LITERATURE REVIEW

Compiled by D. Purchase and B. Baker.

This section is compiled from journals which are often not available to non-professional ornithologists in Australia. The following criteria are used to select papers for review:

- They relate to species which occur in Australia and its Territories;
- They provide details of techniques and equipment that may be of use in Australia;
- They provide details of studies that may be of general interest to Australian ornithologists.

Journals perused: *Ardea* 80, *Auk* 109, 110; *Biological Conservation* 55, *Birding in Southern Africa* 44; *Condor* 95, 96; *Ecological Abstracts* 1994; *Journal of Field Ornithology* 64, 68; *Journal of Wildlife Management* 58; *L'Oiseau RFO* 62, *Living Bird* 11, *N. Amer. Bird Banding* 17; *Orn. Anz.* 31; *Ornis Beob.* 89; *Ornis Fennica* 68, 69; *Ostrich* 63; *Notornis* 38, 39; *Ringing and Migration* 13; *Safirig News* 22; *Stilt* 24; *Victorian Naturalist* 111; *Wildlife Research* 20, 21; *Wilson Bulletin* 104, 105, 106

GENERAL INTEREST


Ethics and experimentation: hard choices for the field ornithologist. Emlen, S. T. (1993). *Auk* 110: 406–409. (This and the preceding paper examine the ethics of research on animals where experimental studies are testing hypotheses that predict possible killing or maiming as a result of the manipulations.)


Simultaneous mass starvation of wintering diving ducks in Switzerland and The Netherlands; a wrong decision in the right strategy? Suter. W. and Van Eerden, M. R. (1992). *Ardea* 80: 229–242. (Following an exceptional cold spell, between 2700 and 6200 diving ducks died from starvation along the Rhine in Switzerland, and over 14 000 died in the Dutch Waddenzee. Both are important wintering sites and instead of moving away, birds remained and starved. This inadequate reaction may be explained by a migration strategy which does not take into account extremely long cold spells in winter, since the probability of such events is very low.)

Influence of the building of the TGV-Atlantic line on the birds of the Dourdan forest (91). Cuisin, M. (1992). *L'Oiseau RFO* 62: 12–27. (Twelve hectares on the outskirts of the 897 ha forest were felled to build the railway. There was little adverse effect on the bird population of the remaining forest. In French with English summary.)


Seasonal variation in gene frequencies in the House Sparrow (*Passer domesticus*). Bates, J. M. and Zink, R. M. (1992). *Auk* 109: 658–662. (The authors tested the null hypothesis that recruitment and over-winter survival in a House Sparrow population at Baton Rouge, USA, was independent of an individual’s genotype at 29 allozyme loci.)

Dynamics of Finnish Starling *Sturnus vulgaris* populations in recent decades. Solonen, T., Tiainen, J., Korpimaki, E. and Saarola, P. (1991). *Ornis Fennica* 68: 158–169. (A decline in the size of the populations, and an increase in clutch and brood size, seems to be due to the loss of good foraging habitats resulting from the large-scale abandoning of dairy farming.)


AUSTRALIAN SPECIES


The effectiveness of nest defence by Black-tailed Godwits *Limosa limosa*. Green, R. E., Hirons, G. J. M. and Kirby, J. S. (1990). *Ardea* 78: 405–413. (This paper describes measurements of the frequency of aerial attacks on avian predators by nesting Black-tailed Godwits and the effectiveness of these attacks compared with those by Lapwings.)


Alien birds in Southern Africa: the crow must go. Berruti, A. and Nichols, G. (1991). *Birding in Southern Africa* 43: 52–57. (House Crows *Corvus splendens* were first seen in Durban in 1972. By the beginning of 1989 the population was estimated to be 1 000 birds. This paper discusses why it was decided to try and eradicate the bird from Durban and the methods used. At the time of writing, the population had been reduced to about 200 to 300 birds.)


Carcasses of Adelie Penguins as a food source for South Polar Skuas: some preliminary observations. Norman, F. L., McFarlane, R. A. and Ward, S. J. (1994). *Wilson Bulletin* 106: 26–34. (Because seabird eggs and chicks provide as much energy as alternative foods such as krill and fish which require extended foraging, it is adaptive for skuas nesting near penguin colonies to forage there.)

Helpers liberate female fairy-wrens from constraints on extra-pair mate choice. Mulder, R. A., Dunn, P. O., Cockburn, A., Lazeny- Cohen, K. A. and Howell, M. J. (1994). *Proc. R. Soc. Lond. B.* 255: 223–229. (The Superb Fairy-Wren is shown to have the highest known rate of extra pair fertilization, and that extra-pair paternity is highest in pairs assisted by male helpers, although the helpers themselves are not responsible for the cuckoldry.)


TECHNIQUES AND ANALYSES

The role of large-scale data collection projects in the study of southern African birds. Underhill, L. G., Oatley, T. B. and Harrison, J. A. (1991). *Ostrich* 62: 124–148. (The major data collections (checklists, migration enquiry, atlas projects, censuses, bird banding and recoveries, biometric data, nest record cards, moult cards and beached bird surveys) are described. Details are given of the data sets held by each project and the potential for their further analyses is considered. Recommendations are made about the future of the projects, including incorporating most of them into an Avian Demography Unit.)

Ageing and sexing Gray Catbirds by external characteristics. Suthers, H. B. and Suthers, D. D. (1990). *N. Amer. Bird Bander* 15: 45–52. (By measuring the length of some characteristics (e.g. wing) and establishing a score for the colour of others (e.g. tongue) it proved possible to age birds with an 88.5% accuracy and to sex birds with a 78% accuracy. It may be possible to use a similar technique with some Australian species.)

Estimation of annual adult survival rates of Barnacle Geese Branta leucopsis using multiple resightings of marked birds. Ebbinge, B. S., van Biezen, J. B. and van der Voet, H. (1990). *Ardea* 78: 73–112. (Three methods were examined: resightings of birds with individually numbered PVC leg bands (which proved to be the most successful); recovery of banded birds found dead; and population counts and birth rate estimates.)


The effect of neck collars on the behaviour, weight and breeding success of Mute Swans Cygnus olor. Spray, C. J. and Bayes, K. (1992). *Wildfowl* 43: 49–57. (Neck collars caused a significant difference in the type of feeding method employed by marked Mute Swans, although feeding frequency was not affected.)


Red colour bands do not improve the mating success of male rock ptarmigan. Holder, K. and Montgomerie, R. (1993). *Ornis Scandinavica* 24: 53–58. (Studies the relation between the mating success of males and the colour of their leg bands. A previous study on this species reported that males with red or orange leg bands achieved higher mating success than males without these colours.)

Effects of radio transmitters on nesting captive mallards. Houston, R. A. and Greenwood, R. J. (1993). *Journal of Wildlife Management* 57: 703–709. (Radio transmitters attached to mallards by sutures and glue were not retained reliably, whereas harness transmitters were retained for the duration of the 106 day study.)


Supplementary address bands increase recovery rates. Hussell, D. J. T., Shepherd, D., Wallace, G. E. and McCracken, D. I. (1993). *N. Amer. Bird Bander* 18: 133–141. (A second band bearing a return address was placed on the other leg of small birds marked with numbered bands that did not have an address on the outside. This resulted in an increase in the number of recoveries.)

Verifying the accuracy of band recovery information. Houston, C. S. and Francis, C. M. (1993). *N. Amer. Bird Bander* 18: 51–56. (Band finders were contacted in order to verify the accuracy of the computerised reports from the banding office. This paper provides details of the additional information obtained.)

Weight loss by birds when held for banding. Relsnider, J. M. (1993). *N. Amer. Bird Bander* 18: 90–97. (Birds were held in cloth bags for 2 hrs and weighed every 30 mins. The birds lost weight over the entire time, but most was lost during the first 30 mins. The species tested appeared to suffer no ill effects from being held for 2 hrs.)


A modified floating-fish snare for capture of Inland Bald Eagles. Jackman, R. E., Hunt, W. G., Driscoll, D. E. and Jenkins, J. M. (1993). *N. Amer. Bird Bander* 18: 98–101. (Nooses were attached to the body of a floating dead fish which was anchored to the bottom of the body of water by a length of cord.)
