

## BRITISH ANTARCTIC SURVEY

### Publications are listed by BAS programme

#### Refereed research papers 1998 listed in ISI database

++ =collaborators in UK universities

## = overseas collaborators

#### Ice, Climate and Global Change

**CONNOLLEY W.M. & O'FARRELL S.P.##** 1998. Comparison of warming trends over the last century around Antarctica from three coupled models. *Annals of Glaciology*, **27**, 565-570.

**DOAKE C.S.M., CORR H.F.J., ROTT H.##, SKVARCA P.## & YOUNG N.W.##** 1998. Breakup and conditions for stability of the northern Larsen Ice Shelf, Antarctica. *Nature*, **391**, No. 6669, 778-780.

**FROLICH R.M. & DOAKE C.S.M.** 1998. Synthetic aperture radar interferometry over Rutford Ice Stream and Carlson Inlet, Antarctica. *Journal of Glaciology*, **44**, No. 146, 77-92.

**HALL J.S. & WOLFF E.W.** 1998. Causes of seasonal and daily variations in aerosol sea-salt concentrations at a coastal Antarctic station. *Atmospheric Environment*, **32**, No. 21, 3669-3677.

**HARANGOZO S.A.** 1998. An intercomparison of Antarctic sea ice extent datasets from the US Joint Ice Center (JIC) and satellite passive microwave observations for 1979-88. *Antarctic Science*, **10**, No. 2, 204-214.

**HINDMARSH R.C.A.** 1998. The stability of a viscous till sheet coupled with ice flow, considered at wavelengths less than the ice thickness. *Journal of Glaciology*, **44**, No. 147, 285-292.

**HINDMARSH R.C.A.** 1998. Drumlinization and drumlin-forming instabilities: viscous till mechanisms. *Journal of Glaciology*, **44**, No. 147, 293-314.

**HINDMARSH R.C.A.** 1998. Ice-stream surface texture, sticky spots, waves and breathers: the coupled flow of ice, till and water. *Journal of Glaciology*, **44**, No. 148, 589-614.

**HINDMARSH R.C.A., VAN DER WATEREN F.M.## & VERBERS A.L.L.M.##** 1998. Sublimation of ice through sediment in Beacon Valley, East Antarctica. *Geografiska Annaler*, **80A**, No. 3-4, 209-219.

**HOUSEAGO R.E.++, MCGREGOR G.R.++, KING J.C. & HARANGOZO S.A.** 1998. Climate anomaly wave-train patterns linking southern low and high latitudes during South Pacific warm and cold events. *International Journal of Climatology*, **18**, No. 11, 1181-1193.

**JONES A.E., BOWDEN T. & TURNER J.** 1998. Predicting total ozone based on GTS data: applications for South American high-latitude populations. *Journal of Applied Meteorology*, **37**, No. 5, 477-485.

**KING J.C. & HARANGOZO S.A.** 1998. Climate change in the western Antarctic Peninsula since 1945: observations and possible causes. *Annals of Glaciology*, **27**, 571-575.

**KING J.C., VARLEY M.J. & LACHLAN-COPE T.A.** 1998. Using satellite thermal infrared imagery to study boundary layer structure in an Antarctic katabatic wind region. *International Journal of Remote Sensing*, **19**, No. 17, 3335-3348.

**KÖNIG-LANGLO G.##, KING J.C. & PETTRÉ P.##** 1998. Climatology of the three coastal Antarctic stations Dumont d'Urville, Neumayer, and Halley. *Journal of Geophysical Research*, **103**, No. D9, 10,935-10,946.

**LEGRAND M.## & PASTEUR E.C.** 1998. Methane sulfonic acid to non-sea-salt sulfate ratio in coastal Antarctic aerosol and surface snow. *Journal of Geophysical Research*, **103**, No. D9, 10,991-11,006.

**LEGRAND M.##, DUCROZ F.##, WAGENBACH D.##, MULVANEY R. & HALL J.S.** 1998. Ammonium in coastal Antarctic aerosol and snow: role of the polar ocean and penguin emissions. *Journal of Geophysical Research*, **103**, No. D9, 11,043-11,056.

**MARSHALL G.J. & KING J.C.** 1998. Southern Hemisphere circulation anomalies associated with extreme Antarctic Peninsula winter temperatures. *Geophysical Research Letters*, **25**, No. 13, 2437-2440.

**MARSHALL G.J., TURNER J. & MINERS W.D.** 1998. Interpreting recent accumulation records through an understanding of the regional synoptic climatology: an example from the southern Antarctic Peninsula. *Annals of Glaciology*, **27**, 610-616.

**MINIKIN A.##, LEGRAND M.##, HALL J.S., WAGENBACH D.##, KLEEFELD C.##, WOLFF E.W., PASTEUR E.C. & DUCROZ F.##** 1998. Sulfur-containing species (sulfate and methanesulfonate) in coastal Antarctic aerosol and precipitation. *Journal of Geophysical Research*, **103**, No. D9, 10,975-10,990.

**MULVANEY R., WAGENBACH D.## & WOLFF E.W.** 1998. Postdepositional change in snowpack nitrate from observation of year-round near-surface snow in coastal Antarctica. *Journal of Geophysical Research*, **103**, No. D9, 11,021-11,031.

**NERESON N.A.##, HINDMARSH R.C.A. & RAYMOND C.F.##** 1998. Sensitivity of the divide position at Siple Dome, West Antarctica to boundary forcing. *Annals of Glaciology*, **27**, 207-214.

**O'FARRELL S.P.## & CONNOLLEY W.M.** 1998. Comparison of warming trends predicted over the next century around Antarctica from two coupled models. *Annals of Glaciology*, **27**, 576-582.

- PRESTON K.E.++, FISH D.J.++, **ROSCOE H.K.** & JONES R.L.++ 1998. Accurate derivation of total and stratospheric vertical columns of NO<sub>2</sub> from ground-based zenith-sky measurements. *Journal of Atmospheric Chemistry*, **30**, No. 1, 163-172.
- REES J.M.++, **ANDERSON P.S.** & **KING J.C.** 1998. Observations of solitary waves in the stable atmospheric boundary layer. *Boundary-Layer Meteorology*, **86**, No. 1, 47-61.
- SMITH A.M.**, **VAUGHAN D.G.**, **DOAKE C.S.M.** & **JOHNSON A.C.** 1998. Surface lowering of the ice ramp at Rothera Point, Antarctic Peninsula, in response to regional climate change. *Annals of Glaciology*, **27**, 113-118.
- TISON J.-L.##, SOUCHEZ R.##, **WOLFF E.W.**, MOORE J.C.##, LEGRAND M.R.## & de ANGELIS M.## 1998. Is a periglacial biota responsible for enhanced dielectric response in basal ice from the Greenland Ice Core Project ice core? *Journal of Geophysical Research*, **103**, No. D15, 18,885-18,894.
- TURNER J.**, **LEONARD S.**, **LACHLAN-COPE T.A.** & **MARSHALL G.J.** 1998. Understanding Antarctic Peninsula precipitation distribution and variability using a numerical weather prediction model. *Annals of Glaciology*, **27**, 591-596.
- TURNER J.**, **MARSHALL G.J.** & **LACHLAN-COPE T.A.** 1998. Analysis of synoptic-scale low pressure systems within the Antarctic Peninsula sector of the circumpolar trough. *International Journal of Climatology*, **18**, No. 3, 253-280.
- VAN ROOZENDAEL M.##, PEETERS P.##, **ROSCOE H.K.**, DE BACKER H.##, **JONES A.E.** and 8 others [of whom 2 are from UK and 6 from overseas]. 1998. Validation of ground-based visible measurements of total ozone by comparison with Dobson and Brewer spectrophotometers. *Journal of Atmospheric Chemistry*, **29**, No. 1, 55-83.
- VAUGHAN D.G.** & BAMBER J.L.++ 1998. Identifying areas of low-profile ice sheet and outcrop damming in the Antarctic ice sheet by ERS-1 satellite altimetry. *Annals of Glaciology*, **27**, 1-6.
- WAGENBACH D.##, DUCROZ F.##, **MULVANEY R.**, KECK L.##, MINIKIN A.##, LEGRAND M.##, **HALL J.S.** & **WOLFF E.W.** 1998. Sea salt aerosol in coastal Antarctic regions. *Journal of Geophysical Research*, **103**, No. D9, 10,961-10,974.
- WAGENBACH D.##, LEGRAND M.##, FISCHER H.##, PICHLMAYER F.## & **WOLFF E.W.** 1998. Atmospheric near-surface nitrate at coastal Antarctic sites. *Journal of Geophysical Research*, **103**, No. D9, 11,007-11,020.
- WOLFF E.W.** & CACHIER H.## 1998. Concentrations and seasonal cycle of black carbon in aerosol at a coastal Antarctic station. *Journal of Geophysical Research*, **103**, No. D9, 11,033-11,041.
- WOLFF E.W.**, **HALL J.S.**, **MULVANEY R.**, **PASTEUR E.C.**, WAGENBACH D.## & LEGRAND M.## 1998. Relationship between chemistry of air, fresh snow and firn cores for aerosol species in coastal Antarctica. *Journal of Geophysical Research*, **103**, No. D9,

11,057-11,070.

**WOLFF E.W.**, **LEGRAND M.R.##** & **WAGENBACH D.##** 1998. Coastal Antarctic aerosol and snowfall chemistry. *Journal of Geophysical Research*, **103**, No. D9, 10,927-10,934.

#### **Refereed research papers 1998 NOT listed in ISI database**

**BOMBOSCH A.** 1998. Interactions between floating ice platelets and ocean water in the southern Weddell Sea. (In Jacobs, S.S. & Weiss, R.F., eds. Ocean, ice, and atmosphere: interactions at the Antarctic continental margin. *Antarctic research series*, vol. 75. Washington, D.C., American Geophysical Union, 257-266.)

**GROSFELD K.##**, **HELLMER H.H.##**, **JONAS M.##**, **SANDHÄGER H.##**, **SCHULTE M.##** & **VAUGHAN D.G.** 1998. Marine ice beneath Filchner Ice Shelf: evidence from a multi-disciplinary approach. (In Jacobs, S.S. & Weiss, R.F., eds. Ocean, ice, and atmosphere: interactions at the Antarctic continental margin. *Antarctic research series*, vol. 75. Washington, D.C., American Geophysical Union, 319-339.)

**HELLMER H.H.##**, **JACOBS S.S.##** & **JENKINS A.** 1998. Oceanic erosion of a floating Antarctic glacier in the Amundsen Sea. (In Jacobs, S.S. & Weiss, R.F., eds. Ocean, ice, and atmosphere: interactions at the Antarctic continental margin. *Antarctic research series*, vol. 75. Washington, D.C., American Geophysical Union, 83-99.)

**NICHOLLS K.W.** & **MAKINSON K.** 1998. Ocean circulation beneath the western Ronne Ice Shelf, as derived from in situ measurements of water currents and properties. (In Jacobs, S.S. & Weiss, R.F., eds. Ocean, ice, and atmosphere: interactions at the Antarctic continental margin. *Antarctic research series*, vol. 75. Washington, D.C., American Geophysical Union, 301-318.)

**WEIDICK A.##** & **MORRIS E.M.** 1998. Local glaciers surrounding continental ice sheets. (In Haeberli, W., Hoelzle, M. & Suter, S., eds. Into the second century of world glacier monitoring - prospects and strategies. *Studies and reports in hydrology*, 56. Paris, Unesco, 197-207.)

**WILLIAMS M.J.M.##**, **JENKINS A.** & **DETERMANN J.##** 1998. Physical controls on ocean circulation beneath ice shelves revealed by numerical models. (In Jacobs, S.S. & Weiss, R.F., eds. Ocean, ice, and atmosphere: interactions at the Antarctic continental margin. *Antarctic research series*, vol. 75. Washington, D.C., American Geophysical Union, 285-299.)

#### **Non-refereed publications**

**LACHLAN-COPE T.A.** 1998. The use of high resolution weather satellite imagery for the support of science. (In Hall, J., ed. *Proceedings of the Seventh Symposium on Antarctic Logistics and Operations, Cambridge, August 1996*. Cambridge, British Antarctic Survey, 157-162.)

**MINERS W.D., BLINDOW N.## & GERLAND S.##** 1998. Modelling a GPR record by using ice core data to produce a synthetic radargram. (*In: Proceedings, Seventh International Conference on Ground-Penetrating Radar, Lawrence, Kansas, May 1998*. Lawrence, Radar Systems and Remote Sensing Laboratory, 437-442.)

**PAREN J.G.** 1998. Emergency planning for a future climate. *Civil Protection*, No. 44, 8-9.

**PAREN J.G.** 1998. Climate change from an Antarctic perspective. *Environmental Scientist*, 7, No. 5, 1-4.

**PAREN J.G.** 1998. [Text to accompany a book of photographs of ice]. (*In Broadbent, R. Minus sixteen*. London, Browns, [2pp].)

**NICHOLLS K.W. & MAKINSON K.** 1998. A 'light-weight' hot-water drill for use on Ronne Ice Shelf. (*In Hall, J., ed. Proceedings of the Seventh Symposium on Antarctic Logistics and Operations, Cambridge, August 1996*. Cambridge, British Antarctic Survey, 193-202.)

**SHANKLIN J.D.** 1998. The Antarctic ozone hole. *Catalyst*, 8, No. 4, 18-20.

**SHANKLIN J.D.** 1998. *The Antarctic ozone hole*. Cambridge, British Antarctic Survey. [12pp.]

**VAUGHAN D.G.** 1998. Hazards of the Southern Ocean. Berg on the starboard bow! *Yachting World*, March 1998, 50-52.

**VAUGHAN D.G.** 1998. A new classification scheme for ice shelves based on mechanisms of mass gain and loss. *Polar Record*, 34, No. 188, 56-58.

## **Pelagic Ecosystem Studies**

### **Refereed research papers 1998 listed in ISI database**

**ATKINSON A.** 1998. Life cycle strategies of epipelagic copepods in the Southern Ocean. *Journal of Marine Systems*, 15, 289-311.

**BONNAUD L.##, RODHOUSE P.G. & BOUCHER-RODONI R.##** 1998. A phylogenetic study of the squid family Onychoteuthidae (Cephalopoda: Oegopsida). *Philosophical Transactions of the Royal Society of London, Series B*, 265, 1761-1770.

**BRIERLEY A.S., BRANDON M.A. & WATKINS J.L.** 1998. An assessment of the utility of an acoustic Doppler current profiler for biomass estimation. *Deep-Sea Research Part I*, 45, No. 9, 1555-1573.

**BRIERLEY A.S., WARD P., WATKINS J.L. & GOSS C.** 1998. Acoustic discrimination of Southern Ocean zooplankton. *Deep-Sea Research Part II*, 45, No. 7, 1155-1173.

**CADDY J.F.## & RODHOUSE P.G.** 1998. Cephalopod and groundfish landings: evidence for ecological change in global fisheries. *Reviews in Fish Biology and Fisheries*, **8**, 431-444.

**CRIPPS G.C. & HILL H.J.** 1998. Changes in lipid composition of copepods and *Euphausia superba* associated with diet and environmental conditions in the marginal ice zone, Bellingshausen Sea, Antarctica. *Deep-Sea Research Part I*, **45**, No. 8, 1357-1381.

**GONZÁLEZ A.F. & RODHOUSE P.G.** 1998. Fishery biology of the seven star flying squid *Martialia hyadesi* at South Georgia during winter. *Polar Biology*, **19**, No. 4, 231-236.

**HOFMANN E.E.##, KLINCK J.M.##, LOCARNINI R.A.##, FACH B.## & MURPHY E.J.** 1998. Krill transport in the Scotia Sea and environs. *Antarctic Science*, **10**, No. 4, 406-415.

**MURPHY E.J., BOYD P.W., LEAKEY R.J.G., ATKINSON A., EDWARDS E.S.++, ROBINSON C.++, PRIDDLE J., BURY S.J.++, ROBINS D.B.++, BURKILL P.H.++, SAVIDGE G.++, OWENS N.J.P.++ & TURNER D.##** 1998. Carbon flux in ice-ocean-plankton systems of the Bellingshausen Sea during a period of ice retreat. *Journal of Marine Systems*, **17**, No. 1-4, 207-227.

**MURPHY E.J., WATKINS J.L., REID K., TRATHAN P.N., EVERSON I., CROXALL J.P., PRIDDLE J., BRANDON M.A., BRIERLEY A.S. & HOFMANN E.##** 1998. Interannual variability of the South Georgia marine ecosystem: biological and physical sources of variation in the abundance of krill. *Fisheries Oceanography*, **7**, No. 3-4, 381-390.

**NORTH A.W.** 1998. Growth of young fish during winter and summer at South Georgia, Antarctica. *Polar Biology*, **19**, No. 3, 198-205.

**NORTH A.W., WHITE M.G. & TRATHAN P.N.** 1998. Interannual variability in the early growth rate and size of the Antarctic fish *Gobionotothen gibberifrons*. (Lönnberg). *Antarctic Science*, **10**, No. 4, 416-422.

**PRIDDLE J., BOYD I.L., WHITEHOUSE M.J., MURPHY E.J. & CROXALL J.P.** 1998. Estimates of Southern Ocean primary production - constraints from predator carbon demand and nutrient drawdown. *Journal of Marine Systems*, **17**, No. 1-4, 275-288.

**PRIDDLE J., NEDWELL D.B.++, WHITEHOUSE M.J., REAY D.S.++, SAVIDGE G.++, GILPIN L.C.++, MURPHY E.J. & ELLIS-EVANS J.C.** 1998. Re-examining the Antarctic Paradox: speculation on the Southern Ocean as a nutrient-limited system. *Annals of Glaciology*, **27**, 661-668.

**RODHOUSE P.G.** 1998. Physiological progenesis in cephalopod molluscs. *Biological Bulletin*, **195**, 17-20.

**SHREEVE R.S. & WARD P.** 1998. Moulting and growth of the early stages of two species of Antarctic calanoid copepod in relation to differences in food supply. *Marine Ecology Progress Series*, **175**, 109-119.

**SHREEVE R.S., WARD P. & MURRAY A.W.A.** 1998. Moulting rates of *Calanus*

*helgolandicus*: an inter-comparison of experimental methods. *Journal of Experimental Marine Biology and Ecology*, **224**, No. 2, 145-154.

**SNYDER R.** 1998. Aspects of the biology of the giant form of *Stenoteuthis oualaniensis* (Cephalopoda: Ommastrephidae) from the Arabian Sea. *Journal of Molluscan Studies*, **64**, 21-34.

**TRATHAN P.N., MURPHY E.J., CROXALL J.P. & EVERSON I.** 1998. Use of at-sea distribution data to derive potential foraging ranges of macaroni penguins during the breeding season. *Marine Ecology Progress Series*, **169**, 263-275.

**WARD P. & SHREEVE R.S.** 1998. Egg hatching times of Antarctic copepods. *Polar Biology*, **19**, No. 2, 142-144.

**WATKINS J.L. & MURRAY A.W.A.** 1998. Layers of Antarctic krill, *Euphausia superba*: are they just long krill swarms? *Marine Biology*, **131**, No. 2, 237-247.

**ZUBKOV M.V.++, SLEIGH M.A.++, TARRAN G.A.++, BURKILL P.H.++ & LEAKEY R.J.G.** 1998. Picoplanktonic community structure on an Atlantic transect from 50°N to 50°S. *Deep-Sea Research Part I*, **45**, No. 8, 1339-1355.

#### **Refereed research papers 1998 NOT listed in ISI database**

**AGNEW D.J.++, EVERSON I., KIRKWOOD G.P.## & PARKES G.B.++** 1998. Towards the development of a management plan for the mackerel icefish (*Champsocephalus gunnari*) in Subarea 48.3. *CCAMLR Science*, **5**, 63-77.

**ASHFORD J.R.## & CROXALL J.P.** 1998. An assessment of CCAMLR measures employed to mitigate seabird mortality in longlining operations for *Dissostichus eleginoides* around South Georgia. *CCAMLR Science*, **5**, 217-230.

**BRIERLEY A.S., GOSS C., WATKINS J.L. & WOODROFFE P.** 1998. Variations in echosounder calibration with temperature, and some possible implications for acoustic surveys of krill biomass. *CCAMLR Science*, **5**, 273-281.

**EVERSON I.** 1998. Natural mortality rate in the mackerel icefish (*Champsocephalus gunnari*) around South Georgia. *CCAMLR Science*, **5**, 245-257.

**GOSS C., RODHOUSE P.G., WATKINS J.L. & BRIERLEY A.S.** 1998. Attribution of acoustic echoes to squid in the South Atlantic. *CCAMLR Science*, **5**, 259-271.

**HAIMOVICI M.##, BRUNETTI N.E.##, RODHOUSE P.G., CSIRKE J.## & LETA R.H.##** 1998. *Illex argentinus*. (In Rodhouse, P.G., Dawe, E.G. & O'Dor, R.K., eds. Squid recruitment dynamics. The genus *Illex* as a model, the commercial *Illex* species and influences on variability. *FAO fisheries technical paper*, 327. Rome, FAO, 27-58.)

**HATFIELD E.M.C. & DES CLERS S.++** 1998. Fisheries management and research for *Loligo gahi* in the Falkland Islands. *California Cooperative Oceanic Fisheries Investigations*

Report, **39**, 81-91.

**RODHOUSE P.G.** 1998. Large and meso-scale distribution of the ommastrephid squid *Martialia hyadesi* in the Southern Ocean: a synthesis of information relevant to fishery forecasting and management. *Korean Journal of Polar Research*, **8**, No. 1-2, 145-154.

**RODHOUSE P.G.** 1998. *Todarodes filippovae* in the Southern Ocean: an appraisal for exploitation and management. (In Okutani, T., ed. *Contributed papers to International Symposium on Large Pelagic Squids, July 1996*. Tokyo, Japan Marine Fishery Resources Research Center, 207-215.)

**RODHOUSE P.G.**, DAWE E.G.## & O'DOR R.K.##, eds. 1998. Squid recruitment dynamics. The genus *Illex* as a model, the commercial *Illex* species and influences on variability. *FAO fisheries technical paper*, 376. Rome, FAO, 273pp.

**RODHOUSE P.G.**, DAWE E.G.## & O'DOR R.K.## 1998. Overview. (In Rodhouse, P.G., Dawe, E.G. & O'Dor, R.K., eds. Squid recruitment dynamics. The genus *Illex* as a model, the commercial *Illex* species and influences on variability. *FAO fisheries technical paper*, 327. Rome, FAO, 269-273.)

**RODHOUSE P.G.**, MURPHY E.J. & COELHO M.L.## 1998. Impact of fishing on life histories. (In Rodhouse, P.G., Dawe, E.G. & O'Dor, R.K., eds. Squid recruitment dynamics. The genus *Illex* as a model, the commercial *Illex* species and influences on variability. *FAO fisheries technical paper*, 327. Rome, FAO, 255-268.)

**TRATHAN P.N.**, EVERSON I., MURPHY E.J. & PARKES G.B.## 1998. Analysis of haul data from the South Georgia krill fishery. *CCAMLR Science*, **5**, 9-30.

VOSS N.A.##, NESIS K.N.## & **RODHOUSE P.G.** 1998. The cephalopod family *Histioteuthidae* (Oegopsida): systematics, biology, and biogeography. (In Voss, N.A., Vecchione, M., Toll, R.B. & Sweeney, M.J., eds. Systematics and biogeography of cephalopods, vol. 2. *Smithsonian contributions to zoology*, no. 586. Washington, D.C., Smithsonian Institution Press, 293-372.)

### **Book chapters written**

KOCK K.-H.## & EVERSON I. 1998. Age, growth and maximum size of Antarctic notothenioid fish - revisited. (In di Prisco, G., Pisano, E. & Clarke, A., eds. *Fishes of Antarctica: a biological overview*. Milan, Springer-Verlag, 29-40.)

**WHITE M.G.** 1998. Development, dispersal and recruitment: a paradox for survival among Antarctic fish. (In di Prisco, G., Pisano, E. & Clarke, A., eds. *Fishes of Antarctica: a biological overview*. Milan, Springer-Verlag, 53-62.)

### **Higher Predator Studies**

#### **Refereed research papers 1998 listed in ISI database**

**BOYD I.L.** 1998. Time and energy constraints in pinniped lactation. *American Naturalist*,

152, No. 5, 717-728.

**BOYD I.L. & STANFIELD M.P.++** 1998. Circumstantial evidence for the presence of monk seals in the West Indies. *Oryx*, **32**, No. 4, 310-316.

**BOYD I.L., McCAFFERTY D.J., REID K., TAYLOR R. & WALKER T.R.** 1998. Dispersal of male and female Antarctic fur seals (*Arctocephalus gazella*). *Canadian Journal of Fisheries and Aquatic Sciences*, **55**, No. 4, 845-852.

**COBLEY N.D. & BELL G.** 1998. Weddell seal (*Leptonychotes weddellii*) feeding on gentoo penguins (*Pygoscelis papua*). *Marine Mammal Science*, **14**, No. 4, 881-883.

**COBLEY N.D. & PRINCE P.A.** 1998. Factors affecting primary molt in the gray-headed albatross. *Condor*, **100**, No. 1, 8-17.

**COBLEY N.D., CROXALL J.P. & PRINCE P.A.** 1998. Individual quality and reproductive performance in the grey-headed albatross, *Diomedea chrysostoma*. *Ibis*, **140**, No. 2, 315-322.

**McCAFFERTY D.J., BOYD I.L. & TAYLOR R.I.** 1998. Diving behaviour of Antarctic fur seal (*Arctocephalus gazella*) pups. *Canadian Journal of Zoology*, **76**, 513-520.

**McCAFFERTY D.J., BOYD I.L., WALKER T.R. & TAYLOR R.I.** 1998. Foraging responses of Antarctic fur seals to changes in the marine environment. *Marine Ecology Progress Series*, **166**, 285-299.

**REID K. & MEASURES J.** 1998. Determining the sex of Antarctic krill *Euphausia superba* using carapace measurements. *Polar Biology*, **19**, No. 2, 145-147.

**REID K. & NEVITT G.A.##** 1998. Observation of southern elephant seal, *Mirounga leonina*, feeding at sea near South Georgia. *Marine Mammal Science*, **14**, No. 3, 637-640.

**RODHOUSE P.G., OLSSON O.##, ANKER-NILSSEN P.## & MURRAY A.W.A.** 1998. Cephalopod predation by the king penguin *Aptenodytes patagonicus* from South Georgia. *Marine Ecology Progress Series*, **168**, 13-19.

**WALKER T.R., BOYD I.L., McCAFFERTY D.J., HUIN N., TAYLOR R.I. & REID K.** 1998. Seasonal occurrence and diet of leopard seals (*Hydrurga leptonyx*) at Bird Island, South Georgia. *Antarctic Science*, **10**, No. 1, 75-81.

#### **Collaborative research papers listed in ISI database**

**BRODIN A.##, OLSSON O.## & CLARK C.W.##** 1998. Modeling the breeding cycle of long-lived birds: why do king penguins try to breed late? *Auk*, **115**, No. 3, 767-771.

**MARTIN G.R.++** 1998. Eye structure and amphibious foraging in albatrosses. *Proceedings of the Royal Society of London, Series B*, **265**, 665-671.

OLSSON O.## 1998. Divorce in king penguins: asynchrony, expensive fat storing and ideal free mate choice. *Oikos*, **83**, 574-581.

### **Refereed research papers 1998 NOT listed in ISI database**

**REID K.** 1998. Franklin's Gull *Larus pipixcan* at South Georgia. *Bulletin of the British Ornithologists' Club*, **118**, No. 1, 55-56.

### **Book chapters written**

**CROXALL J.P.** 1998. Research and conservation: a future for albatrosses? (In Robertson, G. & Gales, R., eds. *Albatross biology and conservation*. Chipping Norton, NSW, Surrey Beatty, 269-290.)

**CROXALL J.P. & GALES R.##** 1998. An assessment of the conservation status of albatrosses. (In Robertson, G. & Gales, R., eds. *Albatross biology and conservation*. Chipping Norton, NSW, Surrey Beatty, 46-65.)

**CROXALL J.P., PRINCE P.A., ROTHERY P. & WOOD A.G.** 1998. Population changes in albatrosses at South Georgia. (In Robertson, G. & Gales, R., eds. *Albatross biology and conservation*. Chipping Norton, NSW, Surrey Beatty, 69-83.)

**PRINCE P.A., CROXALL J.P., TRATHAN P.N. & WOOD A.G.** 1998. The pelagic distribution of South Georgia albatrosses and their relationships with fisheries. (In Robertson, G. & Gales, R., eds. *Albatross biology and conservation*. Chipping Norton, NSW, Surrey Beatty, 137-167.)

### **Non-refereed publications**

ELLIS S.##, **CROXALL J.P.** & COOPER J.##, eds. 1998. *Penguin conservation assessment and management plan. Report from the workshop, Cape Town, September 1996*. Apple Valley, MN, IUCN/SSC Conservation Breeding Specialist Group, 154pp.

### **Ecological and Physiological Adaptations**

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