Recent Literature

ANALYTICAL STUDIES

Homemade Gadgets For The Handyman Bander. Conducted by Arthur J. Wiseman. 1973. *Inland Bird Banding News*, 45:26-38.

A series of gadgets which can be readily made or adapted by a versatile bander is described and illustrated. These include band holders (giant safety pin type; plastic bucket holding a series of strings of bands, which are carried in the bucket; portable racks), markers to distinguish band sizes (dymo tape; colour codes), pliers, awl to pre-open bands to correct size, holding bags (brown paper with clean paper in bottom; nylon laundry bags) and wooden carrying boxes of several designs. The gadgets have been culled from a variety of publications.

Flight Moult of the Australian Honeyeater Myzantha melanocephala **(Latham).** D. D. Dow. 1973. *Aust. J. Zool.* 21: 519-532.

Over a period of 3 years 368 *M. melanocephala* were examined from study areas east and west of the Great Dividing Range in south-eastern Queensland. Moult was under way in 119 of them, and was recorded as a score from 0 to 5 for each of the remiges and rectrices. All populations sampled required about the same period for their members to complete their moult, averaging 153 days for primary feathers and 174 for all flight feathers. The sequence of moult was typically passerine.

The estimated average duration for an individual's primary moult is 113 days, complete flight moult requiring 128. Moult occurs between late September and mid-March. It begins later in adult females than in adult males. It also tends to begin about 2 weeks earlier in eastern than western populations, but among eastern birds in 1969 moult began some 26 days later than in 1970 or 1971. A tenuous relation between early rainfall and this late moult is suggested.

Immature Miners moult in the same sequence as adults but begin by shedding primary 3, 4 or 5, not primary 1. Secondary moult of immatures is even more variable than that of adults, and shows little synchrony with primary moult. Their tail moult is more regular.

The period of moult of *M. melanocephala* is longer than those of the few Australian passerines examined, and much longer than those of passerines from temperate localities. Miners show no cryptic behaviour during moult, and some continue to breed. Thus the prolonged moult is probably adaptive in avoiding interference with other behaviour.

Long-distance Movements of Cattle Egrets. Joan A. Browder. 1973. *Bird-banding*, 44: 158-170.

Migration patterns of the Cattle Egret in Africa (and possibly in southern Spain) and the wandering of juveniles of several species of herons are briefly reviewed. Data are presented which indicate possible migratory movement through the Dry Tortugas of the recently immigrant Cattle Egret between Florida, USA, Central America and Cuba. It will be of interest to see if similar patterns eventuate for the Australian populations.

Notes on the Migration of Juvenile Ospreys from Maryland and Virginia. Robert S. Kennedy. 1973. *Bird-banding*, 44:180-186.

The migratory route of juvenile Ospreys banded in Maryland and Virginia, USA was determined from 47 recoveries. Autumnal migration is along a narrow coastal strip starting during the last week of August. The birds leave USA by September, pass through the Greater Antilles and reach their main wintering grounds in Columbia by mid-October. A map shows the geographical distribution of the recoveries.

Breeding Success of the Caspian Tern in Finland. Martti Soikkeli. 1973. *Bird-banding*, 44: 196-204.

During a three year study in Finland, Caspian Terns had a mean clutch size of 2.70 before 21 May, and a mean clutch size of 1.61 after 10 June. Hatching success averaged 1.78-1.86 per pair, and fledging success was about 1.5 per pair (chick mortality was a low 13 per cent).

Success of Sparrowhawks in an Area of Pesticide Usage. I. Newton. 1973. *Bird Study*, 20: 1-8.

This study of the breeding success of Sparrowhawks in an area of presticide usage in southern Scotland shows that, although some recovery in the population is now evident, success remains low because of a number of factors—failure to lay, egg-breakage, embryonic deaths—which have been linked with high pesticide residues.

In the study area, the proportion of occupied Sparrowhawk sites increased between 1967 and 1971, but the proportion of pairs producing young, and the mean brood size in successful nests, remained consistently low.

TECHNIQUES

Tattooing Nestlings for Individual Recognition. Robert E. Ricklefs. 1973. *Bird-banding*, 44:63.

Small nestlings can be permanently marked with india ink injected under the skin of the abdomen. There appear to be no ill effects, but the need for care is stressed.

Determination of the Sex and Age of Starlings in Canterbury, New Zealand. J. D. Coleman. 1973. *Notornis*, 20: 324-329.

This paper serves to amplify the 'Bird in the Hand' treatment of the Starling, *Australian Bird Bander*, 6: 60-61.

MISCELLANEOUS

Cation Content of Salt Gland Secretion and Tears in the Brolga Grus rubicundus **(Perry) (Aves: Gruidae).** M. R. Hughes and J. G. Blackman. 1973. *Aust. J. Zool.* 21: 515-518.

This is the first report of salt gland secretion in cranes (Gruidae). The sodium and potassium concentrations of the plasma, tears, salt gland secretion, and urine of the brolga were determined. Tear sodium was equal to plasma sodium; tear plasma was four times as concentrated as plasma potassium. These values were normal for tears. The salt gland secretion sodium concentration (about 300 mEq./l.) was lower than that reported for other NaCl-injected birds. This may be due to the diet, small gland size, or to sufficient stress. The salt gland secretion to plasma ratios were the same for sodium and potassium. This is unusual. The urine had a lower sodium concentration than the plasma.

The Food of the Silvereye, Zosterops gouldi **(Aves: Zosteropidae), in Relation to its Role as a Vector of a Granulosis Virus of the Potato Moth,** Phthorimaea operculella **(Lepidoptera: Gelechiidae).** J. N. Matthiessen and B. P. Springett. 1973. *Aust. J. Zool.* 21: 533-540.

The silvereye feeds in farmland in south-western Australia, eating mainly athropods. Larvae of the potato moth are regularly a major summer food, and the silvereye shows a well-defined functional response to larval density. The silvereye functional response curve differs from the characteristic vertebrate sigmoid-shaped curve in that it lacks the initial positively accelerating portion. This is attributed to the occurrence of prey in many discrete habitats, combined with silvereye mobility and its sensitive response to low potato moth larval densities. The number of potato moth larvae that are eaten is reduced when a larger alternative prey is available, but the numerical proportion of larvae in the food remains unchanged.

The silvereye is a potential vector of a granulosis virus of the potato moth through its regular predation on larvae of the potato moth, its large numbers, and its mobility.

A Poxvirus Isolated from Silvereyes (Zosterops lateralis) **from Lower Hutt, New Zealand.** F. J. Austin, P. C. Bull, and M. A. Chaudry. 1973. *Journal of Wildlife Diseases*, 9:111-114.

In 1965 at Lower Hutt, Bull found three of 95 trapped silvereyes had pox-like lesions on the feet. No further lesions were noted on 957 silvereyes trapped during 1966 and 1967. Eight birds with lesions were collected during the winters of 1968-71. Seven birds had single lesions; on the foot or lower leg of four birds, and on the vent, mandible or side of head for the other three birds. The eighth bird had two lesions on the foot and leg. The lesions ranged from slight swelling to severe swelling with ulceration. Poxviruses were isolated for all eight birds and tests indicate the virus is different from poxviruses recently isolated from fowls, pigeons and a canary. The lesions appeared to cause the silvereyes little stress. The incidence of the pox appears to be under one per cent of the 8748 silvereyes handled.

The paper raises the interesting possibility that the silvereyes self-introduced into New Zealand about 1856 "may have brought with them a poxvirus which could have played some part in the rapid decline of several native birds during the latter half of the nineteenth century as poxviruses seem to have done in Hawaii".

In eastern Australia, many silvereyes and some other passerines with swellings in similar places have been reported by banders. Possibly the swellings, frequently with scabs, were due to poxvirus. It would be of considerable interest if the presence of poxvirus could be confirmed for Australian silvereyes, and (assuming confirmation) to determine if silvereyes in Australia and New Zealand are infected with the same virus.

Hindwood Memorial Fund

The initial response to this appeal resulted in some $3500 being donated and details of the three projects which the Committee supported were set out in *The Aust. Bird Bander*, vol. 11, no. 1, p. 19, March 1973.

The present position of these projects follows:

Nature Trail—It is expected that work on this trail in the Royal National Park will commence shortly.

Study Centre—The Hindwood Library is being catalogued and a committee from the N.S.W. Field Ornithologists' Club is making arrangements for the control and use (in situ) of the library. It is hoped that more books will be added regularly and that the library will become one of the major ornithological libraries in Australia.

Long Neck Lagoon Project—The Gould League of N.S.W. is planning a fund-raising drive to enable this project to proceed as planned.

As indicated previously, both the Study Centre and the Long Neck Lagoon Project are continuing schemes and additional funds will be required for each. The Keith Hindwood Memorial Fund will remain open for donations until 1 November 1974, after which date all remaining moneys will be directed towards these two projects.

Further donations are invited particularly from those who have not yet supported these very worthwhile projects.

Remittances should be made payable to the Australian Museum Keith Hindwood Memorial Fund and forwarded addressed c/- The Australian Museum, College Street, Sydney, 2000.

Donations are tax deductable and will be receipted.