RECENT LITERATURE

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Conservation

· Lagomorph abundance around Yellow-eyed Penguin *(Megadyptes antipodes)* colonies, South Island, New Zealand. H. Moller, R. Keedwell, H. Ratz, L. Bruce. *(Dept. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand.)* N.Z. J. Ecology 22: 65-70. 1998.

Assessed by faecal pellet counts at 16 penguin breeding sites. Abundance indices were similar in grazed and ungrazed areas, but higher on sand dunes. Thus cessation of grazing will not reduce lagomorph abundance but may provide better nesting habitat. The interaction between lagomorph abundance (hence prey for predators) and predation on penguin chicks is as yet unknown.

· Estimating the home range and carrying capacity for Takahe (*Porphyrio mantelli*) on predator-free offshore islands: implications for future management. C.J. Ryan, I.G. Jamieson*. *(* Dept. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand.)* N.Z. J. Ecology 22: 17-24. 1998.

Four offshore island populations of Takahe have been established. Though hatching success is lower than in the wild population of Fiordland, survival is high and these small populations are growing exponentially. Estimated carrying capacities may be reached between 1997 and 2009. Planning to use the potential of island populations of Takahe is a priority.

Behaviour

· Geographic variation in the call of the Blue Petrel: effects of sex and geographical scale. V. Bretagnolle, F. Genevois. *(CEBC, CNRS, Beauvoir sur Niort, 79360, France. Email: breta@cebc.cnrs.fr)* Condor 99: 985-989. 1997.

Calls of 504 individuals used. Significant geographic variation in males but not in females. Genetic drift, coupled with strong philopatry, may account for these differences.

· Hop, step and gape: do social displays in the Pelecaniformes reflect phylogeny? M. Kennedy, H.G. Spencer, R.D. Gray. *(Dept. Zool., Univ. Otago, P.O. Box 56, Dunedin, New Zealand.)* Animal Behaviour 51: 273-291, (+ erratum: 1197). 1996.

General biology

· Sex ratio of North Island Kaka (*Nestor meridionalis septentrionalis),* Waihaha Ecological Area, Pureora Forest Park. T.C. Greene, J.R. Fraser. *(Dept. Conservation, P.B. 68-908, Newton, Auckland, New Zealand. Email: tgreene@xtra.co.nz)* N.Z. J. Ecology 22: 11-16. 1998.

Observed sex ratio estimate of three males to one female, though mist-netting gave six to one respectively. Skewed ratio was significant, suggesting predation at nests caused higher female mortality. With slow breeding rate, this represents a serious threat to the population.

· Mass-related survival of fledgling Sooty Shearwaters *Puffinus griseus* at The Snares, New Zealand. P.M. Sagar, D.S. Horning. *(NIWA, P.O. Box 8602, Christchurch, New Zealand. Email: p.sagar@niwa.cri.nz)* Ibis 140: 329-331. 1998.

The mass of chicks departing from the colony influences their survival: a minimum of 564 g for survival indicated by this study, with the proportion surviving increasing with mass above this threshold. Whether chicks departed early or late in the season had only a small effect on survival.

Ecology

· Breeding success and predation at nests of Banded Dotterel *(Charadrius bicinctus)* on braided riverbeds in the central South Island, New Zealand. A. Rebergen, R. Keedwell, H. Moller, R. Maloney. *(Dept. Conservation, P.O. Box 191, Masterton, New Zealand.)* N.Z. J. Ecology 22: 33-41. 1998.

Egg losses were higher on Ohau and Tekapo Rivers (11% and 12% respectively of nests successful) than on Ahuriri River (42% success). Island nests were more successful than mainland nests. Proximity of nests to rabbit burrows, but not to cover, increased predation risk. As predators were not identified, further research on this is necessary.

· Population size and trends within the two populations of Southern Buller's Albatross *Diomedea bulleri bulleri.* P.M. Sagar, J.C. Stahl, J. Molloy, G.A. Taylor, A.J.D. Tennyson. *(NIWA, P.O. Box 8602, Christchurch, New Zealand. Email: p.sagar@niwa.cri.nz)* Biological Conservation 89: 11-19. 1999.

Breeding population estimated at 11,502 breeding pairs. At The Snares, population increases of 78% during 1969-92 decreasing to 8% during 1992-97. At Solander Islands, where data were deficient, only Little Solander (6% of total Solander population) had counts that could be compared, indicating probably no change between 1985 and 1996. Such differences in rates of change between populations impinge on conservation planning.

Food studies

· Diet of Westland Petrels *Procellaria westlandica:* the importance of fisheries waste during chick-rearing. A.N.D. Freeman. *(Dept. Entomol. & Anim. Ecol., P.O. Box 84, Lincoln Univ., Canterbury, New Zealand.)* Emu 98: 36-43. 1998.

Fish in 92% of samples, 78.8% by mass; cephalopods, 32% and 18.7% respectively; crustaceans, 4% and 2.4% respectively. During the Hoki *Macruronus novaezelandiae* fishery season, fisheries waste was identified as 80% of fish in samples and 63% of total diet (as fed to chicks) but, afterwards, only 31% and 25% respectively, as birds switched to 'natural' feeding or to scavenging from smaller, inshore fishing boats.

· Iso-electric focusing and the identification of fisheries' waste in the diet of Westland petrels *(Procellaria westlandica)*. A.N.D. Freeman, P.J. Smith. *(Dept. Entomol. & Anim. Ecol., P.O. Box 84, Lincoln Univ., Canterbury, New Zealand.)* N.Z. J. Marine & Freshwater Res. 32: 177-180. 1998.

Of 40 stomach samples, 45% gave clear protein banding patterns, more than half of which were from species common in fisheries' waste. This is a comparatively quick, inexpensive technique, particularly for fish flesh which is relatively undigested when sampled.