW Subarctic Pacific gyres. *Progress in Oceanography* 43(2–4): 205–234.
- Hawes, I.; Schwarz, A.-M. (1999). Photosynthesis in an extreme shade environment: benthic microbial mats from Lake Hoare: a permanently ice-covered Antarctic lake. *Journal of Phycology* 35(3): 448–459.
- Hawes, I.; Smith, R.; Howard-Williams, C.; Schwarz, A.-M. (1999). Environmental conditions during freezing, and response of microbial mats in ponds of the McMurdo Ice Shelf, Antarctica. *Antarctic Science* 11(2): 198–208.
- Hawes, I.; Smith, R.; Sutherland, D. (1999). Development of microbial mats on contaminated soils from the former site of Vanda Station, Antarctica. *New Zealand Natural Sciences* 24: 53–68.
- Hawkins, A.J.S.; James, M.R.; Hickman, R.W.; Hatton, S.; Weatherhead, M. (1999). Modelling of suspension-feeding and growth in the green-lipped mussel *Perna canaliculus* exposed to natural and experimental variations of seston availability in the Marlborough Sounds, New Zealand. *Marine Ecology Progress Series* 191: 217–232.
- Henderson, R.D.; Ibbitt, R.P.; Duncan, M.J. (1999). Cropp River: data to test concepts of channel network and river basin heterogeneity – data note. *Journal of Hydrology (NZ)* 38(2): 331–339.
- Henderson, R.D.; Thompson, S.M. (1999). Extreme rainfalls in the Southern Alps of New Zealand. *Journal of Hydrology (NZ)* 38(2): 309–330.

- Herman, J.R.; McKenzie, R.L. (lead authors) (1999). Ultraviolet radiation at the Earth's surface. In: Albritton, D.L.; Aucamp, P.J.; Megie, G.; Watson, R.T. (eds). Scientific assessment of ozone depletion: 1998, pp. 9.1–9.46. *WMO Global Ozone Research and Monitoring Project Report 44*. World Meteorological Organization, Geneva.
- Hickey, C.W.; Golding, L.A.; Martin, M.L.; Croker, G.F. (1999). Chronic toxicity of ammonia to New Zealand freshwater invertebrates: a mesocosm study. *Archives of Environmental Contamination and Toxicology* 37(3): 338–351.
- Hickey, C.W.; Martin, M.L. (1999). Chronic toxicity of ammonia to the freshwater bivalve *Sphaerium novaezelandiae*. *Archives of Environmental Contamination and Toxicology* 36(1): 38–46.
- Hickman, R.W.; Illingworth, J.; Foreman, J.; Kendrick, T.H. (1999). A pump-pot nursery system for rearing juvenile New Zealand dredge oysters *Tiostrea lutaria*. *Aquaculture Research* 30: 1–8.
- Hicks, D.M. (1999). A regionally applicable suspended sediment rating for the schist terrain in Otago. *Journal of Hydrology (NZ)* 38(1): 77–96.
- Hicks, D.M.; Hume, T.M.; Green, M.O.; Swales, A. (1999). Magnitudes, spatial extent, time scales and causes of shoreline change adjacent to an ebb tidal delta, Katikati Inlet, New Zealand. *Journal of Coastal Research* 15: 220–240.
- Hine, P.M. (1999). The inter-relationships of bivalve haemocytes. *Fish and Shellfish Immunology* 9: 367–385.
- Hofstra, D.E.; Clayton, J.S.; Champion, P.D.; Green, J.D. (1999). Distribution and density of vegetative propagules in the sediments of two New Zealand lakes. *Journal of Aquatic Plant Management* 37: 41–45.
- Holland, R.C.; Jeffs, A.G. (1999). The status of aquaculture in New Zealand. *Journal of World Aquaculture* 31(1): 24–27.
- Holomuzki, J.R.; Biggs, B.J.F. (1999). Distributional responses to flow disturbance by a stream-dwelling snail. *Oikos* 87(1): 36–47.
- Horn, P.L.; Hurst, R.J. (1999). Age and stock structure of gemfish (*Rexea solandri*) in New Zealand waters. *Marine and Freshwater Research* 50(2): 103–115.
- Howard-Williams, C. (1999). Science and commercialism in Antarctica. (guest editorial) *Antarctic Science* 11(2): 129.
- Howard-Williams, C.; Pickmere, S. (1999). Nutrient and vegetation changes in a retired pasture stream: recent monitoring in the context of a long-term dataset. *Science for Conservation No. 114*. Department of Conservation, Wellington. 81 p.
- Hudson, H.R.; McMillan, D.A.; Pearson, C.P. (1999). Quality assurance in hydrological measurement. *Hydrological Sciences Journal* 44(5): 825–834.
- Hunter, K.A.; Boyd, P.W. (1999). Biogeochemistry of trace metals in the ocean. *Marine and Freshwater Research* 50(8): 739–754.
- Hurst, A.W.; Turner, R. (1999). Performance of the program ASHFALL for forecasting ashfall during the 1995 and 1996 eruptions of Ruapehu volcano. *New Zealand Journal of Geology and Geophysics* 42: 615–622.
- Hurst, R.J.; Bagley, N.W.; McGregor, G.A.; Francis, M.P. (1999). Movements of the New Zealand school shark, *Galeorhinus galeus*, from tag returns. *New Zealand Journal of Marine and Freshwater Research* 33(1): 29–48.
- Ibbitt, R.P.; Willgoose, G.R.; Duncan, M.J. (1999). Channel network simulation models compared with data from the Ashley River, New Zealand. *Water Resources Research* 35(12): 3875–3890.
- Iwamoto, T.; McMillan, P.; Shcherbachev, Y.N. (1999). A new grenadier, genus *Caelorinchus*, from Australia and New Zealand (Pisces, Gadiformes, Macrouridae). *New Zealand Journal of Marine and Freshwater Research* 33(1): 49–54.
- Jeffs, A.G. (1999). The potential for developing controlled breeding in the Chilean oyster. *Aquaculture International* 7: 189–199.
- Jeffs, A.G.; Hickman, B. (1999). Reproductive activity in a pre-epizootic wild population of the Chilean oyster, *Ostrea chilensis*, from southern New Zealand. *Aquaculture* 183: 241–254.



- Jefferies, A.G.; Holland, R.C.; Hooker, S.H.; Hayden, B.J. (1999). Overview and bibliography of research on the greenshell mussel *Perna canaliculus* from New Zealand waters. *Journal of Shellfish Research* 18(2): 347–360.
- Jefferies, A.G.; Hooker, S.H. (1999). Economic feasibility of aquaculture of spiny lobsters in temperate waters. *Journal of World Aquaculture* 31(1): 30–41.
- Jefferies, A.G.; Willmott, M.E.; Wells, R.M.G. (1999). The use of energy stores in the puerulus of the spiny lobster *Jasus edwardsii* across the continental shelf of New Zealand. *Comparative Biochemistry and Physiology Part A* 123: 351–357.
- Jellyman, D.J.; Chisnall, B.L. (1999). Habitat preferences of shortfinned eels (*Anguilla australis*) in two New Zealand lowland lakes. *New Zealand Journal of Marine and Freshwater Research* 33(2): 233–248.
- Jellyman, D.J.; Chisnall, B.L.; Bonnett, M.L.; Sykes, J.R.E. (1999). Seasonal arrival patterns of juvenile freshwater eels (*Anguilla* spp.) in New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(2): 249–261.
- Jones, P.D.; Salinger, M.J.; Mullan, A.B. (1999). Extratropical circulation indices in the Southern Hemisphere based on station data. *International Journal of Climatology* 19: 1301–1317.
- Judd, M.J.; Kelliher, F.M.; Ulyatt, M.J.; Lassey, K.R.; Tate, K.R.; Shelton, I.D.; Harvey, M.J.; Walker, C.F. (1999). Net methane emissions from grazing sheep. *Global Change Biology* 5: 647–657.
- Katz, R.W.; Zheng, X. (1999). Mixture model for overdispersion of precipitation. *Journal of Climate* 12(8, part 2): 2528–2537.
- Kelly, S.; MacDiarmid, A.B.; Babcock, R.C. (1999). Characteristics of spiny lobster, *Jasus edwardsii*, aggregations in exposed reef and sandy areas. *Marine and Freshwater Research* 50(5): 409–416.
- Kidson, J.W. (1999). Principal modes of Southern Hemisphere low-frequency variability obtained from NCEP-NCAR reanalyses. *Journal of Climate* 12(9): 2808–2830.
- Kidson, J.W.; Watterson, I.G. (1999). The structure and predictability of the “high-latitude mode” in the CSIRO9 general circulation model. *Journal of the Atmospheric Sciences* 56: 3859–3873.
- Koike, M.; Kondo, Y.; Matthews, W.A.; Johnston, P.V.; Nakajima, H.; Kawaguchi, A.; Nakane, H.; Murata, I.; Budiyo, A.; Kanada, M.; Toriyama, N. (1999). Assessment of the uncertainties in the NO<sub>2</sub> and O<sub>3</sub> measurements by visible spectrometers. *Journal of Atmospheric Chemistry* 32: 121–145.
- Kossmann, M.; Corsmeier, U.; de Wekker, S.F.J.; Fiedler, F.; Vögtlin, R.; Kalthoff, N.; Güsten, H.; Neining, B. (1999). Observations of handover processes between the atmospheric boundary layer and the free troposphere over mountainous terrain. *Contributions to Atmospheric Physics* 72: 329–350.
- Kovac, V.; Copp, G.H.; Francis, M.P. (1999). Morphometry of the stone loach, *Barbatula barbatula*: do mensural characters reflect the species’ life history thresholds? *Environmental Biology of Fishes* 56: 105–115.
- Kreher, K.; Bodeker, G.E.; Kanzawa, H.; Nakane, H.; Sasano, Y. (1999). Ozone and temperature profiles measured above Kiruna inside, at the edge of, and outside the Arctic polar vortex in February and March 1997. *Geophysical Research Letters* 26(6): 715–718.
- Kurylo, M.J.; Rodríguez, J.M. (lead authors, plus 31 coauthors and contributors including Matthews, W.A.) (1999). Short-lived ozone-related compounds. In: Albritton, D.L.; Aucamp, P.J.; Megie, G.; Watson, R.T. (eds). Scientific assessment of ozone depletion: 1998, pp. 2.1–2.56. *WMO Global Ozone Research and Monitoring Project Report 44*. World Meteorological Organization, Geneva.
- Laing, A.K.; Challenor, P.G. (1999). Estimation of mean dynamic height from altimeter profiles and hydrography. *Journal of Atmospheric and Oceanic Technology* 16(11): 1873–1879.
- Laing, A.K.; Reid, S.J. (1999). Evidence of mesoscale lows off the west coast of New Zealand. *Weather and Forecasting* 14(3): 369–383.

- Lamont, G.N.; Chinn, T.J.H.; Fitzharris, B.B. (1999). Slopes of glacier snowlines in the Southern Alps of New Zealand in relation to atmospheric circulation patterns. *Global and Planetary Change* 22: 209–219.
- Lewis, K.B.; Barnes, P.M. (1999). Kaikoura Canyon, New Zealand: active conduit from near-shore sediment zones to trench-axis channel. *Marine Geology* 162(1): 39–69.
- Li, C.J.; Schmitz, F.J.; Kelly, M. (1999). Aurantoside C, a new tetramic acid glycoside from the lithistid sponge *Manihinea conferta*. *Journal of Natural Products* 62: 170–172.
- Li, C.J.; Schmitz, F.J.; Kelly, M. (1999). New nitrogenous bisabolene-type sesquiterpenes from a Micronesian marine sponge, *Axinyssa* sp. *Journal of Natural Products* 62: 1330–1332.
- Li, G.J.; Schmitz, F.J.; Kelly, M. (1999). Six new spongian diterpenes from *Spongia matamata*. *Journal of Natural Products* 62: 287–290.
- Logan, J.A.; Megretskaia, I.A.; Miller, A.J.; Tiao, G.C.; Choi, D.; Zhang, L.; Stolarski, R.S.; Labow, G.J.; Hollandsworth, S.M.; Bodeker, G.E.; Claude, H.; DeMuer, D.; Kerr, J.B.; Tarasick, D.W.; Oltmans, S.J.; Johnson, B.; Schmidlin, F.; Staehelin, J.; Viatte, P.; Uchino, O. (1999). Trends in the vertical distribution of ozone: a comparison of two analyses of ozonesonde data. *Journal of Geophysical Research* 104(D21): 26,373–26,399.
- Lowe, D.C.; Allan, W.; Manning, M.R.; Bromley, A.M.; Brailsford, G.W.; Ferretti, D.F.; Gomez, A.; Knoben, R.K.; Martin, R.M.; Mei, Z.; Moss, R.; Koshy, K.; Maarta, M. (1999). Shipboard determinations of the distribution of  $^{13}\text{C}$  in atmospheric methane in the Pacific. *Journal of Geophysical Research* 104(D21): 26,125–26,135.
- MacDiarmid, A.B.; Butler, M.J. (1999). Sperm economy and limitation in spiny lobsters. *Behavioral Ecology and Sociobiology* 46: 114–124.
- MacDiarmid, D.R.; Wright, A.N.; Allan, W. (1999). Time-limited excitation of damped field-line resonances: implications for satellite observations. *Journal of Geophysical Research* 104(A8): 17,409–17,417.
- Macky, G.H. (1999). Large flume experiments on the stable straight gravel bed channel. *Water Resources Research* 35(8): 2601–2603.
- Madden, R.A.; Shea, D.J.; Katz, R.W.; Kidson, J.W. (1999). The potential long-range predictability of precipitation over New Zealand. *International Journal of Climatology* 19: 405–421.
- Manighetti, B.; Carter, L. (1999). Across-shelf sediment dispersal, Hauraki Gulf, New Zealand. *Marine Geology* 160(3–4): 271–300.
- Manly, B.F.J.; Francis, R.I.C.C. (1999). Analysis of variance by randomization when variances are unequal. *Australian and New Zealand Journal of Statistics* 41(4): 411–429.
- Manning, M.R. (1999). Characteristic modes of isotopic variations in atmospheric chemistry. *Geophysical Research Letters* 26(9): 1263–1266.
- Marsden, I.D.; Weatherhead, M.A. (1999). Shore-level induced variations in condition and feeding of the mussel *Perna canaliculus* from the east coast of the South Island, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(4): 611–622.
- Masce, J.; Huguen, C.; Benkhelil, J.; Chamot-Rooke, N.; Chaumillon, E.; Foucher, J.P.; Griboulard, R.; Kopf, A.; Lamarche, G.; Volkonskaia, A.; Woodside, J.; Zitter, T. (1999). Images may show start of European–Africa plate collision. *EOS, Transactions of the American Geophysical Union* 80(37): 421, 425, 428.
- McBride, G.B. (1999). Equivalence tests can enhance environmental science and management. *Australian and New Zealand Journal of Statistics* 41(1): 19–29.
- McClatchie, S.; Macaulay, G.; Coombs, R.F.; Grimes, P.; Hart, A. (1999). Target strength of an oily deep-water fish, orange roughy (*Hoplostethus atlanticus*): I. Experiments. *Journal of the Acoustical Society of America* 106(1): 131–142.
- McDowall, R.M. (1999). Caudal skeleton in *Galaxias* and allied genera (Teleostei: Galaxiidae). *Copeia* 1999(4): 932–939.
- McDowall, R.M. (1999). Diadromy and genetic diversity in Nearctic and Palaearctic freshwater fishes. *Molecular Ecology* 8: 527–528.
- McDowall, R.M. (1999). Different kinds of diadromy: different kinds of conservation problems. *ICES Journal of Marine Science* 56(4): 410–412.

- McDowall, R.M. (1999). Driven by diadromy: its role in the historical and ecological biogeography of the New Zealand freshwater fish fauna. *Italian Journal of Zoology* 65(suppl. 5): 73–85.
- McDowall, R.M. (1999). Further feral poeciliid fish in New Zealand fresh waters, with a key to species. *New Zealand Journal of Marine and Freshwater Research* 33(4): 673–682.
- McDowall, R.M.; Chadderton, W.L. (1999). *Galaxias gollumoides* (Teleostei: Galaxiidae), a new species of *Galaxias* from Stewart Island, with notes on other non-migratory fishes present on the island. *Journal of the Royal Society of New Zealand* 29(1): 77–88.
- McDowall, R.M.; Kelly, G.R. (1999). Date and age at migration in juvenile giant kokopu, *Galaxias argenteus* (Gmelin) (Teleostei: Galaxiidae) and estimation of spawning season. *New Zealand Journal of Marine and Freshwater Research* 33(2): 263–270.
- McInerney, J.O.; Adams, C.L.; Kelly, M. (1999). Phylogenetic resolution potential of 18S and 28S rRNA genes within the lithistid Astrophorida. *Memoirs of the Queensland Museum* 44: 343–352.
- McKenzie, R.L.; Connor, B.J.; Bodeker, G.E. (1999). Increased summertime UV observed in New Zealand in response to ozone loss. *Science* 285(5434): 1709–1711.
- McMillan, P.J. (1999). New grenadier fishes of the genus *Coryphaenoides* (Pisces: Macrouridae); one from off New Zealand and one widespread in the southern Indo-West Pacific and Atlantic Oceans. *New Zealand Journal of Marine and Freshwater Research* 33(3): 481–489.
- Melhuish, A.; Sutherland, R.; Davey, F.J.; Lamarche, G. (1999). Crustal structure and neotectonics of the Puysegur oblique subduction zone, New Zealand. *Tectonophysics* 313(4): 335–362.
- Mendelssohn, I.A.; Sorrell, B.K.; Brix, H.; Schierup, H.-H.; Lorenzen, B.; Maltby, E. (1999). Controls on soil cellulose decomposition along a salinity gradient in a *Phragmites australis* wetland in Denmark. *Aquatic Botany* 64: 381–398.
- Millar, R.B.; McArdle, B.H.; Harley, S.J. (1999). Modeling the size of snapper (*Pagrus auratus*) using temperature-modified growth curves. *Canadian Journal of Fisheries and Aquatic Sciences* 56: 1278–1284.
- Miller, K.J.; Bradford-Grieve, J.M.; Jillett, J.B. (1999). Genetic relationship between winter deep-dwelling and spring surface-dwelling female *Neocalanus tonsus* in the Southern Ocean. *Marine Biology* 134(1): 99–106.
- Moore, S.J.; Allibone, R.M.; Townsend, C.R. (1999). Spawning site selection by two galaxiid fishes, *Galaxias anomalus* and *G. depressiceps*, in tributaries of the Taieri River, South Island, New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(1): 129–139.
- Morrisey, D.J.; DeWitt, T.H.; Roper, D.S.; Williamson, R.B. (1999). Variation in the depth and morphology of burrows of the mud crab *Helice crassa* among different types of intertidal sediment in New Zealand. *Marine Ecology Progress Series* 182: 231–242.
- Mosley, M.P.; Jowett, I. (1999). River morphology and management in New Zealand. *Progress in Physical Geography* 23(4): 541–565.
- Moss, G.A. (1999). Factors affecting settlement and early post-settlement survival of the New Zealand abalone *Haliotis australis*. *New Zealand Journal of Marine and Freshwater Research* 33(2): 271–278.
- Moss, G.A.; Tong, L.J.; Illingworth, J. (1999). Effects of light intensity and food density on the growth and survival of early-stage phyllosoma larvae of the rock lobster *Jasus edwardsii*. *Marine and Freshwater Research* 50(2): 129–134.
- Mountfort, D.O.; Kaspar, H.; Asher, R.A.; Downes, M. (1999). Partitioning effects during terminal carbon and electron flow in sediments of a low salinity meltwater pond near Bratina Island, McMurdo Ice Shelf, Antarctica. *Applied Environmental Microbiology* 65: 5493–5499.
- Munro, M.H.G.; Blunt, J.W.; Dumdei, T.V.; Hickford, S.J.H.; Lill, R.E.; Li, S.; Battershill, C.N.; Duckworth, A.R. (1999). The discovery and development of marine compounds with pharmaceutical potential. *Journal of Biotechnology* 70: 15–25.
- Nadeau, T.L.; Howard-Williams, C.; Castenholz, R.W. (1999). Effects of solar UV and visible irradiance on photosynthesis and vertical migration of *Oscillatoria* sp. (Cyanobacteria) in an Antarctic microbial mat. *Aquatic Microbial Ecology* 20: 231–243.
- Nikora, V.I. (1999). Origin of the “–1” spectral law in wall-bounded turbulence. *Physical Review Letters* 83: 734–737.

- Nikora, V.I.; Goring, D.G. (1999). Closure on "ADV measurements of turbulence: can we improve their interpretation?" *Journal of Hydraulic Engineering (ASCE)* 125(9): 987–988.
- Nikora, V.I.; Goring, D.G. (1999). On the relationship between Kolmogorov's and generalised structure functions in the inertial subrange of developed turbulence. *Journal of Physics A: Mathematical and General* 32: 4963–4969.
- Nikora, V.I.; Pearson, C.P.; Shankar, U. (1999). Scaling properties in landscape patterns: New Zealand experience. *Landscape Ecology* 14(1): 17–33.
- Nodder, S.D.; Alexander, B.L. (1999). The effects of multiple trap spacing, baffles and brine volume on sediment trap collection efficiency. *Journal of Marine Research* 57: 537–559.
- Opdyke, B.N.; Smith, S.V.; Eyre, B.; Heggie, D.T.; Skyring, G.G.; Crossland, C.J.; Zeldis, J.R. (1999). Australian coastal systems overview. In: Smith, S.V.; Crossland, C.J. (ed.). Australasian estuarine systems: carbon, nitrogen and phosphorus fluxes. *LOICZ Reports & Studies No. 12*, pp. 125–128.
- Plummer, N.; Salinger, M.J.; Nicholls, N.; Suppiah, R.; Hennessy, K.J.; Leighton, R.M.; Trewin, B.; Page, C.M.; Lough, J.M. (1999). Changes in climate extremes over the Australian region and New Zealand during the twentieth century. *Climate Change* 42(1): 183–202.
- Pougatchev, N.S.; Sasche, G.W.; Fuelberg, H.E.; Rinsland, C.P.; Chatfield, R.B.; Connors, V.S.; Jones, N.B.; Notholt, J.; Novelli, P.C.; Reichle, H.G. (1999). Pacific Exploratory Mission–Tropics carbon monoxide measurements in historical context. *Journal of Geophysical Research* 104(D21): 26,195–26,207.
- Prause, A.R.; Scourfield, M.W.J.; Bodeker, G.E.; Diab, R.D. (1999). Surface UV-B irradiance and total column ozone measurements during 1994 at SANAE, Antarctica. *South African Journal of Science* 95(1): 26–30.
- Prinn, R.G.; Zander, R. (lead authors, plus 30 coauthors and contributors including Jones, N.B.) (1999). Long-lived ozone-related compounds. In: Albritton, D.L.; Aucamp, P.J.; Megie, G.; Watson, R.T. (eds). Scientific assessment of ozone depletion: 1998, pp. 1.1–1.54. *WMO Global Ozone Research and Monitoring Project Report 44*. World Meteorological Organization, Geneva.
- Read, G.B.; Clark, H.E.S. (1999). Ingestion of quill-worms by the astropectinid sea-star *Proserpinaster neozelanicus* (Mortensen). *New Zealand Journal of Zoology* 26: 49–54.
- Renwick, J.A.; Katzfey, J.J.; McGregor, J.L.; Nguyen, K.C. (1999). On regional models of climate change over New Zealand. *Weather and Climate* 19: 3–14.
- Renwick, J.A.; Revell, M.J. (1999). Blocking over the South Pacific and Rossby wave propagation. *Monthly Weather Review* 127(10): 2233–2247.
- Rinsland, C.P.; Goldman, A.; Murcray, F.J.; Stephen, T.M.; Pougatchev, N.S.; Fishman, J.; David, S.J.; Blatherwick, R.D.; Novelli, P.C.; Jones, N.B.; Connor, B.J. (1999). Infrared solar spectroscopic measurements of free tropospheric CO, C<sub>2</sub>H<sub>6</sub>, and HCN above Mauna Loa, Hawaii: seasonal variations and evidence for enhanced emissions from the Southeast Asian tropical fires of 1997–1998. *Journal of Geophysical Research* 104(D15): 18,667–18,680.
- Rodda, H.J.E.; Demuth, S.; Shankar, U. (1999). The application of a GIS-based decision support system to predict nitrate leaching to groundwater in southern Germany. *Hydrological Sciences Journal* 44(2): 221–236.
- Rodda, H.J.E.; Shankar, U.; Demuth, S. (1999). The application of geographical information systems to water quality modelling in New Zealand. In: Diekkruieger, B.; Kirby, M.J.; Schroeder, U. (eds). Regionalization in hydrology, pp. 243–251. *IAHS Publication No. 254*. Wallingford, UK.
- Roscoe, H.K.; Johnston, P.V. (and 40 others). (1999). Slant column measurements of O<sub>3</sub> and NO<sub>2</sub> during the NDSC intercomparison of zenith-sky UV-visible spectrometers in June 1996. *Journal of Atmospheric Chemistry* 32(2): 281–314.
- Rowe, D.K. (1999). Factors influencing the abundance of the common bully, *Gobiomorphus cotidianus*, McDowall, in small, North Island, New Zealand, lakes. *Fisheries Management and Ecology* 6: 377–386.

- Rowe, D.K.; Chisnall, B.L.; Dean, T.L.; Richardson, J. (1999). Effects of land use on native fish communities in east coast streams of the North Island of New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(1): 141–151.
- Rutherford, J.C.; Davies-Colley, R.J.; Quinn, J.M.; Stroud, M.J.; Cooper, A.B. (1999). Stream shade: towards a restoration strategy. Department of Conservation, Wellington. 161 p.
- Safi, K.A.; Hall, J.A. (1999). Mixotrophic and heterotrophic nanoflagellate grazing in the convergence zone east of New Zealand. *Aquatic Microbial Ecology* 20(1): 83–93.
- Sagar, P.M.; Geddes, D. (1999). Dispersal of South Island pied oystercatchers (*Haematopus ostralegus finschi*) from an inland breeding area of New Zealand. *Notornis* 46: 89–99.
- Sagar, P.M.; Shankar, U.; Brown, S. (1999). Distribution and number of waders in New Zealand, 1983–1994. *Notornis* 46: 1–43.
- Sagar, P.M.; Stahl, J.C.; Molloy, J.; Taylor, G.A.; Tennyson, A.J.D. (1999). Population size and trends within the two populations of southern Buller's albatross *Diomedea bulleri bulleri*. *Biological Conservation* 89:11–19.
- Salinger, M.J.; Mullan, A.B. (1999). New Zealand climate: temperature and precipitation variations and their links with atmospheric circulation 1930–1994. *International Journal of Climatology* 19: 1049–1071.
- Sanders, R.W.; Solomon, S.; Kreher, K.; Johnston, P.V. (1999). An intercomparison of NO<sub>2</sub> and OClO measurements at Arrival Heights, Antarctica during austral spring 1996. *Journal of Atmospheric Chemistry* 33(3): 283–298.
- Sansom, J. (1999). Large-scale spatial variability of rainfall through hidden semi-Markov models of breakpoint data. *Journal of Geophysical Research* 104(D24): 31,631–31,643.
- Scarsbrook, M.R.; Halliday, J. (1999). Transition from pasture to native forest land-use along stream continua: effects on stream ecosystems and implications for restoration. *New Zealand Journal of Marine and Freshwater Research* 33(2): 293–310.
- Schallenberg, M.; James, M.; Hawes, I.; Howard-Williams, C. (1999). External forcing by wind and turbid inflows on a deep glacial lake and implications for primary production. *New Zealand Journal of Marine and Freshwater Research* 33(2): 311–331.
- Schwarz, A.-M.; Hawes, I.; Howard-Williams, C. (1999). Mechanisms underlying the decline and recovery of a characean community in fluctuating light in a large oligotrophic lake. *Australian Journal of Botany* 47: 325–336.
- Schwarz, A.-M.; Snelder, T. (1999). Integrated submerged aquatic vegetation management in an urban New Zealand river. *Hydrobiologia* 415: 235–241.
- Sedwick, P.N.; DiTullio, G.R.; Hutchins, D.A.; Boyd, P.W.; Griffiths, F.B.; Crossley, A.C.; Trull, T.W.; Quéguiner, B. (1999). Limitation of algal growth by iron deficiency in the Australian subantarctic region. *Geophysical Research Letters* 26(18): 2865–2868.
- Sievering, H.; Lerner, B.; Slavich, J.; Anderson, J.; Cainey, J.M. (1999). O<sub>3</sub> oxidation of SO<sub>2</sub> in sea-salt aerosol water and the size distribution of non-sea-salt sulfate during ACE-1. *Journal of Geophysical Research* 104(D17): 21,719–21,731.
- Smart, G.M. (1999). Coefficient of friction for flow resistance in alluvial channels with granular beds. *Water Maritime and Energy* 136(4): 205–210.
- Smart, G.M. (1999). Turbulent velocity profiles and boundary shear in gravel bed rivers. *Journal of Hydraulic Engineering* 125(2): 106–116.
- Smith, P.J. (1999). Allozyme variation in scampi (*Metanephrops challengerii*) fisheries around New Zealand. *New Zealand Journal of Marine and Freshwater Research* 33(3): 491–497.
- Smith, P.J. (1999). Genetic resources and fisheries: policy aspects. In: Pullin, R.S.V.; Bartley, D.M.; Kooiman, J. (eds). Towards policies for conservation and sustainable use of aquatic genetic resources, pp. 43–62. *ICLARM Conference Proceedings* 59 [from the conference in Bellagio, Italy, April 1998]. ICLARM, Manila.
- Sokolov, S.; Black, K.P. (1999). Long-term prediction of water quality for three types of catchment. *Marine and Freshwater Research* 50(6): 493–501.
- Sorrell, B.K. (1999). Effect of external oxygen demand on radial oxygen loss by *Juncus* roots in titanium citrate solutions. *Plant, Cell and Environment* 22: 1587–1593.

- Sorrell, B.K.; Partridge, T. (1999). Conservation values and management of the Kongahu Swamp, Buller District. *Science for Conservation No. 124*. Department of Conservation, Wellington. 49 p.
- Stanton, B.R. (1998). Ocean surface winds off the west coast of New Zealand: a comparison of ocean buoy, ECMWF model, and land-based data. *Journal of Atmospheric and Ocean Technology* 15: 1164–1170.
- Stevens, C.L. (1999). Internal waves in a small reservoir. *Journal of Geophysical Research* 104(C7): 15,777–15,788.
- Stevens, C.L.; Poulter, E.M.; Smith, M.J.; McGregor, J.A. (1999). Nonlinear features in wave-resolving microwave radar observations of ocean waves. *IEEE Journal of Oceanic Engineering* 24(4): 470–480.
- Stewart, J.; Ferrell, D.J.; Andrew, N.L. (1999). Validation of the formation and appearance of annual marks in the otoliths of yellowtail (*Trachurus novaezelandiae*) and blue mackerel (*Scomber australasicus*) in New South Wales. *Marine and Freshwater Research* 50(5): 389–395.
- Stoffers, P.; Hannington, M.; Wright, I.C.; Herzig, P.; de Ronde, C.; Shipboard Scientific Party (1999). Elemental mercury at submarine hydrothermal vents in the Bay of Plenty, Taupo volcanic zone, New Zealand. *Geology* 27(10): 931–934.
- Stoffers, P.; Wright, I.C.; de Ronde, C.; Hannington, M.; Herzig, P.; Villinger, H.; Shipboard Party (1999). Little-studied arc-backarc system in the spotlight. *EOS, Transactions of the American Geophysical Society* 80(32): 353–359.
- Stone, P.J.; Sorensen, I.B.; Jamieson, P.D. (1999). Effect of soil temperature on phenology, canopy development and yield of cool-temperate maize. *Field Crops Research* 63: 169–178.
- Suren, A.M.; Duncan, M.J. (1999). Rolling stones and mosses: the effect of substrate stability on bryophyte communities in streams. *Journal of the North American Benthological Society* 18(4): 457–467.
- Tanner, C.C.; D'Eugenio, J.; McBride, G.B.; Sukias, J.P.S.; Thompson, K. (1999). Effect of water level fluctuation on nitrogen removal from constructed wetland mesocosms. *Ecological Engineering* 12(1–2): 67–92.
- Tanner, C.C.; Raisin, G.; Ho, G.E. (1999). Constructed and natural wetlands for pollution control. (guest editorial). *Ecological Engineering* 12(1–2): 1–3.
- Tanner, C.C.; Sukias, J.P.S.; Upsdell, M.P. (1999). Substratum phosphorus accumulation during maturation of gravel-bed constructed wetlands. *Water Science and Technology* 40(3): 147–154.
- Thompson, D.R.; Dowding, J.E. (1999). Site-specific heavy metal concentrations in blood of South Island pied oystercatchers *Haematopus ostralegus finschi* from the Auckland region, New Zealand. *Marine Pollution Bulletin* 38: 202–206.
- Thompson, D.R.; Lilliendahl, K.; Solmundsson, J.; Furness, R.W.; Waldron, S.; Phillips, R.A. (1999). Trophic relationships among six species of Icelandic seabirds as determined through stable isotope analysis. *Condor* 101: 898–903.
- Thrush, S.F.; Lawrie, S.M.; Hewitt, J.E.; Cummings, V.J. (1999). The problem of scale: uncertainties and implications for soft-bottom marine communities and the assessment of human impacts. In: Gray, J.S.; Ambrose, W.G.; Szaniawska, A. (eds). *Biogeochemical cycling and sediment ecology*, pp. 195–210. *NATO ASI Series*. Kluwer Academic, Dordrecht.
- Tian, Y.Q.; McCall, D.G.; McMillan, W.H. (1999). The potential for use of surplus dairy herd reproductive capacity for beef production. *New Zealand Journal of Agricultural Research* 42: 405–414.
- Tracey, D.M.; Horn, P.L. (1999). Background and review of ageing orange roughy (*Hoplostethus atlanticus*, Trachichthyidae) from New Zealand and elsewhere. *New Zealand Journal of Marine and Freshwater Research* 33(1): 67–86.
- Turner, R.W.; Song, Y.-H.; Uhm, K.-B. (1999). Numerical model simulations of brown planthopper *Nilaparvata lugens* and white-backed planthopper *Sogatella furcifera* (Hemiptera: Delphacidae) migration. *Bulletin of Entomological Research* 89: 557–568.
- Turner, S.J.; Thrush, S.F.; Hewitt, J.E.; Cummings, V.J.; Funnell, G. (1999). Fishing impacts and the degradation or loss of habitat structure. *Fisheries Management and Ecology* 6: 401–420.

- Tyler, S.C.; Klouda, G.A.; Brailsford, G.W.; Manning, A.C.; Conny, J.M.; Jull, A.J.T. (1999). Seasonal snapshots of the isotopic ( $^{14}\text{C}$ ,  $^{13}\text{C}$ ) composition of tropospheric carbon monoxide at Niwot Ridge, Colorado. *Chemosphere: Global Change Science* 1: 185–203.
- Uddstrom, M.J.; Andrews, P.L.F.; Mullan, A.B.; Bhaskaran, B. (1999). Parallel computing at the National Institute of Water and Atmospheric Research (NIWA). In: Jasper, J.D.; Meighen, P.J. (eds). Parallel computing in meteorology and oceanography. *BMRC Research Report* 75: 105–110.
- Uddstrom, M.J.; Gray, W.R.; Murphy, R.; Oien, N.A.; Murray, T. (1999). A Bayesian cloud mask for sea surface temperature retrieval. *Journal of Atmospheric and Oceanic Technology* 16: 117–132.
- Uddstrom, M.J.; Oien, N.A. (1999). On the use of high-resolution satellite data to describe the spatial and temporal variability of sea surface temperatures in the New Zealand region. *Journal of Geophysical Research* 104(C9): 20,729–20,751.
- Ulyatt, M.J.; Baker, S.K.; McCrabb, G.J.; Lassey, K.R. (1999). Accuracy of  $\text{SF}_6$  tracer technology and alternatives for field measurements. *Australian Journal of Agricultural Research* 50: 1329–1334.
- Unwin, M.J.; Kinnison, M.T.; Quinn, T.P. (1999). Exceptions to semelparity: postmaturation survival, morphology, and energetics of male chinook salmon (*Oncorhynchus tshawytscha*). *Canadian Journal of Fisheries and Aquatic Sciences* 56: 1172–1181.
- Van Nes, E.H.; van den Berg, M.S.; Clayton, J.S.; Coops, H.; Scheffer, M.; van Ierland, E. (1999). A simple model for evaluating the costs and benefits of aquatic macrophytes. *Hydrobiologia* 415: 335–339.
- Waugh, S.M.; Prince, P.A.; Weimerskirch, H. (1999). Geographical variation in morphometry of black-browed and grey-headed albatrosses from four sites. *Polar Biology* 22: 189–194.
- 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.; Moore, P.J.; Sagar, P.M. (1999). Population dynamics of black-browed and grey-headed albatrosses *Diomedea melanophrys* and *D. chrysostoma* at Campbell Island, New Zealand, 1942–96. *Ibis* 141: 216–225.
- Wells, R.D.S.; Hall, J.A.; Clayton, J.S.; Champion, P.D.; Payne, G.W.; Hofstra, D.E. (1999). The rise and fall of water net (*Hydrodictyon reticulatum*) in New Zealand. *Journal of Aquatic Plant Management* 38: 49–54.
- West, L.M.; Northcote, P.T.; Battershill, C.N. (1999). Peloruside A: a potent cytotoxic macrolide isolated from the New Zealand marine sponge *Mycale* sp. *Journal of Organic Chemistry* 65: 445–449.
- Wilcock, R.J.; Champion, P.D.; Nagels, J.W.; Croker, G.F. (1999). The influence of aquatic macrophytes on the hydraulic and physico-chemical properties of a New Zealand lowland stream. *Hydrobiologia* 416: 203–214.
- Wilcock, R.J.; Nagels, J.W.; Rodda, H.J.E.; O'Connor, M.B.; Thorrold, B.S.; Barnett, J.W. (1999). Water quality of a lowland stream in a New Zealand dairy farming catchment. *New Zealand Journal of Marine and Freshwater Research* 33(4): 683–696.
- Williams, E.K.; Hall, J.A. (1999). Seasonal and geographic variability in toxicant sensitivity of *Mytilus galloprovincialis* larvae. *Australasian Journal of Ecotoxicology* 5(1): 1–10.
- Williamson, R.B.; Wilcock, R.J.; Wise, B.E.; Pickmere, S.E. (1999). The effect of burrowing by the crab *Helice crassa* Dana on the sediment chemistry in intertidal sediments. *Environmental Toxicology and Chemistry* 18(9): 2078–2086.
- Wilson, G.D.F.; Fenwick, G.D. (1999). Taxonomy and ecology of *Phreatoicus typicus* Chilton, 1883 (Crustacea, Isopoda, Phreatoicidae). *Journal of the Royal Society of New Zealand* 29: 41–64.
- Woods, R.A.; Sivapalan, M. (1999). A synthesis of space–time variability in storm response: rainfall, runoff generation, and routing. *Water Resources Research* 35: 2469–2485.
- Wright, A.N.; Allan, W.; Elphinstone, R.D.; Cogger, L.L. (1999). Phase mixing and phase motion of Alfvén waves on tail-like and dipole-like magnetic field lines. *Journal of Geophysical Research* 104(A5): 10,159–10,176.

- Wright, I.C.; Gamble, J.A. (1999). Southern Kermadec submarine caldera arc volcanoes (SW Pacific): caldera formation by effusive and pyroclastic eruption. *Marine Geology* 161(2–4): 207–227.
- Young, R.G.; Huryn, A.D. (1999). Effects of land-use on stream metabolism and organic matter turnover. *Ecological Applications* 9: 1259–1376.
- Zeldis, J.R.; Smith, S.V. (1999). Water, salt and nutrient budgets for Hauraki Gulf, New Zealand. In: Smith, S.V.; Crossland, C.J. (ed.). Australasian estuarine systems: carbon, nitrogen and phosphorus fluxes. *LOICZ Reports & Studies No 12*, pp. 91–97.
- Zheng, X.; Basher, R.E. (1999). Structural time series models and trend detection in global and regional temperature series. *Journal of Climate* 12: 2347–2358.
- Zheng, X.; Frederiksen, C.S. (1999). Validating interannual variability in an ensemble of AGCM simulations. *Journal of Climate* 12: 2386–2396.





## 2. Reports and NIWA series

Includes government-commissioned reports. NIWA series range from refereed monographs to information leaflets.

- Anderson, O.F. (1999). A summary of biological information on the New Zealand fisheries for orange roughy (*Hoplostethus atlanticus*) for the 1997–98 fishing year. *New Zealand Fisheries Assessment Research Document 99/22*. 25 p.
- Anon. (1999). An introduction to El Niño, La Niña, and the Southern Oscillation. *NIWA Information Series 6*.
- Anon. (1999). NIWA's high performance computing facility – New Zealand's first supercomputer. *NIWA Information Series 8*. 4 p.
- Anon. (1999). Sea and Learn on board RV *Kaharoa*: NIWA's multi-purpose inshore research vessel. *NIWA Information Series No. 5*. 3-fold leaflet.
- Ashford, J.R.; Horn, P.L. (1999). An inter-laboratory comparison of ages estimated for *Dissostichus eleginoides* using otoliths. *Document No. WG-FSA-99/56*. CCAMLR, Hobart. 7 p.
- Bagley, N.W.; McMillan, P.J. (1999). Trawl survey of hake and middle depth species in the Southland and Sub-Antarctic areas, April–May 1998 (TAN9805). *NIWA Technical Report 52*. 48 p.
- Beentjes, M.P. (1999). Size, age, and species composition of commercial eel catches from South Island market sampling, 1997–98. *NIWA Technical Report 51*. 51 p.
- Blackwell, R.G. (1999). Catch sampling for size and age of bluenose (*Hyperoglyphe antarctica*) in BNS 2 during summer 1997–98. *New Zealand Fisheries Assessment Research Document 99/46*. 15 p.
- Blackwell, R.G.; Gilbert, D.J.; Davies, N.M. (1999). Age composition of commercial snapper landings in SNA 2 and Tasman/Golden Bay, 1997–98. *New Zealand Fisheries Assessment Research Document 99/17*. 23 p.
- Booth, J.D.; Forman, J.S.; Stotter, D.R.; Bradford, E.; Renwick, J.; Chiswell, S.M. (1999). Recruitment of the red rock lobster, *Jasus edwardsii*, with management implications. *New Zealand Fisheries Assessment Research Document 99/10*. 102 p.
- Boothroyd, I.K.G.; Langer, E.R. (1999). Forest harvesting and riparian management guidelines: a review. *NIWA Technical Report 56*. 58 p.
- Bradford, E. (1999). Comparison of marine recreational fishing harvest rates and fish size distributions. *NIWA Technical Report 48*. 54 p.
- Bradford, E. (1999). Harvest of major recreational species: comparison of results from the regional and national diary surveys. *NIWA Technical Report 60*. 47 p.
- Bradford, E. (1999). Size distributions of kahawai in commercial and recreational catches. *NIWA Technical Report 61*. 56 p.
- Bradford, E.; Fisher, D.O.; Bell, J.D. (1999). Comparison of marine recreational catch and effort recorded by diarists in 1996 and 1997. *NIWA Technical Report 47*. 21 p.
- Bradford, E.; Francis, R.I.C.C. (1999). Power to detect changes in recreational harvest rates. *New Zealand Fisheries Assessment Research Document 99/6*. 23 p.
- Bradford-Grieve, J.M. (1999). The marine fauna of New Zealand: Pelagic Calanoid Copepoda: Bathypontiidae, Arietellidae, Augaptilidae, Heterorhabdidae, Lucicutiidae, Metridinidae, Phyllopodidae, Centropagidae, Pseudodiaptomidae, Temoridae, Canadaciidae, Pontellidae, Sulcanidae, Acartiidae, Tortanidae. *NIWA Biodiversity Memoir 111*. 268 p.
- Breen, P.A.; Kendrick, T.H. (1999). Rock lobster stock assessment for CRA 3, CRA 4 and CRA 5 in 1998. *New Zealand Fisheries Assessment Research Document 99/35*. 55 p.
- Bull, B.; Bagley, N. (1999). The effects of the 1995–96 Chatham Rise survey design on abundance estimates for hake age groups. *New Zealand Fisheries Assessment Research Document 99/36*. 26 p.
- Carbines, G.D.; Breen, P.A. (1999). Toheroa (*Paphies ventricosum*) surveys at Oreti Beach and Bluecliffs Beach in 1998. *New Zealand Fisheries Assessment Research Document 99/23*. 19 p.
- Chinn, T.J.; Salinger, M.J. (1999). New Zealand glacier snowline survey, 1999. *NIWA Technical Report 68*. 119 p.

- Clark, M.R. (1999). An update and standardised analysis of New Zealand commercial catch and effort information for the orange roughy (*Hoplostethus atlanticus*) fishery on the Louisville Ridge. *New Zealand Fisheries Assessment Research Document 99/47*. 17 p.
- Clark, M.R. (1999). Orange roughy fisheries off northern New Zealand: a summary of commercial catch and effort information in the ORH 1 QMA from the 1980–81 to 1997–98 fishing years. *New Zealand Fisheries Assessment Research Document 99/29*. 13 p.
- Clark, M.R.; Anderson, O.F. (1999). Trawl survey of orange roughy in the western Bay of Plenty, June 1998 (SMT9801). *NIWA Technical Report 50*. 25 p.
- Clearwater, S.; Mark, A.; Fahey, B.; Jackson, R.; Fitzharris, B.; Thomas, B. (1999). Upland land use and water yield. *Issues Paper No. 1*. University of Otago Ecology Research Group, Dunedin. 9 p.
- Coburn, R.P.; Doonan, I.J.; McMillan, P.J. (1999). Black oreo abundance indices from standardised catch per unit of effort data for OEO 3A. *New Zealand Fisheries Assessment Research Document 99/32*. 18 p.
- Cordue, P.L. (1999). MIAEL estimation of biomass and fishery indicators for the 1998 assessment of hoki stocks. *New Zealand Fisheries Assessment Research Document 99/1*. 64 p.
- Cordue, P.L.; Ballara, S.L.; Harley, S.J. (1999). Acoustic survey of spawning hoki in Cook Strait during winter 1998. *New Zealand Fisheries Assessment Research Document 99/21*. 15 p.
- Cranfield, H.J.; Michael, K.P.; Doonan, I.J. (1999). Foveaux Strait oyster (*Tiostrea chilensis*) assessment, 1997. *New Zealand Fisheries Assessment Research Document 99/11*. 31 p.
- Cryer, M. (1999). Coromandel and Northland scallop stock assessments for 1998. *New Zealand Fisheries Assessment Research Document 99/37*. 14 p.
- Cryer, M.; Coburn, R.; Hartill, B.; O'Shea, S.; Kendrick, T.; Doonan, I. (1999). Scampi stock assessment for 1998 and an analysis of the fish and invertebrate bycatch of scampi trawlers. *New Zealand Fisheries Assessment Research Document 99/4*. 75 p.
- Cryer, M.; Parkinson, D.M. (1999). Dredge surveys and sampling of commercial landings in the Northland and Coromandel scallop fisheries, 1998. *NIWA Technical Report 69*. 63 p.
- Cryer, M.; Stotter, D.R. (1999). Movement and growth rates of scampi inferred from tagging, Aldermen Islands, western Bay of Plenty. *NIWA Technical Report 49*. 35 p.
- Davies, N.M. (1999). Assessment of the SNA 1 and SNA 8 stocks for the 1997–98 fishing year. *New Zealand Fisheries Assessment Research Document 99/19*. 87 p.
- Davies, N.M.; Gilbert, D.J.; McKenzie, J.R. (1999). Assessment of the SNA 1 and SNA 8 stocks for the 1998–99 fishing year. *New Zealand Fisheries Assessment Research Document 99/28*. 82 p.
- Davies, N.M.; McKenzie, J.R.; Gilbert, D.J. (1999). Monte Carlo estimation of bias in Petersen mark-recapture estimates for snapper (*Pagrus auratus*). *New Zealand Fisheries Assessment Research Document 99/20*. 52 p.
- Doonan, I.J.; McMillan, P.J.; Coburn, R.P.; Hart, A.C. (1999). Assessment of OEO 3A smooth oreo for 1999–2000. *New Zealand Fisheries Assessment Research Document 99/45*. 21 p.
- Doonan, I.J.; McMillan, P.J.; Coburn, R.P.; Hart, A.C. (1999). Assessment of OEO 3A black oreo for 1999–2000. *New Zealand Fisheries Assessment Research Document 99/52*. 30 p.
- Dunn, A.; Francis, R.I.C.C.; Doonan, I.J. (1999). The sensitivity of some catch curve estimators of mortality to stochastic noise, error, and selectivity. *New Zealand Fisheries Assessment Research Document 99/5*. 23 p.
- Dunn, A.; Harley, S.J. (1999). Catch-per-unit-effort (CPUE) analysis of the non-spawning season hoki (*Macruronus novaezelandiae*) fisheries on the Chatham Rise for 1989–90 to 1997–98 and the Sub-Antarctic for 1990–91 to 1997–98. *New Zealand Fisheries Assessment Research Document 99/50*. 19 p.
- Field, K.D. (1999). Assessment of the Challenger Plateau (ORH 7A) orange roughy fishery for the 1998–99 fishing year. *New Zealand Fisheries Assessment Research Document 99/9*. 19 p.
- Fisher, D.; Bradford, E. (1999). National marine recreational fishing survey 1996: catch and effort results by fishing zone. *NIWA Technical Report 67*. 44 p.
- Francis, M.P.; Bradford, E.; Paul, L.J. (1999). Trevally catch per unit effort in TRE 7. *New Zealand Fisheries Assessment Research Document 99/13*. 27 p.

- Francis, M.P.; Griggs, L.H.; Baird, S.J.; Murray, T.E.; Dean, H.A. (1999). Fish bycatch in New Zealand tuna longline fisheries. *NIWA Technical Report 55*. 70 p.
- Francis, R.I.C.C. (1999). Moving towards  $B_{MSY}$ . *New Zealand Fisheries Assessment Research Document 99/2*. 23 p.
- Francis, R.I.C.C. (1999). Optimum design for shed sampling of eels. *New Zealand Fisheries Assessment Research Document 99/3*. 28 p.
- Francis, R.I.C.C. (1999). Stock assessment of orange roughy on the northeast Chatham Rise. *New Zealand Fisheries Assessment Research Document 99/41*. 16 p.
- Francis, R.I.C.C. (1999). The impact of correlation in standardised CPUE indices. *New Zealand Fisheries Assessment Research Document 99/42*. 30 p.
- Garlick, R.D.; Hill, A.; Mitchell, J.S. (1999). Lake Rotoaira bathymetry, 1:10,000. *NIWA Lake Series Chart*.
- Gilbert, D.J. (1999). Year class strength variability in SNA 1 sub-stocks. *New Zealand Fisheries Assessment Research Document 99/14*. 20 p.
- Gilbert, D.J.; Bradford, E. (1999). Effect of changing bag limits and minimum legal size on total harvest in SNA 1 and BCO 7. *New Zealand Fisheries Assessment Research Document 99/30*. 38 p.
- Gilbert, D.J.; McKenzie, J.R. (1999). Sources of bias in biomass estimates from tagging programmes in the SNA 1 snapper (*Pagrus auratus*) stock. *New Zealand Fisheries Assessment Research Document 99/16*. 47 p.
- Gordley, L.; Bevilacqua, R.M.; Butler, J.; Camy-Peyret, C.; Connor, B.J.; Deland, M.D.; Floyd, L.; Grainger, R.G.; Kumer, J.B.; Jaross, G.R.; Langen, J.; Pierce, B.; Reise, M. (1999). Earth observing system algorithm theoretical basis review; the report of the NASA CHEM-1 ATBD Review Panel, June 1999. EOS Project Office, NASA Goddard Space Flight Center, Greenbelt, Maryland. 34 p.
- Graham, I.J.; Ditchburn, R.G.; de Ronde, C.E.J.; Skinner, D.N.B.; Whitehead, N.E.; Wright, I.C.; Zondervan, A. (1999).  $^{10}\text{Be}$  and U–Th dating methods for hydrogenetic ferro-manganese nodules: preliminary results for samples from the Pacific Ocean and Tasman Sea. *Institute of Geological and Nuclear Sciences Science Report 99/2*. 44 p.
- Grimes, P.J.; Hanchet, S.M. (1999). Acoustic biomass estimates of southern blue whiting (*Micromesistius australis*) from the Bounty Platform and Pukaki Rise, August–September 1997. *New Zealand Fisheries Assessment Research Document 99/12*. 28 p.
- Hanchet, S.M. (1999). Stock assessment of trevally (*Caranx georgianus*) in TRE 7. *New Zealand Fisheries Assessment Research Document 99/55*. 27 p.
- Hanchet, S.M.; Renwick, J.A. (1999). Prediction of year class strength in southern blue whiting (*Micromesistius australis*) in New Zealand waters. *New Zealand Fisheries Assessment Research Document 99/51*. 24 p.
- Harley, S.J. (1999). Assessment of orange roughy fisheries from the southern areas of New Zealand for 1999. *New Zealand Fisheries Assessment Research Document 99/40*. 27 p.
- Harley, S.J. (1999). Catch per unit effort (CPUE) analysis of the Chatham Rise, Southern Plateau, and Bounty Plateau ling (*Genypterus blacodes*) longline fisheries. *New Zealand Fisheries Assessment Research Document 99/31*. 26 p.
- Harley, S.J.; Horn, P.L.; Hurst, R.J.; Bagley, N.W. (1999). Analysis of commercial catch and effort data and age determination and catch-at-age of barracouta in BAR 5. *New Zealand Fisheries Assessment Research Document 99/39*. 39 p.
- Haro, A.; Degan, D.; Horne, J.; Kulik, B.; Boubée, J. (1999). An investigation of the feasibility of employing hydroacoustic monitoring as a means to detect the presence and movement of large, adult eels (genus *Anguilla*). *CAFRC Internal Report No. 99-01*. S.O. Conte Anadromous Fish Research Center, USGS, Turners Fall, Massachusetts. 35 p. Available online at [www.lsc.nbs.gov/cafl/reports/haro.htm](http://www.lsc.nbs.gov/cafl/reports/haro.htm).
- Hartill, B.; Davies, N.M. (1999). New Zealand billfish and gamefish tagging, 1997–98. *NIWA Technical Report 57*. 39 p.

- Horn, P.L. (1999). A validated ageing method and updated stock assessment for white warehou (*Seriolella caerulea*) in New Zealand waters. *New Zealand Fisheries Assessment Research Document 99/44*. 23 p.
- Horn, P.L. (1999). Age and growth of Patagonian toothfish (*Dissostichus eleginoides*) and Antarctic toothfish (*D. mawsoni*) from the New Zealand Exclusive Economic Zone to CCAMLR Sub-area 88.1. *New Zealand Fisheries Assessment Research Document 99/38*. 17 p.
- Horn, P.L.; Bagley, N.W. (1999). Stock assessment of blue warehou (*Seriolella brama*) in New Zealand waters. *New Zealand Fisheries Assessment Research Document 99/26*. 18 p.
- Horn, P.L.; Ballara, S.L. (1999). Analysis of longline CPUE, and stock assessment of ling (*Genypterus blacodes*) off the northwest coast of the South Island (Fishstock LIN 7). *New Zealand Fisheries Assessment Research Document 99/27*. 31 p.
- Horn, P.L.; Hanchet, S.M.; Stevenson, M.L.; Kendrick, T.H.; Paul, L.J. (1999). Catch history, CPUE analysis, and stock assessment of John dory (*Zeus faber*) around the North Island (Fishstocks JDO 1 and JDO 2). *New Zealand Fisheries Assessment Research Document 99/33*. 58 p.
- Hurst, R.J.; Coburn, R.P.; Horn, P.L. (1999). Assessment of northern gemfish stocks (SKI 1 and SKI 2) for 1999. *New Zealand Fisheries Assessment Research Document 99/24*. 44 p.
- Lane, S.N.; Hicks, D.M.; Westaway, R.M. (1999). Monitoring riverbed topography by digital photogrammetry, with particular reference to braided channels. *NIWA Technical Report 64*. 20 p.
- Meadows, J. (comp.) (1999). Publications and presentations by NIWA staff, 1997. *NIWA Information Series 7*. 76 p.
- Meadows, J. (comp.) (1999). Publications and presentations by NIWA staff, 1998. *NIWA Information Series 9*. 83 p.
- Morrison, M.A.; Browne, G.N. (1999). Intertidal shellfish population surveys in the Auckland region, 1998–99, and associated yield estimates. *New Zealand Fisheries Assessment Research Document 99/43*. 21 p.
- Morrison, M.A.; Cryer, M. (1999). Stock assessment of cockles on Snake and McDonald Banks, Whangarei Harbour, 1998. *New Zealand Fisheries Assessment Research Document 99/7*. 12 p.
- Morrison, M.A.; Francis, M.P. (1999). Trawl survey of snapper and associated species in the Hauraki Gulf, October–November 1997 (KAH9720). *NIWA Technical Report 58*. 37 p.
- Morrison, M.A.; Pawley, M.D.M.; Browne, G.N. (1999). Intertidal surveys of shellfish populations in the Auckland region, 1997–98, and associated yield estimates. *New Zealand Fisheries Assessment Research Document 99/25*. 25 p.
- National Science Strategy Committee on Climate Change [including D.S. Wratt] (1999). Report of the National Science Strategy Committee for Climate Change 1999. Royal Society of New Zealand, Wellington. 54 p.
- O'Shea, S. (1999). The marine fauna of New Zealand: Octopoda (Mollusca: Cephalopoda). *NIWA Biodiversity Memoir 112*. 280 p.
- Paul, L.J. (1999). A summary of biology and commercial landings, and a stock assessment of trumpeter, *Latris lineata* (Bloch and Schneider 1801) (Latrididae), in New Zealand waters. *New Zealand Fisheries Assessment Research Document 99/8*. 20 p.
- Paul, L.J.; Hanchet, S.M.; Horn, P.L.; Stevenson, M.L. (1999). Catch history and stock assessment of stargazer (*Kathetostoma giganteum*) on the Chatham Rise (Fishstock STA 4). *New Zealand Fisheries Assessment Research Document 99/48*. 35 p.
- Penney, A.C. (1999). Climate database (CLIDB) user's manual. 4th edition (revised). *NIWA Technical Report 59*. 161 p.
- Sansom, J.; Penney, A.C. (1999). New Zealand's National Climate Database (CLIDB): audit report on the RAIN table. *NIWA Technical Report 65*. 36 p.
- Sansom, J.; Penney, A.C. (1999). New Zealand's National Climate Database (CLIDB): audit report on the MTHLY\_STATS table. *NIWA Technical Report 62*. 38 p.
- Shipboard Scientific Party [including H.L. Neil] (1999). FS *Sonne* Cruise Report SO-136, TASQWA, Quaternary variability of water masses in the southern Tasman Sea and the Southern Ocean (SW Pacific sector). *GEOMAR Report 89*. GEOMAR, Kiel, Germany. Published on [www.geomar.de/~snees/TASQWA/main.html](http://www.geomar.de/~snees/TASQWA/main.html) and CD-ROM.

- Stevens, D.W. (1999). A summary of biology and commercial landings and a stock assessment of paddle crabs, *Ovalipes catharus* (White 1843) (Crustacea, Portunidae), in New Zealand. *New Zealand Fisheries Assessment Research Document 99/18*. 26 p.
- Stevenson, M.L.; Beentjes, M.P. (1999). Inshore trawl survey of the Canterbury Bight and Pegasus Bay, December 1998–January 1999 (KAH9809). *NIWA Technical Report 63*. 66 p.
- Stevenson, M.L.; Hanchet, S. (comps.) (1999). Design and data analysis procedures for inshore trawl surveys. *NIWA Technical Report 53*. 18 p.
- Stoffers, P.; Wright, I.C.; Shipboard Scientific Party (1999). Cruise Report *Sonne 135*. Havre Trough–Taupo Volcanic Zone: tectonic, magmatic and hydrothermal processes. Suva, Fiji–Wellington, New Zealand, 9 September 1998–15 October 1998. *Bericht–Reports / Institut für Geowissenschaften 1*. 243 p.
- Taylor, P.R. (1999). An examination of species proportion estimates, standardised stock indices, and the use of age-structured stock assessment models for jack mackerel, *Trachurus declivis* and *T. novaezelandiae*, in JMA 7. *New Zealand Fisheries Assessment Research Document 99/54*. 54 p.
- Taylor, P.R. (1999). Species composition and seasonal variability of jack mackerel, *Trachurus declivis*, *T. symmetricus murphyi*, and *T. novaezelandiae*, in JMA 1, JMA 3, and JMA 7. *New Zealand Fisheries Assessment Research Document 99/49*. 21 p.
- Taylor, P.R. (1999). Time series of relative abundance indices from aerial sightings data for some important pelagic schooling species. *New Zealand Fisheries Assessment Research Document 99/53*. 35 p.
- Walsh, C.; Hartill, B.; Davies, N.M. (1999). Length and age composition of commercial snapper landings in SNA 1 and SNA 8, 1997–98. *NIWA Technical Report 54*. 28 p.
- Walsh, C.; McKenzie, J.; Ó Maolagáin, C.; Stevens, D.; Tracey, D. (1999). Length and age composition of trevally in commercial landings from TRE 1 and TRE 7, 1997–98. *NIWA Technical Report 66*. 37 p.
- Wood, S.W. (1999). Processes and interactions in the Antarctic stratosphere, Immediate Science Report 1998–1999. Christchurch, Antarctica New Zealand. 9 p.
- Wood, S.W. (1999). Processes and interactions in the Antarctic stratosphere, Logistic Report 1998–1999. Christchurch, Antarctica New Zealand. 6 p.



### 3. Conference presentations and proceedings

Includes open-invitation conferences (national and international) and published proceedings (where the conference took place in 1999).

- Abraham, E. (1999). "SOIREE – a Southern Ocean Iron Release Experiment, February 1999 – the experiment and main findings". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Abraham, E.; Sharples, J.; Moore, M. (1999). "Cross-thermocline nitrate flux driven by the internal tide on the northeast shelf of New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Adams, K.N. (1999). "Streamflow response to vegetation change in large catchments: investigations using computer modelling". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Adcock, G.; Hauser, L.; Bernal, R.; Smith, P.J.; Carvalho, G. (1999). "Adding the time dimension to population genetics: the origins and recent history of New Zealand snapper, *Pagrus auratus* (Sparidae)". Presented at the Congress of the European Society for Evolutionary Biology, Barcelona, August 1999.
- Ajtic, J.; Connor, B.J.; Lawrence, B.N. (1999). "Back-trajectory mapping of potential vorticity". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Allan, W. (1999). "Cavities, waveguides and other beasts: the global ULF response of the magnetosphere". Invited review paper presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Allan, W.; Manning, M.R.; Gomez, A.J.; Lowe, D.C. (1999). "Modelling the variation of Delta  $^{13}\text{C}$  in atmospheric methane: phase ellipses and the kinetic isotope effect". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Allibone, R.M. (1999). "Water abstraction and fish passage: the interactions with threatened non-migratory galaxiids of Otago, New Zealand". Presented at the Australian Society for Fish Biology annual conference, Bendigo, Victoria, September/October 1999.
- Allibone, R.M.; Boubée, J.A.T. (1999). "Determining escapement in the whitebait fishery of New Zealand". Poster presented at the Australian Society for Fish Biology annual conference, Bendigo, Victoria, September/October 1999.
- Alvarez, B.; Miller, K.; Battershill, C.; Northcote, P. (1999). "Phylogenetic relationships of cryptic species within the sponge genus *Latrunculia* (Porifera: Demospongiae)". Presented at Dampier 300, Biodiversity in Australia: 1699–1999 and Beyond, joint meeting of the Society of Australian Systematic Biologists, Invertebrate Biodiversity and Conservation and the Australian Systematic Botany Association, Perth, December 1999, with abstracts published in the programme.
- Baker, E.T.; Massoth, G.J.; de Ronde, C.E.J.; Wright, I.C. (1999). "An inventory of hydrothermal activity on submarine volcanoes of the southern Kermadec Arc: results from the 1999 NZAPLUME project". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Baker, E.T.; Massoth, G.J.; de Ronde, C.E.J.; Wright, I.C. (1999). "Hydrothermal activity on submarine volcanoes of the southern Kermadec Arc". Presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union 80(46), Supplement*.
- Barnes, P.M.; Audru, J.-C.; Collot, J.-Y.; Davy, B.; Delteil, J.; Herzer, R.H.; Lamarche, G.; Lebrun, J.-F.; Mercier de Lepinay, B.; Sutherland, R.; Wood, R. (1999). "Overview of structures associated with subduction to strike-slip transitions in New Zealand". Presented at the Geological Society of America Penrose Conference, Puerto Plata, Dominican Republic, January 1999.



- Barnes, P.M.; Davy, B.; Sutherland, R.; Delteil, J. (1999). "Structure and kinematics of the offshore Fiordland Margin, New Zealand". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Barnes, P.M.; Davy, B.; Sutherland, R.; Delteil, J. (1999). "Structures and sedimentation of the very obliquely convergent lower Fiordland Margin". Poster presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Barnes, P.M.; Davy, B.; Sutherland, R.; Delteil, J. (1999). "The strike-slip Dagg Basin, offshore Alpine Fault, Fiordland". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Bell, R.G.; de Lange, W. (1999). "Rising and extreme sea levels around NZ in the context of climate change". Presented at the New Zealand Coastal Society Seminar, Auckland Regional Council, August 1999.
- Bell, R.G.; Goring, D.G. (1999). "Flow-on effects of El Niño–Southern Oscillation events on sea-level rise in northern New Zealand". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 1, pp. 52–57.
- Bell, R.G.; Goring, D.G.; de Lange, W.P. (1999). "Rising and extreme sea levels around New Zealand". Presented at the IPENZ Technical Conference, Auckland, July 1999, and published in the proceedings, pp. 121–131. Paper awarded 1999 Brian Brown Award by NZ Water & Wastes Association and IPENZ. Expanded version published in (2000): Sea level change and storm surges in the context of climate change. *IPENZ Transactions 27(1)*: 1–10.
- Bell, R.G.; Goring, D.G.; Stanton, B.R. (1999). "Overview of sea-level variability and tidal circulation around New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Bergey, E.A.; Thomsen, H.A. (1999). "Evidence that algal patchiness can weather spates". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Bhaskaran, B.; Mullan, B. (1999). "Response of southern Pacific seasonal mean circulation to ENSO". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Biggs, B.J.F. (1999). "Trophic state criteria for algae in streams". Invited paper at Algae as Environmental Indicators Symposium, International Botanical Congress, St Louis, Missouri, August 1999.
- Biggs, B.J.F.; Nikora, V.I.; Hart, D.; Goring, D. (1999). "Velocity fluctuations and benthic communities in streams." Presented at the 3rd IAHR International Conference on Eco-hydraulics, Salt Lake City, Utah, July 1999.
- Biggs, B.J.F.; Smith, R.A. (1999). "Patterns in richness and life-history strategies of stream benthic algae: effects of disturbance and nutrient resource supply". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Black, K.P.; Green, M.O.; Healy, T.; Bell, R.G.; Oldman, J.; Hume, T.M. (1999). Lagrangian modelling techniques simulating wave and sediment dynamics determining sand-body equilibria. In: Harff, J.; Lemke, W.; Stattegger, K. (eds). Computerized modelling of sedimentary systems, pp. 3–21. Springer-Verlag, Berlin. [First presented at the International Symposium of Computerized Modelling of Sedimentary Systems, Güstrow, Germany, October 1996.]

- Bodeker, G.E.; Connor, B.J.; Kreher, K.; Liley, J.B.; Matthews, W.A.; Wood, S.W.; Lawrence, B.; Grainger, R.G. (1999). "Proposed analysis of polar and mid-latitude ozone depletion processes using ILAS-II measurements: vortex dynamics, gas phase HNO<sub>3</sub> removal, stratospheric aerosol properties and ozone loss rates". Presented at the ADEOS and ADEOS II Joint Symposium, Kyoto, Japan, December 1999.
- Bodeker, G.E.; Keys, J.G.; Connor, B.J. (1999). "Mid-latitude planetary wave influence on the severity of Antarctic ozone depletion". Presented at IUGG99, the International Union of Geodesy and Geophysics Meeting, Birmingham, UK, July 1999.
- Bogle, J.A.; Bryan, K.R.; Black, K.P.; Hume, T.M.; Healy, T.R. (1999). "Observations of geomorphic parameters using video images". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 1, pp. 70–75.
- Bogle, J.A.; Bryan, K.R.; Black, K.P.; Hume, T.M.; Healy, T.R. (1999). "Observations of rip currents using video images". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Booker, J.R.; Boubée, J.A.T.; Hicks, B.J. (1999). "Displacement of reservoir smelt in the Waikato River system". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Booth, J.D. (1999). "Rock lobsters making the transition". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Booth, J.D.; Jeffs, A.G.; Hooker, S.H.; Davies, P.; Zame, C. (1999). "Commercial-scale collections of young rock lobster for aquaculture". Presented to the World Aquaculture Conference, Sydney, April 1999.
- Boothroyd, I.K.G.; Coysh, J.; Norris, R.; Scarsbrook, M.R.; Quinn, J.M. (1999). "National trends in water quality: an AusRivas trial using New Zealand national macroinvertebrate data". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Boothroyd, I.K.G.; Etheredge, K.; Green, J.D. (1999). "Alien predator: distribution and diet of *Craspedacusta sowerbyi* Lankester in a shallow New Zealand lake". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Bormann, N.; Marks, C.J. (1999). "Rainfall forecasts over the New Zealand Southern Alps for ASLPEX'96: characterisation and the importance of ice-species". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Bormann, N.; Marks, C.J.; McGregor, J.; Renwick, J.A. (1999). "Towards assimilating GMS-5 moisture information into a mesoscale model configured for New Zealand". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Bormann, N.; Marks, C.J.; Renwick, J.A. (1999). "Retrieval of humidity profiles from GMS-5 data using Bayesian discrimination and regression". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Boubée, J.A.T.; West, D.W.; Dean, T.; Rowe, D. (1999). "Effects of sediment type and ambient light on the avoidance of suspended sediment by juvenile banded kokopu". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.

- Boubée, J.A.T.; West, D.W.; Jowett, I.G.; Smith, J. (1999). "Fish passage with solutions for native species". Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 249–254.
- Boulton, A.J.; Quinn, J.M. (1999). "Cellulose decomposition potential: rotten data from the hyporheic zone". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Bradford-Grieve, J.M.; Jillett, J.B.; Miller, K. (1999). "*Neocalanus tonsus* — a unique life story". Poster presented at the 7th International Conference on Copepoda, Curitiba, Brazil, July 1999.
- Brailsford, G.W.; Lassey, K.R.; Gimson, N.R.; Wratt, D.S.; Bromley, A.M. (1999). "Regional concentration patterns of agricultural methane: comparing measurements with mesoscale modelling". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Broekhuizen, N. (1999). "Three-dimensional simulations of nutrient – phytoplankton dynamics in the Hauraki Gulf and northeast shelf". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Bromley, A.; Clarkson, T.; Turner, R.; Wratt, D. (1999). "Emergency response capabilities: disease, insect and virus transport, hazardous releases and volcanic ash plumes". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Bryan, K.R.; Gorman, R.M.; Black, K.P. (1999). "A method for estimating turbulent dissipation in nearshore environments using 3-D velocity measurements". Poster presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), Supplement.
- Bryan, K.R.; Gorman, R.M.; Hume, T.M.; Black, K.P. (1999). "A method for making detailed measurements of cusp spacing using sub-aerial video cameras". Presented at the Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Bury, S.; Nodder, S. (1999). "Primary and export production on the Hauraki Gulf shelf and slope". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Cainey, J.; Harvey, M. (1999). "The use of sulfur isotopes to assess the climatic importance of atmospheric sulfur species". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Carter, L. (1999). "Large-scale collapse of the continental margin and its effect on the Pacific Deep Western Boundary Current, New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Carter, L. (1999). "Sediment flux to the SW Pacific Ocean – a response to climate, oceanography and source". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Caskey, D.; Allibone, R.; Miller, R. (1999). "Cautious Katikara kokopu un-covered". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Chalaron, E. (1999). "Modelling examples of landscape evolution, tectonics and sedimentology". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.

- Chalaron, E.; Mascle, G.H. (1999). "Pliocene Himalayan seismicity". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Champion, P.D.; Tanner, C.C. (1999). "Submerged aquatic macrophytes enhance health of lowland stream during low summer flows". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Chang, F.H. (1999). "Characteristics of Wellington Harbour toxins derived from the summer of 1998 toxic *Gymnodinium* outbreak". Presented at the Gordon Research Conference, Plymouth State College, New Hampshire, June 1999.
- Chang, F.H.; Zeldis, J.; Gall, M. (1999). "Seasonal variability of phytoplankton biomass, community structure and photosynthetic pigments off the northeast coast of New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Chisnall, B.L. (1999). "The New Zealand longfinned eel (*Anguilla dieffenbachii*): endemic, long-lived and top predator — threatened?" Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Chisnall, B.L.; Hicks, B.J.; Martin, M.L. (1999). "Recolonisation and production of freshwater eels (*Anguilla australis* and *A. dieffenbachii*) in response to depletion and simulated commercial harvest, in a New Zealand pastoral stream". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Chisnall, B.L.; Jellyman, D.J.; Bonnett, M.L.; Sykes, J.R. (1999). "Spatial and temporal variability in size of glass eels (*Anguilla* spp.) in New Zealand". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Chiswell, S.M. (1999). "The Wairarapa counter current". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Chiswell, S.M. (1999). "Tidal energetics over the Chatham Rise, New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Chiswell, S.M.; Booth, J. (1999). "Rock lobster *Jasus edwardsii* larval retention by the Wairarapa Eddy off New Zealand". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Clark, M.R. (1999). "Seamounts and the hunt for orange roughy". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Clark, M.R. (1999). "The sustainability of orange roughy fisheries – experience from New Zealand". Invited presentation to the 18th Fisheries Week of the Azores, Horta, Azores, Portugal, March 1999, and submitted for publication in the proceedings.
- Clarkson, T.S.; Fisher, G.W. (1999). "New approaches to modelling atmospheric emissions from industrial sources in New Zealand". Presented at the International Conference on Air Quality Management, Brunei, November 1999.
- Clausen, B.; Pearson, C.P.; Downes, M.T. (1999). "Relating potential denitrification rates to streamflow variability". Presented at Impact of Land-use Change on Nutrient Loads from Diffuse Sources, an international symposium held during IUGG99, Birmingham, July 1999, and published in the proceedings: *IAHS Publication no. 257*: 127–134.
- Cole, R.G.; McComb, P.; Sait, J. (1999). "Effects of nearshore sand disposal on subtidal and intertidal organisms at New Plymouth, New Zealand". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 1, pp. 129–134.

- Cole, R.G.; O'Shea, S.; Glasby, C.J.; Immega, D. (1999). "Biological effects of disposal of marina channel dredgings in the shallow subtidal of a fetch-limited embayment". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 1, pp. 125–128.
- Collier, K.J. (1999). "Multi-scale factors affecting invertebrate communities in New Zealand lowland streams". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Collot, J.-Y.; Lewis, K.B.; Lamarche, G.; Lallemand, S. (1999). "Un gigantesque effondrement sous-marin dans la Fosse d'Hikurangi, Nouvelle-Zelande: l'Avalanche de Ruatoria. Resultat de la subduction oblique d'un sous-marin". Presented at Séance Specialisees, Geosciences Marines, Villefranche-sur-Mer, France, November 1999.
- Collot, J.-Y.; Lewis, K.B.; Lamarche, G.; Lallemand, S. (1999). "The giant Ruatoria debris avalanche on the northern Hikurangi Margin, New Zealand: result of oblique seamount subduction?" Poster presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), Supplement.
- Collot, J.-Y.; Lewis, K.B.; Lamarche, G.; Lallemand, S. (1999). "The Ruatoria Debris Avalanche: Result of Seamount Subduction, Northern Hikurangi Margin, New Zealand". Presented at the European Geophysical Society Conference, The Hague, May 1999.
- Connor, B.J.; Kreher, K.; Lawrence, B.N.; Ajtic, J.; Bodeker, G.E.; Boyd, I.S.; Scott, J.C. (1999). "Antarctic air over New Zealand following vortex breakdown in 1998". Presented at the American Geophysical Union Spring Meeting, Boston, Massachusetts, June 1999.
- Cooper, A.B.; Green, M.O.; Thrush, S.F. (1999). "Sediment impacts on estuarine ecosystems – an approach to risk assessment, Okura Estuary". Presented (in three parts) at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 75–98.
- Cooper, A.B.; Stroud, M.J.; Bottcher, A.B.; Pickering, N.B.; Hiscock, J.G. (1999). "Predicting sediment runoff from the catchment". [Part 3 of "Sediment impacts on estuarine ecosystems – an approach to risk assessment, Okura Estuary".] Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 90–98.
- Copeland, J.H.; Wratt, D.; Gray, W.; Larsen, H.; Revell, M.; Austin, G.; Henderson, R.; Ibbitt, R.; Jensen, J.; Lee, S.; Bormann, N. (1999). "Orographic precipitation: results from SALPEX (the Southern Alps Experiment)". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Cordue, P.L. (1999). "Can more data mean less information?" Presented to the 50th Anniversary Conference of the New Zealand Statistical Association, Victoria University of Wellington, July 1999.
- Craggs, R.J. (1999). "Paddling to the colonies: the ecology of advanced wastewater oxidation ponds". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Craggs, R.J.; Green, F.B.; Oswald, W.J. (1999). "Economics and energy requirements of advanced integrated wastewater pond systems (AIWPS)". Presented at the New Zealand Water and Wastes 41st Annual Conference, Christchurch, September 1999, and published in the proceedings, pp. 1–13.
- Craggs, R.J.; Tanner, C.C.; Sukias, J.P.S.; Davies-Colley, R.J. (1999). "Nitrification potential of attached biofilm in farm dairy waste stabilisation ponds". Presented at the 4th IAWQ International Specialist Conference on Waste Stabilisation Ponds – Technology and Environment, Marrakech, Morocco, April 1999, and published in the proceedings.

- Cranfield, H.J.; Michael, K.P.; Funnell, G. (1999). "How are seabed habitats and fisheries in Foveaux Strait linked?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Crocker, G.F.; Collier, K.J. (1999). "Lowland stream revegetation experiment". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Cryer, M.; Hartill, B.; O'Shea, S. (1999). "Effects of trawling on marine benthic communities: inferences from analysis of invertebrate bycatch data". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Cryer, M.; O'Shea, S.; Hartill, B. (1999). "Effects of trawling on marine benthic communities: inferences from the analysis of invertebrate bycatch data". Presented at the 34th European Marine Biology Symposium, Ponta Delgada, The Azores, September 1999.
- Currie, K.I. (1999). "Summer biological drawdown of atmospheric CO<sub>2</sub> in the Southland Current". Presented at the 2nd International Symposium on CO<sub>2</sub> in the Oceans, Tsukuba, Japan, January 1999.
- Currie, K.I.; Reid, M. (1999). "pCO<sub>2</sub> data: quality or just quantity?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Cussins, T.; O'Halloran, K.; Lilburne, L.; Cochrane, P.; Hickey, C.W.; Shepard, D.; Gough, J.; Wickstrom, M.; Eason, C. (1999). "Ecological risk assessment at contaminated sites in New Zealand". Presented at the Waste Management Institute of New Zealand Conference, Queenstown, November 1999, and published in the proceedings, pp. 92–99.
- Davies, N.M.; Gilbert, D.J.; McKenzie, J.R. (1999). "Monte Carlo simulation estimates of the performance of the stratified Petersen estimator from snapper tagging studies". Presented at the Third Conference on Statistics in Ecology and Environmental Monitoring (SEEM3): the Estimation of Animal Abundance and Related Parameters, Dunedin, December 1999.
- Davies-Colley, R.J.; Donnison, A.M.; Nagels, J.W. (1999). "Processes of sunlight disinfection in waste stabilisation ponds". Presented at the New Zealand Water and Wastes 41st Annual Conference, Christchurch, September 1999, and published in the proceedings, pp. 8–14.
- Davies-Colley, R.J.; Halliday, J. (1999). "'Exstreams' ecology of turbid streams in the Gisborne district". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Davies-Colley, R.J.; Ovenden, R. (1999). "Flood effects on a small stream at Whatawhata". Presented at the New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Davis, J. (1999). "Who's eating who? – mesozooplankton grazing". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Daw, G. (1999). "Climate forecasting as a support tool for farm management". Poster presented at the New Zealand Grassland Association annual conference, Napier, October 1999.
- de Ronde, C.E.J.; Baker, E.T.; Massoth, G.J.; Wright, I.C.; Britten, K.; Faure, K.; Feely, R.A.; Greene, R.R.; Lebon, G.T.; Lupton, J.E.; Maenner, S.M. (1999). "Discovery of active submarine venting along the southern Kermadec arc, offshore New Zealand: results from the NZAPLUME cruise". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*, and at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union 80(46), Supplement*.
- de Winton, M.D.; Dugdale, A.M.; Schwarz, A.-M. (1999). "What are the barriers to plant recovery in a degraded lake?" Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.

- Dean, T.L.; Richardson, J. (1999). "Responses of seven native fish species and one species of shrimp to low levels of dissolved oxygen". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Delteil, J.; Ruellan, E.; Matsumoto, T.; Kobayashi, K.; Wright, I.C. (1999). "Deformation distribution in the Havre Trough (SW Pacific)". Poster presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), Supplement.
- Diggles, B.K. (1999). "Diseases in spiny lobster holding in New Zealand". Presented at the International Symposium on Lobster Health Management, SARDI Aquatic Sciences Centre, Adelaide, September 1999, and submitted for the proceedings to be published by Fisheries Research and Development Corporation, Canberra.
- Dolphin, T.J.; Green, M.O. (1999). "Estuarine waves and linear wave theory – does it work?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Downes, M.T.; Nguyen, M.L. (1999). "Factors affecting the nutrient trapping capacity in riparian wetlands". Presented at the 6th Symposium on Biogeochemistry of Wetlands, Fort Lauderdale, Florida, July 1999, and abstract published in the proceedings, p. 175.
- Duckworth, A. (1999). "Sponge aquaculture for drug production". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Elliot, M.; Manighetti, B. (1999). "In search of the Younger Dryas". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication* 107A.
- Elliot, M.; Manighetti, B.; Carter, L. (1999). "Dating the human colonisation of New Zealand: a story of pollen, volcanism and deforestation over the past 3500 years". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Elliot, M.; Manighetti, B.; Carter, L. (1999). "The reflection of human impact, volcanism and climate change in late Holocene pollen records of marine cores, eastern North Island, New Zealand". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication* 107A.
- Ellis, J.I.; Hewitt, J.E.; Schneider, D.C.; Thrush, S.F. (1999). "Detecting anthropogenic disturbance in an environment with multiple gradients of physical disturbance, Manukau Harbour, New Zealand." Presented at the 34th European Marine Biology Symposium, September 1999, Ponta Delgada, Azores, Portugal.
- Ellis, J.I.; Thrush, S.F.; Funnell, G.; Hewitt, J.; Cummings, V.; Norkko, A.; Schultz, D.; Norkko, J. (1999). "Changes in the condition of horse mussels (*Atrina zelandica*) to increased sediment load". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Falvey, M.; Beavan, J.; Bormann, N.; Copeland, J.; McGregor, J.; Wratt, D. (1999). "GPS precipitable water measurements made during the SALPEX Experiment". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Findlay, S.; Quinn, J.; Hickey, C.; Burrell, G.; Byrnes, C. (1999). "All caught up in sunlight: photolysis relative to other sources and sinks of streamwater DOM". Presented to Limnology and Oceanography: Navigating into the Next Century, American Society for Limnology and Oceanography, Santa Fe, New Mexico, February 1999.
- Fong, A.; Campbell, D. (1999). "Evaporation from hillslope pasture". Presented at the New Zealand Hydrological Society Symposium, Napier, November 1999.
- Forsyth, S.; Black, K.P.; Hume, T.M.; Marsh, J. (1999). "Artificial fluorescent tracer counting techniques in sand transport studies". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.

- Fowler, R.T.; Death, R.G.; Scarsbrook, M.R. (1999). "Spatial patterns in hyporheic community structure in gravel bed rivers: does geology underlie everything?" Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Francis, M.P. (1999). "Skating on thin ice – are New Zealand's skates heading towards extinction?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Francis, M.P.; Hurst, R.J. (1999). "Biogeography and community structure of fishes of the New Zealand region". Presented at the XIX Pacific Science Congress, Sydney, July 1999.
- Francis, R.I.C.C. (1999). "Estimation of survival and recruitment rates for freshwater eels". Presented at the Third Conference on Statistics in Ecology and Environmental Monitoring (SEEM3): the Estimation of Animal Abundance and Related Parameters, Dunedin, December 1999.
- Gall, M.; Zeldis, J.; Murphy, R.; Boyd, P.W. (1999). "Let's get biophysical: estimating photosynthesis using natural fluorescence in coastal and shelf waters of northeast New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Gennerich, H.-H.; Wright, I.C. (1999). "Multichannel reflection seismic profiles and bathymetric map of the central Havre Trough at 30°S". Poster presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), Supplement.
- Gibbs, M.M. (1999). "Big (90-m) waves in Lake Taupo: the importance of the internal seiche" (poster) and "Impact of the 1995–96 Mt Ruapehu eruptions on Lake Taupo water quality". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Gibbs, M.M.; Gillespie, P.; Rhodes, L. (1999). "Evidence of the active avoidance of sediment traps by the dinoflagellate *Prorocentrum balticum*". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Gilbert, D.J.; McKenzie, J.R.; Davies, N.M. (1999). "Evidence from tag-recapture experiments that fish learn to avoid fishing gear". Presented at the Third Conference on Statistics in Ecology and Environmental Monitoring (SEEM3): the Estimation of Animal Abundance and Related Parameters, Dunedin, December 1999.
- Glasby, C.J.; Gordon, D.P. (1999). "Progress toward an aquatic biodiversity information system". Presented at Dampier 300, Biodiversity in Australia: 1699–1999 and Beyond, joint meeting of the Society of Australian Systematic Biologists, Invertebrate Biodiversity and Conservation and the Australian Systematic Botany Association, Perth, December 1999, with abstracts published in the programme.
- Golding, L.A.; Hall, J.A.; Nipper, M.G. (1999). "New Zealand WET testing with native species". Poster presented at Enviro Tox '99, Australasian Society of Ecotoxicology, Geelong, Victoria, February 1999.
- Gomez, A.J. (1999). The CO<sub>2</sub> remote control system at Baring Head. In: Francey, R.J. (ed.). Proceedings of WMO Meeting of Experts on CO<sub>2</sub> Measurement, Melbourne, September 1997. *WMO Report No. TD 952*. World Meteorological Organization, Geneva.
- Gordon, D.P. (1999). "Biodiversity initiatives with application to New Zealand: DIVERSITAS, DIWPA, IBOY, and Species 2000: New Zealand". Invited feature presentation to the Systematics Association of New Zealand Conference, Kaikoura, February 1999.
- Gordon, D.P. (1999). "Species 2000: New Zealand symposium: background, purpose, guidelines, and intended outcomes". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Goring, D.G. (1999). "Some prognostications on coastal flooding". Presented at the New Zealand Hydrological Society Symposium, Napier, November 1999.



- Goring, D.G.; Nikora, V.; Biggs, B. (1999). "Velocity fluctuations and benthic communities in streams". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Goring, D.G.; Nikora, V.I. (1999). "Phase-randomisation and phase-synchronisation as turbulence analysis tools". Presented at the IAHR XXVIII Biennial Congress on Hydraulic Engineering for Sustainable Water Resources Management at the Turn of the Millennium, Graz, Austria, August 1999, and published in the proceedings on CD-Rom.
- Goring, D.G.; Nikora, V.I.; Biggs, B.J.F. (1999). "Velocity fluctuations and benthic communities in streams". Poster presented at the New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December, and the New Zealand Hydrological Society Annual Conference, Napier, November 1999.
- Goring, D.G.; Nikora, V.I.; McEwan, I.K. (1999). "Analysis of the texture of gravel-beds using 2-D structure functions" Presented at the IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Genova, Italy, September 1999, and published in the proceedings, vol. 2, pp. 111–120.
- Gorman, R.M.; Laing, A. (1999). "Long-term wave hindcasting for New Zealand waters". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Gorman, R.M.; Smith, M.J.; Neilson, C.G. (1999). "Model studies of wave processes in Manukau Harbour". Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999. [Awarded prize for best poster paper.]
- Grange, K.R. (1999). "Marine farming, environmental monitoring, and coastal management". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 1, pp. 228–231.
- Grange, K.R.; Breen, P. (1999). "Modelling the outcomes of alternative management regimes in coastal Taiapure areas". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Gray, W.R. (1999). "Observations of convection triggered by windflow over hills". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Gray, W.R.; Revell, M. (1999). "The use of objective frontal analysis to characterise fronts in the New Zealand region". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Gray, W.R.; Thompson, C.S. (1999). "Issues surrounding nowcasting". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Gray, W.R.; Uddstrom, M. (1999). "Correction of radar surface rainfall estimates for the effects of the vertical profile of reflectivity using typical shape functions". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Grayson, R.; Western, A.; Wilson, D.; Young, R.; McMahon, T.; Woods, R.A.; Duncan, M.J.; Blöschl, G. (1999). "Measurement and interpretation of soil moisture for hydrological applications". Presented at the Water 99 Joint Congress, Brisbane, July 1999, and published in the proceedings, pp. 5–9. The Institution of Engineers of Australia, Canberra.
- Green, M.O.; Dolphin, T.J.; Swales, A.; Vincent, C.E. (1999). "Transport of mixed-size sediments in a tidal channel". Presented at Coastal Sediments '99, 4th International Symposium on Coastal Engineering and Science of Coastal Sediment Processes, Long Island, NY, June 1999, and published in the proceedings: Kraus, N.C.; McDougal, W.G. (eds), vol. 1, pp. 644–658. ASCE, Reston, Virginia.

- Green, M.O.; Oldman, J. (1999). "Dispersal and accumulation of flood-borne sediments in the estuary". [Part 2 of "Sediment impacts on estuarine ecosystems – an approach to risk assessment, Okura Estuary".] Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 81–90.
- Habersack, H.M.; Smart, G.M. (1999). "Width of braided gravel bed rivers: implications for management in Austria and New Zealand" Presented at the IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Genova, Italy, September 1999, and published in the proceedings, pp. 575–584.
- Hadfield, M. (1999). "Modelling frontal instability over the Chatham Rise". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Hadfield, M. (1999). "Using a hydrodynamic model to quantify horizontal and vertical exchange in a coastal embayment". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Hall, J.A.; Golding L.A.; Nipper, M.G. (1999). "Standard methods for whole effluent toxicity testing: development and application". Presented at the New Zealand Water and Wastes 41st Annual Conference, Christchurch, September 1999, and published in the proceedings, pp. 349–354.
- Halliburton, G. (1999). "Issues involved in transferring to and from TIDEDA data formats". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Hanchet, S.M. (1999). "Overview of stock assessment research in New Zealand waters". Presented at Advances in Methods and Technology Applied to Fisheries Research, Mar del Plata, Argentina, September 1999.
- Hanchet, S.M.; Haist, V.; Fournier, D. (1999). "Stock assessment of New Zealand *Micromesistius australis*". Presented at Advances in Methods and Technology Applied to Fisheries Research, Mar del Plata, Argentina, September 1999.
- Handley, S. (1999). "Shellfish fleecing by flighty flatworms". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Haro, A.; Castro-Santos, T.; Boubée, J.A.T. (1999). "Behavior and passage of silver-phase American eels at a small hydroelectric facility". Presented at the ICES/EIFAC [European Inland Fisheries Commission] meeting, Silkeborg, Denmark, September 1999.
- Hatton, S.; James, M. (1999). "What matters more: quantity or size? The effects of food concentration on size-specific mussel feeding". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Henderson, R.D. (1999). "Low flow estimation: progress report and workshop summary". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999, and published in *Current 14*: 27–28.
- Henderson, R.D.; Copeland, J.H.; Ibbitt, R.P.; Wratt, D. (1999). "Flow forecasting using mesoscale precipitation prediction". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Hickey, C.W. (1999). "Derivation of water quality guideline values for heavy metals using a risk based approach: a proposed approach for a New Zealand". Presented at the Biomarkers in Environmental Toxicology Conference, Christchurch, July 1999.
- Hickey, C.W. (1999). "Multispecies assessment of water and sediment toxicity associated with urban and industrial stormwater treatment ponds: how effective are ponds as a toxicity reduction system?" Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 195–204.
- Hickey, C.W.; Clements, W. (1999). "Effects of heavy metals on stream invertebrates: evidence for increased susceptibility to additional stressors". Presented at the Fourth Princess Chulabhorn International Science Congress, Bangkok, Thailand, November/December 1999.

- Hickford, S.J.; Blunt, J.W.; Munro, M.H.G. (1999). "Microbial origins and tumour targeting of cytotoxins from *Lamellamorpha strongulata*". Poster presented at New Zealand Institute of Chemistry Conference, Wellington, November 1999.
- Hickman, R.W. (1999). "Fitting technology to biology to enhance production, as exemplified by the New Zealand Greenshell™ mussel industry". Keynote address presented to the Mollusc Production Biotechnology section, World Aquaculture Conference, Sydney, April 1999.
- Hickman, R.W. (1999). Chaired the "Mollusc and Environmental Carrying Capacity" session and panel discussion at World Aquaculture '99 Conference, Sydney, April 1999.
- Hickman, R.W.; Tait, M.J. (1999). "From fishing to farming flatfish: the potential for New Zealand turbot and brill". Poster paper presented to the World Aquaculture Conference, Sydney, April, and at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Hickman, R.W.; Tait, M.J.; Redfearn, P. (1999). "Salinity and other effects on growth of juvenile turbot: how to complicate a simple experiment". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Hicks, D.M. (1999). "Measurements of profile change and cross-shore sand flux over the shoreface at Mangawai Beach, North Island, New Zealand". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 1, pp. 285–290.
- Hicks, D.M.; Walsh, J.; Nikora, V. (1999). "Some scaling and fractal properties of braided rivers on the Canterbury plains". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Hine, P.M. (1999). "Disease status and transmission risks in bivalve aquaculture". Presented to the World Aquaculture Conference, Sydney, April 1999.
- Hine, P.M. (1999). "Diseases of the larvae and spat of bivalves". Presented to the World Aquaculture Conference, Sydney, April 1999.
- Hine, P.M. (1999). "Significant diseases of molluscs in the Asia-Pacific region". Presented at the Fourth Symposium on Diseases in Asian Aquaculture, Cebu City, Philippines, November 1999.
- Hine, P.M. (1999). Chaired session on infectious diseases of bivalves and helped run workshop on diseases of molluscs at the Ninth International Conference of the European Association of Fish Pathologists, Rhodes, Greece, September 1999.
- Hofstra, D.E.; Clayton, J.S. (1999). "Evaluation of fluridone for hydrilla control in New Zealand". Presented at Aquatic Plant Management Society Conference, Asheville, North Carolina, July 1999.
- Hofstra, D.E.; Clayton, J.S.; Wells, R.D.S. (1999). "Fluridone – a new aquatic herbicide evaluated for *Hydrilla* control". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Holland, R.C.; Jeffs, A.G. (1999). "Swimming behaviour of lobster puerulus". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Hollows, J.W.; Townsend, C.R.; Collier, K.J. (1999). "The importance of crayfish in New Zealand streams: trophic position and community role". Presented at the Symposium for European Freshwater Research (SEFS), Antwerp, Belgium, August 1999.
- Holomuzki, J.R.; Biggs, B.J.F. (1999). "Distributional responses to flow disturbance by a stream-dwelling snail". Presented at the 46th Annual Meeting of the North American Benthological Society, Charlottetown, Prince Edward Island, Canada, May 1999.
- Hooker, S.H. (1999). "Commercial-scale collections of young rock lobster for aquaculture". Presented to the World Aquaculture Conference, Sydney, April 1999.
- Hooker, S.H. (1999). "Developing aquaculture techniques for yellowtail kingfish *Seriola lalandi*". Poster paper presented to the World Aquaculture Conference, Sydney, April 1999.
- Horn, P.L. (1999). "Ling stock assessment – LIN 7". Presented at the Middle Depths Stock Assessment meeting, Wellington, March 1999.

- Howard-Williams, C.; Gibbs, M.M.; Spigel, R.H. (1999). "The influence of the southern inflows to the deepwater oxygen regime of Lake Taupo". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Huguen, C.; Mascle, J.; Chaumillon, E.; Benkhelil, J.; Lamarche, G.; Volkonskaia, A.; Woodside, J.; Scientific Party of PRISMED II. (1999). "Tectonics of the central Mediterranean Ridge (Eastern Mediterranean) from integrated swath-bathymetry, backscattering and seismic reflexion data". Presented at the European Union of Geosciences (EUG) VIII, Strasbourg, France, April 1999, and abstract published in *Terra Abstract*.
- Hume, T.M.; Green, M.O.; Oldman, J. (1999). "The growth and decay of wave orbital ripples in deep water". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Hume, T.M.; Green, M.O.; Oldman, J.W. (1999). "What happens at the seabed off a headland during a tropical cyclone?" Presented at Coastal Sediments '99, 4th International Symposium on Coastal Engineering and Science of Coastal Sediment Processes, Long Island, NY, June 1999, and published in the proceedings: Kraus, N.C.; McDougal, W.G. (eds), vol. 3, pp. 1836–1851. ASCE, Reston, Virginia.
- Hunter, K.A.; Macaskill, J.B. (1999). "Temperature and dye corrections in the spectrophotometric measurement of pH in surface sea water". Presented at 2nd International Symposium on CO<sub>2</sub> in the Oceans, Tsukuba, Japan, January 1999, and included in the proceedings, pp. 471–479.
- Hurd, C.L.; Stevens, C.L.; Smith, M.; Harder, D. (1999). "Interactions between waves and the bull kelp, *Durvillaea*". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Ibbitt, R.P.; Henderson, R.D.; Copeland, J.; Wratt, D.S. (1999). "Rainfall-runoff modelling forecasts based on successive meso-scale weather model forecasts: performance results along a 500-km range of mountains". Presented at the International Symposium on Floods and Droughts, Nanjing, China, October 1999, and published in the proceedings: *IHP-V Technical Documents in Hydrology (UNESCO Jakarta Office) No. 4*, pp. 431–444. Also presented to staff from the Vietnamese Hydro-meteorological Service, Hanoi, October 1999.
- Ibbitt, R.P.; Henderson, R.D.; Copeland, J.; Wratt, D.S. (1999). "The potential of meso-scale weather model rain forecasts for enhancing flood warnings". Presented at the New Zealand Hydrological Society Symposium, Napier, November 1999.
- Ibbitt, R.P.; Henderson, R.D.; Copeland, J.; Wratt, D.S. (1999). "Flood forecasting using mesoscale rainfall forecasts". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- James, G.D. (1999). "Movements and habitat preference of rainbow trout, brown trout, and chinook salmon in Lake Coleridge". Presented at Third Conference on Fish Telemetry in Europe, Norwich, England, June, and at the Freshwater Fisheries Laboratory, Pitlochry, Scotland, July 1999.
- James, M.R. (1999). "Carrying capacity of an embayment for mussel farming – a New Zealand case study". Presented at the ICES Symposium on Environmental Effects of Mariculture, St Andrews, New Brunswick, Canada, September 1999.
- James, M.R.; Ross, A.H.; Hadfield, M.; Weatherhead, M. (1999). "Carrying capacity of embayments for cultured shellfisheries in New Zealand – a multidisciplinary approach". Presented to the World Aquaculture Conference, Sydney, April 1999.
- James, M.R.; Schwarz, A.-M.; Graynoth, E.; Hawes, I.; Rowe, D.; Weatherhead, M. (1999). "From physics to fish – a multidisciplinary study of the littoral zone in lakes". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.

- Jefferies, A.G. (1999). "Can compromised condition explain early mortalities in spiny lobster culture?" Presented at the International Symposium on Lobster Health Management, SARDI Aquatic Sciences Centre, Adelaide, September 1999, and submitted for the proceedings to be published by Fisheries Research and Development Corporation, Canberra.
- Jefferies, A.G. (1999). "Lobster aquaculture and fisheries research in New Zealand". Presented to the 3rd International Lobster Congress, Adelaide, September 1999.
- Jefferies, A.G. (1999). "Super swimmers or lazy lobsters?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Jefferies, A.G.; Diebel, C. (1999). "Life history changes in the sensory setae of lobsters". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Jefferies, A.G.; Hooker, S.H. (1999). "The economics of the aquaculture of a spiny lobster, *Jasus edwardsii*, in New Zealand". Presented to the World Aquaculture Conference, Sydney, April 1999.
- Jones, N.B.; Connor, B.J. (1999). "Seasonal and interannual variability of stratospheric HCl from southern mid-latitudes". Presented at the American Geophysical Union Spring Meeting, Boston, Massachusetts, June 1999.
- Kelly, M. (1999). "Action biotechnology: sponges and their potential in modern medicine". Presented at the Faculty of Science and Engineering Seminar, Auckland Institute of Technology, September 1999.
- Kelly, M. (1999). "Deep-sea treasures – lithistid sponges in New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Kidson, J.W.; Mullan, A.B.; Renwick, J.A.; Revell, M.J.; Bhaskaran, B. (1999). "Interannual variability in tropical convection and its influence on atmospheric circulation". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Kirby, D.S.; Fiksen, O.; Hart, P.J.B. (1999). "Dynamic optimisation model for the behaviour of tunas at ocean fronts". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Kreher, K.; Bodeker, G.E.; Wood, S.W.; Connor, B.J.; Johnston, P.V.; Solomon, P.M. (1999). "Time series of reactive bromine, chlorine, and nitrogen species together with ozone observed at Arrival Heights (77.8°S), Antarctica". Presented at IUGG99, the International Union of Geodesy and Geophysics Meeting, Birmingham, UK, July 1999.
- Kuschel, G.; Hay, V. (1999). "The long and winding road? Trends in the participation of women in science at NIWA since 1993". Presented at the Association of Women in Science [AWIS] Living Science Conference, Dunedin, June/July 1999, and submitted for the proceedings.
- Laing, A.K. (1999). "Correlation between sea-surface elevation and sea-surface temperature northeast of New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Laing, A.K. (1999). "Satellite observations of extreme wave conditions around New Zealand". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Lamarche, G. (1999). "Transform to subduction transition along the Pacific–Australia plate boundary in New Zealand". Presented at the Royal Society of New Zealand, Wellington, May 1999.
- Lamarche, G.; Chalaron, E.; Nodder, S. (1999). "Offshore active faulting along the Manawatu–Kapiti coast: preliminary results from a multichannel seismic reflection survey". Poster presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Landman, N.H.; Klofak, S.M.; O'Shea, S.; Mikkelsen, P.M. (1999). "A giant squid in New York City". Poster presented at the 2nd International Symposium: Cephalopods – Present and Past, Vienna, Austria, September 1999.

- Lane, S.N.; Hicks, D.M.; Westaway, R.M.; Duncan, M.J. (1999). "Development of digital photogrammetry for automated monitoring of large gravel-bed rivers". Poster presented at Image and Vision Computing New Zealand 1999, University of Canterbury, August 1999, and published in the proceedings, pp. 211–216.
- Larsen, H. (1999). "Cloud variability in the New Zealand region". Poster presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Larsen, H.R.; Gray, W.R.; Norris, P.M.; Gayet, J.-F.; Murphy, R.J. (1999). "A new satellite-based climatology of clouds in the New Zealand region". Presented at IUGG99, the International Union of Geodesy and Geophysics Meeting, Birmingham, UK, July 1999.
- Larsen, H.R.; Norris, P.M.; Revell, M.J.; Wratt, D.S. (1999). "The rapid growth of orographic precipitation". Presented at IUGG99, the International Union of Geodesy and Geophysics Meeting, Birmingham, UK, July 1999.
- Lassey, K.R.; Gimson, N.R.; Wratt, D.S.; Brailsford, G.W.; Bromley, A.M. (1999). "Verifying agricultural emissions of methane: air sampling from aircraft and mesoscale modelling". Presented at the Second International Symposium on Non-CO<sub>2</sub> Greenhouse Gases (NCGG-2), Noordwijkerhout, The Netherlands, September 1999, and published in the proceedings: Van Ham, J.; Baede, A.P.M.; Meyer, L.A.; Ybema, R. (eds). (2000). Non-CO<sub>2</sub> greenhouse gases: scientific understanding, control and implementation, pp. 107–114. Kluwer Academic Publishers, Dordrecht.
- Lassey, K.R.; Lowe, D.C.; Manning, M.R.; Allan, W. (1999). "The atmospheric history of  $\delta^{13}\text{C}(\text{CH}_4)$  and of CH<sub>4</sub> mixing ratio, and their importance in interpreting the global CH<sub>4</sub> budget". Presented at the 6th Scientific Conference of IGAC, Bologna, Italy, September 1999.
- Lassey, K.R.; Ulyatt, M.J. (1999). "Methane emission by grazing livestock: a synopsis of 1000 direct measurements". Presented at the Second International Symposium on Non-CO<sub>2</sub> Greenhouse Gases (NCGG-2), Noordwijkerhout, The Netherlands, September 1999, and published in the proceedings: Van Ham, J.; Baede, A.P.M.; Meyer, L.A.; Ybema, R. (eds). (2000). Non-CO<sub>2</sub> greenhouse gases: scientific understanding, control and implementation, pp. 101–106. Kluwer Academic Publishers, Dordrecht.
- Lebrun, J.-F.; Collot, J.-Y.; Lamarche, G. (1999). "Subduction initiation along the strike-slip Pac/Aus plate boundary, southern New Zealand". Presented at the European Union of Geosciences (EUG) VIII, Strasbourg, France, April 1999.
- Lee, D.; Kelly, M. (1999). "A new Early Oligocene lithistid sponge from Kakanui and modern counterparts from the Norfolk Ridge". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Lelieveld, S.; Pilditch, C.; Green, M.O. (1999). "Biostabilisation of estuarine sediments by microorganisms". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Lewis, K.B. (1999). "Distal turbidity currents that flow through a powerful abyssal current: the Hikurangi Channel, 2000 km from Kaikoura". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Lewis, K.B. (1999). "Seeps on New Zealand's obliquely convergent margin". Poster presented at Fluid Seeps at Transform and Convergent Plate Margins Conference, Monterey, California, May 1999.
- Liefting, R.; Hawken, J.; Hume, T.M.; Laurent, J.C.; Smith, R.K.; Swales, A. (1999). "Application of a GALAI (CIS-100) stream-scanning laser particle sizer to map sand dispersal". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Lowe, D.C. (1999). "Our atmosphere: a chemical thin film?" Invited plenary lecture at New Zealand Institute of Chemistry Conference, Wellington, November 1999.

- MacDiarmid, A.B.; Stewart, R. (1999). "Effects of varying area management on coastal kai moana species". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- MacDiarmid, A.B.; Stewart, R. (1999). "Foraging, turnover and growth of seeded juvenile rock lobsters (*Jasus edwardsii*) in Wellington Harbour". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Mackey, D.; Hunter, K.; Boyd, P.W. (1999). "Trace metal content of mesozooplankton across the STC south of New Zealand". Presented at the American Geophysical Union Spring Meeting, Boston, Massachusetts, June 1999.
- Mackay, G.H. (1999). "Classification of river mouths on gravel coastlines in terms of mouth closures and reopenings" Presented at the IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Genova, Italy, September 1999, and published in the proceedings, pp. 715–724.
- Manighetti, B. (1999). "Anatomy of a deglaciation in the Southern Hemisphere: evidence from marine sediments". Presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Manning, M.R. (1999). "Climate change science". Presented at Climate Change – Implementing the Kyoto Protocol, Wellington, July 1999, and included in the proceedings, New Zealand Institute of International Affairs, Victoria University of Wellington.
- Manning, M.R. (1999). "Climate change: a perspective on the developing science–policy interface". Presented at the 8th International Symposium on Antarctic Earth Sciences, Victoria University of Wellington, July 1999.
- Manning, M.R. (1999). "The IPCC process and the Third Assessment Report: is it science? And who needs it anyway?" Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- McBride, G.B. (1999). "Some statistical issues in detecting environmental effects". Presented at the Environmental Indicators Symposium, Ecology Research Group and the Environmental Policy and Management Centre, University of Otago, March 1999.
- McBride, G.B.; Shankar, U. (1999). "Some current issues in using diffuse large datasets for environmental modelling and indicator development". Presented at the Fourth Conference of ISESS (International Symposium for Environmental Software Systems), University of Otago, August 1999.
- McBride, G.B.; Shankar, U.; Elliott, S.; Alexander, R. (1999). "Application of SPARROW regional regression models to nutrients in the Waikato Catchment". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- McClatchie, S.; Macaulay, G.; Coombs, R.; Richards, L.; Wiles, P.; Chiswell, S.; Uddstrom, M. (1999). "Spatial scales in the Subtropical Front: evidence for higher mid-water scattering in the frontal zone". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- McCormack, G.P.; McInerney, J.O.; Kelly, M. (1999). "The use of 28S rRNA gene sequences in sponge systematics". Presented at the Annual UK Systematics Conference, Glasgow, September 1999.
- McDowall, R.M. (1999). "Freshwater fishes as indicators of habitat health in New Zealand: the implications of being migratory". Presented at Symposium on Environmental Indicators, Dunedin, March 1999, and abstract published in the proceedings: Holt, A.; Dickinson, K.; Kearsley, G.W. (eds). *Environmental Policy and Management Research Centres Book Series No. 10*, pp. 83–84.

- McDowall, R.M. (1999). "The ecology of inanga, *Galaxias maculatus* (Teleostei: Galaxiidae) in New Zealand" and "The state of the whitebait fishery for *Galaxias* species (Teleostei: Galaxiidae) in New Zealand". Presented at the Seminario Internacional: Bases para la Piscicultura del Puye, *Galaxias* spp., Universidad Catolica de Temuco, Chile, December 1999.
- McDowall, R.M.; Stewart, A.L. (1999). Further specimens of *Agrostichthys parkeri* (Teliostei: Regalecidae), with natural history notes. In: Séret, B.; Sire, J.-Y. (eds). Proceedings of the 5th Indo-Pacific Fish Conference (Nouméa, 3–8 November, 1997), pp. 165–174. Society Francaise d'Ichthyologie and Institut de Recherche pour Développement, Paris.
- McEwan, I.K.; Heald, J.; Goring, D.G. (1999). "Discrete particle modelling of entrainment from a mixed grain-size sediment bed" Presented at the IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Genova, Italy, September 1999, and published in the proceedings, pp. 75–84.
- McKenzie, R.L.; Connor, B.; Bodeker, G. (1999). "Summertime UV increases in response to ozone depletion". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- McKerchar, A.I.; Johnstone, D. (1999). "Calibration of current meters". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Miller, K.J.; Alvarez, B.; Battershill, C.; Northcote, P.; Parthasarathy, H. (1999). "Genetic, morphological and chemical divergence in the sponge genus *Latrunculia*". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Mills, G.N. (1999). "Organic pollutants in recently urbanised estuaries: are they a problem?" Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 99–108.
- Mills, G.N. (1999). "Reducing the impacts of toxic chemicals in urban streams: PAH binding to leaf organic matter". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Morris, M.; Stanton, B.R. (1999). "Seasonal water mass characteristics and currents to the southeast of New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Morrisey, D.J. (1999). "Biological effects of contaminant build-up in estuaries". Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 121–127.
- Morrison, M.A.; Francis, M.P. (1999). "The role of estuaries as habitat for inshore fish species". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Moss, G.A. (1999). "Packhorse (or pawharu) propagation". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Moss, R. (1999). "Measurement of carbon monoxide concentration and isotopes in clean air samples". Poster presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Mullan, A.B.; Wratt, D.S.; Renwick, J.A. (1999). "Transient model scenarios of future climate changes for New Zealand". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Murdoch, R.C. (1999). "Developments in marine biotechnology". Presented at Ocean Opportunities: the Next Great Economic Frontier, Wellington, October 1999.



- Murdoch, R.C. (1999). "SOIREE – A Southern Ocean Iron Release Experiment, February 1999 – background and overview". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Nagels, J.W.; Davies-Colley R.J.; Smith, D.G. (1999). "A New Zealand water quality index for contact recreation". Presented at the New Zealand Water and Wastes 41st Annual Conference, Christchurch, September 1999, and published in the proceedings, pp. 90–99.
- Nagels, J.W.; Davies-Colley, R. (1999). "Water quality in eight lowland streams: trends with land use intensity". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Neil, H.L.; Morris, M. (1999). "Last glacial cycle water mass characteristics across Campbell Plateau, New Zealand". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Nguyen, L.; MacKay, G.; Eynon-Richards, N.; Sukias, J.; Tanner, C.C. (1999). "Agricultural drainage as a point source of pollutants to lowland rural streams". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Nguyen, M.L. (1999). "Phosphorus fractions and incorporations in sewage-impacted wetland sediments". Presented at the 6th Symposium on Biogeochemistry of Wetlands, Fort Lauderdale, Florida, July 1999, and abstract published in the proceedings, p. 166.
- Nguyen, M.L.; Downes, M.T. (1999). Riparian margins as buffer zones against nutrient contamination in receiving waters: nitrogen, phosphorus and sulphur biogeochemistry in riparian soils. In: Mathew, K.; Ho, G. (eds). Selected papers from the Proceedings of the International Regional Conference on Environmental Technologies for Wastewater Management, Murdoch University of Western Australia, December 1997. *UNDP International Environment Technology Centre Report Series 7*, pp. 239–249.
- Nguyen, M.L.; Downes, M.T.; Mehlhorn, J.; Stroud, M. (1999). "Riparian wetland processing of nitrogen, phosphorus and suspended sediment inputs from a hill country sheep-grazed catchment in New Zealand". Presented at the 2nd Australian Stream Management Conference, Adelaide, February 1999, and included in the proceedings: Rutherford, I.; Bartley, R. (eds). The challenge of rehabilitating Australia's streams, pp. 481–485. Cooperative Research Centre for Catchment Hydrology, Melbourne.
- Nikora, V.I.; Goring, D. (1999). "Are weakly mobile-bed flows a special class of wall-bounded flows?" Presented at the IAHR XXVIII Biennial Congress on Hydraulic Engineering for Sustainable Water Resources Management at the Turn of the Millennium, Graz, Austria, August 1999, and published in the proceedings on CD-Rom.
- Nodder, S.; Lamarche, G.; Chalaron, E. (1999). "Preliminary onshore-offshore correlation of Plio-Pleistocene sequences, South Wanganui Basin". Poster presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Nodder, S.; Pilditch, C.; Probert, K.; Northcote, L. (1999). "Benthic-pelagic coupling across the Subtropical Front, Chatham Rise". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Norkko, A.; Hewitt, J.E.; Thrush, S.F.; Funnell, G.A.; Cummings, V.J. (1999). "Biodeposition in horse mussel beds: integrating the effects of biodeposition and landscape structure on macrobenthic communities". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.

- Norkko, A.; Thrush, S.F.; Cummings, V.J.; Hewitt, J.E.; Genberg, J.; Ellis, J.I.; Funnell, G.A.; Schultz, D. (1999). "Ecological effects of sediment deposition". [Part 1 of 'Sediment impacts on estuarine ecosystems – an approach to risk assessment, Okura Estuary']. Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 77–81.
- Norkko, A.; Thrush, S.F.; Hewitt, J.E.; Norkko, J.; Cummings, V.J.; Ellis, J.I.; Funnell, G.A.; Schultz, D. (1999) "Macrobenthic responses and recovery patterns following a catastrophic sedimentation event in the Okura estuary, New Zealand". Presented at the 34th European Marine Biology Symposium, Ponta Delgada, Azores, Portugal, September 1999.
- Northcote, L.; Manighetti, B. (1999). "Foraminiferal studies of the deglacial signal in SW Pacific sediments". Poster presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstract published in *Geological Society of New Zealand Miscellaneous Publication 107A*: 127.
- Northcote, L.; Neil, H.L.; Carter, L. (1999). "Iceberg incursions across Campbell Plateau". Poster presented at the Joint Annual Conference of the New Zealand Geological Society and the New Zealand Geophysical Society, Palmerston North, November/December 1999, with abstracts published in *Geological Society of New Zealand Miscellaneous Publication 107A*.
- Northcote, P.T.; West, L.M.; Berridge, M.V.; Alvarez, B. (1999). "Anti-inflammatory terpenoids isolated from the New Zealand marine sponge *Raspailia topsentii*". Presented at the New Zealand Institute of Chemistry Conference, Victoria University of Wellington, November 1999.
- O'Brien, R. (1999). "GIS techniques for developing a habitat classification for rivers". Presented at the SIRC 99 – The 11th Annual Colloquium of the Spatial Information Research Centre, University of Otago, December 1999, and published in the proceedings, pp. 283–289.
- O'Halloran, K.; Hickey, C.W.; Booth, L.; Degens, B. (1999). "The adaptation of standard toxicity tests for the determination of environmental tolerances at New Zealand contaminated sites". Presented at Biomarkers in Environmental Toxicology, Queenstown, July 1999.
- O'Halloran, K.; Lilburne, L.; Cussins, T.; Cochrane, P.; Hickey, C.W.; Shepard, D.; Gough, J.; Wickstrom, M.; Eason, C. (1999). "Ecological risk assessment at contaminated sites". Presented at Biomarkers in Environmental Toxicology, Queenstown, July 1999.
- O'Shea, S.; Alvarez, B.; Clark, M. (1999). "Benthic biodiversity on seamounts". Poster presented at Dampier 300, Biodiversity in Australia: 1699–1999 and Beyond, joint meeting of the Society of Australian Systematic Biologists, Invertebrate Biodiversity and Conservation and the Australian Systematic Botany Association, Perth, December 1999, with abstracts published in the programme; also presented at Species 2000: New Zealand Millennial Symposium: A Review and Inventory of New Zealand's Biodiversity, Wellington, February 2000.
- Ogilvie, S.C.; Ross, A.H.; James, M.R. (1999). "Can suspended mussel populations increase phytoplankton biomass?" Poster presented at the ICES Symposium on the Environmental Effects of Mariculture, St Andrews, New Brunswick, September 1999.
- Ogilvie, S.C.; Ross, A.H.; James, M.R. (1999). "Sustainable management of food depletion within mussel farms of Pelorus Sound, New Zealand". Presented at the International Conference on Sustainable Management of Coastal Ecosystems, Fernando Pessoa University, Porto, Portugal, November 1999.
- Oldman, J.; Green, M.O. (1999). "Spatial and temporal variability of waves in estuaries". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Oliver, M.D. (1999). "Pleopod moult staging in rock lobsters and scampi". Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Ovenden, R.; Davies-Colley, R. (1999). "Effects of a large flood on a small pasture stream". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.

- Painter, D.J.; Pearson, C.P.; Connell, R.J. (1999). "Seasonal flood probability in South Canterbury". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Parkyn, S.M.; Laboyrie, J.L.; Reynolds, G.H. (1999). "My habitat, my castle: how a flood illustrates the importance of good riparian foundations to crayfish populations". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Paterson, A.K.; Hume, T.M.; Black, K.P.; Healy, T.R.; Young, B.A. (1999). "A 'lens-eye view' of river mouth morphodynamics at a Hapua". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Pearson, C.P.; Daw, G.; Salinger, M.J.; Wratt, D.S. (1999). "NIWA's National Climate Centre and risk management". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Pearson, C.P.; Shankar, U.; Nikora, V.I. (1999). "Patchiness of catchment properties". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Perano, K.; Green, M.O.; Dolphin, T.J. (1999). "Trapped suspended sediment vs OBS – do they compare?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999; and as a poster (with de Lange, W.) at the International Coastal Symposium 2000 (ICS2000), Rotorua, April 2000.
- Phillips, D.; Black, K.P.; Hume, T.M.; Healy, T. (1999). "Sediment dynamics along a surfing headland". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 2, pp. 513–518.
- Poortenaar, C.W.; Hooker, S.H.; Sharp, N. (1999). "Assessment of yellowtail kingfish biology, as a basis for aquaculture development". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Poortenaar, C.W.; Hooker, S.H.; Sharpe, N. (1999). "An assessment of yellowtail kingfish reproductive biology, as a basis for aquaculture development". Presented at the World Aquaculture Conference, Sydney, May 1999.
- Poortenaar, C.W.; Kato, K. (1999). "Kingfish farming in Japan: what is the NZ potential?" Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Poortenaar, C.W.; Pankhurst, N.W. (1999). "Potential for dopamine inhibition of GtH release in greenback flounder *Rhombosolea tapirina*: indirect assessment by measurement of gonadal steroids and ovulation". Presented at the 6th International Symposium on Reproductive Physiology of Fish, Bergen, Norway, July 1999, and published in the proceedings: Norberg, B.; Kjesbu, O.S.; Taranger, G.L.; Andersson, E.; Stefansson, S.O. (eds). Reproductive physiology of fish, p. 439.
- Pridmore, R.D. (1999). "Opportunities for collaboration". Presented at conference on Opportunities for Collaboration between Business, CRIs and Tertiary Institutions, Wellington, November 1999, and published in the proceedings: (2000). *Royal Society of New Zealand Miscellaneous series 57*, pp. 65–67.
- Pridmore, R.D. (1999). "Our oceans: educational and research requirements". Presented at Ocean Opportunities: the Next Great Economic Frontier, Wellington, October 1999.
- Quinn, J.M.; Halliday, J. (1999). "The use of the benthic Index of Biotic Integrity to monitor forest harvest effects on Coromandel Peninsula streams". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.

- Read, G.B. (1999). "Missing, missed, or mistaken: glimpses of the giant spionid *Spio aequalis*". Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999, and at Species 2000: New Zealand Millennial Symposium: A Review and Inventory of New Zealand's Biodiversity, Wellington, February 2000.
- Reid, S. (1999). "Airflow near the Manawatu Gorge – a unique resource." Presented at the New Zealand Wind Energy Association: Conference 99, Palmerston North, March 1999.
- Reid, S. (1999). "Local extreme winds – how forecastable are they?" Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Reisinger, A.R.; Jones, N.B. (1999). "Determination of greenhouse gas fluxes using open-path FTIR spectroscopy". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Renwick, J.A.; Mullan, B.; Ward, C. (1999). "La Niña – harsh mistress?" Presented to the Meteorological Society, Wellington Branch Meeting, April 1999.
- Renwick, J.A.; Revell, M.J. (1999). "South Pacific blocking and Rossby wave propagation". Presented at Second International Conference on Reanalyses, Reading, UK, August 1999, and published in World Climate Research Programme, *WCRP-109, WMO/TD-No. 985*, pp. 344–347. World Meteorological Organization, Geneva.
- Renwick, J.A.; Thompson, C.S. (1999). "Southern Hemisphere forecast skill: a comparison of global models". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Revell, M.J.; Gray, W.R.; McGregor, J. (1999). "Meso-scale structure of cyclones in the New Zealand area: a study of ex-tropical cyclone 'Drena' using an idealised model". Presented at IUGG99, the International Union of Geodesy and Geophysics Meeting, Birmingham, UK, July 1999.
- Revell, M.J.; Kidson, J.; Renwick, J.A.; Kiladis, G. (1999). "Interpreting low frequency modes of Southern Hemisphere atmospheric variability as the rotational response to divergent forcing". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Revell, M.J.; Renwick, J.A. (1999). "Blocking over the South Pacific: the extra-tropical response to a moving divergence forcing in the tropics?" Presented at IUGG99, the International Union of Geodesy and Geophysics Meeting, Birmingham, UK, July 1999.
- Richards, L.; Zeldis, J. (1999). "Mesozooplankton community dynamics in the Hauraki Gulf from spring to summer". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Richardson, J.; Hickey, C.W.; Williams, E. (1999). "Responses of freshwater fish to pollutants". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Robertson, D.A. (1999). "New Zealand marine biodiversity and risks". Presented at the ECO [Environmental and Conservation Organisations of NZ] annual conference, Defending the Future: Common Rights and Private Wrongs, Wellington, August 1999.
- Rodda, H.J.E.; Wilcock, R.J.; Thorrold, B.S. (1999). "The effects of intensive dairy farming on stream water quality in New Zealand". Presented at Impact of Land-use Change on Nutrient Loads from Diffuse Sources, an international symposium held during IUGG99, Birmingham, July 1999, and published in the proceedings, pp. 75–85, *IAHS Publication No. 257*.
- Rodgers, C.D.; Connor, B.J. (1999). "Intercomparison of remote sounding instruments". Presented to the Optical Society of America Topical Meeting on Optical Remote Sensing of the Atmosphere, Santa Barbara, California, June 1999.

- Ross, A.H.; James, M.R.; Hadfield, M.; Gibbs, M.M. (1999). "Estimating the sustainable production of mussel aquaculture using numerical simulation models." Presented at the International Conference on Sustainable Management of Coastal Ecosystems, Fernando Pessoa University, Porto, Portugal, November 1999.
- Rowe, D.K.; Dean, T. (1999). "Effects of turbidity on rainbow trout feeding in lakes". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Ruellan, E.; Delteil, J.; Wright, I.C.; Shipboard Party. (1999). "From rifting to active back-arc spreading at the transition from the Havre Trough to the Lau Basin (SW Pacific)". Presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), Supplement.
- Rutherford, J.C.; Cox, T.; Broekhuizen, N. (1999). "Restoring pasture streams in New Zealand: can computer models help?" Presented at the 2nd Australian Stream Management Conference, Adelaide, February 1999, and included in the proceedings: Rutherford, I.; Bartley, R. (eds). The challenge of rehabilitating Australia's streams, pp. 523–526. Cooperative Research Centre for Catchment Hydrology, Melbourne.
- Rutherford, J.C.; Nguyen, M.L.; Rutherford, S.L. (1999). "Towards a model for nitrate removal in wetlands". Presented at Modelling of Land Treatment Systems, Technical Session 20, New Plymouth, October 1999, and included in the proceedings, pp. 41–52. Land Treatment Collective, c/- Forest Research Institute, Rotorua.
- Safi, K.A.; Hall, J. (1999). "Microbial dynamics in the Hauraki Gulf and northeastern shelf from spring to summer". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Salinger, M.J. (1999). "Weather extremes – climate now and beyond 2000". Closing address presented at the New Zealand Water and Waste Association 41st Annual Conference, Christchurch, September 1999.
- Sansom, J.; Thompson, C.S. (1999). "The variation of rainfall rate over the southern North Island". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Saunders, H.A.; Healy, T.R.; de Lange, W.P.; Green, M.O. (1999). "Coastal processes influencing sand by-passing at a shallow headland, West End, Ohope Beach". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Sayce, A.; Black, K.P.; Gorman, R.M. (1999). "Breaking wave shape on surfing reefs". Presented at Coasts & Ports '99: Challenges and Directions for the New Century; the 14th Australasian Coastal and Ocean Engineering Conference and the 7th Australasian Port and Harbour Conference, Perth, April 1999, and published in the proceedings, vol. 2, pp. 596–603.
- Scarsbrook, M.R. (1999). "The 1995/96 eruptions of Mt Ruapehu: impacts on aquatic ecosystems and patterns of recovery". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Schultz, D.; Thrush, S.F.; Cryer, M. (1999). "An empty bed to lie in? Investigating fishing; ecosystem effects and resource sustainability". Presented at the Australian Society for Fish Biology 25th Annual Meeting, Bendigo, Victoria, October 1999.
- Sherrard, J.; Boyd, P.W.; Hunter, K. (1999). "Selenium profiles across the Subtropical Convergence". Presented at the American Geophysical Union Spring Meeting, Boston, June 1999.
- Smart, G.M. (1999). "Barrage flushing implications". Presented at the IAHR XXVIII Biennial Congress on Hydraulic Engineering for Sustainable Water Resources Management at the Turn of the Millennium, Graz, Austria, August 1999, and published in the proceedings on CD-Rom.
- Smart, G.M.; Walsh, J.; Duncan, M. (1999). "Roughness and flow resistance". Presented at the New Zealand Hydrological Society Symposium, Napier, November 1999.

- Smith, B.J. (1999). "A guide to the species groups of *Hydrobiosis* (Trichoptera: Hydrobiosidae)". Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Smith, B.J.; Collier, K.J.; Halliday, J. (1999). "The flight periodicity of adult caddisflies in catchments of contrasting landuse". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Smith, M.J.; Stevens, C.L.; Gorman, R.M.; McGregor, J.A.; Neilson, C.G. (1999). "Wave generation in complex environments". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Smith, M.J.; Stevens, C.L.; Poulter, E.M.; McGregor, J.A. (1999). "Wave breaking and dissipation – a microwave radar perspective". Presented at the Air–Sea Interface Symposium, Sydney, January, 1999, and published in the proceedings: Banner, M.L. (ed.). The wind-driven air–sea interface, pp. 417–418. University of New South Wales, Sydney.
- Smith, P.J. (1999). "Molecular biology in fisheries research and management". Presented at the Genome Diversity and Bioinformatics Symposium, Dunedin, December 1999.
- Solomon, P.M.; Barrett, J.; Connor, B.J.; Zoonermatkermani, S.; Parrish, A.; Lee, A.; Chipperfield, M. (1999). "Measurements of chlorine oxide in the stratosphere over Antarctica during the 1996–98 ozone holes and a comparison with the Cambridge SLIMCAT model". Presented at the American Geophysical Union Spring Meeting, Boston, Massachusetts, June 1999.
- Sorrell, B.K.; Downes, M.; Stanger, C. (1999). "Methanotrophic bacteria living on submerged aquatic macrophytes". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Sorrell, B.K.; Mendelssohn, I.A.; McKee, K.L.; Brix, H. (1999). "Ecophysiology of wetland plant roots". Presented at the 16th International Botanical Congress, St Louis, Missouri, August 1999.
- Stanger, C.; Sorrell, B.; Unwin, M.J. (1999). "Can I use DNA to help answer my ecological question?" Poster presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Stanton, B.R. (1999). "Ocean currents east of New Zealand from application of the Island Rule". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Stanton, B.R.; Morris, M. (1999). "A month in the life of a subantarctic eddy". Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Starr, P.; Breen, P.A. (1999). "The performance of a management decision rule for the NSS rock lobster substock". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Stevens, C.L.; Boyd, P.W.; Ross, A.H.; Abraham, E. (1999). "Turbulence and photoadaptation: preliminary results". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Stevens, C.L.; Smith, M.J.; McGregor, J.A. (1999). "Wave-current interaction in a narrow estuary mouth". Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Sukias, J.P.S. (1999). "Dairy farm stabilisation ponds: a comparison with shallow eutrophic lakes". Presented at the Sustainable Freshwater Ecosystems: the New Millennium, of the New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999, and abstract published in the proceedings, p. 26.

- Suren, A.M.; Snelder, T.; Scarsbrook, M. (1999). "Urban stream habitat assessment method: a management tool for resource managers". Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 129–137.
- Sutton, P.; Chereskin, T. (1999). "Absolute geostrophic flows in the East Auckland Current". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Swales, A.; Green, M.O. (1999). "*Spartina* wave and sediment dynamics". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Swales, A.; Hicks, D.M.; Smith, R.K. (1999). "Shoreface bedforms and cross-shore sand fluxes measured using an enhanced sea sled". Presented at Coastal Sediments '99, 4th International Symposium on Coastal Engineering and Science of Coastal Sediment Processes, Long Island, NY, June 1999, and published in the proceedings: Kraus, N.C.; McDougal, W.G. (eds), vol. 2, pp. 1034–1049. ASCE, Reston, Virginia.
- Tait, M.J.; Hickman, R.W.; Redfearn, P. (1999). "Larviculture of New Zealand brill *Colistium guntheri* and turbot *C. nudipinnus*." Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Tanner, C.C.; Gibbs, M.M.; Sukias, J.P.S.; Nguyen, M.L. (1999). "Influence of wastewater characteristics on nitrogen processing gradients in constructed wetlands". Presented at the 6th Symposium on Biogeochemistry of Wetlands, Fort Lauderdale, Florida, July 1999, and abstract published in the proceedings, p. 49.
- Tapp, M.; Currie, K.I.; Reid, M.; Hunter, K.A. (1999). "Internal consistency of the CO<sub>2</sub> system in the Otago coastal waters". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Tapp, M.; Hunter, K.A.; Currie, K.I.; Macaskill, J.B. (1999). "An extensively field-tested continuous flow spectrophotometric pH apparatus". Presented at the 2nd International Symposium on CO<sub>2</sub> in the Oceans, Tsukuba, Japan, January 1999, and included in the proceedings, pp. 395–400.
- Taylor, P.R. (1999). "Stock structure and population biology of the jack mackerel, *Trachurus symmetricus murphyi*". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Thompson, R.M.; McIntosh, A.R.; Scarsbrook, M.R.; Townsend, C.R. (1999). "Fitting invertebrate community patterns to a landuse template: a misfit in our midst". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Thrush, S.F.; Norkko, A.; Cummings, V.J.; Hewitt, J.E.; Genberg, J.; Ellis, J.; Funnell, G.; Schultz, D. (1999). "Ecological effects of sediment deposition". Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 77–81.
- Timperley, M.H. (1999). "Contaminant bioavailability in urban stormwaters". Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 67–74; also presented at the New Zealand Geochemistry Group Conference, Lower Hutt, July 1999.
- Timperley, M.H. (1999). "Some trace metal chemistry of urban stormwaters". Presented at the 16th New Zealand Geochemistry Group Conference, Lower Hutt, July 1999.
- Tong, L.J. (1999). "Farming spiny lobsters." Keynote address presented at the World Aquaculture Conference, Sydney, April 1999.
- Tyler, S.C.; Ajie, H.O.; Rice, A.L.; McMillan, A.; Lowe, D.C. (1999). "Measurements of CH<sub>4</sub> mixing ratio and  $\delta^{13}\text{C}$  in air along a transect over the Pacific Ocean between Auckland, New Zealand, and Los Angeles, California". Poster presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), Supplement: 99–100.

- Uddstrom, M.J.; Renwick, J.; Mullan, B. (1999). "Science requirements for weather and climate hazard prediction". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Vincent, C.E.; Green, M.O. (1999). "The control of resuspension over megaripples on the continental shelf". Presented at Coastal Sediments '99, 4th International Symposium on Coastal Engineering and Science of Coastal Sediment Processes, Long Island, NY, June 1999, and published in the proceedings: Kraus, N.C.; McDougal, W.G. (eds), vol. 1, pp. 269–280. ASCE, Reston, Virginia.
- Walker, C.F.; Bury, S.J.; Harvey, M.J.; Chang, F.H. (1999). "Relationships between dissolved DMS/DMSP and biological processes in coastal and shelf waters off northeast New Zealand". Presented at the Second International Symposium on Biological and Environmental Chemistry of DMS(P) and Related Compounds, University of Groningen at Haren, The Netherlands, August 1999, and at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Walsh, J.; Hicks, D.M. (1999). "Time-lapse video imagery for river monitoring". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Weatherhead, M.; Snelder, T.; Biggs, B.J.F.; Taylor, A. (1999). "River habitat classification using GIS: preliminary results". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Wells, R.D.S. (1999). "The effects of a range of aquatic weed control options on aquatic flora and fauna". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- West, L.M.; Northcote, P.T.; Webb, V. (1999). "Isolation of an unusual sulfamic acid containing indolocarbazole from the deep-water New Zealand marine sponge *Sigmosceptrella* sp.". Poster presented at the New Zealand Institute of Chemistry Conference, Victoria University of Wellington, November 1999.
- Westaway, R.M.; Hicks, D.M.; Lane, S.N. (1999). "Automated monitoring of submerged topography using remote sensing techniques". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Wilcock, R.J.; Champion, P.D.; Nagels, J.W.; Croker, G.F. (1999). "The influence of macrophytes on lowland stream chemistry and hydraulic properties". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Willgoose, G.R.; Ibbitt, R.P. (1999). "A quantitative comparison of the SIBERIA landform evolution and OCN channel network models in the Ashley catchment, New Zealand". Presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), *Supplement*.
- Williamson, R.B.; Morrissey, D.J.; Swales, A. (1999). "The build-up of contaminants in urbanised estuaries". Presented at the First South Pacific Conference on Comprehensive Stormwater and Aquatic Ecosystem Management, Auckland, February 1999, and published in the proceedings, vol. 1, pp. 59–66.
- Wilson, B.; Boubée, J.A.T.; Vaz, R. (1999). "Radio telemetry studies of trout movement in the Auckland/Waikato region". Presented at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Wilson, D.J.; Western, A.W.; Grayson, R.B.; Woods, R.A.; Young, R.I.; Duncan, M.J. (1999). "Spatial and temporal soil moisture distribution". Presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstract published in *EOS, Transactions of the American Geophysical Union* 80(46), *Supplement*: F324.



- Withers, C.S.; Espie, K.J.; Krouse, D.P.; Pearson, C.P. (1999). "Modelling temperature trends in New Zealand". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Wood, S.W.; Connor, B.J.; Jones, N.J.; Kreher, K.; Stephen, T.M.; Murcay, F.J. (1999). "High-resolution ground-based infrared measurements of trace gases at Arrival Heights, Antarctica". Presented at the American Geophysical Union Spring Meeting, Boston, Massachusetts, June 1999.
- Woods, C. (1999). "Aquaculture of the large-bellied seahorse in New Zealand". Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Woods, C.M.C.; McLean, M.; Grange, K. (1999). "Culture of the seahorse *Hippocampus abdominalis*". Presentation (and poster) at the World Aquaculture Conference, Sydney, April 1999.
- Woods, R.A.; Biggs, B.J.F.; Snelder, T.; Duncan, M.J.; Weatherhead, M. (1999). "River habitat classification: what is the hydrological signature of a 'source of flow'?" Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November, and at Sustainable Freshwater Ecosystems: the New Millennium, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Woods, R.A.; Duncan, M. (1999). "Modelling the cumulative effects of patchy, intermittent landuse change on water yield and low flows at many locations in a river basin". Presented at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Woods, R.A.; Duncan, M.; O'Brien, R.; McKerchar, A.; Mullan, B. (1999). "Modelling the impacts of climate change on water resources". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Woods, R.A.; Grayson, R.B.; Western, A.W.; Wilson, D.J.; Duncan, M.J.; Ibbitt, R.P.; Henderson, R.D. (1999). "Identifying and understanding the dominant controls on spatially variable hydrology". Presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstract published in *EOS, Transactions of the American Geophysical Union* 80(46), *Supplement*.
- Woods, R.A.; Tarboton, D.; Shankar, U.; Henderson, R.; Ibbitt, R.; Copeland, J. (1999). "How can we initialise soil moisture conditions in mesoscale atmospheric models?" Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.
- Wright, A.N.; Allan, W.; Elphinstone, R.D.; Cogger, L.L. (1999). "Phasemixing and phase motion of Alfvén waves in the plasma sheet boundary layer". Presented at IUGG99, the XXII General Assembly of the International Union of Geodesy and Geophysics, Birmingham, UK, July 1999.
- Wright, I.C.; Stoffers, P.; Hannington, M.; de Ronde, C.E.J.; Villinger, H.; Herzig, P.; Shipboard Party. (1999). "A towed-camera study of the Brothers Arc caldera and associated sites of hydrothermal venting (South Kermadec Arc)". Presented at the American Geophysical Union 1999 Fall Meeting, San Francisco, December 1999, with abstracts published in *EOS, Transactions of the American Geophysical Union* 80(46), *Supplement*.
- Zeldis, J.; Abraham, E. (1999). "Hydrodynamics and nutrient partitioning on the northeast New Zealand continental shelf and in Hauraki Gulf, from spring to summer". Presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.
- Zeldis, J.; Smith, S.V. (1999). "How is the Hauraki Gulf fertilised?" Poster presented at the New Zealand Marine Sciences Society Conference, Victoria University of Wellington, September 1999.

Zheng, X.; Basher, R.E. (1999). "Structural time series models and trend detection in global and regional temperature series". Presented at the Meteorological Society of NZ and the NZ Geophysical Society joint conference on Natural Hazards and Climate Change, Victoria University of Wellington, September 1999.



#### 4. Seminar and workshop presentations and proceedings

Includes presentations at research organisations, at smaller meetings designated as 'workshops', at meetings of select groups (such as scientific committees), lectures to university classes, as well as published proceedings from the meetings.

- Abraham, E. (1999). "The growth of the marine sponge *Raspailia inaequalis*". Invited presentation at the US National Center for Ecological Analysis and Synthesis Workshop on Modelling the Growth of Marine Invertebrates, Santa Barbara, California, August 1999.
- Anderson, O.; Clark, M.; Gilbert, D. (1999). "Estimation of bycatch and discards in selected New Zealand fisheries". Presented at the Aquatic Environment Working Group convened by Ministry of Fisheries and Department of Conservation, Wellington, October 1999.
- Baird, S.J. (1999). "Estimation of nonfish bycatch in commercial fisheries in New Zealand waters, 1997–98". Presented at the Aquatic Environment Working Group convened by Ministry of Fisheries and Department of Conservation, Wellington, October 1999.
- Baird, S.J.; Bradford, E. (1999). "Factors that may influence bycatch of nonfish species in some New Zealand fisheries". Presented at the Aquatic Environment Working Group convened by Ministry of Fisheries and Department of Conservation, Wellington, October 1999.
- Barnes, P.M. (1999). "Neotectonic faulting in a transition area between oblique subduction and continental collision in New Zealand". Presented to UMR Geosciences Azur, Nice, France, January 1999.
- Barnes, P.M. (1999). "Ocean geology collaborative projects". Presented to the French Scientific Attaché, Philippe Perez, in a display of NIWA–France scientific collaborative projects, NIWA, Wellington, September 1999.
- Beentjes, M.P. (1999). "A revised catch effort landing form for the eel fishery". Presented to the South Island Eel Working Group, Christchurch, and to the North Island Eel Working Group, Hamilton, March 1999.
- Beentjes, M.P. (1999). "Gonad development in relation to size for New Zealand freshwater eels (*Anguilla dieffenbachii* and *A. australis*)". Presented at Strategies and Techniques for Sampling Adult Anguillid Eels workshop, NSW Fisheries Research Institute, Cronulla, Sydney, August 1999.
- Beentjes, M.P. (1999). "Results of the east coast South Island summer trawl survey 1998–99". Presented at the Inshore Working Group meeting, Wellington, February 1999.
- Beentjes, M.P. (1999). "Sampling of commercial eel catches in the South Island, New Zealand (*Anguilla dieffenbachii* and *A. australis*)". Presented at Strategies and Techniques for Sampling Adult Anguillid Eels workshop, NSW Fisheries Research Institute, Cronulla, Sydney, August 1999.
- Bell, R.G. (1999). "Tides, currents and dispersion: field data and numerical modelling". Lecture to 3rd-year Fluid Dynamics and Continuum Mechanics course, Department of Engineering Science, University of Auckland, August 1999.
- Bhaskaran, B.; Mullan, A.B. (1999). "Climate modelling on the HPCF". Presented at the High Performance Computing Workshop: Opportunities and Applications, NIWA, Wellington, November/December 1999.
- Biggs, B.J.F. (1999). "Biodiversity of natural ecosystems: what can we learn from streams in New Zealand?" Invited Pettingill Lecture in Natural History, University of Michigan, July 1999.
- Biggs, B.J.F. (1999). "Environmental hydrology and habitat hydraulics studies in the Waipara River". Seminar presented to the Canterbury Regional Council, Water Resources Section, February 1999.
- Biggs, B.J.F. (1999). "Factors influencing the diversity of benthic communities in streams". Invited seminar, Post-graduate Research School, Department of Biology, Kansas State University, Manhattan, August 1999.
- Biggs, B.J.F. (1999). "Moawhango River environment: water quality issues and possible solutions". Invited seminar presented to the Moawhango Community Consultative Committee on the Tongariro Power Development, June 1999.

- Biggs, B.J.F.; Kilroy, C.; Mulcock, C.A. (1999). "Stream-health monitoring for non-scientists". Invited paper presented at the Ministry for the Environment Symposium on Sustainable Land and Water Management, Hamilton, June 1999.
- Biggs, B.J.F.; Nikora, V.I.; Goring, D. (1999). "Scales of hydraulic influence on stream communities". Invited research seminar, University of Michigan, July 1999.
- Biggs, B.J.F.; Snelder, T.; Pyle, E.; Weatherhead, M.; O'Brien, R.; Shankar, U. (1999). "Habitat classification: a framework for implementing sustainable water management". Presented at the joint Ministry for the Environment and NZ Water & Wastes Association Symposium on Australian and New Zealand Environment and Conservation Council [ANZECC] Water Quality Guidelines, Wellington, September 1999.
- Bodeker, G.E.; Kreher, K.; Sasano, Y.; Yokota, T.; Kondo, Y. (1999). "A climatological validation of  $O_3$ ,  $HNO_3$  and  $N_2O$  from the version 3.10 and 3.47 ILAS retrieval algorithms". Presented at the 15th ILAS Science Team Meeting, Nara, Japan, March 1999.
- Bodhaine, B.A.; Dutton, E.G.; McKenzie, R.L.; Johnston, P.V. (1999). "UV spectroradiometer and ozone measurements at Mauna Loa, Hawaii, and Boulder, Colorado". Poster presented at annual meeting of NOAA/CMDL, Boulder, May 1999.
- Bonnett, M.; Sykes, J. (1999). Presentation and demonstration of freshwater fish sampling and population estimation, given to senior statistics students and staff of the Mathematics Department, University of Canterbury, May 1999.
- Booth, J.D. (1999). "Post-settlement processes in *Jasus edwardsii* in New Zealand". Presented at Workshop on Rock Lobster Post-settlement Processes, South Australian Aquatic Sciences Centre, Adelaide, February 1999.
- Booth, J.D. (1999). Participated in a workshop on the biology of and fishery for the rock lobster *Jasus lalandii* in Namibia, Luderitz, Namibia, March 1999.
- Boyd, P.W. (1999). "Phytoplankton dynamics during the SOIREE experiment". Presented at the Antarctic Co-operative Research Centre, University of Tasmania, Hobart, May 1999.
- Boyd, P.W. (1999). "SOIREE, the first in-situ Fe release experiment in the Southern Ocean". Presented to the Aquatic Sciences Discussion Group, University of Otago, April 1999.
- Brenstrum, E.; Renwick, J.A. (1999). "A great year for snow". Presented to Meteorological Society, Wellington Branch, August 1999.
- Broadwell, A.; Wigley, P. (1999). "Isolation and culture of marine microbes update". Presented at the Marine Biotechnology Programme Workshop, Wellington, August 1999.
- Broekhuizen, N. (1999). "Structure of and progress towards developing an integrated model of interactions between southern Buller's albatrosses and the tuna longline fishery in New Zealand". Seminar presented to representatives of the Seafood Industry Council, Ministry of Fisheries, and Department of Conservation, Wellington, November 1999.
- Bryan, K.R. (1999). "Edge waves". Seminar to graduate Earth Sciences class, University of Waikato, May 1999.
- Bryan, K.R.; Bell, R.G.; Elliot, S.; Green, M.O.; Hume, T.M. (1999). "Data collection techniques". Joint presentation to graduate Geography class, University of Auckland, March 1999.
- Bull, B. (1999). "Northwest Hills (Chatham Rise) orange roughy survey design". Presented at Deepwater Working Group meeting, Wellington, June 1999.
- Bull, B. (1999). "The effect of changing the Chatham Rise trawl survey design on hake indices". Presented at the Middle Depths Stock Assessment meeting, Wellington, March 1999.
- Caine, J.M.; Harvey, M.J. (1999). "The use of sulfur isotopes to assess the gas-particle conversion mechanism of atmospheric sulfur species". Presented at the Annual Meeting, Cape Grim Baseline Air Pollution Station, CSIRO Atmospheric Research, Melbourne, November 1999.
- Carter, L. (1999). "Results from the Ocean Drilling Program". Seminar given at Victoria University of Wellington, May 1999.
- Carter, L. (1999). "The Southern Ocean and its impact on New Zealand". Presented to Sir Peter Blake (representing the Cousteau Society), NIWA, Wellington, June 1999.

- Champion, P.D. (1999). "Aquatics into 2000". Presented at Pest Plants into the New Millennium, New Zealand Biosecurity Institute 50th National Education and Training Seminar, New Plymouth, July 1999.
- Champion, P.D.; Clayton, J.S. (1999). "A weed risk assessment model for aquatic weeds in New Zealand". Presented at the 1st International Workshop on Weed Risk Assessment, Adelaide, February 1999.
- Chiswell, S.M. (1999). "The East Cape Current and two eddies: keeping New Zealand's rock lobster on the dinner table". Presented at the Department of Marine Sciences, University of South Florida, St Petersburg, July, and with J. Booth at University of Hawaii, Honolulu, August 1999.
- Clark, M.R. (1999). "Orange roughy stock assessment of southern ORH 3B" and "Orange roughy CPUE analysis of Louisville Ridge orange roughy fishery". Presented to Deepwater Working Group meeting, Wellington, August 1999.
- Clark, M.R. (1999). "Report on age and growth of Namibian orange roughy (an update of work being done by NIWA for the Namibian Ministry of Fisheries & Marine Resources)", "Report on trawl survey results from the 1998 winter orange roughy survey off Namibia", and "Report on the timing of 1997 and 1998 Namibian orange roughy surveys relative to the spawning period". Presented to Deepwater Fisheries Working Group (Namibia), Swakopmund, Namibia, January 1999.
- Clark, M.R. (1999). Meta-analysis of seamounts: a study of indicative catch levels for new orange roughy and oreo fisheries on seamounts. *NIWA Report WLG 99/80*, 51 p. Prepared for Orange Roughy Management Company, and presented to the Deepwater Fishery Assessment Working Group, Wellington, February/March 2000.
- Clarkson, T.S.; Edsall, C.J. (1999). "The New Zealand Node of APEC-VC" and "Astaware SearchKeyPro – a possible specialist search engine for each APEC-VC node". Presented at the 1999 Workshop for APEC Virtual Centre for Environmental Technology Exchange, Couran Cove Resort, Gold Coast, Queensland, November 1999.
- Coburn, R. (1999). "Gemfish CPUE update and new model development". Presented at the Middle Depths Stock Assessment meeting, Wellington, March 1999.
- Collier, K.J. (1999). "Riparian vegetation as adult aquatic insect habitat". Presented by John Quinn to Land and Water Resources Research and Development Corporation Workshop on Riparian Research in Australia and New Zealand, Adelaide, February 1999.
- Collier, K.J. (1999). "Effects of the great storm of '98 on stream invertebrates at Whatawhata – resetting the recolonisation process". Presented to Whatawhata Catchment Management Group, Whatawhata, October 1999.
- Connor, B.J. (1999). "O<sub>3</sub> and NO<sub>2</sub> measurements from Lauder, NZ, compared to SAGE II versions 6.0a and 6.0b". Presented at the SAGE II Science Team Meeting, Hampton, Virginia, August 1999.
- Connor, B.J. (1999). "The use of ILS measurements in profile retrievals". Presented at the NDSC Infrared Working Group Meeting, Wengen, Switzerland, June 1999.
- Connor, B.J.; Johnston, P.V.; Boyd, I.S. (1999). "Lauder NO<sub>2</sub> measurements as a primary tool in validating SAGE II satellite determination of long-term trends". Presented at the SAGE II Science Team Meeting, Hampton, Virginia, August 1999.
- Connor, B.J.; Kreher, K.; Salawitch, R.; Lawrence, B. (1999). "Inferring active chlorine and bromine in the Antarctic for studies of ozone loss." Presented at the POAM Science Team Meeting, Berkeley Springs, West Virginia, and at the Jet Propulsion Laboratory, Pasadena, California, October 1999.
- Cordue, P.L. (1999). "1999 hoki stock assessment results". Presented to the Fisheries Assessment Working Group (Hoki), Wellington, October 1999.
- Cordue, P.L. (1999). "Biomass estimates from acoustic surveys", "Model structure: two-stock hoki model", "Data assumptions in the model", and "MIAEL estimation procedure". Presentations at the Hoki Stock Assessment Review, Wellington, July 1999.

- Craggs, R.J. (1999). "High rate pond systems for upgrading farm dairy ponds in New Zealand". Presented at the Dairying and the Environment Committee Research Workshop, Ruakura Research Centre, Hamilton, August 1999, and published in the proceedings, pp. 19–21.
- Cryer, M. (1999). "Introduction to fisheries science and methods of estimating stock biomass" and "Estimating stock productivity growth surplus production, and yield per recruit". Presented to MSc course, 405.721, University of Auckland, May 1999.
- Cryer, M. (1999). "New Zealand scampi – difficulties in assessing sustainable yield in a new and unusual fishery". Presented at School of Environmental and Marine Sciences, University of Auckland, Tamaki Campus, July 1999.
- Cummings, V.J.; Thrush, S.F.; Hewitt, J.E.; Norkko, A. (1999). "*Atrina* as ecosystem engineers: how do they influence macrofauna? Importance of scale and habitat". Poster presented at the workshop: Intercoast on Sylt – Ecological Comparisons of Sedimentary Shores, Wadden Sea Station Sylt and Alfred Wegener Institute, Sylt, October 1999.
- Currie, K.I. (1999). "Biological drawdown of CO<sub>2</sub> in the New Zealand region". Seminar presented to the Chemistry Department, University of Otago, April 1999.
- Davies, N.M.; Hartill, B. (1999). "The utility of New Zealand tagging data for mako and blue shark stock assessment". Presented at the International Pelagic Shark Workshop, Monterey, California, February 1999.
- Davies-Colley, R.J. (1999). "Riparian vegetation and channel morphology". Presented at the Australian Land and Water Resources Research and Development Corporation Workshop, Adelaide, February 1999.
- Davies-Colley, R.J.; Quinn, J.M. (1999). "Effects of suspended sediment on primary and secondary production". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Daw, G. (1999). "The NIWA National Climate Centre". Presented to the Meteorological Society of New Zealand, Auckland, August 1999.
- Daw, G. (1999). "The NIWA National Climate Centre, including recent Wakato climate and climate projections". Presented at Environment Waikato National Climate Centre seminar, Hamilton, August 1999.
- Duncan, M.J.; Smart, G.M.; Walsh, J.M. (1999). "A review of techniques for calculating hydraulic parameters and flow resistance at high relative roughness". Presented at the Gravel-bed Rivers Workshop at the New Zealand Hydrological Society Symposium, Napier, November 1999.
- Edwards, M.; Murray, T.; Richardson, K. (1999). "New Zealand issue paper: the design and implementation of an experimental fishing programme". Presented at CCSBT [Commission for the Conservation of Southern Bluefin Tuna] First Joint Experimental Working Group Meeting, Tokyo, February 1999.
- Elley, G. (1999). "News from Water Resources Archive: national hydrometric and water quality networks and databases". Presented at Local Area Environmental Monitoring Group Meeting, Invercargill, March 1999.
- Elliott, S. (1999). "Modelling critical source areas of nutrients". Presented at the Australian Land and Water Resources Research and Development Corporation Workshop, Adelaide, February 1999.
- Fisher, G.W. (1999). "Comparison of Ausplume and Calpuff dispersion models". Presented at the National Air Quality Working Group Workshop, Wellington, March 1999.
- Fisher, G.W. (1999). "Modelling and interpolation techniques for relating air pollution and climate information to public health". Presented at the New Zealand Environmental and Occupational Health Workshop, Dunedin, December 1999.
- Fisher, G.W. (1999). "Progress with urban airshed modelling". Presented at the National Air Quality Working Group Workshop, Wellington, March 1999.
- Fisher, G.W. (1999). "What's happening with our climate?" Presented to Northland Branch of IPENZ, Whangarei District Council, February 1999.

- Folland, C.K.; Parker, D.E.; Basnett, T.A.; Allan, R.J.; Mann, M.E.; Power, S.B.; Mullan, A.B. (1999). "Analysis of multidecadal climate variability in global marine data". Presented at CLIMAR99, WMO Workshop on Advances in Marine Climatology, Vancouver, British Columbia, September 1999.
- Francis, M.P. (1999). "Estimation of bycatch of non-target fish species in tuna longline fisheries in the New Zealand EEZ". Presented at the Aquatic Environment Working Group convened by Ministry of Fisheries and Department of Conservation, Wellington, October 1999.
- Francis, M.P. (1999). "Trevally catch per unit effort". Presented to Inshore Working Group meeting, Wellington, February 1999.
- Francis, R.I.C.C. (1999). "Monitoring of eel populations using mean size". Presented to the South Island Eel Working Group, Christchurch, and to the North Island Eel Working Group, Hamilton, March 1999.
- Francis, R.I.C.C. (1999). "Moving towards  $B_{MSY}$ ." Presented to the Stock Assessment Methods Working Group, Wellington, March 1999.
- Gilbert, D.J. (1999). "Hauraki Gulf/Bay of Plenty snapper modelling results". Presented to Snapper Working Group, Ministry of Fisheries, Auckland, November 1999.
- Gilbert, D.J. (1999). "Implications of assumptions of a snapper population model". Presented to the SCFA Research Committee Mini-symposium of Stock Assessment Experts, Queenscliff, Victoria, July 1999.
- Gilbert, D.J.; Starr, P.J. (1999). "Should the fishing industry set their own TACs?" Presented to the SCFA Research Committee Mini-symposium of Stock Assessment Experts, Queenscliff, Victoria, July 1999.
- Gilbert, D.J.; McKenzie, J.R. (1999). "Sources of bias in biomass estimates from SNA 1 tagging programmes (SNA801)". Presented at Snapper Plenary Meeting, Ministry of Fisheries, Auckland, February 1999.
- Gimson, N.R. (1999). "Airshed modelling works!" Presented at the National Air Quality Working Group Workshop, Wellington, December 1999.
- Godfrey, J.J.; Scire, J. (1999). Presented training course for Calpuff, Auckland, July 1999.
- Gordon, D.P. (1999). "How many species in the sea? The challenge of marine biodiversity inventory and conservation in the New Zealand EEZ". Presented at the Royal Society of New Zealand, Wellington, June 1999.
- Gordon, D.P. (1999). "Issues of importance for global OBIS — a New Zealand perspective". Presented at the Census of Marine Life Workshop on the Ocean Biogeographic Information System, American Geophysical Union, Washington, DC, November 1999.
- Gordon, D.P. (1999). "New Zealand marine biodiversity". Presented to Sir Peter Blake (representing the Cousteau Society), NIWA, Wellington, June 1999.
- Gordon, D.P. (1999). "New Zealand's linkages to international scientific responses and the Convention on Biological Diversity". Invited presentation at the New Zealand Biodiversity Strategy Scientific and Technical Consultation Workshop, convened by the Department of Conservation at NIWA, Wellington, February 1999.
- Gordon, D.P. (1999). "The crucial importance of biosystematics to marine biosecurity and invasive species research". Presented at the 1st National Workshop on Marine Biosecurity, Nelson, October 1999.
- Goring, D.G. (1999). "How variable is sea level around New Zealand?" Presented at the New Zealand Coastal Society Seminar, Wellington, September 1999.
- Goring, D.G. (1999). "Hydraulic research at NIWA". Presented at US Bureau of Reclamation, Denver, Colorado, February 1999.
- Goring, D.G. (1999). "Some applications of wavelets in geophysics". Presented at NOAA/University of Colorado Cooperative Institute for Research in Environmental Studies [CIRES], Boulder, and at Civil Engineering Department, California Institute of Technology [Caltech], Pasadena, February 1999.
- Gray, W.R. (1999). "Describing the weather associated with different fronts". Presented at Synoptic Weather Workshop for end users, NIWA, Wellington, June 1999.



- Gray, W.R.; Copeland, J.H.; Falvey, M.; McGregor, J. (1999). "An introduction to TARPEX". Presented at Wellington Branch, Meteorological Society of New Zealand, Wellington, June 1999.
- Graynoth, E. (1999). "Eel research in New Zealand", "Field sampling methods", and "Otolith preparation and ageing methods". Presentations at Eel Sampling Workshop, Fisheries Research Institute, Cronulla, NSW, August 1999.
- Green, M.O. (1999). "Directions in coastal science in the United States". Presented to the Waikato/Bay of Plenty Branch of the NZ Coastal Society, Hamilton, July 1999.
- Green, M.O. (1999). "Marine science in New Zealand – an overview of NIWA". Seminar given at Virginia Institute of Marine Science, Gloucester Point, Virginia, March 1999.
- Green, M.O. (1999). "NIWA's research programmes: (1) Wave and Sediment Dynamics in Estuaries, and (2) Effects of Sediments in Estuarine Ecosystems" and "Sediment transport and sedimentation in estuaries". Presented at Sediment Effects in Estuaries Workshop, Ecoquest Field Centre for Advanced Studies in Ecology, Resource Management and Environmental Policy, Miranda, Firth of Thames, December 1999.
- Green, M.O. (1999). "Sediment transport in contrasting sub-environments of a large estuary (Manukau Harbour, New Zealand)". Seminar given at Virginia Institute of Marine Science, Gloucester Point, Virginia, March 1999.
- Green, M.O.; Morrissey, D.J. (1999). "Sediment deposition and biological effects in estuaries: the case for considering the downstream receiving environment". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999, and at at Sediment Effects in Estuaries Workshop, Ecoquest Field Centre for Advanced Studies in Ecology, Resource Management and Environmental Policy, Miranda, Firth of Thames, December 1999.
- Hall, J.A. (1999). "Does Fe limit phytoplankton growth in the Southern Ocean?" Presented at the Science Teachers' conference, Palmerston North, July 1999.
- Hall, J.A. (1999). "Nutrient budgets for the Hauraki Gulf, New Zealand" and "Preliminary results from the recent Fe fertilisation experiment in the Southern Ocean". Presented at the International Geosphere-Biosphere Programme Congress, Shonan Village, Zhusi, Japan, May 1999.
- Hall, J.A. (1999). "Results from the recent Fe fertilisation experiment in the Southern Ocean". Presented at the China National Oceanographic Data Center, Tianjin, China, April 1999, and at the International Geosphere-Biosphere Programme Congress, Zhusi, Japan, May 1999.
- Hall, J.A. (1999). "Sea and Learn and planktonic food webs". Presented to Waikato Science Teachers in-service training course, Rotorua, October 1999.
- Hall, J.A.; Rendle, J.; Rogers, L. (1999). "Sea and Learn: a new hands-on oceanographic programme for senior science students". Presented at BioLive '99, Biennial Secondary School Biology Teachers Conference, Auckland, July 1999.
- Hall, J.A.; Rogers, L. (1999). "Sea and Learn and marine foodwebs." Presented at the Science Teachers extension day, Hamilton, October 1999.
- Hanchet, S.M. (1999). "Incorporation of uncertainty into the stock assessment of southern blue whiting". Presented to the SCFA Research Committee Mini-symposium of Stock Assessment Experts, Queenscliff, Victoria, July 1999.
- Hanchet, S.M. (1999). "Southern blue whiting modelling results". Presented at the Middle Depths Stock Assessment meeting, Wellington, March 1999.
- Harvey, M.J.; Bromley, T.; Grainger, D.; Jahnke, M.; Liley, B. (1999). "Windblown dust in rural New Zealand". Presented at the Core Drilling/Paleoclimate Workshop, Victoria University of Wellington, June 1999.
- Hayden, B.J. (1999). "Invasive species management in New Zealand". Presented at the Global Invasive Species Program conference, Smithsonian Environmental Research Center, Edgewater, Maryland, November 1999.
- Hayden, B.J. (1999). "The effect of food quality and quantity on the feeding rates of *Pecten novaezelandiae*". Presented at Challenger Scallop Productivity Workshop, Nelson, June 1999.

- Hayden, B.J. (1999). "The need for a national research strategy". Presented at the Marine Biosecurity Workshop: Developing a Strategy for Marine Biosecurity in New Zealand, Nelson, October 1999, and published (2000) in the proceedings, *Cawthron Report 564*, pp. 50–54.
- Hickman, R.W. (1999). "Mussel farming: status and outlook from a New Zealand perspective". Presented at the seminar on New Opportunities for Chilean Aquaculture, Puerto Varas, Chile, October 1999.
- Hicks, D.M. (1999). "New Zealand river suspended sediment – a quick and *dirty* overview". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Hicks, D.M. (1999). "The Waimakariri Cam-era". Presented at a public workshop on the Cam-era system, NIWA, Hamilton, October 1999.
- Hicks, D.M.; Westaway, R.M.; Lane, S.N. (1999). "Photogrammetry-based surveys of gravel riverbeds: a comparison with traditional cross-section surveys". Presented at the Gravel-bed Rivers Workshop at the New Zealand Hydrological Society Symposium, Napier, November 1999.
- Hine, P.M. (1999). "Application of DNA technology to the diseases of molluscs in Asia". Presented at the FAO/NACA/ACIAR/CSIRO/DFID Joint Expert Consultation on Research Needs for Standardization and Validation of DNA-based Molecular Diagnostic Techniques for the Detection of Aquatic Animal Pathogens and Diseases, Bangkok, Thailand, February 1999.
- Hine, P.M. (1999). "Problems in the diagnosis of molluscan diseases". Presented as post-graduate and post-doctoral seminar, University of Tokyo, February 1999.
- Hine, P.M. (1999). "The diseases of Australasian molluscs". Presented at the FAO/NACA/OIE Workshop on Quarantine, Health Certification, and Information Systems for Aquatic Animals in Asia, Bangkok, Thailand, February 1999.
- Hine, P.M. (1999). "The diseases of molluscs in the Southern Hemisphere". Presented at the National Institute of Aquaculture, University of Mie, Japan, February 1999.
- Hooker, S.H. (1999). "NIWA's skills and capabilities in aquaculture". Presented to Technology New Zealand, Employers & Manufacturers Association, Auckland, May 1999.
- Horn, P.L. (1999). "Results of ageing Southland barracouta from trawl surveys and observer data", "Stock affinities of Puysegur hake", and "Stock assessment modelling of blue warehou". Presented at the Middle Depths Stock Assessment meeting, Wellington, March 1999.
- Howard-Williams, C. (1999). "Inland biology and impacts of human activity". Presented to the Ministerial on Ice meeting of ministers and senior aids from Antarctic Treaty Nations, Scott Base, Antarctica, January 1999, and published in the proceedings, pp. 44–47. Antarctica New Zealand, Christchurch.
- Howard-Williams, C. (1999). "International trends in Antarctic science". Presented at the Postgraduate Certificate in Antarctic Studies, University of Canterbury, November 1999.
- Hume T.M. (1999). "Combining numerical modelling and field experiments in coastal studies: an example of an investigation of circulation and sediment transport at a large headland". Presented to post-graduate course on Numerical Modelling and Physical Processes, Department of Earth Sciences, University of Waikato, May 1999.
- Hume, T.M. (1999). "Environmental performance indicators and coastal physical systems". Invited lecture presented at Symposium on Environmental Indicators, Dunedin, March 1999, and abstract published in: Holt, A.; Dickinson, K.; Kearsley, G.W. (eds). *Environmental indicators. Environmental Policy and Management Research Centre's Book Series No. 10 and Ecology Research Group's Occasional Paper No. 2*, p. 50.
- Hume, T.M.; Swales, A.; Green, M.O. (1999). "What's happening in coastal science as seen through Coastal Sediments '99 in New York?" Presented to Waikato/Bay of Plenty Branch of the NZ Coastal Society, Waikato Regional Council, Hamilton, July 1999.
- Hurst, R.J. (1999). "Gemfish fishery update and modelling results" and "Gemfish Working Group report". Presented at the Middle Depths Stock Assessment meeting, Wellington, March 1999.
- Hurst, R.J. (1999). "Review of historical survey data and otoliths for natural mortality estimation of hoki". Presented at the Hoki Stock Assessment meeting, Wellington, March 1999.

- Ibbitt, R.P. (1999). "New Zealand country report". Presented at the 7th Regional Steering Committee Meeting for IHP in Southeast Asia and the Pacific, Nanjing, China, October 1999.
- Ibbitt, R.P.; Henderson, R.D.; Copeland, J. (1999). "The use of meso-scale weather model rainfall forecasts as input to rainfall-runoff models for flood forecasting". Presented at the Flood Warning and Preparedness Workshop held in conjunction with the New Zealand Hydrological Society Symposium, Napier, November 1999.
- Ibbitt, R.P.; Henderson, R.D.; Copeland, J.; Wratt, D.S. (1999). "Flood forecasting using meso-scale rainfall forecasts". Presented to the International Workshop on Flood Forecasting for Tropical Regions, Kuala Lumpur, Malaysia, June 1999.
- James, M.R. (1999). "Sustainability of coastal ecosystems and cultured shellfisheries in New Zealand". Seminar given at Centre Oceanologique du Pacifique, Taravao, Tahiti, September 1999.
- James, M.R.; Ross, A.; Hadfield, M. (1999). "Sustainability of mussel farming". Presented at the Mussel Industry Workshop, Havelock, Nelson, October 1999.
- James, M.R.; Ross, A.H. (1999). "Estimating carrying capacity". Presented at a workshop with Ministry of Fisheries, Nelson, July 1999.
- Jeffs, A.G. (1999). "Lobster aquaculture research in New Zealand". Presented to the 3rd Scientific Committee Meeting of the Australian Rock Lobster Enhancement and Aquaculture Subprogramme, Adelaide, September 1999.
- Jellyman, D.J. (1999). "How can we improve stocks of eels in the Arahura River (west coast, South Island)?" Presented to Department of Conservation and the West Coast Eel Management Committee, Hokitika, October 1999.
- Jellyman, D.J. (1999). "The New Zealand longfinned eel (*Anguilla dieffenbachii*): can stocks sustain present levels of exploitation?" Presented at the ICES/EIFAC [European Inland Fisheries Commission] meeting, Silkeborg, Denmark, September 1999.
- Jones, N.B. (1999). "Chlorine partitioning: trends in the HCl to ClONO<sub>2</sub> ratio from southern mid-latitudes". Presented at Alfred Wegner Institute for Polar and Marine Research, Potsdam, Germany, June 1999.
- Jones, N.B.; Connor, B.C.; Wood, S.W.; Matthews, W.A.; Robinson, J.R.; McNamara, B.M. (1999). "Primary site report – Lauder". Presented at Infrared Working Group meeting, Wengen, Switzerland, June 1999.
- Jowett, I.J. (1999). "Riparian influences on fish in New Zealand streams". Presented at the Australian Land and Water Resources Research and Development Corporation Workshop, Adelaide, February 1999.
- Jowett, I.J. (1999). "Towards a sediment decision-support system". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Kelly, M. (1999). "Sponges and other wonders: a celebration of the undersea world". Invited presentation at BioLive '99, Biennial Secondary School Biology Teachers Conference, Auckland, July 1999.
- Kelly, M. (1999). "The wondrous sponge: a rich resource for systematics research and biotechnology". Presented to Cawthron Institute and NIWA, Nelson, March, and at Auckland Institute and Museum, September 1999.
- Kita, K.; Higashi, Y.; Miyazaki, Y.; Fujiwara, M.; Kawakami, S.; Sano, T.; Ogawa, T.; Takeda, M.; Nishi, N.; Kondo, Y.; Koike, M.; Blake, D.; Liley, J.B.; Machida, T.; Komala, N.; Timbul, M. (1999). "Distribution of ozone and ozone precursor gases in the upper troposphere over the Indonesian region observed during BIBLE-A". Presented at the BIBLE-A Workshop [Biomass Burning and Lightning Experiment], Tokyo, July 1999.
- Koike, M.; BIBLE Science Team (including Liley, J.B.). (1999). "Reactive nitrogen over the tropical western Pacific: possible contribution from lightning NO production". Presented at the BIBLE-A Workshop [Biomass Burning and Lightning Experiment], Tokyo, July 1999.

- Kondo, Y.; Koike, M.; Ikeda, H.; Irie, H.; Zhao, Y.; Kita, K.; Miyazaki, Y.; Machida, T.; Blake, D.; Liley, J.B.; Kawakami, S.; Ogawa, T. (1999). "Observations of O<sub>3</sub>, NO<sub>y</sub>, NO, CO, and CO<sub>2</sub> over the western and tropical Pacific Ocean in September–October". Presented at the BIBLE-A Workshop [Biomass Burning and Lightning Experiment], Tokyo, July 1999.
- Korpela, A.V.; Uddstrom, M.J.; Gray, W.R. (1999). "ATOVS research at NIWA: rain rate algorithms". Presented at the 10th International ATOVS Study Conference, Boulder, Colorado, January/February 1999, and accepted for the technical proceedings.
- Kreher, K.; Connor, B.J.; Bodeker, G.E.; McKenzie, R.L.; Wood, S.W.; Boyd, I.S.; Scott, J.C.; Johnston, P.V. (1999). "Ozon und UV über Neuseeland und der Antarktis – what's new?" Presented at the Institut für Umweltphysik, University of Heidelberg, Germany, April 1999.
- Kreher, K.; Johnston, P.V. (1999). "Status of ground-based BrO measurements at Arrival Heights (78°S) and Lauder (45°S)". Presented at the THESEO – Stratospheric Ozone Destruction by Bromine Progress Meeting, University of Bremen, Germany, April 1999.
- Kuschel, G. (1999). "Introduction to atmospheric pollution", "Air quality management", "Industrial emissions sources", "Transport emissions sources", "Area-based emissions sources", "Emissions inventories", and "Environmental risk assessment". Presented to UniTec Atmospheric Pollution course (18.704), February, March, April, and May 1999.
- Laing, A.K. (1999). "Satellites: a boon to oceanography in the southwest Pacific". Presented to the Institute of Ocean Sciences, Sidney, British Columbia, September 1999.
- Laing, A.K.; Reid, S.J. (1999). "Wave climate in the southwest Pacific from satellite and ships' observations". Presented at CLIMAR99, WMO Workshop on Advances in Marine Climatology, Vancouver, Canada, September 1999, and published in the preprints, pp. 149–157.
- Lamarche, G. (1999). Organised a presentation to the French Scientific Attaché, Philippe Perez, of NIWA–France scientific collaborative projects, NIWA, Wellington, September 1999.
- Lassey, K.R.; Ulyatt, M.J. (1999). "Enterically fermented methane, with emphasis on sheep emissions". Background paper prepared for IPCC Workshop: Good Practice in Inventory Preparation, Wageningen, Netherlands, February 1999.
- Liley, J.B. (1999). "Aerosols and trace-gas concentrations in pristine environments and their relationship to EPIs". Presented at Environmental Indicators Symposium, Dunedin, March 1999.
- Liley, J.B.; Baumgardner, D. (1999). "BIBLE-A aerosol". Presented at the BIBLE-A Workshop [Biomass Burning and Lightning Experiment], Tokyo, July 1999.
- Liley, J.B.; Rosen, J.M.; Nagai, T.; Forgan, B.W. (1999). "Characteristics of the atmospheric aerosol over NIWA, Lauder". Seminar presented at Solar–Terrestrial Environment Laboratory (STELab), Nagoya University, Japan, February 1999.
- Lowe, D.C. (1999). "Atmospheric chemistry in New Zealand". Seminar presented at Department of Earth System Science, University of California, Irvine, November 1999.
- Lowe, D.C. (1999). "Stable isotopes in atmospheric methane". Seminar presented at methane laboratory, Royal Holloway College, University of London, September 1999.
- Lowe, D.C.; Ferretti, D.F.; Francey, R.J.; Allison, C.E. (1999). "Taking the atmosphere's pulse: the application of GC-IRMS to stable isotopes in atmospheric trace gases". Presented at IAEA–Advisory Group Meeting on Stable Isotope Ratio Measurements by GC/C/IRMS and Laser Spectroscopy, Vienna, Austria, September 1999.
- MacDiarmid, A.B. (1999). "Broodstock management in *Jasus edwardsii*" and "Outline of previous and future research on aspects of *Jasus edwardsii* reproductive biology and behaviour pertinent to management of broodstock". Presented at the FRDC Rock Lobster Propagation Workshop, Hobart, January 1999.
- MacDiarmid, A.B. (1999). "Enhancement ecology of *Jasus edwardsii*". Presented at the FRDC Workshop on Post Settlement Processes in Southern Rock Lobster, University of Tasmania, Hobart, February 1999.
- MacDiarmid, A.B. (1999). "Sperm economy and limitation in spiny lobsters". Presented at the FRDC Workshop on Post Settlement Processes in Southern Rock Lobster, South Australian Research and Development Institute, Adelaide, February 1999.

- Manighetti, B. (1999). "Environmental stability of northeast New Zealand. National Report on New Zealand IMAGES activities". Presented to the Scientific Committee of the International Marine Global Change Study, Brest, April 1999, and published on the Web at [www.images.cnrs-gif.fr](http://www.images.cnrs-gif.fr)
- Manning, M.R. (1999). "New Zealand greenhouse gas programmes". Presented at WMO CO<sub>2</sub> Experts Meeting, Stockholm, August 1999.
- Manning, M.R.; Gomez, A.J.; Brailsford, G.W. (1999). The New Zealand CO<sub>2</sub> measurement programme. In: Francey, R.J. (ed.). Proceedings of WMO Meeting of Experts on CO<sub>2</sub> Measurement, Melbourne, September 1997, *WMO Report No. TD 952*. World Meteorological Organization, Geneva.
- Matthews, W.A. (1999). "Antarctic and Southern Hemisphere observations". Presented at Atmos-C1 Workshop, Hokkaido University, Sapporo, Japan, October 1999.
- Matthews, W.A. (1999). "Atmospheric chemical change – a dynamical driver". Presented at EPIC: Equatorial Processes Including Coupling, Planning Meeting, Honolulu, Hawaii, March 1999.
- Matthews, W.A. (1999). "Ozone changes in the Southern Hemisphere". Presented at the 5th Meeting of the Coordinating Committee of the Valdivia Group, Punta del Este, Uruguay, May 1999.
- Matthews, W.A.; Wood, S.W.; Bodeker, G.E. (1999). "Validation of ILAS-II data products from ground-based measurements at Kiruna, Lauder, Macquarie Island and Arrival Heights and through comparisons with satellite-based HIRDLS retrievals". Presented at the ADEOS and ADEOS II Joint Symposium, Kyoto, Japan, December 1999.
- McBride, G.B. (1999). "Background to history, statistics and rationale in the Supporting Manual to the Bacteriological Guidelines for Marine and Freshwater". Presented at the Ministry for the Environment/NZ Water & Wastes Association Workshop, Wellington, September 1999.
- McBride, G.B. (1999). "Epidemiology", "Statistics", and "Sampling strategies". Presented at New Zealand Water & Wastes Workshop on Recreational Water Standards, Massey University, Wellington, December 1999.
- McBride, G.B. (1999). "Equivalence test procedures" and "Methods for trend analysis". Presented at the NIWA three-day training course Statistical Methods for Water Quality Studies, Hamilton, March 1999.
- McBride, G.B. (1999). "The NRWQN and its findings". Presentations to the US National Water Quality Monitoring Council meeting at Reston, Virginia, and the 20th annual Short Course on Design of Water Quality Monitoring Networks, Colorado State University, Fort Collins, June 1999.
- McBride, G.B.; Ward, R.C. (1999). Presented a three-day training course on Statistical Methods for Water Quality Studies for environmental professionals, Hamilton, March 1999.
- McDowall, R.M. (1999). "Diadromy and its place in fish ecology and evolution". Seminar presented to the Departamento de Pesqueria y Oceanografia, Universidad Austral de Chile, Puerto Montt, November 1999.
- McDowall, R.M. (1999). "The biogeography of southern cool temperate freshwater fishes". Seminar presented to the Departamento de Oceanografia, Universidad de Concepcion, Chile, December 1999.
- McDowall, R.M. (1999). "The ecology of whitebait migrations in New Zealand". Seminar presented to the Instituto de Zoologia, Universidad Austral de Chile, Valdivia, November 1999.
- McKenzie, R.L. (1999). "Measurement methods" and "Ozone depletion: its causes and effects on UV radiation". Presented to Chemistry Department, University of Otago, August 1999.
- McKerchar, A.I. (1999). "ENSO impacts on the hydrological regime of New Zealand". Presented at the Asian Pacific FRIEND and GAME joint workshop on ENSO, Floods and Droughts in the 1990s in Southeast Asia and the Pacific, Hanoi, Vietnam, March 1999, and published in the proceedings, pp. I-1–I-8.
- Meier, A.; Rinsland, C.P.; Wood, S.W.; Goldman, A. (1999). "Report on ongoing update of FASTCODE for SFIT programs". Presented at the NDSC Infrared Working Group Meeting, Wengen, Switzerland, June 1999.
- Mercer, S.F.M. (1999). "Exploring Antarctica with the dolphin rebreather". Presented at TDI Asia-Pacific 1999 Members' Forum, Sydney, April 1999.

- Miyazaki, Y.; Kita, K.; Kawakami, S.; Ogawa, T.; Kondo, Y.; Blake, D.; Liley, J.B.; Takeda, M.; Nishi, N. (1999). "Large enhancements of ozone precursor gases in the upper troposphere in eastern Asia observed during BIBLE-April and BIBLE-A campaigns". Presented at the BIBLE-A Workshop [Biomass Burning and Lightning Experiment], Tokyo, July 1999.
- Morrisey, D.J. (1999). "Aquaculture and sediments" and "Fringing ecosystems in sediment-impacted estuaries". Presented at Sediment Effects in Estuaries Workshop, Ecoquest Field Centre for Advanced Studies in Ecology, Resource Management and Environmental Policy, Miranda, Firth of Thames, December 1999.
- Mosley, M.P.; Pearson, C.P. (1999). "South Pacific sea level and climate monitoring project: Phase III design exercise". Presented at the Australian Agency for International Development, Canberra, November 1999.
- Moss, G.A. (1999). "Is lobster propagation feasible? The New Zealand research experience". Presented to the Tasmanian Aquaculture and Fisheries Institute, Taroona, November 1999.
- Mulcock, C.A.; Biggs, B.J.F.; Kilroy, C. (1999). "SHMAK – a community monitoring system for stream health". Invited presentation at the Ministry for the Environment Water Monitoring Workshop, Wellington, June 1999.
- Mullan, A.B. (1999). Climate briefing to MAF Policy, Wellington, April 1999.
- Murdoch, R.C. (1999). "Global warming and the oceans". Presented to Sir Peter Blake (representing the Cousteau Society), NIWA, Wellington, June 1999.
- Murdoch, R.C. (1999). "Supply of *Lissodendoryx* for halichondrins." Presented to PharmaMar, Madrid, Spain, September 1999.
- Murdoch, R.C.; Boyd, P.W. (1999). "SOIRE – a Southern Ocean Iron Release Experiment, February 1999". Presented at the Seminar on New Zealand Activities in Antarctica 1998–99, Victoria University of Wellington, March 1999.
- Neil, H.L. (1999). "Late Quaternary variability of surface and deep water masses, SW Pacific". A series of marine science seminars delivered to the Department of Marine Science, University of Otago, June 1999.
- Neil, H.L. (1999). "Ocean change in past climates". Public lecture to Wairarapa Geological Society, November 1999.
- Nguyen, L. (1999). "Nitrate processing in riparian wetlands". Presented to Land and Water Resources Research and Development Corporation Workshop on Riparian Research in Australia and New Zealand, Adelaide, February 1999.
- Nguyen, L. (1999). "Water quality functions of riparian wetlands". Presented to Sustainable Agriculture: Dairy Issues, Maruia Society seminar and field trip, Hamilton, June 1999.
- Nguyen, L.; Rutherford, J.C.; Burns, D. (1999). "Denitrification and nitrate removal in two contrasting riparian wetlands". Presented at workshop Modelling of Land Treatment Systems, Technical Session 20, New Plymouth, October 1999, and included in the proceedings, pp. 127–134. Land Treatment Collective, c/- Forest Research Institute, Rotorua.
- Nguyen, L.; Wilcock, R.J. (1999). "Drainage, riparian and nitrate removal studies at NIWA". Presented at the Dairying and the Environment Committee Research Workshop, Ruakura Research Centre, Hamilton, August 1999, and abstract published in the proceedings, p. 56.
- Nikora, V.I.; Goring, D. (1999). "River turbulence: science and engineering". Presented at the Gravel-bed Rivers Workshop at the New Zealand Hydrological Society Symposium, Napier, November 1999.
- Notholt, J.; Jones, N.B. (1999). "Background observations of stratospheric ClO by ground-based solar absorption spectroscopy". Presented at Infrared Working Group Meeting, Wengen, Switzerland, June 1999.
- O'Shea, S. (1999). Hosted visit to giant squid lab during a presentation to the French Scientific Attaché, Philippe Perez, of NIWA–France scientific collaborative projects, NIWA, Wellington, September 1999.
- Ogilvie, S.C. (1999). "Mussel farming – a need for nitrogen?" Poster presented at the Inaugural FRST Awards Presentation Ceremony, Christchurch, July 1999.

- Oliver, M. (1999). Hosted visit to rock lobster lab during a presentation to the French Scientific Attaché, Philippe Perez, of NIWA–France scientific collaborative projects NIWA, Wellington, September 1999.
- Pearson, C.P. (1999). “A real assessment of hydrological elements and hydrological data requirements”, “Data collection, processing and retrieval”, and “Relevant programmes of other international and inter-governmental organisations”. Presented at the World Meteorological Organisation Meeting of Experts on Hydrological Needs of Small Islands, Fiji, October 1999.
- Pearson, C.P. (1999). “Overview of four hydrological investigations and suggested further work”. Presented at Mighty River Power’s Taupo Waikato Resource Consents Project Effects Assessment “Think Tank”, Christchurch, July 1999.
- Pearson, C.P. (1999). “The Otago drought and hydrology”. Presented to Primary Production Select Committee, Parliament, Wellington, April 1999.
- Pearson, C.P. (1999). “Water quality assessment”. Presented at the World Meteorological Organisation Workshop on Reviewing National Capabilities for Water Resources Assessment for the South Pacific Countries, Fiji, September/October 1999.
- Pearson, C.P. (1999). Hydrological statistics course presented to staff from five regional councils, Hydsys and NIWA, Christchurch, September 1999.
- Pearson, C.P. (1999). Presented workshop on data transfer standards for hydrological database software at the New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Poortenaar, C.W. (1999). “Discrimination of pheromonal cues in fish: emerging parallels with insects”. Presented to Sensory Biology Journal Club, University of Auckland, June 1999.
- Poortenaar, C.W. (1999). “Status of aquaculture research in New Zealand.” Presented to the Aquaculture Department, Kinki University, Japan, May 1999.
- Pridmore, R.D. (1999). “Aquatic and atmospheric chemistry at NIWA”. Presented to New Zealand high school chemistry teachers at Chem Ed ’99, Hamilton, June 1999.
- Pundt, I.; Van Roozendaal, M.; Wagner, T.; Richter, A.; Chipperfield, M.P.; Arlander, D.W.; Burrows, J.P.; Chance, K.; Enell, C.-F.; Fayt, C.; Goutail, F.; Hendrick, F.; Hermans, C.; Johnston, P.V.; Jones, R.; Karlsen Tornkvist, K.; Kreher, K.; Pfeilsticker, K.; Platt, U.; Pommereau, J.P.; South, A.; Wittrock, F. (1999). “Simultaneous UV-vis measurements of BrO from balloon, ground and satellite: implications for tropospheric BrO”. Presented at the Fifth European Workshop on Stratospheric Ozone, St Jean de Luz, France, September/October 1999.
- Quinn, J.M. (1999). “Catchment and riparian influences on stream dissolved organic carbon and microbial growth”. Presented at the Australian Land and Water Resources Research and Development Corporation Workshop, Adelaide, February 1999.
- Quinn, J.M. (1999). “Managing stream health as part of quality farming”. Presented to Sustainable Agriculture: Dairy Issues, Maruia Society seminar and field trip, Hamilton, June 1999.
- Quinn, J.M. (1999). “Managing stream health as part of quality farming”. Presented to McRae Farm Trust Annual Field-day, Wairoa, April 1999, and summarised in the workshop handout.
- Quinn, J.M. (1999). “Pilot riparian zone classification for the Piako–Waihou Rivers”. Presented to the Environment Committee of Environment Waikato, Hamilton, December 1999.
- Quinn, J.M. (1999). “Riparian research at NIWA – an overview”, “Riparian vegetation as habitat for adult insects”, and “Riparian zones, dissolved organic carbon and stream biota”. Presented at the Australian Land and Water Resources Research and Development Corporation Workshop on Riparian Research in Australia and New Zealand, Adelaide, February 1999.
- Quinn, J.M.; Rowe, D.; Boothroyd, I. (1999). “Influence of riparian buffers on harvesting impacts on streams – progress report on recent fieldwork”. Presented to Environmental Working Group, LIRO, Rotorua, June 1999.
- Quinn, J.M.; Stroud, M.; Thorrold, B.; McGowan, A.; Collier, K. (1999). “Hill-farming effects on stream water quality and possible solutions”. Presented to Sustainable Agriculture: Dairy Issues, Maruia Society seminar and field trip, Hamilton, June 1999.
- Renwick, J.A. (1999). “Climate prediction research and operations at NIWA”. Presented to Scripps Institution Climate Research Division, La Jolla, California, and to International Research Institute for Climate Prediction, Lamont Doherty Earth Observatory, New York, August 1999.

- Renwick, J.A. (1999). "Climate variability, predictability and impacts on the agricultural sector". Presented to Massey University Advanced Farm Management Group, Palmerston North, April 1999.
- Renwick, J.A. (1999). "Hemispheric and global-scale coupled SST/circulation analyses". Presented at the Workshop on Climate and Surface Ocean Variation in Oceania, NIWA, Auckland, April 1999.
- Renwick, J.A. (1999). "Settlement and local climate variability". Presented to Rock Lobster Stock Assessment Working Group, Wellington, June, and "Settlement and local climate variability: an update", presented November 1999.
- Renwick, J.A.; Thompson, C.S. (1999). "Validation of global prediction models". Presented at Synoptic Weather Workshop for end-users' first-year briefing, NIWA, Wellington, June 1999.
- Revell, M.J. (1999). "Impact of moist processes on the structure of ex-tropical cyclone Drena: a modelling study using high-resolution and idealised 2D RAMS simulations". Presented to the School of the Environment, Leeds University, UK, September 1999.
- Revell, M.J. (1999). "The diabatic regime of baroclinic instability" and "The latent heating driven regime of balanced frontogenesis". Presented to the Department of Meteorology, Reading University, UK, September 1999.
- Revell, M.J.; Gray, W.R.; McGregor, J. (1999). "Meso-scale structure of cyclones in the New Zealand area. A study of ex-tropical cyclone Drena using an idealised model". Presented to lead forecasters from MetService, Wellington, June 1999.
- Revell, M.J.; Gray, W.R.; Turner, R.W.; McGregor, J.A. (1999). "The role of moist processes in the redevelopment of ex-tropical cyclone Drena". Presented at Synoptic Weather Workshop for end-users' first-year briefing, NIWA, Wellington, June 1999.
- Revell, M.J.; Wratt, D.S.; Larsen, H.; Copeland, J. (1999). "Barrier jets around the Southern Alps of New Zealand and their potential to enhance alpine rainfall". Presented at the MAP conference, Appenzell, Switzerland, June 1999.
- Richardson, K. (1999). "A note on the document 'Responses to Questions concerning R'". Presented at CCSBT [Commission for the Conservation of Southern Bluefin Tuna] Third Joint Experimental Fishing Working Group Meeting, Canberra, March 1999.
- Richardson, K. (1999). "A note on the variability of 'R' from EFP98". Presented at CCSBT Third Joint Experimental Fishing Working Group Meeting, Canberra, March 1999.
- Richardson, K. (1999). "New Zealand comments on the Japanese 'basin-type' model". Presented at CCSBT Fourth Joint Experimental Fishing Working Group Meeting, Tokyo, April 1999.
- Richardson, K. (1999). "Overview of a proposal for an experimental fishing programme to resolve uncertainty in the spatial distribution of southern bluefin tuna". Presented at CCSBT Experimental Working Group 3, Tokyo, February 1999.
- Richter, A.; Kreher, K.; Johnston, P.V.; Wittrock, F.; Burrows, J.P. (1999). "Validation of GOME O<sub>3</sub>, NO<sub>2</sub>, BrO and OCIO measurements in southern high latitudes". Presented at the Fifth European Workshop on Stratospheric Ozone, St Jean de Luz, France, September/October 1999.
- Richter, A.; Van Roozendaal, M.; Wagner, T.; Lambert, J.-C.; Arlander, D.W.; Burrows, J.P.; Fayt, C.; Johnston, P.V.; Jones, R.; Karlsen Tornkvist, K.; Kreher, K.; Pfeilsticker, K.; Platt, U.; Pundt, I.; South, A.; Wittrock, F. (1999). "BrO measurements from GOME and from the ground: an intercomparison study". Presented at the Fifth European Workshop on Stratospheric Ozone, St Jean de Luz, France, September/October 1999.
- Robertson, D.A. (1999). "An overview of NIWA, including NIWA's fisheries research". Presented to a group of 60 graduate and postgraduate students sponsored by Te Ohu Kai Moana (Treaty of Waitangi Fisheries Commission), Wellington, September 1999.
- Robertson, D.A. (1999). "Environmental management for marine biodiversity". Presented at the New Zealand Biodiversity Strategy Scientific and Technical Consultation Workshop, convened by the Department of Conservation at NIWA, Wellington, February 1999.
- Robertson, D.A. (1999). "General overview of NIWA". Presented to the French Scientific Attaché, Philippe Perez, in a display of NIWA-France scientific collaborative projects, NIWA, Wellington, September 1999.



- Ross, A.H. (1999). "The benefits of environmental monitoring: linking climate to mussel production in Pelorus Sound". Presented at the Challenger Scallop Productivity Workshop, Nelson, June 1999.
- Rowe, D.K. (1999). "Protecting fish in New Zealand rivers from increased solids loadings". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Rutherford, J.C. (1999). "Shade and invertebrate control of periphyton". Presented to Land and Water Resources Research and Development Corporation Workshop on Riparian Research in Australia and New Zealand, Adelaide, February 1999.
- Rutherford, J.C.; Chapra, S.C.; McBride, G.B. (1999). Presented a two-day training Water Quality Modelling Workshop for environmental professionals, Hamilton, March 1999.
- Sagar, P. (1999). "Breeding and population dynamics of southern Buller's albatross". Presented to representatives of the Seafood Industry Council, Ministry of Fisheries, and the Department of Conservation, Wellington, November 1999.
- Sagar, P.M. (1999). "Breeding of South Island pied oystercatchers on farmland in mid Canterbury". Talk given at the Ornithological Society of New Zealand Scientific Day, University of Canterbury, June 1999.
- Sagar, P.M. (1999). "Buller's mollymawk programme – progress to date". Seminar presented to Department of Conservation, Invercargill, February 1999.
- Sagar, P.M. (1999). "Whither Buller's albatrosses?" Presented to Sir Peter Blake (representing the Cousteau Society), NIWA, Wellington, June 1999.
- Salinger, M.J. (1999). "Agrometeorological adaption strategies to climate variability and climate change". Invited paper presented at the International Workshop on Agrometeorology in the 21st Century – Needs and Perspectives, Accra, Ghana, February 1999.
- Salinger, M.J. (1999). "Climate and surface ocean variation in New Zealand and the South Pacific". Presented at a workshop on Climate and Surface Ocean Variation in Oceania, Auckland, April 1999.
- Salinger, M.J. (1999). "Observed climate variability and change". Presented at APN Workshop on Climate Extremes, Australian Bureau of Meteorology, Melbourne, December 1999.
- Salinger, M.J. (1999). "Trends in climate extremes in Australia and New Zealand". Presented at the Workshop on Trends in Weather and Climate Extremes: Update since June 1997 Asheville Conference, NOAA NCDC, Asheville, North Carolina, March 1999.
- Scarsbrook, M.R. (1999). "Development of an urban stream habitat assessment system". Invited presentation to Sustainable Management Fund: Land and Water Management Seminar, Hamilton, June 1999.
- Scarsbrook, M.R. (1999). "Effects of fine sediment on benthic and hyporheic processes". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Sinnhuber, B.-J.; Chipperfield, M.P.; Enell, C.-F.; Fries, U.; Hendrick, F.; Johnston, P.V.; Kreher, K.; Pfeilsticker, K.; Platt, U.; Richter, A.; South, A.; Karlsen Tornkvist, K.; Van Roozendaal, M.; Wagner, T.; Wittrock, F. (1999). "Comparison of ground-based BrO measurements during the THESEO with the SLIMCAT chemical transport model". Presented at the Fifth European Workshop on Stratospheric Ozone, St Jean de Luz, France, September/October 1999.
- Smith, P.J. (1999). "Antarctic toothfish research". Presented to Sir Peter Blake (representing the Cousteau Society), NIWA, Wellington, June 1999.
- Smith, P.J. (1999). "Genetic stock structure of orange roughy on the South Tasman Rise". Presented to the South Tasman Rise Working Group, Wellington, February 1999.
- Smith, P.J. (1999). "Genetic studies on toothfish: progress report for CCAMLR". Report supplied to Ministry of Foreign Affairs and Trade, and the Ministry of Fisheries, September 1999, and presented at CCAMLR meeting, Hobart, October 1999.
- Smith, P.J. (1999). "Update on stock relationships of orange roughy in New Zealand waters". Report to the Deepwater Research Planning Group meeting, Ministry of Fisheries, Wellington, August 1999.

- Stahl, J.C. (1999). "At-sea distribution and foraging of southern Buller's albatrosses". Seminar presented to representatives of the Seafood Industry Council, Ministry of Fisheries, and Department of Conservation, Wellington, November 1999.
- Stevens, C.L.; Lawrence, G.A. (1999). "Internal waves in enclosed basins". Presented to the Department of Geophysics, University of Hokkaido, Hokkaido, Japan, February 1999.
- Stevens, C.L.; Lawrence, G.A. (1999). "Internal waves on and in lacustrine thermoclines". Presented at the Lake Biwa Research Institute, Japan, February 1999.
- Stevens, C.L.; Lawrence, G.A. (1999). "Vertical diffusion in a stratified basin". Presented to the Department of Civil Engineering, University of Hokkaido, Japan, February 1999.
- Stevens, C.L.; Smith, M.J.; Gorman, R.M.; McGregor, J.A. (1999). "Waves and transport in an intertidal harbour". Presented at the Hokkaido Institute for Environmental Sciences, Japan, February 1999.
- Stevens, C.L.; Smith, M.J.; McGregor, J.A.; Poulter, E.M. (1999). "Remote sensing of air-sea interaction". Presented to the Department of Atmospheric Geochemistry, University of Hokkaido, Japan, February 1999.
- Stroud, M.J. (1999). "Sediment runoff from the land: physical processes and prediction using numerical models". Presented at Sediment Effects in Estuaries Workshop, Ecoquest Field Centre for Advanced Studies in Ecology, Resource Management and Environmental Policy, Miranda, Firth of Thames, December 1999.
- Stroud, M.J.; Cooper, A.B. (1999). "Predicting sediment runoff from the land". Presented at the Sediment Workshop, New Zealand Limnological Society and Australian Society of Limnology Joint Annual Conference, Wairakei, Taupo, November/December 1999.
- Sukias, J.P.S. (1999). "Mechanical aeration for upgrading dairy ponds". Presented at the Dairying and the Environment Committee Research Workshop, Ruakura Research Centre, Hamilton, August 1999, and published in the proceedings, pp. 16–18.
- Sutton, P.J.H. (1999). "Repeat XBTs and ocean variability in the East Auckland Current". Presented at An Ocean Thermal Network Review, Bureau of Meteorology, Melbourne, August 1999.
- Tanner, C.C. (1999). "New Zealand experiences with constructed wetlands". Presented to a workshop on Design of a Constructed Wetland to Remove Nutrients from Ellen Brook, Western Australia, held by Water and Rivers Commission and CSIRO Land and Water, Perth, October 1999, and abstract published in workshop proceedings, p. 11.
- Tanner, C.C.; Sukias, J.P.S.; Craggs, R.J.; Davies-Colley, R.J. (1999). "Farm dairy pond upgrading options". Presented at the Dairying and the Environment Committee Research Workshop, Ruakura Research Centre, Hamilton, August 1999, and abstract published in the proceedings, p. 15.
- Taylor, P.R. (1999). "An examination of species proportions estimates, standardised stock indices, and the use of age-structured stock assessment models for jack mackerel, *Trachurus declivis* and *T. novaezelandiae*, in JMA 7" and "Stock structure and population biology of the jack mackerel, *Trachurus symmetricus murphyi*". Presented to the Fisheries Assessment Working Group (Pelagic Species), Wellington, September 1999.
- Thorrold, B.S.; Wilcock, R.J.; Monaghan, R.; Stroud, M.J.; Hamill, K. (1999). "Catchment-scale effects of land use and management on nutrient loss". Presented at the Fertiliser and Lime Research Centre Workshop on Best Management Practices for Soil Production, Massey University, Palmerston North, February 1999, and published in the proceedings: Currie, L.D.; Hedley, M.J.; Horne, D.J.; Loganathan, P. (eds). Best management practices for soil production, pp. 223–229. *Occasional Report No. 12*. Fertiliser and Lime Research Centre, Massey University, Palmerston North.
- Thrush, S.F. (1999). "Ecological effects of sediments in estuaries". Presented at Sediment Effects in Estuaries Workshop, Ecoquest Field Centre for Advanced Studies in Ecology, Resource Management and Environmental Policy, Miranda, Firth of Thames, December 1999.
- Thrush, S.F. (1999). "Fishing: ecological effects and resource sustainability". Presented at Institute of Biology, University of Oslo, Norway, September, and Department of Biology, Abo Akademi, Finland, October 1999.

- Thrush, S.F. (1999). "Heterogeneity and scale: linking specific experiments to generality". Keynote presentation at the Third Nordic Benthological Meeting, Jyväskylä, Finland, September 1999. Also presented at Institute of Biology, University of Oslo, Norway; Alfred Wegener Institut für Polar- und Meeresforschung, Bremerhaven, Germany; and Department of Biology, Abo Akademi, Abo, Finland, September 1999.
- Thrush, S.F.; Stroud, M.J.; Green, M.O. (1999). "Prediction of impacts of sediments on estuarine benthos during catchment development: Okura case study". Presented at Sediment Effects in Estuaries Workshop, Ecoquest Field Centre for Advanced Studies in Ecology, Resource Management and Environmental Policy, Miranda, Firth of Thames, December 1999.
- Thrush, S.F.; Whitlatch, R.B. (1999). "Recovery dynamics in benthic communities: balancing detail with simplification". Presented at the workshop: Intercoast on Sylt – Ecological Comparisons of Sedimentary Shores, Wadden Sea Station Sylt and Alfred Wegener Institute, Sylt, October 1999, and submitted for publication in the proceedings.
- Tian, Y.; Green, M.O.; Oldman, J.W. (1999). "Parallel processing for spatial and temporal modelling". Presented at the High Performance Computing Workshop: Opportunities and Applications, NIWA, Wellington, November/December 1999.
- Tong, L.J. (1999). "The biological feasibility of rock lobster propagation and key areas for research". Presented at the FRDC Rock Lobster Propagation Workshop, Hobart, January 1999.
- Tong, L.J.; Moss, G. (1999). "Summary of work done in NZ at NIWA, Mahanga Bay, on rock lobster (*Jasus edwardsii* and *J. verreauxi*). Presented at the FRDC Rock Lobster Propagation Workshop, Hobart, January 1999.
- Tracey, D.M. (1999). "Orange roughly collaborative projects". Presented to the French Scientific Attaché, Philippe Perez, in a display of NIWA–France scientific collaborative projects, NIWA, Wellington, September 1999.
- Uddstrom, M.J. (1999). "Mesoscale weather prediction – future prospects". Invited talk at the Flood Plain Management Workshop, New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Uddstrom, M.J. (1999). "Parallel computing at NIWA". Presented at the High Performance Computing Workshop: Opportunities and Applications, NIWA, Wellington, November/December 1999.
- Uddstrom, M.J.; Cole, A.G. (1999). "NIWA's High Performance Computing Facility: Why MPP?" Presented at the High Performance Computing Workshop: Opportunities and Applications, NIWA, Wellington, November/December 1999.
- Uddstrom, M.J.; Cole, A.G. (1999). "The NIWA High Performance Computing Facility initiative". Presented in the Prestige Seminar Series, University of Canterbury and NIWA, Christchurch, March 1999.
- Ward, R.C.; McBride, G.B.; Huser, B. (1999). "New Zealand's Resource Management Act of 1991: developing a legal underpinning to watershed management". Presented at the Universities Council on Water Resources meeting on Water: Lessons of World Development, Kamuela, Hawaii, June/July 1999, and published in the proceedings, pp. 1–9.
- Webb, V.L. (1999). "Supplying bioactive molecules derived from marine invertebrates". Presented at Wellington Health and Biomedical Research Society, Wellington, November 1999.
- Webb, V.L. (1999). "Update on tissue culture and sponge hybridoma". Presented at the Marine Biotechnology Programme Workshop, Wellington, August 1999.
- Webb, V.L.; Glasby, B.; Page, M. (1999). "Marine biotechnology". Poster presented at Wellington Health and Biomedical Research Society workshop, Wellington, July 1999.
- Wells, R.D.S. (1999). "Aquatics". Workshop session conducted during Pest Plants into the New Millennium, New Zealand Biosecurity Institute 50th National Education and Training Seminar, New Plymouth, July 1999.
- Wilcock, R.J.; Rodda, H.J.E.; Scarsbrook, M.R.; Cooper, A.B.; Stroud, M.J.; Nagels, J.W.; Thorrold, B.S.; O'Connor, M.B.; Singleton, P.L. (1999). "The influence of dairying on the freshwater environment (the Toenepi study)". Presented at the Dairying and the Environment Committee Research Meeting, Ruakura Agricultural Research Centre, Hamilton, August 1999, and published in the proceedings.

- Wilkin, J.; Emery, W. (1999). "Merging infrared sea surface temperature with satellite altimetry to map coastal ocean currents". Presented at the TOPEX/ Poseidon/ Jason-1 Science Working Team Meeting, St Raphael, France, October 1999.
- Williams, E.K. (1999). "Using blue mussel larvae as toxicity test organisms." Poster presented at the Inaugural FRST Awards Presentation Ceremony, Auckland, June 1999.
- Wood, S.W.; Boyd, I.S.; Bodeker, G.E.; Connor, B.J.; Kreher, K.; Johnston, P.; Jones, N.; Matthews, A. (1999). "Correlative ground-based measurements made by NIWA, Lauder, for ILAS validation". Presented at the 15th ILAS Science Team Meeting, Nara, Japan, March 1999.
- Wood, S.W.; Connor, B.J. (1999). "Antarctic station site report". Presented at the NDSC Infrared Working Group Meeting, Wengen, Switzerland, June 1999.
- Wood, S.W.; Connor, B.J.; Bodeker, G.E. (1999). Supplied graphs and data to Dean Peterson, Antarctica New Zealand, for science presentation at Antarctic Ministerial Meeting, January 1999.
- Wood, S.W.; Connor, B.J.; Kreher, K.; Nichol, S.E.; Boyd, I.S. (1999). "Another ozone hole: techniques to characterise it and its effects outside Antarctica". Presented at NZ Activities in Antarctica workshop, Wellington, March 1999.
- Woods, R.A. (1999). "A NZ-wide view: are catchments with the same 'source-of-flow' hydrologically similar?" Presented to River Habitat Classification project team followed by group discussion, Christchurch, June 1999.
- Woods, R.A. (1999). "Introduction to MARVEX: hydrological variability at Mahurangi". Presented to postgraduates in the Department of Earth Sciences, University of Waikato, March 1999.
- Woods, R.A. (1999). "MARVEX overview" and "MARVEX catchment hydrology". Seminars presented at 1st MARVEX Science Workshop, Leigh Marine Laboratory, Leigh, November 1999.
- Woods, R.A. (1999). "MARVEX: measuring and understanding space-time hydrology". Environmental Dynamics Seminar presented at Centre for Water Research, University of Western Australia, Perth, June 1999.
- Woods, R.A. (1999). "Scaling in landscapes". Invited paper presented at Workshop on Scaling in Hydrology, Co-operative Research Centre for Catchment Hydrology, Melbourne, June 1999.
- Woods, R.A.; Bowden, W.B.; Grayson, R.B. (1999). "Mahurangi field days". Tour of MARVEX measurement sites with discussion of resource management and scientific issues for participants from local government, forestry industry, local landowners, CRIs and universities, Warkworth, February 1999.
- Woods, R.A.; Henderson, R.D. (1999). "Estimation of low flows in New Zealand river basins". Presented to the Local Authority Environmental Monitoring Group, Invercargill, March 1999.
- Woods, R.A.; Henderson, R.D.; Ibbitt, R.P.; Copeland, J. (1999). "Towards a nationwide flood forecasting capability". Presented to the Local Authority Environmental Monitoring Group, Invercargill, March 1999.
- Wright, I.C. (1999). "Active tectonics and volcanism of the Kermadec-Havre Arc-Back-arc System: insights from the *Sonne* SO-135 cruise". Presented to the School of Earth Sciences, Victoria University of Wellington, May 1999.
- Wright, I.C. (1999). "Seamounts and undersea volcanoes". Presented to Sir Peter Blake (representing the Cousteau Society), NIWA, Wellington, June 1999.
- Zheng, X.; Kimot, M.; Ozaki, T. (1999). "A parallel analysis scheme for non-linear systems based on Kalman filtering". Presented at the High Performance Computing Workshop: Opportunities and Applications, NIWA, Wellington, November/December 1999.



## 5. Popular articles and public appearances

Includes NIWA-authored articles in non-scientific or popular-science magazines, interviews on radio or television, presentations to non-scientific audiences.

- Allibone, R.M. (1999). "How many whitebait escape?" Presented to Tainui Whitebaiters Association, Awakino, September 1999.
- Allibone, R.M. (1999). Where do whitebait go? *New Zealand Science Monthly* 10(10): 6–7.
- Allibone, R.M.; Boubée, J.; West, D. (1999). The ones that got away: determining whitebait movements and rates of escape. *Water & Atmosphere* 7(1): 11–13.
- Andrew, N.L.; MacDiarmid, A.B. (1999). Sea urchin fisheries and potential ecological interactions with a kina fishery in Fiordland. *Conservation Advisory Science Notes* 266. Department of Conservation, Wellington. 12 p.
- Basher, R.E. (1999). Interviewed on North Island drought by Geoff Robinson on National Radio's Morning Report, 26 February 1999.
- Basher, R.E. (1999). Public warned of drought last July [letter]. *Otago Daily Times*, 4 March.
- Bell, R.G. (1999). "Careers in modelling in the aquatic sciences". Presented at Waikato Careers Service, Careers Advisers Update Day site visit, NIWA, Hamilton, March 1999.
- Bell, R.G. (1999). Lack of knowledge about our oceans could cost lives. FRST Newsroom web page ([www.frst.govt.nz/public/newsroom/new11.htm](http://www.frst.govt.nz/public/newsroom/new11.htm)), July 1999.
- Bell, R.G. (1999). What's happening with sea-level rise? *Coastal News* 12: 1–4.
- Bell, R.G.; Goring, D.G. (1999). Coastal and shelf circulation around New Zealand. Web page for PGSF programme at: [www.niwa.cri.nz/pgsf/cashcanz](http://www.niwa.cri.nz/pgsf/cashcanz) + updates.
- Bodeker, G.E.; McKenzie, R. (1999). Nobel Prize winner visits NIWA. *Water & Atmosphere* 7(3): 6.
- Booth, J.D. (1999). "Enhancement of reef species – rock lobster recruitment dynamics". Presented to the Rock Lobster Industry Council, Wellington, March 1999.
- Booth, J.D. (1999). Rock lobsters making the transition. *Seafood New Zealand* 7(9): 15–16.
- Booth, J.D.; Bradford, E.; Forman, J.; Jeffs, A.G.; Stotter, D. (1999). Rock lobsters at sea and at settlement. *Seafood New Zealand* 7(5): 12.
- Booth, J.D.; Davies, P.; Zame, C. (1999). Commercial-scale collections of young rock lobster for aquaculture. *The Lobster Newsletter* 12(1): 13–14.
- Booth, J.D.; Forman, J. (1999). Lots and lots of larvae. *Seafood New Zealand* 7(5): 14.
- Booth, J.D.; Forman, J.; Stotter, D.; Bradford, E. (1999). Pueruli and juveniles on the shore. *Seafood New Zealand* 7(5): 17.
- Boothroyd, I.K.F. (1999). "Careers in freshwater science". Presented at Waikato Careers Service, Careers Advisers Update Day site visit, NIWA, Hamilton, March 1999.
- Boubée, J.A.T.; Chisnall, B.; Watene, E. (1999). "Eels and the Rangitaiki River – current knowledge, research and management opportunities". Presented at a joint hui of Kokopu Trust, NIWA, and DoC, Waiohau Marae, April 1999.
- Boyd, P.W.; Watson, A.; Law, C. (1999). Spotlight is on iron at international SOIREE in Southern Ocean. *United States Joint Global Ocean Flux Study News (February)*: 10–11.
- Bradford-Grieve, J.M. (1999). Computer identification of New Zealand's planktonic oar-footed bugs. *Water & Atmosphere* 7(3): 8.
- Broekhuizen, N. (1999). Balancing the books: dinoflagellate persistence in the oceanic environment. *Water & Atmosphere* 7(1): 20–21.
- Bryan, K.R.; Hall, J.A.; Bogle, J.; Bell, R.G.; Payne, G. (1999). Gave presentation on Cam-Era to Morrinsville 3rd-formers, August 1999.
- Bury, S. (1999). A personal perspective on the Women in Science conference, or Women in science: are things changing? *New Zealand Science Review* 56(1–2): 41–42.
- Bury, S. (1999). The Delta<sup>Plus</sup> stable isotope mass spectrometer: advancing NIWA's research in environmental processes. *Water & Atmosphere* 7(2): 22–25.
- Campbell, H.J.; Gordon, D.P.; Taylor, P.D.; MacKinnon, D.I. (1999). "Ancient islands: the unique contribution of the Chatham Islands to understanding New Zealand's prehistory and fossils". Presented to the local community, Waitangi Courthouse, Chatham Island, November 1999.

- Carter, G.; Duncan, M.; Biggs, B. (1999). Flow patterns in braided and steep streams. *Water & Atmosphere* 7(1): 16–17.
- Carter, L. (1999). “Exploring the oceans around New Zealand”. Presentation included in Summer Programme 1999 of Kapiti Coast Workers Educational Association (WEA), Paraparaumu, April 1999.
- Carter, L.; Carter, B.; McCave, I.N.; Shipboard Scientific Party. (1999). You don’t know what’s there until you drill: initial results from Leg 181 – SW Pacific gateway. *Water & Atmosphere* 7(1): 14–16.
- Champion, P. (1999). “Waitakere wetland: recommendations for the management of willows and other plant pests”. Presented at a public meeting, Waitakere City, December 1999.
- Chang, F.H. (1999). A new species of *Gymnodinium* that caused the 1998 summer human respiratory syndrome and decimation of marine life in Wellington Harbour, New Zealand. *Harmful Algae News* 19: 1–4.
- Chang, F.H. (1999). Interviewed about *Noctiluca* bloom in Wellington Harbour on TV Wellington Channel 17 News, 7.00 pm, 13 September 1999.
- Chang, F.H. (1999). Life cycle of a palytoxin-producing dinoflagellate from northern New Zealand. *Water & Atmosphere* 7(4): 15–16.
- Chang, F.H. (1999). Phytoplankton blooms around Wellington. *Aquaculture Update* 23: 11–12.
- Chisnall, B.L.; Boubée, J.; Bowman, E. (1999). Downstream migration of mature eels in hydro reservoirs. *Water & Atmosphere* 7(2): 8–10.
- Chiswell, S.M.; Booth, J. (1999). Phyllosomas in an eddy. *Seafood New Zealand* 7(5): 13.
- Clark, M.; Tracey, D. (1999). Briefed the ORH3B Company directors on the June northwest Chatham Rise surveys on *Tangaroa* and *Amaltal Explorer*, Wellington, July 1999.
- Clark, M.; Wright, I.; Wood, B.; O’Shea, S.; McKnight, D. (1999). New research on seamounts. *Seafood New Zealand* 7(1): 31–34.
- Clark, M.R. (1999). Interviewed and filmed by Jo Sarsby of the BBC for “The Blue Planet”, a documentary series on marine issues; subject was a combination of seamounts, impacts of fishing, deepwater trawling, and orange roughy fisheries; September 1999.
- Clayton, J.S.; Rowe, D.K.; McDowall, R.M.; Wells, R.D.S. (1999). Cumulative impacts of multiple grass carp releases. *Conservation Advisory Science Notes* 256. Department of Conservation, Wellington. 11 p.
- Clayton, J.S.; Wells, R.D.S. (1999). Some issues in risk assessment reports on grass carp and silver carp. *Conservation Advisory Science Notes* 257. Department of Conservation, Wellington. 14 p.
- Collier, K.J.; Smith, B.J. (1999). The secret lives on land of adult aquatic insects. *RipRap* 13: 10–11.
- Cook, M.; Carter, L. (1999). Digging in the mud of Oamaru’s coast. *Oamaru Mail*, 29 October.
- Copeland, J.H. (1999). “Forecasting river flows using weather model forecasts”. Presented to emergency management staff from Wellington local and regional councils, Wellington, October 1999.
- Copeland, J.H. (1999). “Results from linked precipitation/riverflow modelling system, for October 1998 Kapiti floods”. Presented to Wellington Regional Council staff, Wellington, January 1999.
- Craggs, R.J. (1999). “High rate ponds for upgrading farm dairy ponds in New Zealand”. Presented to Dairy Liaison Group Meeting, Hautapu Dairy Factory, Anchor Products, May 1999.
- Craggs, R.J. (1999). Advanced pond systems offer an alternative to farmers in the pooh. *Aniwaniwa* 10: 4.
- Craggs, R.J.; Sukias, J.P.S.; Tanner, C.C. (1999). Field day run in association with the Dairy Liaison Group (Environment Waikato), and Anchor Products, at the pilot scale trial site at Hautapu, May 1999.
- Cryer, M.; Thrush, S. (1999). Towards environmentally friendly fishing. *Seafood New Zealand* 7(7): 31–32.
- Currie, K. (1999). “NIWA – a career in ecology”. Presented at a postgraduate symposium for ecology students at University of Otago, as a panel member during the careers forum, November 1999.
- Davies, N.M. (1999). “The gamefish tagging programme results for 1998–99”. Presented at the Tackle King Big Fish Seminar and Conference, Tauranga, November 1999.

- Davies-Colley, R.J.; Scarsbrook, M.R.; Marden, M. (1999). Ecology of muddy streams. *Conservation Quorum* 18: 4.
- Davies-Colley, R.J.; Scarsbrook, M.R.; Marden, M. (1999). What lives in muddy east coast streams? Research in soft-rock catchments. *Water & Atmosphere* 7(3): 7.
- Davis, J. (1999). Zooplankton in Pelorus Sound. *Aquaculture Update* 22: 6–7.
- Daw, G. (1999). "Climate projections for the Hauraki area". Presented to the Livestock Improvement Council, Ngatea, October 1999.
- Daw, G. (1999). "Climate Projections for the Maniototo region". Presented at Southfert seminars, Otago, April 1999.
- Daw, G. (1999). "Climate Projections for the Southland region". Presented at Southfert seminars, Invercargill, April 1999.
- Daw, G. (1999). "Climate projections, climate shifts". Presented at the North Island Bowling Greenkeepers Seminar, Napier, August 1999.
- Daw, G. (1999). "Fire weather summer climate briefing". Presented at the Intermediate Fire Weather Behaviour Course, Forum North, Whangarei, November 1999.
- Daw, G. (1999). "Local weather in the Hauraki Gulf". Presented to Richmond Yacht Club, Westhaven, Auckland, May 1999.
- Daw, G. (1999). "New Zealand climate projections". Presented at Dairying Research Corporation Field Day, Hamilton, March 1999.
- Daw, G. (1999). "New Zealand climate projections". Presented at New Zealand National Agricultural Field Days, Mystery Creek, Hamilton, June 1999.
- Daw, G. (1999). "New Zealand climate shifts, Bay of Plenty climate projections, and the NIWA Climate Centre". Presented at Baypak Seminar, Te Puke, July, 1999. Reported in *Bay of Plenty Times*, 15 July.
- Daw, G. (1999). "The 1998/1999 La Nina event". Presented to Civil Defence Controllers Seminar, Manukau City Council, February 1999.
- Daw, G. (1999). "The NIWA National Climate Centre, including climate shift and projection information for the citrus industry". Presented at the New Zealand Citrus Growers Inc. Conference, Kerikeri, August 1999.
- Daw, G. (1999). "Waikato climate – recent and future". Presented at Rabobank seminar series, Hamilton, March 1999.
- Daw, G. (1999). "Waitakere City, La Nina/El Nino – impacts on Auckland". Presented to the Waitakere City Council, March 1999.
- Daw, G. (1999). Blowing hot and cold: what's happening to the weather? *Orchardist* 9/99: 65.
- Daw, G. (1999). "Waikato summer climate seminar". Presented to Livestock Improvement Council, Matamata, December 1999.
- Daw, G.; Porteous, A.; Wratt, D.; Pearson, C.; Salinger, J. (1999). Climate Centre team staffed NIWA exhibit at National Agricultural Fielddays along with Dianna Lee, who organised the display, and Rick Pridmore and Paul Hargreaves, Mystery Creek, Hamilton, June 1999.
- Daw, G.; Salinger, M.J. (1998). "An analysis of the 1998/99 La Niña event". Presented to Auckland Regional Council and the public, Auckland, December 1998.
- de Ronde, C.E.; Baker, E.T.; Massoth, C.J.; Wright, I.C.; Shipboard Scientific Party; Landbased Scientific Party. (1999). First systematic survey of submarine hydrothermal plumes associated with active volcanoes of the Southern Kermadec Arc, New Zealand: initial results from the NZAPLUME Cruise. *InterRidge News* 8(2): 35–39.
- de Winton, M.D. (1999). Musseling in on Lake Rotorua. *Aniwaniwa* 11: 5.
- de Winton, M.D. (1999). Restoring water plants. *Water & Atmosphere* 7(4): 9–11.
- Diggles, B.K. (1999). Mortalities of *Jasus edwardsii* maintained in captivity at Greta Point. *Lobster Newsletter* No. 10.
- Elley, G. (1999). Opening of new laboratories for NIWA Instrument Systems. *Water & Atmosphere* 7(3): 4.
- Ellis, J.I. (1999). "Careers in coastal science". Presented at Waikato Careers Service, Careers Advisers Update Day site visit, NIWA, Hamilton, March 1999.



- Fenwick, J. (1999). New ADCP used for flood gauging in Otago. *Water & Atmosphere* 7(4): 4.
- Fisher, G.W. (1999). Deadly air [Retorts]. *New Zealand Science Monthly* 10(11): 2.
- Fisher, G.W. (1999). Disposing of effluent by spray irrigation – is it safe? *Aniwaniwa* 10: 5.
- Fisher, G.W. (1999). How big is a raindrop? [Response to 'Ask a Scientist'] *Press*, 30 September.
- Fisher, G.W. (1999). Raindrops' speed limited by size. *Otago Daily Times*, 9 June. Response to 'Ask a Scientist' also published in *Press*, 29 June.
- Fisher, G.W. (1999). Review of air quality guidelines. *Water & Atmosphere* 7(1): 6.
- Francis, M.P. (1999). Japanese shark tagging. *Seafood New Zealand* 7(4): 28.
- Funnell, G.A. (1999). Scouring the seafloor: what sort of effects is commercial fishing having on our coastal seafloor and how can these be handled ecologically? *New Zealand Science Monthly* 10(9): 6–8.
- Funnell, G.A.; Norkko, A. (1999). Nature's filters. *Vision Hauraki Gulf* 14 (December).
- Fynmore, D.; Basher, R. (1999). Questions on timing of weather readings [Letters to the Editor]. *Otago Daily Times*, 11 March. Reid Basher explains to David Fynmore why the recording periods have changed in weather information published in the *OTD*.
- Garlick, R.D.; Carter, L. (1999). NIWA Miscellaneous Chart Series: Ocean Circulation New Zealand. In: Implementing concepts of geography. ESRI Map Book, vol. 14, pp. 80–81. Environmental Systems Research Institute, Redlands, California.
- Gibbs, M.M. (1999). "Lake Taupo: a new understanding or just a clearer view". Presented at a public meeting, Taupo Great Lake Centre, December 1999.
- Glasby, C.J.; Read, G.B. (1999). Polychaete worms: a diverse yet poorly known group. *Water & Atmosphere* 6(4): 7–9.
- Gordon, D.P. (1999). Species 2000: New Zealand. A millennial symposium, Te Papa, Wellington, 1–5 February 2000. *Water & Atmosphere* 7(1): 4.
- Gordon, D.P. (1999). The Healey classical diatom slide collection. *Water & Atmosphere* 7(3): 5.
- Goring, D.G. (1999). "Did water flow on Mars?" Local News interview on Prime TV, 17 June, and on Newstalk ZB, 25 June 1999.
- Goring, D.G. (1999). "The running tide". Talk presented to Canterbury Sea-Kayak Association, June 1999.
- Goring, D.G. (1999). "Tsunami research and modelling for Hawke Bay". Presented to the Hawke's Bay Regional Council, Napier, November 1999.
- Goring, D.G. (1999). "Tsunami research at NIWA". Presented to the Emergency Management Unit, Canterbury Regional Council, Christchurch, April 1999.
- Goring, D.G. (1999). "Tsunami research project". Presented at a public meeting to the Hawke's Bay Regional Council, Napier, November 1999.
- Goring, D.G. (1999). From Canterbury to Mars. *New Zealand Science Monthly* 10(4): 5.
- Goring, D.G. (1999). Getting a handle on extreme sea-levels. *Aniwaniwa* 11: 3–4.
- Goring, D.G. (1999). Wavelets on Mars. *Water & Atmosphere* 7(1): 6.
- Grange, K.R. (1999). Interview on Planet FM, Nelson, about increased numbers of crayfish in Tonga Island Marine Reserve, 13 May 1999.
- Grange, K.R. (1999). Gave presentation on NIWA Taiapure Programme and sampling results to Ngati Kahungunu at Kohunui Marae, March 1999.
- Grange, K.R. (1999). Presented talk to Tasman Forest and Bird Society on marine conservation, Nelson, May 1999.
- Gray, W.R. (1999). "Weather forecasting". Presented to Wadestown Primary School, February 1999.
- Gray, W.R. (1999). Radio interview on TARPEX (Taranui Precipitation Experiment), broadcast on Eureka, National Radio, 15 May 1999.
- Green, M.O. (1999). This is ESEE. *Coastal News, Newsletter of the New Zealand Coastal Society* 13 (September): 6.
- Hadfield, M. (1999). Modelling swirls on the Subtropical Front. *Water & Atmosphere* 7(2): 17–19.
- Hall, J.A. (1999). "Introduction to careers in aquatic science". Presented at Waikato Careers Service, Careers Advisers Update Day site visit, NIWA, Hamilton, March 1999.

- Hall, J.A. (1999). "Life as an oceanographer". Presented to Golden Oldies, Te Anau, June 1999, and to Rakaunui Club, Tokoroa, July 1999.
- Hanchet, S.M. (1999). Gave illustrated talk on fish identification and biology to four classes at Tahunanui School, October 1999.
- Handley, S. (1999). Flatworms – horrific predators of oysters or merely scavengers? *Seafood New Zealand* 7(3): 48–49.
- Handley, S. (1999). Spoke on sustainability work being carried out by NIWA and flatworm research progress to South Island Oyster Farming Group meeting, Nelson, March 1999.
- Hartill, B. (1999). Billfish and gamefish tagging. *Seafood New Zealand* 7(4): 26–27.
- Harvey, M.J.; Lassey, K. (1999). Greenhouse gases emitted from pastoral agriculture. *Water & Atmosphere* 7(2): 5.
- Hatton, S. (1999). Feeding behaviour of *Perna canaliculus*. *Aquaculture Update* 22: 7–8.
- Hayden, B.J. (1999). "Effect of transport and handling on survival of mussel spat". Seminar presented to NZ Marine Farming Association, Havelock, September 1999.
- Henderson, R.D. (1999). "Rain and snow feeding the rivers." Presented to Workers Educational Association (WEA) as part of their series on Canterbury rivers, Christchurch, May 1999.
- Henderson, R.D.; Copeland, J.H.; Ibbitt, R.P.; Wratt, D.S. (1999). Flood forecasting for the new millennium. *Water & Atmosphere* 7(4): 22–24.
- Hickman, R.W. (1999). "What goes on under the satellite in Mahanga Bay?" Presented to Rotary Club of Courtenay Place, Wellington, July 1999.
- Hickman, R.W. (1999). Editorial. *Aquaculture Update* 22: 2.
- Hickman, R.W.; Tait, M.J. (1999). "Progress in developing the aquaculture of turbot and brill." Presented to Talleys Fisheries Ltd, Motueka, October 1999.
- Hickman, R.W.; Tait, M.J. (1999). "Turbot and brill: are they potential species for farming?" Presented to the West Coast Fishermen's Association, Greymouth, October 1999.
- Hickman, R.W.; Tait, M.J. (1999). UK expertise a boost to NZ marine fish farming. *Aquaculture Update* 22: 10–11.
- Hicks, D.M.; Lane, S.; Westaway, R. (1999). A metric eye in the sky: photogrammetric tools for riverbed surveys. *Water & Atmosphere* 7(4): 24–27.
- Hicks, D.M.; Walsh, J. (1999). Cam-Era moves upstream. *Water & Atmosphere* 7(3): 6.
- Hooker, S.H. (1999). "Perspectives on world aquaculture from the World Aquaculture Conference in Sydney". Presented to the NZ Oyster Farmers Association, Houhora, May 1999.
- Hooker, S.H.; Jeffs, A.G. (1999). "Update on Kaitaia mussel spat research". Presented to the Mussel Industry Council, Blenheim, May 1999.
- Hooker, S.H.; Morrison, M.A. (1999). Finding mussel beds from the surface. *Aquaculture Update* 23: 4.
- Horn, P.L. (1999). "Life, the universe and all that: how do heavenly bodies influence aquatic organisms?" Presented to Nelson Science Society, April 1999.
- Howard-Williams, C. (1999). "The role of stream protection in the Taupo catchment". Presented at a public lecture, Taupo, December 1999.
- Howard-Williams, C. (1999). Akaroa man's adventures went beyond polar work. *Christchurch Star*, 6 January. Book review of new Frank Worsley biography.
- Hume, T.M. (1999). "Piha Beach: coastal physical processes, effects of human activities and future management". Public presentation to the Waitakere City Council Community Board, Henderson, Auckland, July 1999.
- Hume, T.M. (1999). Piha Beach – nature doing what comes naturally. *Aniwaniwa* 11: 2.
- Hurst, R.J.; Francis, M.; Bagley, N.; Anderson, O.; Taylor, P.; Clark, M. (1999). New Zealand fish distribution: the big picture. *Seafood New Zealand* 7(2): 42–45.
- Ibbitt, R.P. (1999). "Hydraulic review for the Piako River Scheme differential rating project". Presented to the Piako River Asset Management Plan Advisory Subcommittee, June 1999.
- Ibbitt, R.P. (1999). "Results from linked precipitation/riverflow modelling system for the Ashburton catchment from the SALPEX'96 period". Presented to Canterbury Regional Council staff, Christchurch, February 1999.

- James, G. (1999). Interviewed at Glenariffe Salmon Research Station by A. Otway for Prime Television on sale of site and history and work undertaken at the station; aired February 1999.
- James, M.R. (1999). "Life in the seas around New Zealand". Public lecture given at WEA Rooms, Christchurch, as part of Seaweek '99, March 1999. Also noted in *Christchurch Star*, 12 March.
- James, M.R. (1999). "Sustainability – update on work in Beatrix Bay". Presented at the Mussel Industry Council Ltd Research Workshop, Havelock, October 1999.
- James, M.R. (1999). "Sustainability and carrying capacity of embayments for cultured shellfisheries". Presented to a range of end-users including Marlborough District Council, Ministry of Fisheries, SeaFIC, and research providers, Blenheim, November 1999.
- James, M.R. (1999). Assessing fish stocks. *New Zealand Science Monthly* 10(6): 4.
- Jeffs, A.G. (1999). Puerulus shoreward bound: sounds good? *The Lobster Newsletter* 12(1): 5–6.
- Jeffs, A.G. (1999). Rock lobsters at sea and at settlement – reaching shore. *Seafood New Zealand* 7(5): 15.
- Jeffs, A.G.; Hooker, S.H.; Hayden, B.; Alfaro, A. (1999). Mussel spat research. *Aquaculture Update* 23: 3.
- Jellyman, D.J. (1999). "Fisheries of Lake Ellesmere". Lecture to Workers Educational Association (WEA), Christchurch, March 1999.
- Jellyman, D.J. (1999). "The value of riparian margins of waterways to eels". Presented to Ngai Tahu wananga, March 1999.
- Jowett, I. (1999). "Inanga migrations in a small stream". Presented to Tainui Whitebaiters Association, Mokau, Taranaki, September 1999.
- Jowett, I. (1999). "Instream habitat analysis and the application of the SALMOD model". Presented at end-user workshops, NIWA, Christchurch and Hamilton, 1999.
- Jowett, I. (1999). Instream flow assessment course. Presented to Horizons MW (Manawatu-Wanganui Regional Council), Palmerston North, December 1999.
- Kelly, M. (1999). Deep sea sponges could be cancer killer. *North Shore Times Advertiser*, October.
- Kelly, M. (1999). Sponge study new hope for modern medicine. *Portrait: Auckland Institute of Technology (Spring Edition)*.
- Kelly, M.; Bell, L.J.; Buckeridge, J. (1999). Treasures from the deep: 'living fossil' sponge finds in northern New Zealand. *Water & Atmosphere* 7(2): 11–12.
- Kilroy, C.; Bergey, L. (1999). Diatoms: biological gems. *Water & Atmosphere* 7(3): 13–16.
- Kirby, D.S. (1999). "An overview of tuna ecology" and "NIWA SST services for recreational fishers". Presented at the Tackle King Big Fish Seminar and Conference, Tauranga, November 1999.
- Kuschel, G.I. (1999). "Imagine a future with engineering". Interview for IPENZ careers and role model CD, August 1999.
- Kuschel, G.I.; Hay, V. (1999). The long and winding road? Trends in the participation of women in science at NIWA since 1993. *Water & Atmosphere* 7(3): 19–21. Reprinted in *New Zealand Science Monthly* 11(6): 3–4.
- Lamarche, G. (1999). Television interview on French television programme, FRANCE-3, featuring NIWA and *Tangaroa's* voyage 3048 in the Wanganui Basin in November 1998, aired on 14 May 1999.
- Lamarche, G.; Barnes, P. (1999). Earthquake assessment in the Bay of Plenty. Media release, 11 November. Reported in *Bay of Plenty Times*, *Opotiki News*, 11 November; *NZ Herald*, *Dominion*, *Daily Post*, 12 November; *Whakatane Beacon*, 16 November; *Eastern Bay News*, 18 November; *NZ Herald*, *Te Puke Times*, 24 November; *Bay of Plenty Times* (with picture of Phil Barnes), 25 November; *Laboratory News*, December-January.
- Lassey, K.; Ulyatt, M. (1999). Agriculture and climate change. *Aniwaniwa* 10: 8.
- Lassey, K.R.; Ulyatt, M. (1999). Interviewed about methane measurement from grazing ruminants, live on TVNZ Breakfast programme, and with F. Kelliher on TVNZ evening news, 24 March 1999.
- Lewis, K.B. (1999). A voyage of discovery: a 2000-km deep-ocean "river" that flows through a great abyssal current. *Water & Atmosphere* 7(3): 17–19.

- Lewis, K.B. (1999). Finding the end of New Zealand's 2000 km long "river" on the bottom of the ocean. *Seafood New Zealand* 7(8): 31–32.
- Lewis, K.B. (1999). In the abyss. *Weekend Herald*, 7–8 August.
- Lewis, K.B.; Collot, J.-Y.; Goring, D. (1999). Huge submarine avalanches: is there a risk of giant waves and, if so, where? *Tephra* 17(October): 21–29.
- Livingston, M. (1999). New Zealand hoki: heaps of fish, but what's the catch? *Seafood New Zealand* 7(11): 37–38.
- Lowe, D.C. (1999). Build up of methane in atmosphere puzzles scientists. Media release for television, radio and print media, issued 28 June 1999. Reported in *NZ Herald*, *Dominion*, *West Coast Times*, *Evening Standard*, 29 June; *Gisborne Herald*, 2 July; also interviewed on same subject by Kim Hill on National Programme, Radio New Zealand.
- MacDiarmid, A.B.; Stewart, R.; Oliver, M.; Mauger, J. (1999). Female rock lobsters are vulnerable to mate availability. *Seafood New Zealand* 7(6): 45–47.
- Mahanga Bay (1999). Hamburg TV and press interview about flatfish rearing work at Mahanga Bay, in connection with visit of Dr H-J. Brautigam, of Membrantechnik Hamburg, as part of a trade delegation from the Free and Hanseatic City of Hamburg, 18 May 1999.
- Manning, M.R. (1999). "Climate change – what do we know and where are we going?" Presented at Evening Lecture series, Royal Forest and Bird Society, Te Papa, Wellington, November 1999.
- Manning, M.R. (1999). "Climate change science: what do we know?" Presented at Agriculture and Greenhouse Gases, Dairy Liaison Group Meeting. Environment Waikato, Hamilton, December 1999.
- Manning, M.R. (1999). "Climate change". Presented at Implications of Climate Change for the Wellington Region workshop for councillors, Wellington Regional Council, July 1999.
- Manning, M.R. (1999). Climate change. *Pacific World* (December): 21–23.
- Manning, M.R. (1999). Scientists still see global warming [letter]. *National Business Review*, 22 October.
- Mason, P. (1999). Weirs for the Cooks. *Water & Atmosphere* 7(4): 20–21.
- Matthews, W.A. (1999). "Changes in atmospheric ozone in the future". Interview with B. Crump on Radio New Zealand's Checkpoint, 3 February.
- McDowall, R.M. (1999). "Results of the NIWA Falklands freshwater fish survey". Presented at a public meeting, Stanley, Falkland Islands, November 1999.
- McDowall, R.M. (1999). "The NIWA Falklands freshwater fish survey". Presented at the Annual Meeting of Falklands Conservation, Stanley, Falkland Islands, November 1999.
- McDowall, R.M. (1999). Address to the monthly meeting of Canterbury Anglers' Club, May 1999.
- McDowall, R.M. (1999). Just hanging around for some fresh air, thanks! Survival adaptations of the mudfish. *Water & Atmosphere* 7(2): 7–8.
- McDowall, R.M. (1999). Memories of an antedeluvian Tongariro fisherman. *Fish and Game New Zealand* 25: 62–67.
- McDowall, R.M. (1999). Migration season of whitebait of giant kokopu, *Galaxias argenteus*. *Conservation Advisory Science Notes* 263. Department of Conservation, Wellington. 9 p.
- McDowall, R.M. (1999). See how they run. *Fish and Game New Zealand* 26: 48–52.
- McDowall, R.M. (1999). We know so darn little: native fish and trout interactions. *Fish and Game New Zealand* 27: 48–52.
- McDowall, R.M. (1999). West Coast whitebait close fishing areas. *Conservation Advisory Science Notes* 238. Department of Conservation, Wellington. 11 p.
- McDowall, R.M. (1999). What happened to the Selwyn? *Fish and Game New Zealand* 26: 28–34.
- McDowall, R.M. (1999). What is homing? *Fish and Game New Zealand* 24: 18–27.
- McKenzie, R.L. (1999). "Ozone/UV research by NIWA, Lauder". Presented at Lions Pakeke Club, Ranfurly, July 1999.
- McKenzie, R.L. (1999). "UV in New Zealand this summer (1998/99) more intense than usual". Interview with B. Crump on Radio New Zealand, 3 February.
- McKenzie, R.L. (1999). "What it's like to be a scientist". Presented to 3rd-form science classes at Dunstan High School, Alexandra, March 1999.

- McKenzie, R.L. (1999). Interview with Mike Bain from Radio Central about ozone depletion and UV increases, 9 December 1999.
- McKenzie, R.L. (1999). Provided background information for Brian Edwards interview of Paul Crutzen (visiting Nobel Prize winner), Top of the Morning show on National Radio, 15 May 1999.
- McKenzie, R.L.; Bodeker, G.E. (1999). Interview about changing ozone and UV with CBS News crew, September 1999. Interview was reported in *Otago Daily Times*, 16 September. The story, prompted by the article published in *Science*, was also carried by several news agencies including AP, UPI, Reuters and NZPA, and appeared in several newspapers internationally as well as on several websites. Richard was also consulted by the White House for background to President Clinton's 15 September speech.
- McKenzie, R.L.; Bodeker, G.E.; Connor, B.J. (1999). Increased UV radiation in New Zealand: a cautionary tale. *Water & Atmosphere* 7(4): 7–8.
- McKenzie, R.L.; Bodeker, G.E.; Connor, B.J. (1999). Interview with TV One News crew about the paper published in *Science* on increased summertime UV observed in New Zealand, September 1999.
- McKerchar, A.I. (1999). "The National Climate Centre and *The Climate Update*". Presented at a meeting of agents for L.J. Hooker, Christchurch, November 1999.
- McKnight, D.G. (1999). What's that starfish? *Seafood New Zealand* 7(1): 35–36.
- Moss, G.A.; Tong L.J. (1999). Progress in propagating pawharu. *Aquaculture Update* 23: 1–6.
- Murdoch, R.C. (1999). "Current NIWA oceanographic research activities". Presented to the Upper Hutt Forest & Bird Society, Wellington, May 1999.
- Murdoch, R.C. (1999). "Iron, phytoplankton and the Southern Ocean". Radio interview at NIWA, Wellington, aired on Eureka programme, 19 and 21 June 1999.
- Murdoch, R.C. (1999). "NIWA science and the recent SOIREE voyage". Presented to the Otari Probus Group, Wellington, April 1999.
- Nagels, J.W. (1999). "Colour and clarity measurements of natural waters". Invited lecture to Northland Regional Council staff followed by a field practical at a nearby stream, Whangarei, May 1999.
- Neil, H.L. (1999). "Why paleoceanography?" Public lecture to Zonta Association, Wellington, December 1999.
- Neil, H.L. (1999). Measuring past changes in the ocean: Kiel III carbonate preparation device for stable isotope analysis. *Water & Atmosphere* 7(2): 25–28.
- Nguyen, L.; Quinn, J. (1999). Riparian wetlands – maintain, don't drain. *RipRap* 13: 12–13.
- O'Shea, S. (1999). Giant squid. *Seafood New Zealand* 7(11): 34–35.
- O'Shea, S.; McKnight, D.; Clark, M. (1999). Bycatch – the common, unique, and bizarre. *Seafood New Zealand* 7(5): 45–51.
- Opreško, D.M.; Gordon, D.P. (1999). New Zealand's black coral species: unexpected diversity. *Water & Atmosphere* 6(4): 6.
- Paul, L.J. (1999). Trumpeter: reported catches have risen, but how big is the stock? *Seafood New Zealand* 7(8): 33–34.
- Pearson, C.P. (1999). "Climate effects on our water resources – floods, droughts, sustainability and risk management". Presented at New Zealand National Agricultural Field Days, Mystery Creek, Hamilton, June 1999.
- Pearson, C.P. (1999). "CRI/research workplace". Presented at the Student Job Expo Workshop, New Zealand Hydrological Society Annual Symposium, Napier, November 1999.
- Pearson, C.P. (1999). From the Crown: NIWA. *Current* 13: 47–50.
- Pearson, C.P. (1999). From the Crown: NIWA. *Current* 14: 60–67.
- Pearson, C.P. (1999). NIWA's National Climate Centre and *The Climate Update*. *Water & Atmosphere* 7(3): 3–5.
- Pearson, C.P. (1999). Workshop on data transfer standards. *Current* 14: 16–20.
- Pearson, C.P.; Wratt, D. (1999). "Climate information and the ski industry". Presented at Ski Areas Association (New Zealand) annual meeting, Methven, October 1999.
- Petersen, J. (1999). Mobile air quality monitoring trailers. *Water & Atmosphere* 7(1): 26–27.

- Pickmere, S. (1999). "SOIREE (Southern Ocean Release Voyage)". Presented to Rotary Club of Hamilton East, April 1999.
- Pickmere, S. (1999). Gave presentation on oceanography and the marine food chain to Fairfield College 3rd-form science class, March 1999.
- Poortenaar, C.W.; Hooker, S.H. (1999). Yellowtail kingfish – an exciting new aquaculture species for New Zealand. *Austasia Aquaculture* 13(2): 49–50.
- Poortenaar, C.W.; Hooker, S.H.; Sharp, N. (1999). Kingfish aquaculture research in New Zealand. *Austasia Aquaculture* 13(6): 45–46.
- Poortenaar, C.W.; Hooker, S.H.; Sharp, N. (1999). Update on kingfish aquaculture research. *Seafood New Zealand* 7(7): 33–34.
- Poortenaar, C.W.; Hooker, S.H.; Sharp, N. (1999). Where are we with kingfish aquaculture? *Aquaculture Update* 23: 9–10.
- Porteous, A. (1999). "Climate change and variability – impacts on Otago". Invited talk at Annual General Meeting of Clutha Agricultural Development Board, Balclutha, July 1999. Reported in *Southland Times*, 24 July.
- Porteous, A. (1999). "El Niño, La Niña – fact or fiction". Presented to Lower Hutt Garden Club, September 1999.
- Porteous, A. (1999). Background interview by National Radio, Whangarei, on whether Dargaville should be relocated to overcome the problem of flooding, 27 September 1999.
- Porteous, A. (1999). Gave presentation on NIWA climate products, particularly *Climate Now* and seasonal outlooks, to Otago Regional Council; prompted interview by Radio NZ, broadcast on Morning Report, 11 February 1999.
- Porteous, A. (1999). Supplied rainfall and soil moisture maps to rural newspapers: *Countrywide*, first week of February; *Rural News*, 22 February; *Southland Times*, 25 February.
- Porteous, A. (ed.) (1999). *Climate Update Nos. 0–6 (June–December)*.
- Porteous, A.; Wratt, D. (1999). "Climate resources for agriculture". Presented to Topoclimate South Steering Committee, Dunedin, September 1999.
- Porteous, A.; Wratt, D. (1999). Otago gets a grip on the climate. *Aniwaniwa* 10: 1.
- Quinn, J.M. (1999). "Towards a riparian classification for the Piako–Waihou Rivers". Presented to the Esplanade Reserves Committee of the Piako–Matamata District Council, Morrinsville, November 1999.
- Quinn, J.M. (1999). Stream protection promoted. *Countrywide*, May 1999.
- Redfearn, P. (1999). "Preliminary report on paua free-pearl production work." Presented at the New Zealand Abalone Farmers Association Annual Meeting, September 1999.
- Reid, S. (1999). "Wind energy in hilly terrain". Presented at the Renewable Energy Showcase, Palmerston North, November 1999.
- Reid, S. (1999). A windy business. *Wellington Today* (September): 27.
- Reid, S. (1999). NZ wind energy research publicised. *Newsletter of the New Zealand Wind Energy Association* (September): 3.
- Reid, S. (1999). Waiting for the spring gales? *Climate Update* 4 (15 October): 4.
- Ren, J. (1999). Modelling oyster farms. *Aquaculture Update* 22: 6.
- Renwick, J.A.; Booth, J. (1999). Phyllosomas and pueruli in a storm. *Seafood New Zealand* 7(5): 16.
- Richardson, J. (1999). Scientists take closer look at whitebait. *New Zealand Farmer*, 15 April.
- Rowe, D.K. (1999). "The Lake Rotoaira trout fishery". Presented at the AGM of the Lake Rotoaira Campers Association, Turangi, October 1999.
- Rowe, D.K. (1999). Can forestry restore whitebait fisheries? *New Zealand Journal of Forestry* 44: 40–41.
- Rowe, D.K. (1999). Giant koaro in Lake Pukaki. *Water & Atmosphere* 6(4): 5.
- Rowe, D.K. (1999). Prentox<sup>®</sup>: a method for removing grass carp from lakes. *Water & Atmosphere* 7(2): 15–17.
- Salinger, M.J. (1999). "Floods and droughts – Gisborne climate guidance for the dawn of the new millennium". Public lecture hosted by Gisborne District Council, October 1999. Covered in *Gisborne Herald*, 26 and 28 October.

- Salinger, M.J. (1999). "Floods and droughts – Hawke's Bay climate guidance for the dawn of the new millennium". Public lecture hosted by the Hawke's Bay Regional Council, Napier, October 1999. Reported in *Hawkes Bay Today*, 29 October.
- Salinger, M.J. (1999). "La Niña or ?: Gisborne climate guidance for the coming season". Public lecture presented to Gisborne Federated Farmers, Gisborne, July 1999. Talk announced in *Gisborne Herald*, 21 July, and reported on 28 July.
- Salinger, M.J. (1999). "La Niña or ?: Hawke's Bay climate guidance for the coming season". Public lecture, hosted by the Hawke's Bay Regional Council, Napier, July 1999. Talk announced in *Hawkes Bay Today*, 20 July, and reported on 24 July.
- Salinger, M.J. (1999). "La Niña or ?: Manawatu climate guidance for spring". Public lecture hosted by horizons.mw, Palmerston North, September 1999.
- Salinger, M.J. (1999). "La Niña or ?: Taranaki climate guidance for spring". Public lecture hosted by Taranaki Regional Council, Stratford, September 1999.
- Salinger, M.J. (1999). "La Niña or ?: Wanganui climate guidance for spring". Public lecture hosted by Wanganui District Council, September 1999.
- Salinger, M.J. (1999). "New Zealand climate: past, present and future". Presented at New Zealand National Agricultural Field Days, Mystery Creek, Hamilton, June 1999.
- Salinger, M.J. (1999). "Weather extremes – our changeable climate". Presented at Rotary Club of Pakuranga and at Rotary Club of One Tree Hill, Auckland, August 1999.
- Salinger, M.J. (1999). "Wet 'n' wild". Public talk presented at Sky City Theatre, Auckland, June 1999. Coverage of the talk appeared in *New Zealand Herald*, *Waikato Times*, *Marlborough Times*, *Westport News*, 16 June; *Wanganui Chronicle*, 17 June.
- Salinger, M.J. (1999). New Zealand National Climate Summary – the year 1998. Press release for television, radio and print media, issued 11 January 1999. Reported in *New Zealand Herald*, *Dominion*, *Waikato Times*, *Daily Telegraph*, *Daily Post*, *Northern Advocate*, *Press*, *Gisborne Herald*, *Southland Times*, *Hawke's Bay Herald-Tribune*, *Dannevirke Evening News*, *Greymouth Evening Star*, *Evening Post*, *Wairarapa Times-Age*, *Ashburton Chronicle*, *Northland Times*, *Westport News*, *Evening Standard*, *Nelson Mail*, *Bay of Plenty Times*, *Marlborough Express*, *Daily News (New Plymouth)*, 12 January; *Otago Daily Times*, *Chronicle*, *Timaru Herald*, *Wanganui Chronicle*, *Whakatane Beacon*, 13 January; *Northland Age*, 14 January; *National Business Review*, 29 January.
- Salinger, M.J. (1999). Seasonal climate driven by ocean. *Hawkes Bay Today*, 26 August.
- Salinger, M.J.; Daw, G. (1999). "Seasonal climate guidance for Auckland". Presented at the Auckland Regional Council, November 1999.
- Salinger, M.J.; Daw, G.; Mackay, G. (1999). "Kaitia summer climate briefing". Public talk hosted by Northland Regional Council/Destination Northland, Kaitia, November 1999.
- Salinger, M.J.; Daw, G.; Mackay, G. (1999). "Paihia summer climate briefing". Public talk hosted by Northland Regional Council/Destination Northland, Paihia, November 1999.
- Salinger, M.J.; Daw, G.; Mackay, G. (1999). "Whangarei summer climate briefing". Public talk hosted by Northland Regional Council/Destination Northland, Whangarei, November 1999.
- Sansom, J.; Thompson, C.S. (1999). Threshold Rain-rate Information for Propagation Systems (TRIPS). *Water & Atmosphere* 7(4): 13–15.
- Schwarz, A.-M. (1999). Clear water and cryptic ecosystems. *New Zealand Science Monthly* 10(11): 8–10.
- Schwarz, A.-M.; Hawes, I. (1999). Life beneath the ice: refuge from an extreme environment. *Water & Atmosphere* 7(1): 22–25.
- Smart, G.M. (1999). "Flooding and erosion in the Lower Tongariro". Presented at a hui with local Maori, Turangi, October 1999.
- Smart, G.M. (1999). "Tongariro sediment and flushing of Rangipo Barrage". Presented to anglers, Turangi, October 1999.
- Smith, B.J. (1999). Visited Knighton Normal School to demonstrate use of microscope and how to draw and identify aquatic insects, Hamilton, November 1999.

- Smith, P.J. (1999). "PCR and its application in biological sciences". Presented to visiting Rongotai College 7th-form science class, NIWA, Wellington, November 1999.
- Smith, P.J. (1999). Interviewed about "Application of molecular techniques in fisheries management, 'forensic' fisheries to identify fillets" by Allan Coukell for Eureka, National Radio; broadcast 4 December, repeated 7 December.
- Smith, R.A. (1999). International flavour at the Bratina Island Oasis. *Antarctic* 16(2): 39–40.
- Sorrell, B.K.; Tanner, C. (1999). Kuta: a special sort of spike-rush. *Water & Atmosphere* 7(1): 8–10.
- Stevens, C.L.; Smith, M.J.; Ross, A. (1999). SCAMP: measuring turbulence in estuaries, lakes and coastal waters. *Water & Atmosphere* 7(2): 20–21.
- Stoffers, P.; Wright, I.C.; de Ronde, C.; Hannington, M.; Herzig, P.; Villinger, H.; Shipboard Party (1999). Longitudinal transect of the Kermadec – Havre Arc – Back-Arc System: initial results of *R/V Sonne* Cruise SO-135. *InterRidge News* 8(1): 45–50.
- Sukias, J.P.S. (1999). "Mechanical aeration and biofilm supports to upgrade farm dairy ponds". Presented to Dairy Liaison Group meeting, Hautapu Dairy Factory, Anchor Products, May 1999.
- Sukias, J.P.S.; Barnett, J. (1999). Blowing bubbles an after dark activity. *Aniwaniwa* 10: 3.
- Sukias, J.P.S.; Tanner, C.C. (1999). Wastewater treatment wetlands in New Zealand. *Newsletter of the IAWQ Specialist Group on the Use of Macrophytes in Water Pollution Control* 20: 5–8.
- Sutton, P.J.H. (1999). "Ocean currents and temperatures around the north-east coast of New Zealand". Presented at the Tackle King Big Fish Seminar and Conference, Tauranga, November 1999.
- Tanner, C.C. (1999). "Farm dairy pond upgrading options: an introduction". Presented to Dairy Liaison Group meeting, Hautapu Dairy Factory, Anchor Products, May 1999.
- Tanner, C.C. (1999). The fall (and rise) of dairy farm oxidation ponds. *Aniwaniwa* 10: 3.
- Tanner, C.C.; Sukias, J.P.S. (1999). Where is New Zealand at with constructed wetlands? *Water & Wastes in New Zealand* 107 (July): 17–19.
- Taylor, M.J. (1999). "Wildlife values of wetlands". Audio-conference with South Island schools, Christchurch City Council, August 1999.
- Taylor, M.J. (1999). Participant in the 'Water Expo' audio-conference for Schools, a Royal Society/Ministry for the Environment promotion, May 1999.
- Thompson, D.R.; Sagar, P.M. (1999). Are our estuaries wader-friendly? Linking estuarine habitat characteristics and wader distributions in New Zealand. *Water & Atmosphere* 7: 10–12.
- Thompson, D.R.; Sagar, P.M. (1999). Workshop on environmental impacts on shorebird populations in the Auckland region held with Auckland Regional Council and Department of Conservation staff, Auckland, May, and with ARC, DoC, and Auckland International Airport, Auckland, October 1999.
- Timperley, M.H.; Kuschel, G. (1999). *S.W.A.T. Update* 1(1). Official newsletter for NIWA's PGSF research on stormwater and transport effects on urban aquatic ecosystems, July 1999.
- Timperley, M.H.; Kuschel, G. (1999). SWAT's up, doc? The effect of stormwater and transport on urban streams and estuaries. *Water & Atmosphere* 7(3): 22–25. Reprinted in *Water and Wastes in New Zealand* 109: 36–39 and in *New Zealand Science Monthly* 11(2): 6–8.
- Tong, L.J. (1999). Pawharu – a lobster with potential. *Aquaculture Update* 22: 1–3. Reprinted in *Austasia Aquaculture* 13(2): 50–52.
- Tong, L.J.; Hickman, B. (1999). 1998 NZ Aquaculture Federation Conference. *Aquaculture Update* 22: 11–12.
- Tracey, D.M. (1999). "Giant Squid Expedition – March 1999". Interviewed by BBC Bristol, Natural History Unit, for Discovery Channel Science Programme and by Smithsonian Natural Partners Programme for educational video series; provided personal profile information for the Smithsonian websites: [partners.si.edu/squid](http://partners.si.edu/squid) and [seawifs.gsfc.nasa.gov/squid99.html](http://seawifs.gsfc.nasa.gov/squid99.html).
- Turner, R.W.; Gray, W.R. (1999). "The influence of bad weather conditions on search and rescue operations". Appearance on the Discovery Channel's 'Storm Warning' programme, December 1999.
- Uddstorm, M.J. (1999). Space 'eye' spots fish. FRST Newsroom web page ([www.frst.govt.nz/public/newsroom/new9.htm](http://www.frst.govt.nz/public/newsroom/new9.htm)), July 1999.



- Uddstrom M.J. (1999). Taking the ocean's temperature. *New Zealand Geographic* 41: 18–20.
- Uddstrom, M.J. (1999). Studying ocean variability from space. *Water & Atmosphere* 7(4): 17–20.
- Uddstrom, M.J.; Porteous, A. (1999). NIWA ocean climate summary; SST pattern changes in the past 12 months. *Seafood New Zealand* 7(1): 38–39, 7(2): 34–35, 7(3): 34–35, 7(4): 39–40, 7(5): 43–44, 7(6): 48–49, 7(7): 35–36, 7(8): 29–30, 7(9): 36–37, 7(10): 56–57, 7(11): 32–33.
- Unwin, M.J. (1999). "Salmon research and the role of Fish & Game councils". Presented to Fish & Game New Zealand (Central South Island Region), Temuka, October 1999.
- Unwin, M.J. (1999). Genetic adaptation in New Zealand chinook. *Fish and Game New Zealand* 24: 38–41.
- Unwin, M.J. (1999). Salmon under spotlight. *New Zealand Science Monthly* 10(5): 5.
- Unwin, M.J. (1999). The end of an era. *Fish and Game New Zealand* 25: 18–27.
- Unwin, M.J. (1999). The value of a tag. *Fish and Game New Zealand* 26: 77–79.
- Wang, J.; Gille, J.C.; Bailey, P.L.; Shertz, S.; Smith, M.; Drummond, J.R.; McKernan, E.; Tolton, B.; Yurganov, L.; Jones, N.; Gore, B.; Novelli, P.; He, H.; McMillan, W.; Murcray, F.; Stephen, T.; Pougatchev, N.; Reichle, H.G. (1999). The pre-launch MOPITT validation exercise (pre-MOVE). *Earth Observer* 11(1): 5–9.
- Webb, V.L. (1999). Bioactive compounds from marine organisms. *New Zealand Natural Product News* 3: 6.
- Wells, R.D.S. (1999). Are rudd a threat to water plants? *Water & Atmosphere* 7(4): 11–13.
- Wells, R.D.S. (1999). Grass carp: an effective option for aquatic weed control? *Water & Atmosphere* 7(2): 13–15.
- Wilcock, R.J. (1999). Agricultural pollution, water weeds, and lowland streams. Press release on FRST website: [www.frst.govt.nz/public/newsroom/Trout17July.htm](http://www.frst.govt.nz/public/newsroom/Trout17July.htm)
- Wilcock, R.J.; Barnett, J. (1999). What water quality can we expect in dairying catchments? *Aniwanuiwa* 10: 7.
- Wilcock, R.J.; Chapra, S.C. (1999). Predicting stream-water pH from changes in dissolved oxygen produced by aquatic plants. *Water & Atmosphere* 7(3): 25–27.
- Wilkinson, M.; Kelly, M. (1999). NIWA Sponge Taxonomy Workshop at University of the South Pacific, Suva. *Water & Atmospheric* 7(3): 9.
- Williams, E.K.; Hall, J. (1999). Toxicity testing with blue mussel larvae. *Water & Atmosphere* 7(1): 18–19.
- Wood, S.W. (1999). "Living and working in Antarctica". Talk to Dalefield Primary School, November 1999.
- Wood, S.W. (1999). Contributed material on ozone depletion and UV. In: New Zealand Official Yearbook on the Web 1999 ([www.stats.govt.nz](http://www.stats.govt.nz)). Statistics New Zealand, Wellington.
- Woods, C.M.C. (1999). Management and culture of marine species used in traditional medicines. *Aquaculture Update* 22: 4–5.
- Woods, C.M.C. (1999). Seahorse wrangling. *New Zealand Science Monthly* 10(4): 6–7.
- Woods, C.M.C. (1999). The endearing, endangered seahorse. *New Zealand Geographic* 43 (July/September): 58–72.
- Woods, R.A. (1999). Mahurangi River Variability Experiment (MARVEX). *Water & Atmosphere* 7(2): 6.
- Wratt, D.S. (1999). "Are farmers (and others) changing the climate?" Public talk presented at Mystery Creek Fieldays, Hamilton, June 1999.
- Wratt, D.S. (1999). "Climate outlooks to assist emergency management". Presented to district council emergency managers from the greater Wellington region, October 1999.
- Wratt, D.S. (1999). "Otago's variable climate". Interview with TV1 (broadcast morning and evening of 12 October), live interview on Dunedin's local TV station, 12 October 1999, as well as interviews with National Radio, Newstalk ZB and local radio.
- Wratt, D.S. (1999). "Otago's variable climate". Public talk presented in Cromwell, Oamaru, Balclutha, and Dunedin, October 1999. Resulting articles appeared in *Oamaru Mail*, *Southland Times*, *Otago Daily Times*, 12 October; *Southland Times*, *Mirror*, 13 October; *Central Otago News*, 14 October; *Otago Southland Farmer*, 22 October.

- Wratt, D.S.; Larsen, H.L. (1999). Looking for rain. *New Zealand Science Monthly* 10(1): 8–9.
- Wratt, D.S.; Porteous, A. (1999). "Otago's variable climate". Presented at Otago Federated Farmers meeting, Lee Stream, August 1999.
- Wright, I.C. (1999). "Southern Kermadec submarine volcanism". Presented to the Wellington Mineralogical Society, November 1999.



## 6. Other popular articles about NIWA research

Includes news articles about NIWA staff and research, but without author credit to NIWA staff member.

- Aldworth, W. (1999). Project set to study lampreys. *Southland Times*, 10 May. Don Jellyman describes forthcoming survey of kanakana in the Hokonui Runanga.
- Andrae, D. (1999). NZ to decide flatfish future. *Fish Farming International* 26(4): 7. Reports on Mahanga Bay's turbot and brill research.
- Andrews, L. (1999). A load of old manure. *Bay of Plenty Times*, 6 May. Light-hearted look at NIWA/AgResearch work on methane emissions from sheep misses the main point: the methane in question comes from the front end of the sheep.
- Anon. (1999). Algae gains foothold in harbour. *Capital Times*, 27 January. Hoe Chang and Rob Murdoch comment on entrenchment of toxic algae (*Brevisulcatum gymnodinium*) in vicinity of Wellington Harbour.
- Anon. (1999). Algae oxalis of lakes. *Opotiki News*, 2 November. Rick Pridmore spoke to staff of Rotorua District Council, Environment BOP and Pacific Health on causes of blue-green algae. Also reported in *Bay of Plenty Country News*, December 1999.
- Anon. (1999). Boffins to study region. *Wairarapa Times-Age*, 30 April. David Wratt describes TARPEX (Taranaki Precipitation Experiment) field campaign to study atmospheric conditions, rainfall, and river flows in the Taranaki Ranges. Also covered in *Bay of Plenty Times*, 30 April; *Evening Standard*, 1 May; *Dominion*, 5 May; *Dannevirke Evening News*, 21 May.
- Anon. (1999). Boffins want inside word from whitebaiters. *Wanganui Chronicle*, 2 November. Based on story in *New Zealand Science Monthly* 10(10): 6-7; Richard Allibone asks whitebaiters for local information in study of stock numbers. Also reported in *West Coast Times*, *Westport News*, 2 November.
- Anon. (1999). Call to stop land washing into sea. *Rodney Times*, 3 June. Story on theories of director of Seafriends Marine Education Centre at Leigh includes comments from Mal Green based on his sediment work in Okura estuary. Also reported in *North Harbour News*, 4 June.
- Anon. (1999). Citrus areas warmer and drier. *Orchardist*, February. Georgina Daw recaps climatic changes since 1977, describes recent weather and expectations for rest of summer.
- Anon. (1999). City-built buoy centre of cup storm. *Christchurch Star*, 23 April. Describes development at Kainga of the controversial NIWA weather buoy.
- Anon. (1999). Climate information at grower's fingertips. *Bay of Plenty Country News*, August. Reports Georgina Daw's Baypak seminar and the National Climate Centre.
- Anon. (1999). Comeback by toxic algae could threaten research. *Wanganui Chronicle*, 29 January. Rob Murdoch discusses threat to Mahanga Bay aquaculture facility if algal bloom is as bad as last year.
- Anon. (1999). Consent review likely, answers needed says regional councillor. *Coastal News*, 1 April. Waikato regional councillor wants to engage Graham McBride to evaluate water quality on Whangamata sewerage plant.
- Anon. (1999). Council says dye test too costly. *Coastal News*, 4 November. Gavin Fisher explains the use of rodamine in a proposed test of water quality in Whangamata Harbour.
- Anon. (1999). Dangerous chemicals level unknown. *Hawkes Bay Today*, 1 September. Chris Hickey comments on toxicity testing in vicinity of the Clive wastewater outfall.
- Anon. (1999). Eel management on agenda. *Daily Post*, 18 May. Jacques Boubée participated in a hui on management of migrating elvers and adult eels on the Rangitaiki River. Also reported in *Whakatane Beacon*, 28 May; further story on the elver transfer programme appeared in *Daily Post*, 21 May.
- Anon. (1999). Fair fosters research skills in school students. *Waikato Times*, 31 August. Feature on the NIWA Waikato Science Fair includes comments by Bryce Cooper. Also reported in *City Weekend*, 27 August.

- Anon. (1999). Farmers told to plan for more dry weather. *Nelson Mail*, 11 May. In a MAF-commissioned report, Brett Mullan warns of likely La Niña resurgence and consequent drought conditions for Otago. Also reported in *Bay of Plenty Times*, *NZ Herald*, *Timaru Herald*, *Hawkes Bay Today*, *Otago Daily Times*, 11 May; *Waikato Times*, *Northland Times*, 12 May; *Wanganui Chronicle*, 13 May; *Dannevirke Evening News*, 14 May; *Rural News*, 17 May; *Northern Advocate*, *Whakatane Beacon*, 18 May; *Otago Daily Times*, *Ruapehu Press*, 19 May; *Southern Rural Life*, 26 May; *Otago Southland Farmer*, 4 June.
- Anon. (1999). Fears raised over slow ozone recovery. *Dominion*, 18 May. Richard McKenzie comments on findings from NASA study.
- Anon. (1999). Field officers have environmental focus. *Daily News*, 11 March. Reports environmental training provided by Long Nguyen and Bob Wilcock to Summit-Quinphos (fertiliser company) field staff.
- Anon. (1999). First light opportunity looking a little cloudy. *Gisborne Herald*, 22 November. Jim Salinger gives odds for a clear dawn on 1 January 2000 for various locales. Also reported in *Bay of Plenty Times*, *Marlborough Express*, *Northland Times & Rodney Reporter*, *Wairarapa Times-Age*, 22 November.
- Anon. (1999). Fishing thrills galore. *Evening Post*, 28 September. Neil Bagley comments on a large school of kahawai in Wellington Harbour.
- Anon. (1999). Flow Phone works well. *Otago Southland Farmer*, 26 March. Explains how water level and rainfall data make their way from NIWA monitoring equipment to publicly accessible voice mail.
- Anon. (1999). Hotter, drier September. *Marlborough Express*, 5 October. Quotes Stuart Burgess and Alan Porteous on September's weather and La Niña.
- Anon. (1999). Information drought (editorial). *Otago Daily Times*, 19 February. Comments on role NIWA-supplied climate information plays in dealing with Otago drought.
- Anon. (1999). James Cook fellowships. *National Business Review*, 3 September. Lists Bob McDowall among current fellows.
- Anon. (1999). Jim's on weather watch. *Wanganui Chronicle*, 30 September. Announces new feature of regular outlook projections for Wanganui area to be provided by National Climate Centre (Jim Salinger and co.).
- Anon. (1999). Kiwis get UK know-how. *Fish Farming International*, 26 March. Features Visiting Scientist Richard Slaski, pictured with Bob Hickman inspecting a turbot raceway system at Mahanga Bay.
- Anon. (1999). Lifting academic standards. *Christchurch Star*, 21 May. Focus on Catholic Cathedral College where one student project involves downloading NASA data on ozone levels, converting it, and sending it along to NIWA.
- Anon. (1999). Mangrove watch. *East & Bays Courier*, 2 June. Notes Don Morrissey's investigation of spreading mangroves in Auckland and Coromandel as part of ESEE (Effects of Sediments on Estuarine Ecosystems) programme.
- Anon. (1999). Measuring the invisible. *Wairarapa Times-Age*, 14 September. Tony Bromley (pictured) and others measure methane in a cow paddock.
- Anon. (1999). Mokau coast live. *Waitomo News*, 24 June. Notes two cameras set up by George Payne to monitor Mokau sand movements as part of Cam-Era project.
- Anon. (1999). Multimillion-dollar computer will give Niwa huge capacity. *Dominion*, 9 April. Paul Hargreaves and Anthony Cole announce purchase of Cray T3E Massively Parallel Processing system. Also noted in *Wanganui Chronicle*, *Greymouth Evening Star*, *Hawke's Bay Herald-Tribune*, 9 April; *Computerworld NZ*, *New Zealand InfoTech Weekly*, 12 April; *Press*, 13 April; *NZ Infotech Weekly*, 24 May; *New Zealand Computer*, May; *Computerworld NZ*, 7 June.
- Anon. (1999). *National Business Review*, 3 December. Brief note on restructuring of NIWA Executive.
- Anon. (1999). New Policy Unit head. *Antarctica New Zealand News 11: 2*. Don Sollitt is included in a group picture shot at Scott Base.

- Anon. (1999). Ngati Porou corps is tops. *Gisborne Herald*, 30 April. Ngati Porou's Conservation Corps, winners of a national competition for corps members, have also participated in NIWA's river erosion research.
- Anon. (1999). NIWA – helping manage our resources. *Nelson Mail*, 10 August. Brief overview of NIWA, with emphasis on NIWA, Nelson, activities.
- Anon. (1999). NIWA bathymetric charts upgraded. *New Zealand Fishing News*, December. Notes availability of revised charts and future distribution on CD Rom.
- Anon. (1999). NIWA collaboration for oceanic and atmospheric research. *University of Auckland News No. 1*. Announces launch of Institute of Aquatic and Atmospheric Sciences. Rick Pridmore quoted on the aims of IAAS in *Sunday Star-Times*, 16 May.
- Anon. (1999). NIWA consolidates research. *Community News Advertiser*, 27 September. Gives brief history of Instrument Systems including recent move to Kyle Street campus.
- Anon. (1999). Niwa ship to help in study. *Gisborne Herald*, 4 October. *Tangaroa* will be used by Australian Antarctic Division for work off Wilkes Land, Antarctica, beginning in February 2000. Also reported in *Chronicle*, *Evening Post*, *Dannevirke Evening News*, *Bay of Plenty Times*, 4 October; *Press*, 6 October.
- Anon. (1999). NIWA team in millennium first. *Evening Post*, 17 December. Crew and scientists onboard *Tangaroa* assessing hoki stocks 80 km northeast of Pitt Island to be among first to greet dawn on 1 January 2000. Also noted in *Northern Advocate*, *Wanganui Chronicle*, 17 December.
- Anon. (1999). NIWA team studying local fish populations. *Rodney Times*, 22 April. Mark Morrison heads group studying Mahurangi Harbour.
- Anon. (1999). NZ to decide flatfish future. *Fish Farming International* 26(4): 7. Describes NIWA turbot culturing programme.
- Anon. (1999). Ocean and atmospheric centre. *National Business Review*, 26 February. Brief article about the new Institute for Aquatic and Atmospheric Sciences, co-directed by Rick Pridmore and Geoff Austin (University of Auckland).
- Anon. (1999). Puhinui works to continue amid flood warnings. *Manurewa Week*, 16 November. Refers to findings in a NIWA report about effects of surrounding development on the stream and native bush of Totara Park. Also reported in *Manurewa Week*, 23 November; *Papatoetoe Week*, 24 November.
- Anon. (1999). Race on to avoid Y2 [sic] bug. *Southerner*, February. The data logger on the Chatham Islands monitored by Pete Mason (pictured) will be first in world to confront the year 2000.
- Anon. (1999). Rangers to operate weigh-in. *High Country Herald*, 24 February. Waitaki River Salmon Fishing Contest highlights NIWA research into salmon genetics.
- Anon. (1999). Recreational fishers get close-up treatment. *Kaikoura Star*, 6 January. Quotes Glen Carbines on Ministry of Fisheries survey of activity in potential marine reserve areas.
- Anon. (1999). Salmon firm to buy Glenariffe hatchery. *Press*, 27 April. Clive Howard-Williams and Gavin James quoted on sale of hatchery. Also reported in *Ashburton Guardian*, 27 April.
- Anon. (1999). Salmon under spotlight. In: FRST newsroom web page, 26 April 1999. Article (citing Martin Unwin) describing the FRST-funded JUNIPEX salmon research programme ([www.frst.govt.nz/public/newsroom/archive/SalmonUnderSpotlight.htm](http://www.frst.govt.nz/public/newsroom/archive/SalmonUnderSpotlight.htm)).
- Anon. (1999). Science seeks whitebait secrets. *Northern Advocate*, 4 December. Based on Richard Allibone's *New Zealand Science Monthly* story on whitebait catch numbers.
- Anon. (1999). Scientist fears 'bio-piracy'. *Otago Daily News*, 14 October. Speaking at the Our Oceans conference, Rob Murdoch expressed concern about possible misuse of biological samples sent overseas to colleagues.
- Anon. (1999). Scientist receives research award. *Otago Daily Times*, 2 September. Greg Bodeker (pictured) recognised by World Meteorological Organisation for his work on ozone change.
- Anon. (1999). Scientists check for salmon evolution. *Greymouth Evening Star*, 8 May. Discusses Martin Unwin's JUNIPEX study.
- Anon. (1999). Scientists check how salmon evolving in New Zealand. *Daily Post*, 27 April. Martin Unwin on JUNIPEX. Also reported in *West Coast Times*, 27 April.

- Anon. (1999). Scientists hail arrival of southerly blast. *Hawkes Bay Today*, 21 September. Andrew Laing comments on data collection from wave-rider buoy moored in Hawke Bay.
- Anon. (1999). Scientists head to Southern Ocean. *Press*, 1 February. Quotes voyage leader Rob Murdoch on month-long *Tangaroa* expedition to investigate effects of iron fertilisation on phytoplankton. Also covered in *Timaru Herald*, *Oamaru Mail*, 1 February; *Dominion* (with photo of Philip Boyd), 9 February; *Daily Telegraph*, *Daily News*; *Westport News*, 1 March; *Northern Advocate*, *NZ Herald*, 2 March; *Evening Post*, 3 March; *Gisborne Herald*, 4 March; *Southland Times*, 5 March.
- Anon. (1999). Seafood Week boosts industry. *National Business Review*, 3 May. Mentions NIWA exhibit and vessel open to visits by students.
- Anon. (1999). Sewage risk 'short-term'. *NZ Herald*, 27 February. Story on Stormwater and Aquatic Ecosystem Management conference quotes Don Morrissey. Conference also noted in *Albany Extra*, 25 February.
- Anon. (1999). Snow line highest on record. *Timaru Herald*, 27 April. Cites Jim Salinger on survey results and implications for glacial retreat; further story on possibility of consequent landslides on 3 May.
- Anon. (1999). Society elects seven new members. *News Advertiser*, 6 December. Notes Clive Howard-Williams' election as Fellow of the Royal Society of New Zealand.
- Anon. (1999). Software to help catch fish. *Southland Times*, 4 March. Developed in partnership with NIWA by Compudigm International, new OceanTrek program provides real-time picture of underwater conditions. Also reported in *Computerworld New Zealand*, 8 March.
- Anon. (1999). Spearfishers help further kingfish reproductive biology research. *Mercury Bay Sun*, 9 April. Carolyn Poortenaar (pictured) collected samples during the National Spearfishing Championships.
- Anon. (1999). State of the Environment report. *Antarctica New Zealand News 11*: 1. Ian Hawes and Tom Clarkson will be contributing authors; includes a picture of Gordon Brailsford at Arrival Heights.
- Anon. (1999). Stay out of those rays. *Evening Post*, 6 December. Notes NIWA's role in refining the UV Index which is now to be promoted (ahead of 'burn time' ratings) by the Cancer Society of New Zealand and the MetService.
- Anon. (1999). Stream protection promoted. *Country-Wide*, May. Speaking at a McRae Trust field day in Wairoa, John Quinn describes measures farmers can take to improve health of streams on their property.
- Anon. (1999). Students Sea and Learn. *Waikato Times*, 16 June. Reports trial run of new NIWA hands-on science programme for high school students designed by Julie Hall. Once the programme was underway, the voyages of various North Island school groups were reported in *Cambridge Edition*, 6 July; *Foundation 36* (September); *Evening Standard*, 1 September; *Bay of Plenty Times*, *Kapiti Mail*, 2 September; *Gisborne Herald*, 4 September; *Taupo Times*, 17 September; *Coastal News*, 23 September. *Gisborne Herald*, 14 October; *Our Town – Papakura*, 22 November; *Franklin County News*, 30 November.
- Anon. (1999). The greenhouse effect and home heating. *Daily Post*, 8 May. Includes comments by Sylvia Nichol on the environmental impact of solid fuel heating. Also reported in *Coastal News*, 17 June; *Hawkes Bay Today*, 24 June.
- Anon. (1999). The Internet column. *Library Life 236* (July). Features [www.niwa.cri.nz](http://www.niwa.cri.nz) as the New Zealand site of the month.
- Anon. (1999). The Otago climate situation as at February 16. *Southern Rural Life*, 5 March. Otago regional report prepared by Reid Basher and Alan Porteous. Also summarised in *High Country Herald*, 3 March.
- Anon. (1999). Tides and sea-current data to be updated. *Hawkes Bay Today*, 12 July. Quotes Rob Bell on FRST project to update tide, current and storm data with aim of hazard prediction. Also reported in *Gisborne Herald*, 15 July; *Evening Post*, 17 July.
- Anon. (1999). Toheroa die in thousands. *Evening Post*, 18 February. Quotes Mike Hine.
- Anon. (1999). Toxin could hit scallop industry. *Coastal News*, 22 July. Hoe Chang describes how unusual outbreak of paralytic shellfish poisoning (PSP) could occur in winter.

- Anon. (1999). UV radiation increasing. *Pharmacy Today*, November. Cites Richard McKenzie's research indicating 15% increase in UV in New Zealand since late 1970s.
- Anon. (1999). Variety of speakers at McRae Trust Field Day. *Wairoa Star*, 8 April. Among them, John Quinn speaking on water quality.
- Anon. (1999). Warm waters baffle scientists. *Coastal News*, 28 January. John Zeldis attributes unusually warm waters off the Coromandel Peninsula to changes in the Indonesian throughflow.
- Anon. (1999). Warm winter signals global warming, says scientist. *Marlborough Express*, 17 September. Jim Salinger and Alan Porteous' climate summary for winter 1999 also covered in *Chronicle*, *Wairarapa Times-Age*, *Southland Times*, *Oamaru Mail*, *Daily Post*, *Gisborne Herald*, *Waikato Times*, *Westport News*, *Timaru Herald*, *Northland Times*, 17 September; *Wanganui Chronicle*, *Hawkes Bay Today*, 18 September.
- Anon. (1999). Weather & arable. *New Zealand Farmer*, 19 August: 27. Reprints 'Outlook' and 'Soil Moisture' sections from Alan Porteous' *Climate Now* service.
- Anon. (1999). Why whitebait are a disappearing delicacy. *Dominion*, 24 April. Briefly reports work by Richard Allibone, Jacques Boubée, and Dave West.
- Anon. (1999). Wind farm locations. *New Zealand Education Review*, 27 August. Steve Reid briefly describes work involved in wind resource assessment programme. Steve's work later reported in *Christchurch Star*, 13 October; *Auckland Today*, October.
- Anon. (1999). World's climate experts head to Auckland. *Evening Standard*, 20 January. Paul Hargreaves notes February meeting of Intergovernmental Panel on Climate Change; Jim Salinger will be the convenor. Also reported in *Otago Daily Times*, *Daily Post*, *Northland Times*, 20 January.
- Ansley, B. (1998). Outlook extreme. *New Zealand Listener*, 12 December. Includes comments from Brett Mullan and Jim Salinger in an overview of La Niña predictions.
- Atkinson, K. (1999). Climate centre offers wide forecast range. *Greymouth Evening Star*, 9 July. Reports launch of National Climate Centre for Monitoring and Prediction. Also reported in *NZ Herald*, *Daily Post*, *Hawkes Bay Today*, *Oamaru Mail*, 9 July; *Bay of Plenty Times*, *New Zealand Farmer*, 15 July. First issue of *Climate Update* summarised in *Westport News*, 16 July; *Evening Post*, *Gisborne Herald*, *Ashburton Guardian*, *Daily News*, *Dominion*, 17 July.
- Bain, H. (1999). Another drought forecast by experts. *Dominion*, 15 April. Reports presentation (including broad predictions on the Otago drought) by Rick Pridmore, Jim Salinger, and Reid Basher to Parliamentary primary production committee. Also reported in *Waikato Times*, *Press*, *Daily News*, *Bay of Plenty Times*, *Gisborne Herald*, *Greymouth Evening Star*, *Marlborough Express*, *Evening Standard*, *Oamaru Mail*, *Nelson Mail*, *Ashburton Guardian*, *Hawke's Bay Herald-Tribune*, *Westport News*, *Daily Telegraph*, 15 April; *Daily Post*, *Marlborough Express*, *Dominion*, *Otago Daily Times*, *Press*, *Oamaru Mail*, 16 April; *Independent*, 21 April.
- Berry, R. (1999). Algae bloom threatens harbour again. *Sunday Star-Times*, 17 January. Hoe Chang and Rob Murdoch comment on algal bloom in Wellington Harbour. Also reported in *Chronicle*, *Daily Telegraph*, *Dominion*, *Evening Post*, *Westport News*, 18 January; and *NZ Herald*, 19 January.
- Bidois, V. (1999). Migrants bite into dangerous weed. *NZ Herald Country Edition*, 14 May. Paul Champion (here called Paul Cameron) discusses mistaken use and propagation of alligator weed in the Waikato by Somali and Sri Lankan families.
- Birch, M. (1999). Scientists prepare cameras to watch erosion at Mokau. *Daily News*, 16 March. Video cameras will be used to record changes in the shoreline and offshore bar at Mokau River mouth as part of Kerry Black's Cam-Era project. Also reported in *Waitomo News*, 25 March.
- Birchfield, D. (1999). Managing the waterways. *NZ Forest Industries (August)*: 38. Bob Wilcock discusses use of trees and other plantings to protect streams from agricultural runoff.
- Calcott, D. (1999). Riches in sea's hot plumbing. *Press*, 18 May. Notes NIWA involvement – including use of *Tangaroa* – in Bay of Plenty NZ-American Plume Mapping Expedition.
- Childerstone, J. (1999). NIWA drought predictions – could save \$millions. *Southern Rural Life*, 5 March. Questions why public should be charged for NIWA's climate work.



- Clark, R. (1999). Changes in current thinking. *Christchurch Star*, 8 October. Reports Keith Lewis's findings on the Kaikoura Canyon, its formation, and its path to the Pacific abyssal floor.
- Clark, R. (1999). Seabed maps crucial for NZ. *Christchurch Star*, 1 October. Recounts information about seabed mapping techniques and programmes gleaned from conversation with Keith Lewis.
- Cuthill, B. (1999). Golden Age news. *Fiordland Focus*, 6 August. Reports June talk by Julie Hall about her work at NIWA.
- Cutt, J. (1999). 'Weather' popular at Fieldays. *Southland Times*, 23 June. Notes launch of National Climate Centre and its website. Also reported in *Waikato Times*, 17 June; *Daily Post*, 18 June. Similar stories appeared before Fieldays in *South Waikato News*, 4 March. *Franklin County News*, 4 March; *Southland Times*, 10 March; *Te Awamutu Courier*, 10 June; and during Fieldays in *NZ Herald*, 14 June.
- Cutt, J. (1999). Study clears phosphate as bad pollutant. *Southland Times*, 21 May. Joint study (including NIWA) in Southland has concluded aquatic life in rural waterways is not affected by phosphate from farm run-off. Also reported in *Opotiki News*, 18 May; *Feilding Herald*, 25 May; *Franklin County News*, 27 May; *Hauraki Herald*, 1 June; *Southern Rural Life*, 9 June.
- Daly, M. (1999). New survey backs fears for Lake Omapere. *Northern Advocate*, 4 September. Paul Champion comments on *Egeria densa* survey and possible growth and collapse of the lake's weed population.
- Daly, M. (1999). Scientists count sea samples on the sea floor. *Northern Advocate*, 18 March. Joint NZ/French expedition on *Tangaroa* investigates Northland Plateau north of Whangarei.
- Dawber, C. (1999). Coping with the changes in weather. *New Zealand Education Review*, 25 February. Features CLIMPACTS programme.
- Driscoll, A. (1999). New salmon hatchery owner. *Ashburton Guardian*, 9 April. Outlines plans for new owner of Glenariffe hatchery to purchase smolt from NIWA. Also reported in *West Coast Times*, 30 April; *Christchurch Star*, 5 May.
- Duggan, J. (1999). World ozone authority visits Otago. *Otago Daily Times*, 1 May. Nobel Prize winner Professor Paul Crutzen visits NIWA, Lauder, as part of 10-day lecture tour arranged by Andrew Matthews. Crutzen's lectures also reported in *Dominion*, 5 May; *Press*, 7 May.
- Duncan, J. (1999). Kit out soon to measure stream health. *Waikato Times*, 20 July. Stream Health Monitoring and Assessment Kit (SHMAK), was developed by NIWA in cooperation with Federated Farmers. Its arrival also announced in *Greymouth Evening News*, 14 July; *Dannevirke Evening News*, 16 July; *Waitomo News*, *Evening Standard*, *Bush Telegraph*, 20 July; *Ashburton Guardian*, *Wairarapa News*, 21 July; *Northland Age*, 22 July; *Hauraki Herald*, 23 July; *Timaru Herald*, 27 July; *South Waikato News*, *Southland Times*, 29 July; *Northern Outlook*, 2 August; *Timaru Herald*, 3 August; *High Country Herald*, *New Tattler*, 4 August; *Rural News*, 9 August; *Tairi Herald*, 10 August; *Rodney Times*, *Franklin County News*, 17 August; *Coast to Coast Courier*, 18 August; *New Zealand Farmer*, 19 August; *Straight Furrow*, *Te Awamutu Courier*, 24 August; *Wanganui Chronicle*, 26 August; *Otago Southland Farmer*, 27 August; *Southern Rural Life*, 1 September; *Te Puke News*, 15 September; *Marlborough Express*, 17 September; *Stratford Press*, 22 September; *Ruapehu Bulletin*, 5 October.
- Earle, S. (1999). Baby it's cold topside. *Rotorua Review*, 7 July. Reports annual dive training course led by Steve Mercer (pictured with Rick Leifting and Anne-Maree Schwarz).
- English, P. (1999). Hidden slaughter in ocean's depths. *NZ Herald*, 1 October. Quotes Malcolm Clark on the long-term unsustainability of fishing orange roughy on seamounts and the need to protect seamounts from bottom trawling.
- English, P. (1999). NZ scientists pinpoint gas from warm Earth. *NZ Herald*, 28 June. Dave Lowe quoted on discovery of increased atmospheric methane and its attribution to wetlands emissions, based on isotope measurements. Also reported in *West Coast Times*, *Dominion*, *Evening Standard*, 29 June; *Gisborne Herald*, 2 July.
- Franklin, P. (1999). Study shows lake fish in good health. *Chronicle*, 11 August. Ben Chisnall and Don (aka Dave) Jellyman examined the fish and shellfish of Lake Horowhenua. Also reported in *Horowhenua & Kapiti News*, 18 August.

- Franklin, P. (1999). Tests on lake under way. *Chronicle*, 25 February. Story on survey of Lake Horowhenua includes photo of Ben Chisnall. Also covered in *Horowhenua & Kapiti News*, 3 March.
- Fraser, T. (1999). Scientists tracking eels. *Daily Post*, 2 December. Reports Jacques Boubée's work with eel migration in the Rangitaiki River. Also noted in *NZ Herald*, 6 December; *Evening Post*, *Dominion*, 7 December; *Whakatane Beacon*, 10 December; *Gisborne Herald*, 15 December.
- Fricker, A. (1999). Trial pond system trounces conventional. *Dairying Today*, November. Rupert Craggs explains new four-pond effluent treatment system to be trialled on a Waikato dairy farm.
- Gaston, P. (1999). Beach renourishment finds favour. *Hawkes Bay Today*, 14 October. Reports results of NIWA study and models of various options for coastal protection at Westshore, Napier.
- Gee, T. (1999). Grass carp eyed as lake weed-busters. *NZ Herald*, 31 July. Paul Champion comments on proposed introduction of carp into Lake Omapere, north of Kaikohe, to control aquatic vegetation. Also reported in *Northern Advocate*, 30 July.
- Gibb, J. (1999). Nuclear physicists receive \$716,000 grant. *Otago Daily Times*, 7 September. Also reports Marsden Fund grant won by Philip Boyd, Ed Abraham, and Craig Stevens. Other reports in *Evening Post*, 10 September; *Otago Daily Times*, 25 September.
- Gibson, J. (1999). Bay aquaculture industry research opens new door. *Bay of Plenty Times*, 9 September. Andrew Jeffs reports on feasibility study of aquaculture opportunities in Bay of Plenty.
- Grant, G. (1999). Falklands a treasure trove for fish expert. *Christchurch Star*, 29 December. Bob McDowall (pictured) describes his four-week visit to study Falkland Islands fish.
- Hamilton, P. (1999). Floating classes on research ship. *Evening Post*, 25 August. Reports launch of Sea & Learn programme, taking secondary school students out for a day on *Kaharoa*; quotes Julie Hall. Also covered in *Dominion*, 24 August; *Dannevirke Evening Mail*, 25 August; *Hawkes Bay Today*, 27 August; *Evening Standard*, *Education Weekly*, 30 August.
- Hewitson, M. (1999). What a gas. *NZ Herald*, 17 April. Story on lawn mower racing in Gore includes comments from Gavin Fisher on mower-induced air pollution measured in Auckland by NIWA.
- Hindmarsh, G. (1999). Clearwater revival. *New Zealand Listener*, 15 May. Article on Pupu Springs quotes Rob Davies-Colley on the extraordinary clarity of the water, now under threat from excessive diving and swimming activity.
- Horwood, A. (1999). Anti-cancer sea sponge offers export promise. *NZ Herald*, 14 October. Report from Our Oceans conference quotes Rob Murdoch on marine technology and the slimy yellow sponge *Lissodendoryx*.
- Hutchinson, D. (1999). Hunt for Kaikoura's giant squid to resume. *Marlborough Express*, 16 February. Smithsonian-led collaborators will deploy a one-man miniature submarine launched from NIWA's vessel *Kaharoa* to search Kaikoura Canyon. Also reported in *Dominion*, *NZ Herald*, *Wanganui Chronicle*, 17 February. Work began in March and was reported in *Kaikoura Star*, 17 March; *Press*, 23 March; *Daily Post*, *Nelson Mail*, 24 March; *Gisborne Herald*, 26 March; *Kaikoura Star*, 31 March; *Marlborough Express*, 1 April; *Ashburton Guardian*, *Nelson Mail*, 3 April; *Nelson Mail*, 5 April.
- Jackson, R. (1999). NIWA claims admin benefits from NCA move. *Computerworld NZ*, 22 February. Stu Keast describes NIWA's use of Oracle.
- Johnson, A.-M. (1999). Harbour hosts pink plankton. *Evening Post*, 8 October. Picture of Vicky Webb and comments from Hoe Chang on harmless *Noctiluca* [zooplankton] bloom in Wellington Harbour. Also reported in *Wanganui Chronicle*, 9 October.
- Johnson, A.-M. (1999). Problem for planned beach. *Evening Post*, 13 December. Lionel Carter comments on maintenance required to keep a sand beach at Oriental Bay, Wellington.
- Johnston, M.; Austen, D. (1999). NZ's monopoly may soon vanish. *NZ Herald*, 2 August. John McKoy comments on international attempts to grow the indigenous greenshell mussel.
- Jones, J. (1999). Wrong sunshine hours concern tourism industry. *Gisborne Herald*, 12 January. Jim Salinger apologises for error in figure for Gisborne sunshine included in annual summary of New Zealand weather. Also reported in *Evening Post*, *Westport News*, 13 January; *NZ Herald*, 15 January. Gavin Fisher also apologises in a letter to the Editor: *Gisborne Herald*, 19 January.

- Keast, J. (1999). Opuha water 'poor quality'. *Press*, 27 August. Extensively cites NIWA report on Lake Opuha. Also reported in *Timaru Herald*, 30 August.
- Keene, H. (1999). Smaller ozone hole this year. *Press*, 9 October. Greg Bodeker comments on whether this year's ozone hole indicates atmospheric ozone recovery.
- Kerr, P. (1999). Papamoa eco-battlers wield scientific proof. *Bay of Plenty Times*, 19 April. Keith Smith spoke about coastal hazards to the newly formed Papamoa Beachfront Ratepayers Association.
- King, G. (1999). Estuary 'at risk' from projects. *Albany Extra*, 15 September. NIWA's report on potential impact of development on Okura estuary caused comment from developers and conservationists. Also reported in *North Harbour News*, 10 September; *Shore News*, 15 September; *Northshore Times-Advertiser*, 21 and 23 September.
- Lee, Y.H. (1999). Software has flown, but the machinery to run it will be staying home. *NZ Herald*, 17 December. Describes business plans of Nav Station, including recent agreement to market NIWA seabed charts used for recreational boating.
- Lilley, R. (1999). Supercomputer's grunt to help unravel El Nino mysteries. *National Business Review*, 25 June. At commissioning of NIWA's new Cray, Paul Hargreaves and Rick Pridmore are quoted on its capabilities and its usefulness for hazard prediction and projects such as Derek Goring's analysis of Mars data. Also reported in *Evening Post*, *Ashburton Guardian*, *Hawkes Bay Today*, *Westport News*, 24 June; *NZ Herald*, *Northern Advocate*, 25 June; *Daily News*, 28 June; *Dominion*, 3 July; *PSA Journal*, August.
- Lindsay, S. (1999). Danger on east coast. *Auckland City Harbour News*, 21 December. Georgina Daw warns about changed wave patterns this summer on North Island beaches (east and west coasts) due to enhanced northeasterly winds. Also reported in *Central Leader*, 21 December; *East & Bays Courier*, 12 January.
- MacBrayne, R. (1999). Scientists taking in-depth look at offshore volcanoes. *NZ Herald*, 3 March. Reports joint IGNS/ NIWA/ NOAA expedition on *Tangaroa* to map hydrothermal vents on seabed NE of Bay of Plenty. Also reported in *Dominion*, *Wanganui Chronicle*, *Opotiki News*, 4 March; *Gisborne Herald*, 5 March; *Daily Telegraph*, 6 March; *Otago Daily Times*, 9 March; *Bay of Plenty Times*, 10 March; *Wairarapa Times-Age*, 12 March. Articles noting the conclusion of the expedition appeared in *Hawke's Bay Herald-Tribune*, *NZ Herald*, *Bay of Plenty Times*, *Greymouth Evening Star*, 20 March; *Gisborne Herald*, *Waikato Times*, 22 March; *Otago Daily Times*, *Evening Post*, *Greymouth Evening Star*, 24 March. Findings from the expedition were reported in *Daily News*, *Otago Daily Times*, 19 July; *Bay of Plenty Times*, *Daily Post*, 20 July.
- Maddaford, T. (1999). Sabotage of cup buoy a real risk, says Niwa. *NZ Herald*, 13 April. Reports concerns over safety of weather buoy following controversial decision to sell data to US America's Cup syndicate. Other stories in *Northern Advocate*, *Daily News*, *Hawke's Bay Herald-Tribune*, 13 April.
- Maddaford, T. (1999). Team NZ fuming as Niwa helps 'enemy'. *NZ Herald*, 12 April. NIWA's business arrangement with US America's Cup syndicate for supply of Hauraki Gulf weather buoy data angers Team NZ. Also reported in *Dominion*, *Nelson Mail*, *Evening Post*, *Otago Daily Times*, *West Coast Times*, *Press*, *Southland Times*, *Daily News*, 12 April. Gavin Fisher's defence of the sale of data appears in *Hawke's Bay Herald-Tribune*, *Greymouth Evening Star*, *Ashburton Guardian*, *Dannevirke Evening News*, *Nelson Mail*, *Bay of Plenty Times*, *Marlborough Express*, *Daily Post*, 12 April. Other articles and editorials follow: *NZ Herald*; *Bay of Plenty Times*, 13 April; *Ensign*, 14 April; *NZ Herald*, 17 April; *Sunday Star-Times*, 18 April; *Sailing New Zealand*, *NZ Marine Scene*, May; *Press*, 31 May; *Dominion*, 1 June; *Sea Spray*, July/August.
- Maetzig, R. (1999). NZ warned of alien plant invasion. *Daily News*, 13 July. Report of NZ Biodiversity Institute seminar includes comments by Paul Champion on aquatic plant pests.
- Maetzig, R. (1999). Warmer than usual weather predicted. *Daily News*, 28 September. Report from Jim Salinger's seminar in Stratford as part of National Climate Centre's weather roadshow. Also reported in *Stratford Press*, 22 September.

- Mager, D. (1999). 'Lost world' fast disappearing. *NZ Herald*, 15 February. Cites NIWA internal report describing fauna of Spirits Bay, home to rare benthic species and currently subject to trawling. Also reported in *Hawke's Bay Herald-Tribune*, *Daily Post*, 15 February. A fishing ban was proposed in September, reported in *Northern Advocate*, 27 September; *Northland Age*, 28 September; *NZ Herald*, 29 September.
- Mager, D. (1999). New games with game fish. *NZ Herald*, 4 January. Reports Carolyn Poortenaar's work with breeding yellowtail kingfish.
- Malcolm, A. (1999). SGI NZ jobs safe despite global restructure. *Computerworld NZ*, 23 August. Anthony Cole quoted in article about reorganisation of Silicon Graphics Inc, suppliers of NIWA's new supercomputer. Also reported in *NZ Herald*, 24 August.
- McLean, V. (1999). Watching the weather. *NZ Forest Industries (February)*: 14–15. In "Warm winds coming in from the west" (p. 15) Bret Mullan comments on complexity of predicting New Zealand weather.
- McMorran, S. (1999). Storm brews over yachties' use of weather data. *Dominion*, 13 April. Similar stories in *Daily News*, *NZ Herald*, 12 April.
- Milburn, K. (1999). Tapping into water research earns award. *Press*, 16 June. Announces award to Clive Howard-Williams (pictured) of the New Zealand Science and Technology silver medal. Also reported in *Evening Post*, 15 June; *Christchurch Star*, *Bay of Plenty Times*, *Hawkes Bay Today*, 16 June; *New Zealand Education Review*, 18 June.
- Moroney, R. (1999). Storm-hit buoy on way to Bay, *Daily Telegraph*, 12 April. The NIWA weather buoy moved from Hauraki Gulf to position off Napier. Follow-up story on 13 April.
- Murdoch, H. (1999). More crayfish due to better management. *Nelson Mail*, 15 May. Ken Grange discusses Tonga Island Marine Reserve survey results. Also reported in *Nelson Mail*, 12 May; *Leader*, 13 May; *Press*, 14 May; *Motueka-Golden Bay News*, 20 May.
- Napier, N. (1999). La Niña is extremely difficult to forecast, says NIWA. *Timaru Herald*, 2 November. Alan Porteous focuses on chances of rain or drought for South Canterbury.
- Napp, B. (1999). Floods due next July 4. *Evening Post*, 17 September. Derek Goring's sea level predictions during his talk at the New Zealand Coastal Society meeting in Wellington inspired similar headlines in: *Ashburton Guardian*, *Chronicle*, *Press*, 18 September; *Marlborough Express*, 20 September; *Northern Advocate*, 24 September; *Press*, 30 September. *Evening Post* printed a correction (20 September) noting that Derek said predicted high tides *plus* storm surge could cause coastal flooding. Stories later appeared in *Dargaville and Districts News*, 13 October; *Greymouth Evening Star*, 13 November.
- Newth, K. (1999). Antarctic wave causes cold front between weather forecasters. *Sunday Star-Times*, 20 June. Notes disagreement between NIWA (represented by Brett Mullan) and various other researchers about influence of Antarctic Circumpolar Wave on Australasian weather.
- O'Donnell, H. (1999). Marine reserve on road to recovery. *Chronicle*, 13 March. Kapiti Marine Reserve Committee Chairman Ken Grange reports increases in size and numbers of fish and crayfish along with behavioural changes. Also reported in *Evening Post*, 15 March; *Kapiti Mail*, *Horowhenua Mail*, 18 March; *Dominion*, 24 March.
- Perry, K. (1999). Cancer threat as deadly UV rays build up. *NZ Herald*, 10 September. Richard McKenzie reports a 15% increase in harmful UV radiation in the Southern Hemisphere since the late 1970s. Also reported in *Press*, *Dominion*, *Greymouth Evening Star*, *Gisborne Herald*, *West Coast Times*, *Bay of Plenty Times*, *Waikato Times*, *Hawkes Bay Today*, *Otago Daily Times*, *Nelson Mail*, 10 September; *Evening Standard*, *Otago Daily Times*, 11 September; *Oamaru Mail*, 13 September; *Southern Rural Life*, 15 September.
- Perry, K. (1999). French press NZ for fish nearly extinct off Europe. *NZ Herald*, 21 September. Malcolm Francis interviewed on populations of smooth skate, a species growing in popularity as an export to Europe. Earlier his talk on skate at the Marine Sciences Society conference was noted in *Evening Post*, *Daily Post*, 4 September; *Press*, 6 September.

- Perry, K. (1999). Inhalers blamed for ozone depletion. *NZ Herald*, 3 November. Quotes Tom Clarkson on effects of CFC-based asthma inhalers. Also reported in *Dominion*, *Oamaru Mail*, *Horowhenua-Kapiti Chronicle*, 3 November; *Timaru Herald*, *Westport News*, 4 November; *Evening Standard*, 6 November.
- Perry, K. (1999). Navy takes aim at top fishing spot. *NZ Herald*, 30 June. John McKoy comments on likely effects on marine life of weapons testing near Whangaroa Harbour.
- Perry, K. (1999). Our waste can help grow a pine tree. *NZ Herald*, 2 August. Joint PGSF research by Forest Research Institute, Landcare and NIWA looks at recycling effluent from sewage treatment works as forestry fertiliser; also notes NIWA research on how effluents pass through and affect wetlands. Also reported in *Christchurch Star*, 6 August; *New Zealand Education Review*, 27 August.
- Perry, K. (1999). Prehistoric solutions for modern medicine. *NZ Herald*, 8 September. Michelle Kelly and a colleague at Auckland Institute of Technology have won a Marsden Fund grant to study 'living fossil' sponges. Also reported in *Greymouth Evening Star*, *West Coast Times*, 8 September; *Gisborne Herald*, 10 September; *New Zealand Listener*, 25 September.
- Perry, K. (1999). Shrinking glaciers raise water fears. *NZ Herald*, 26 April. Jim Salinger and Trevor Chinn report record low snow levels in New Zealand glaciers and warn of implications for water reserves dependent on snowmelt. Also noted in *Dannevirke Evening News*, *Waikato Times*, *Wairarapa Times-Age*, *Gisborne Herald*, *Greymouth Evening Star*, *Westport News*, *Marlborough Express*, *Evening Post*, *Daily Post*, 26 April; *Otago Daily Times*, *Press*, 28 April.
- Perry, K. (1999). Sky-eye putting fish in NZ nets. *NZ Herald*, 21 July. Michael Uddstrom describes accomplishments of Remote Sensing of Fisheries programme. Also reported in *Gisborne Herald*, *Greymouth Evening Star*, *West Coast Times*, 20 July; *Nelson Mail*, 21 July.
- Pierce, D. (1999). UV rays big danger in Capital. *Evening Post*, 4 February. Richard McKenzie describes UV index levels for Wellington peaking at 14 (where 10 is extreme). Other papers include coverage in various New Zealand centres. Also reported in *Dominion*, *Bay of Plenty Times*, *Daily News*, *Nelson Mail*, *Oamaru Mail*, *West Coast Times*, *Wairarapa Times-Age*, 4 February; *Northern Advocate*, 5 February; *Gisborne Herald*, 6 February; *Hawke's Bay Herald-Tribune*, 8 February.
- Pockley, P. (1999). UV up in NZ: ozone culpable. *Australasian Science* 20(9): 27. Discusses the article in *Science* (10 September) by Richard McKenzie, Brian Connor, and Greg Bodeker.
- Robinson, F. (1999). Unravelling kelp mystery. *Otago Daily Times*, 12 February. Murray Smith and Craig Stevens (pictured with Catriona Hurd (University of Otago) and some kelp) undertake a Marsden project to investigate why New Zealand kelp grows to such lengths. Also reported in *Press*, 16 February.
- Robson, S. (1999). Brighton at greater risk by tsunamis. *Press*, 5 March. Derek Goring compares risk between New Brighton and Kaikoura in the event of an earthquake. Also reported in *Kaikoura Star*, 3 March.
- Robson, S. (1999). Public backs ban, says CRC. *Press*, 20 July. Briefly cites Gavin Fisher's evidence at beginning of hearing to consider proposed coal ban in Christchurch. Also reported in *Christchurch Star*, 21 July.
- Robson, S. (1999). Restoring the ecological values of Canterbury rivers and waterways. *Press*, 3 September. Includes comments by Cathy Kilroy on drought effects.
- Robson, S. (1999). Rise in whitebait eggs good news for gourmets. *Press*, 27 April. Mark Taylor (pictured) reports increased egg production in Christchurch waterways.
- Robson, S. (1999). Scientists bid for Mars study. *Press*, 27 April. Derek Goring (pictured) describes his interest in applying computer techniques for studying braided rivers to NASA data from Mars.
- Robson, S. (1999). Tsunami danger for Kaikoura. *Press*, 3 March. Derek Goring and Keith Lewis paint scenario of undersea avalanche into the Kaikoura Canyon raising a 10m-high tsunami. Also reported in *Daily Post*, *Westport News*, *Greymouth Evening Star*, 2 March.
- Rodley, A. (1999). Weather and water woes. *Ashburton Guardian*, 7 January. Includes comments by Alan Porteous and Stuart Burgess on Mid Canterbury drought conditions.

- Rooney, D. (1999). Chained to greenhouse gases. *Press*, 16 July. Describes personal encounter with NIWA scientists at work measuring greenhouse gases in the middle of a paddock in the middle of the night; also refers to *Water & Atmosphere* article on pastoral emissions research.
- Rooney, D. (1999). How alpine rains behave. *Press*, 18 March. Roddy Henderson discusses some of the latest findings from SALPEX, the Southern Alps Experiment.
- Samson, A. (1999). Giant squid find excites scientists. *Dominion*, 18 October. Steve O'Shea comments on increased number of giant squid captured in past year and the specimen donated to the Museum of Natural History in New York. Also reported (or pictured) in *Daily News*, 14 October; *Wairarapa Times-Age*, *Northern Advocate*, 15 October; *Press*, *Evening Standard*, *West Coast Times*, *Marlborough Express*, *Northern Advocate*, *Greymouth Evening News*, *Japan Times*, 18 October; *Press*, 25 October.
- Samson, A. (1999). Plan to extend economic zone. *Dominion*, 22 April. NIWA, Land Information NZ, and Institute of Geological and Nuclear Sciences will be involved in the oceanographic survey to establish new continental shelf measurements.
- Samson, A. (1999). Scientists map vast submarine river. *Dominion*, 13 November. Reports Keith Lewis' research on the Hikurangi Channel.
- Samson, A. (1999). Scientists' pay rates lamented. *Dominion*, 14 October. Compares pay at NIWA and GNS and notes other information from annual report. NIWA's profit also mentioned in *Evening Post*, 14 October; *Evening Post*, *Marlborough Express*, *Nelson Mail*, 15 October; *Press*, 18 October.
- Schaer, C. (1999). Science goes hip. *New Zealand Fashion Quarterly (Summer Edition)*: 160–163. Features Gerda Kuschel.
- Scott, T. (1999). "Kiwis must appreciate that their top yachties can't be millionaires and pay for weather data from govt agencies ..." [cartoon]. *Evening Post*, *Marlborough Express*, *Waikato Times*, 14 April; *Daily News*, 15 April
- Sherriff, V. (1999). Climate right for weather theme at National Agricultural Fieldays. *Bay of Plenty Times*, 24 June. Speaking at the Fieldays, Keith Lassey comments on his research on methane emissions from sheep.
- Slabbert, B. (1999). Studies to assess marine environment. *Chronicle*, 9 February. Reports beginning of NIWA investigation comparing shellfish abundance in sites representing full, partial, and no marine reserve protection.
- Smith, D. (1999). Lakeweed plan to be revised. *Otago Daily Times*, 16 June. Includes comments by John Clayton on plan for management of Lakes Dunstan and Wanaka. Also reported in *Southland Times*, 15 June.
- Speedy, S. (1999). Weed invades Avon. *Christchurch Star*, 2 June. NIWA has conducted survey to assess spread of *Egeria densa*. Donna Sutherland pictured with the weed, *Press*, 18 September.
- Stringleman, H. (1999). 1998: the year of extremes. *NZ Farmer*, 4 February. Jim Salinger discusses global weather patterns and advises taking the long view in developing strategies to manage risk in farming.
- Taylor, K. (1999). Climate scientist brings good news for farmers. *Hawkes Bay Today*, 29 July. Reports Jim Salinger's presentation to a public meeting hosted by the Hawke's Bay Regional Council; the seminar was one of the National Climate Centre activities and promoted the centre and its monthly *Climate Update*.
- Taylor, N. (1999). Tarlton's voyage into education. *East & Bays Courier*, 21 December. Introduces the NIWA Changing Rooms, a new educational facility at Kelly Tarlton's Underwater World in Auckland.

- Taylor, O. (1999). Commercial scallop fishing halted. *Hauraki Herald*, 10 September. Diseased scallops were sent by scallopers to NIWA for testing; further investigation was funded by government. Investigations and later outbreaks also reported in *Coastal News*, 16 September; *Whakatane Beacon*, *Bay of Plenty Times*, 24 September; *Coastal News*, 30 September; *Waikato Times*, 6 October; *Gulf News*, *Mount & Papamoa Times*, 14 October; *Waikato Times*, *NZ Herald*, *Bay of Plenty Times*, 18 October; *NZ Herald*, *Whakatane Beacon*, 19 October; *Coastal News*, 21 October. *Whakatane Beacon*, *Daily Post*, 29 October; *Bay of Plenty Times*, 8 November; *NZ Herald*, 9 November; *Coastal News*, 11 November.
- Thompson, W.; English, P. (1999). ARC holds fears over estuaries. *NZ Herald*, 6 April. NIWA report highlights probably sediment runoff associated with planned development north of Auckland.
- Wallace, N. (1999). Effects of climate change to be outlined. *Otago Daily Times*, 9 February. Reid Basher and Alan Porteous to address Otago Regional Council meeting on specific effects on Otago of anticipated climate change as part of ORC-commissioned regional climate prediction service. Meeting and service also noted in *Otago Daily Times*, *Timaru Herald*, *Gisborne Herald*, 11 February.
- Wallace, N. (1999). La Nina could return, scientists say. *Otago Daily Times*, 23 February. Refers to Reid Basher and Otago Regional Council-commissioned climate study. Also covered in *Otago Daily Times*, *Gisborne Herald*, *NZ Herald*, 20 February; *Oamaru Mail*, *Evening Standard*, 23 February.
- Wallace, N. (1999). Niwa knew last year the drought was on its way. Quotes Reid Basher on accuracy of NIWA's predictions. *Otago Daily Times*, 12 February. Also noted in *Evening Standard*, 16 February.
- Warrander, M. (1999). Lobsters following their ears here. *Daily News*, 12 March. Andrew Jeffs heads investigation of why the New Plymouth coastline is attracting juvenile lobsters. Also noted in *Greymouth Evening Star*, *Hawke's Bay Herald-Tribune*, *Oamaru Mail*, 12 March.
- Warrander, R. (1999). Lack of whitebait renews plea for earlier season. *Daily News*, 9 September. Cites Richard Allibone on whitebait behaviour.
- Warrander, R. (1999). Tagged eels lead way for researchers. *Daily News*, 29 July. Ben Chisnall describes studies of eel migration aimed at decreasing mortalities at power stations.
- Warwick, R. (1999). Time for a return to media watching? *Waikato Times*, 17 December. Includes criticism of NIWA's involvement in a media release that turned out to be a product endorsement. Also published in *Southland Times*, 16 December.
- Wells, A. (1999). NIWA's supercomputer up with best, says NZ academic. *New Zealand Infotech Weekly*, 6 December. Quotes Professor Barbara Chapman, New Zealand-born computing specialist employed in US and UK.
- Williams, P. (1999). Weather predictions. *Kapiti News*, 13 October. Kevin McGill provides statistics for potential weather on New Year's Eve and Day. Also reported in *Chronicle*, 11 October.
- Williamson, C. (1999). Seahorse farming given giddy-up. *NZ Herald*, 16 March. Simon Hooker is preparing a proposal for government funding of technology for seahorse aquaculture ventures. In response, alarmed conservationists call for a survey of wild stocks (*NZ Herald*, 18 March).