LITERATURE REVIEW

Compiled by D. Purchase.

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* 77(2); *Auk* **107**(4), **108**(1); *Birding in Southern Africa* **42**(1, 2, 3); *Living Bird* **9**(3, 4); *Orn. Beob.* **87**(2); *Ornis Fennica* **67**(1).

PAPERS OF GENERAL INTEREST

The selling of wild birds: out of control? James, F. (1990). *Living Bird* **9**: 8–15. (A discussion of the international marketing, both legal and illegal, of wild-caught birds which has led to catastrophic decreases in some populations.)

AUSTRALIAN SPECIES

Age differences in Cattle Egrets *Bubulcus ibis*, foraging with wild ungulates in Kenya. Burger, H. and Gochfeld, M. (1989). *Ardea* **77**: 201–204. (Adults attempted to capture more items, captured more items, and had a higher capture success than juveniles, although the number of steps taken per minute was equal. Choice of host species and foraging location (by host's head, front, or hind legs) differed between adults and juveniles.)

[Distribution patterns of wintering Mallards, Tufted Ducks, Pochards, Goosanders, and Coots on Lake Sempach.] Kestenholz, M. (1990). *Orn. Beob.* **87**: 131–145. (Distribution varied between species. Reasons for the variation are given. In German with English summary.)

Growth parameters in chicks of charadriiform birds. Beintema, A. J. and Visser, G. H. (1989). *Ardea* **77**: 169–180. (Growth curves are given for chicks of the Lapwing, Black-tailed Godwit, and Redshank. Bill length can be used to estimate the age of chicks.)

The effect of weather on time budgets and development of chicks of meadow birds. Beintema, A. J. and Visser, G. H. (1989). *Ardea* **77**: 181–192. (Chicks of the Lapwing, Black-tailed Godwit, and Redshank spend their time either foraging or being brooded by a parent. The length of time spent in these activities depended on temperature and age. In adverse weather small chicks may need so much brooding that too little time remains for feeding. This may result in retarded growth or starvation.)

Populations, migrations, biometrics and moult of the Turnstone *Arenaria i. interpres* on the east Atlantic coastline, with special reference to the Siberian population. Summers, R. W., Underhill, L. G., Clinning, C. F. and Nicoll, M. (1989). *Ardea* **77**: 145–168. (Comparisons were made between the Canadian-Greenland population which winters mainly in western Europe, and the Siberian population which winters partly in South Africa.)

[Life expectancy and age structure of the Feral Pigeon *Columba livia* form *domestica*.] Haag, D. (1990). *Orn. Beob.* **87**: 147–151. (When compared with domestic pigeon breeds, feral pigeons have a much lower life expectancy. The average age was 2.4 years for birds whose dates of birth and death were known. No birds survived beyond nine years. In German with English summary.)

Influence of parental age on the growth of nestling swallows *Hirundo rustica*. Languy, M. and Vansteenwegen, C. (1989). *Ardea* **77**: 227–238. (The young from older parents were heavier and their wings grew faster.)

Seasonal pattens of reproduction in heathland honeyeaters are not responses to changing nectar availability. Armstrong, D. P. and Pyke, G. H. (1991). *Auk* **108**: 99–107. (New Holland Honeyeaters and White-cheeked Honeyeaters were studied at two sites. Two aspects of their reproduction were correlated with changes in availability of nectar: (i) the breeding period was centred on the winter peak of nectar availability; and (ii) all clutches laid in the first two months of the breeding period (when nectar was scarcest) failed. To test whether these patterns were caused by changes in the availability of food energy, the birds on one site were provided with continuous access to sugar-water feeders for nine months. Despite this, seasonal patterns remained similar for birds at both sites.)

Effects of experimental food addition on post-natal dispersal, polgyny and reproductive success in pair-defended territories of the Australian Magpie, *Gymnorhina tibicen*. Veltman, C. J. (1989). *Ardea* **77**: 211–216. (Variations in the food supply did not appear to be a proximate cause of dispersal. However, they seemed to respond to opportunities for reproduction.)

TECHNIQUES AND ANALYSES

Preliminary experiments on the reporting of the recovery of banded birds in south-eastern Australia. Lowe, K. W. (1991). *Wildl. Res.* **18**: 413–419. (Experiments using birds banded after death and live banded birds were conducted to document several factors (including species, band address, geographic location, band metal type) that affect the reporting rate of banded birds. None of the experimental factors had an effect on the reporting rate. Data on the recovery details was generally accurate but date of recovery had an error of up to 12 days. Finders of bands often made incorrect assumptions on the cause of death of birds.)

Identification of nest predators by photography, dummy eggs, and adhesive tape. Major, R. E. (1991). *Auk* **108**: 190–195. (The predation of eggs and nestlings is rarely observed and therefore the culprit usually remains unidentified. This paper describes three methods used to identify predators.)

A field evaluation of the Finnish 3-man chain: a method for estimating forest grouse numbers and habitat use. Brittas, R. and Karlbom, M. (1990). *Ornis Fennica* **67**: 18–23. (The Finnish 3-man chain, a strip transect method, was tested using radio-tagged birds. It recorded only 54–64% of the adult grouse which resulted in an underestimation of densities. There was a tendency to overestimate the habitat cover index.)

Counting waterbirds — the Strandfontein example. Allan, D., McCarthy, M. and Morris, A. (1990). *Birding in Southern Africa* **42**: 9–12. (A brief outline of the value of counting birds at wetlands. It draws attention to some of the problems encountered with interpretation and methodology.)

A binocular survey. Holtshausen, G. (1990). *Birding in Southern Africa* **42**: 31–32. (Nine brands of binoculars are compared and rated on 13 features felt to be of importance when purchasing binoculars for bird-watching.)

Scanning for optics II. Bonney, R. E. and Forbes-Robertson, K. (1990). *Living Bird* **9**: 12–15. (17 brands of telescopes are compared and rated on 10 features felt to be of importance when purchasing telescopes for bird-watching.)

Telescope Review: Bausch and Lomb Discoverer 15X–60X Zoom. Tarboton, W. (1990). *Birding in Southern Africa* **42**: 94. (It is compared with four other telescopes.)

Measures of wing area and wing span from wing formula data. Evered, D. S. (1990). *Auk* **107**: 784–787. (The adequacy of using wing formulae to characterize interspecific variation in wing area and wing span was tested. It is suggested that wing length and an index of area obtained from wing formula data are adequate surrogate variables for wing span and wing area in the species studied.)

A method of combined skin-fluid specimen preparation. Longmore, N. W. and Boles, W. E. (1990). *Auk* **107**: 788–789. (The skin, minus one wing and leg, is removed and preserved as a conventional study skin. The remaining body is preserved as a fluid specimen.)

BOOK REVIEW

Bird Trapping and Bird Banding — A Handbook for Trapping Methods All Over The World.
Hans Bub, Institut fur Vogelforschung Vogelwarte Helgoland Wilhelmshaven, 1991. Cornell University Press, Ithaca, New York.

Originally published in four volumes in German, Hans Bub's *Bird Trapping and Bird Banding* has finally been translated into English by Frances Hamerstrom and Karin Wuertz-Schaefer and presented as a single volume. The 330 pages of text and 456 figures provide a comprehensive analysis of virtually all known capture techniques, both ancient and modern. Whilst the book's title might give the impression of a comprehensive banding manual, the sole purpose of *Bird Trapping and Bird Banding* is to provide the bird bander with an array of successful trapping techniques as well as seeding the thoughts of ingenuity, for further invention and modification of existing designs. As will always be the case, many of the original concepts for trapping birds lend themselves perfectly to modern materials and technologies, the only requirement being a creative mind.

This newly translated volume has been arranged into an Introduction (dealing principally with the ethics of bird trapping and bird banding) followed by a single chapter divided into 29 sub-sections. These include: 1. Basics of bird catching and banding; 2. Holding birds after catching until banding and release; 3. Catching methods; 4. Small and medium sized funnel traps; 5. Large funnel traps and sets with long leads; 6. Installations for catching ducks and other water birds; 7. Cage traps; 8. Pit traps; 9. Methods for catching grouse; 10. Stationary nets; 11. Drop nets; 12. Aerial clap nets; 13. Catching bats and flying foxes; 14. Catching with bow nets; 15. Raptor trapping with bow nets and stationary nets in North America; 16. Capture and nooses; 17. Catching by hand and with dip nets on land and in water; 18. Catching in the evening and at night; 19. Catching at water places; 20. The clap nets; 21. The hedge net; 22. The tent net; 23. Catching with pull nets and, 24. Cannon netting. The latter section has been compiled by four authors one of which is Dr Clive Minton, who is regarded as the Australasian authority on cannon netting. Other Australians and their capture techniques are also mentioned throughout the text.

The remaining sections include: 25. Other books and manuals for Bird Banding; 26. Periodicals for Bird Banding; 27. Bird trapping in World Literature; 28. Bibliography and, 29. Species Index. Unfortunately, the Bibliography comprises principally German and other non-English references and the Species Index related essentially to European species. Nevertheless, this volume is really the original treatise from which many others have been compiled and the wealth of information it contains circumvents these shortcomings.

Although *Bird Trapping and Bird Banding* may not yet feature in every bird bander's library it should, at the very least form a compulsory text in the early stages of one's training. This might sound rather draconian but one of the problems associated with modern bird trapping (at least in Australia), is the almost complete reliance on mist netting. There are two principal reasons for this phenomenon, the first being the relative ease of operating mist nets and secondly, the psychological pressures which drive banders to concentrate on those techniques which yield the highest capture rates. This is not to say that mist nets should not be the basic capture method for most banding projects but rather, that each bird bander should augment their armoury of capture techniques with some of the trapping methods described by Bub. It is easy to forget that many bird species can only be be caught or are more effectively caught, by methods other than mist netting. My own observation over the last three decades of banding in Australia, is the increasing reluctance of bird banders to construct their own specialist traps. The English translation of this book goes one step closer to improving this situation.

As some of you may already possess McClure's *Bird Banding*, I should make a general comparison of the two books. There are many similar or identical entries in both McClure and Bub but overall, Hans Bub offers the more comprehensive treatise on bird trapping. The principal shortcoming of Bub's *Bird Trapping and Bird Banding* is the literature survey which, whilst extensive, does not extend past the early 1970's. McClure on the other hand includes trapping methods published up until 1981. Therefore, McClure does include some traps not found in Bub's treatise, and some examples are more detailed in terms of dimensions and construction materials. McClure has also written his book as a banders manual and as such includes chapters on the types of information that can be gathered for birds during the banding process. Regardless of these differences the two books should not be viewed as competing with one another, since in terms of their principal aims, they compliment each other. No serious bird bander should be without either volume and whilst *Bird Trapping and Bird Banding* is the more expensive volume, I thoroughly recommend its addition to every bird bander's reference library. Once having purchased it, don't just read it, construct something from it!

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