
LITERATURE REVIEW

Compiled by 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: *Auk* 112(1, 2, 3); *Australian Journal of Ecology* 21(1); *Canberra Bird Notes* 20(3, 4), 21(1, 2); *Condor* 97(3); *Ecological Abstracts* 1995(10, 11, 12), 1996(1, 2, 3); *Ecological Monographs* 66(2); *Emu* 96(1, 2); *Journal of Wildlife Management* 60(1, 2); *Safring* 24(2); *Stilt* 28; *South Australian Ornithologist* 32(2, 3); *Wildlife Research* 23(2, 3); *Wilson Bulletin* 108(1).

AUSTRALIAN SPECIES

Observations of coexistence between Adelaide and Eastern rosellas *Platycercus* spp. in Adelaide. Penck, M., Torcello, J. C. and Sanderson, K. J. (1995). *South Australian Ornithologist* 32: 25–32. (Coexistence occurs because the species occupy different niches in overlapping habitats.)

Comparative study of winter body composition of resident and migrant Grey-breasted Silvereyes. Chan, K. (1995). *Auk* 112: 421–428. (Body composition is not related to whether an individual is a resident or migrant. Low night temperatures alone do not explain why the species migrates from Tasmania.)

Helmeted Honeyeaters build bulkier nests in cold weather. Franklin, D. C. (1995). *Auk* 112: 247–248.

TECHNIQUES AND ANALYSES

Estimating populations of nesting brant using aerial videography. Anthony, R. M., Anderson, W. H., Sedinger, J. S. and McDonald, L. L. (1995). *Wildlife Society Bulletin* 23: 80–87. (A video camcorder mounted in a single engine aircraft is used to estimate nesting density of waterfowl. Resolution of images was sufficient to detect 81% of known nests.)

Reliability of the Breeding Bird Survey: effects of restricting surveys to roads. Bart, J., Hofschien, M. and Peterjohn, B. G. (1995). *Auk* 112: 758–761. (Use of surveys along road to infer changes in region-wide populations may be inaccurate if trends in habitat along roads differ from region-wide trends.)

Methods for sexing fledglings in Cory's Shearwaters and comments on sex-ratio variation. Bretagnolle, V. and Thibault, J.-C. (1995). *Auk* 112: 785–790. (Sexual dimorphism in voice is used to derive a discriminant function based on morphometric measurements that allows sex of fledglings to be determined. Sex ratio at fledging was significantly male biased.)

Effects of ambient temperature on activity monitors of radio-collars. Kitchens Maier, J. A., Maier, H. A. and White, R. G. (1996). *Journal of Wildlife Management* 60: 393–398. (Activity counts on monitors failed to register below -32°C although collar electronics continued to function.)

A saline-flushing technique for determining the diet of seed-eating birds. Gionfriddo, J. P., Best, L. B. and Giesler, B. J. (1995). *Auk* 112: 780–782. (Describes a technique that enables the recovery of food and grit in gizzards of live granivorous birds.)

Survival and population size estimation in raptor studies: a comparison of two methods. Gould, W. R. and Fuller, M. R. (1995). *J. Raptor Res.* 29: 256–264. (The Jolly-Seber model recommended for analysis of capture-recapture techniques in raptor studies.)

Accuracy and precision of techniques for counting Great Blue Heron nests. Dodd, M. G. and Murphy, T. M. (1995). *Journal of Wildlife Management* 59: 667–673. (Evaluates nine techniques for accuracy and precision of counting heron nests.)

Surveying malleefowl breeding densities using an airborne thermal scanner. Dodson, J. S. and Emison, W. B. (1996). *Wildlife Research* 23: 121–142. (Describes a technique for using a thermal scanner mounted to an aircraft to detect the relatively high temperatures exposed when Malleefowl open their incubator-nest mounds.)

Implanting intra-abdominal radiotransmitters with external whip antennas in ducks. Korschgen, C. E., Kenow, K. P., Gendron-Fitzpatrick, A., Green, W. L. and Dein, F. J. (1996). *Journal of Wildlife Management* 60: 132–137. (Describes a reliable method for radiomarking ducks which has been successfully used in two field studies.)

Counting terrestrial birds — a bird-watcher's dilemma? Er, K. (1995). *Canberra Bird Notes* 20: 89–97. (Reviews bird counting techniques.)

Mist netting birds from canopy platforms. Stokes, A. E. and Schultz, B. B. (1995). *Selbyana* 16: 144–146. (Describes a technique for deploying mist nets horizontally in forest canopies.)

POPULATION MONITORING

Survival rates of Puerto Rican birds: are islands really that different? Faaborg, J. and Arendt, W. J. (1995). *Auk* 112: 503–507.

EFFECTS OF BANDING AND RESEARCH TECHNIQUES

Why I no longer band birds. Robinson, D. (1995). *RAOU Victorian Group Newsletter March 1995*. (Discusses ethical considerations of banding birds, and the effects of bird banding on bird behaviour and conservation.)

Survival of adult and nestling western long-billed corellas, *Cacatua pastinator* and Major Mitchell cockatoos, *C. leadbeateri*, in the wheatbelt of Western Australia. Smith, G. T. and Rowley, I. C. R. (1995). *Wildlife Research* 22: 155–162. (The use of patagial tags had no significant effect on adult survival.)

Safety of catching adult European birds at the nest. Ringers' opinions. Kania, W. (1992). *The Ring* 14: 5–50. (Provides desertion rates resulting from capture at the nest for 66 species.)

Effects of human activity on Adélie Penguin *Pygoscelis adeliae* breeding success. Giese, M. (1996). *Biological Conservation* 75: 157–164. (Breeding success in smaller colonies was significantly affected by human disturbance in the form of regular nest checking and recreational visits.)

Activity budget of non-breeding Helmeted Honeyeaters. Runciman, D. (1996). *Emu* 96: 62–65. (Birds without transmitters spent 8.4% more time flying than radio-tagged.)

SEABIRDS

The status of Gould's petrel, *Pterodroma leucoptera leucoptera*, on Cabbage Tree Island, New South Wales. Priddel, D., Carlile, N., Davey, C. and Fullagar, P. (1995). *Wildlife Research* 22: 601–610. (Total population is estimated to have declined from 2004 in 1970 to 1479 in 1992 for reasons which are unclear.)

Regulation of parental investment in the Antarctic petrel *Thalassoica antarctica*: an exchange experiment. Andersen, R., Saether, B. E. and Pedersen, H. C. (1995). *Polar Biology* 15: 65–68. (Chick feeding rate is not regulated by the status of the chick, but by the parents ability to gather food or willingness to provide food.)

Variable success in breeding of the Roseate Tern *Sterna dougallii* on the northern Great Barrier Reef. Milton, D. A., Smith, G. C. and Blaber, S. J. M. (1996). *Emu* 96: 123–131. (Chicks took almost 10 days longer to fledge than Roseate Tern chicks from temperate North American colonies, suggesting conditions in tropical Australia are rarely favourable for breeding success. Pelagic fish populations may be limiting breeding success.)

Monogamy in Leach's Storm-petrel: DNA-fingerprinting evidence. Mauck, R. A., Waite, T. A. and Parker, P. G. (1995). *Auk* 112: 473–482. (No evidence of extrapair fertilizations in 48 families. Breeding system of genetic monogamy matches the socially monogamous mating system.)

Reproductive success of Little Penguins, *Eudyptula minor*, on Lion Island, New South Wales. Rogers, T., Eldershaw, G. and Walraven, E. (1995). *Wildlife Research* 22: 709–715. (Breeding success higher and less variable than that reported from other areas.)

CONSERVATION

Effects of partial logging systems on bird assemblages in Tasmania. Taylor, R. J. and Haseler, M. E. (1995). *Forest Ecology and Management* 72: 131–149. (Partial logging systems have a much lower impact on birds than does clear-felling. Densities of birds are reduced after partial logging but numbers of species present are comparable with mature forest.)

Interactions between longline vessels and seabirds in Kerguelen waters and a method to reduce seabird mortality. Cherel, Y., Weimerskirch, H. and Duhamel, G. (1996). *Biological Conservation* 75: 63–70. (Dumping of offal during line settings greatly reduced incidental capture.)

Monitoring of Cape Barren Goose populations in South Australia III. The 1990 breeding season and the re-establishment on Reevesby Island. Robinson, A. C., De Groot, R. and Fraser, T. S. (1995). *South Australian Ornithologist* 32: 33–38.

The range and status of the Nullarbor Quail-thrush. Pedler, L. and Burbidge, A. H. (1995). *South Australian Ornithologist* 32: 45–52. (Conservation status considered to be rare and declining.)

Effect of age at release on the susceptibility of captive-reared Malleefowl *Leipoa ocellata* to predation by the introduced Fox *Vulpes vulpes*. Priddel, D. and Wheeler, R. 1996. *Emu* 96: 32–41. (Survival of captive-reared juveniles experimentally released was dependant on age at release, with older birds surviving longer. Predation by foxes remained the major cause of mortality.)

Changes in the status and distribution of four species of parrot in the south of Western Australia during 1970–90. Mawson, P. R. and Long, J. L. (1995). *Pacific Conservation Biology* 2: 191–199. (Regent Parrot and Western Rosella have declined in range considerably since 1970, probably due to clearing, altered fire regimes and other factors. Port Lincoln Ringneck and Red-capped Parrot have suffered little.)

SOCIAL BEHAVIOUR

The mating system of free-living emus. Coddington, C. L. and Cockburn, A. (1995). *Australian Journal of Zoology* 43: 365–372. (Emus combined monogamy, polyandry and promiscuity.)

Differences in social behaviour between populations of the Australian Magpie *Gymnorhina tibicen*. Hughes, J. M., Hesp, J. D. E., Kallioinen, R., Kempster, M., Lange, C. L. et al. (1996). *Emu* 96: 65–70. (Territory size is significantly larger in Queensland population than in Victorian population, yet the number of birds per territory is significantly smaller. Helping is normal behaviour in Victorian population, but not observed in Queensland.)

RAPTORS

Influence of weather on conclusions about effects of human activities on raptors. Schueck, L. S. and Marzluff, J. M. (1995). *Journal of Wildlife Management* 59: 674–682. (In a study of the effects of military training on raptor behaviour, variation in weather explained more variation in raptor abundance than did military activity.)

SHOREBIRDS

Ready! Steady! Go? A crucial decision for the long-distance migrant; an interesting challenge for the investigator. Barter, M. (1996). *Stilt* 28: 32–42. (Reviews methods used to estimate departure mass of shorebirds.)

Migratory departures of shorebirds from north-western Australia: behaviour, timing and possible migration routes. Tulip, I., McChesney, S. and DeGooij, P. (1994). *Ardea* 82: 201–221. (A strong correlation was found between the tidal cycle and timing of departures. Majority of flocks flew NNW. Smaller waders may migrate via the island hopping route, while larger ones take a direct, great circle flight to China.)