

Recent Literature

BANDING and RECOVERY REPORTS

Thirteenth Ringing Report. G. R. McLachlan. 1969. *Ostrich*: 40:37-50.

For the year to June 1963, 17,410 birds of 308 species were banded in South Africa (previous year: 13,809 birds of 246 species). Totals of birds banded during the year are tabulated. Recoveries of 53 species are tabulated also, and these include the following species which occur in Australia: *Phalacrocorax carbo*, *Egretta garzetta*, *Bubulcus* (= *Ardeola*) *ibis* (25 recoveries: longest movement 1,900 miles, remainder less than 80 miles), *Sturnus vulgaris* (nine local recoveries) and *Passer domesticus*. The report includes full data for all recoveries, including local ones, and this is a valuable feature often lacking in the reports of other schemes. The regrettable five year delay in publication of the report is not explained.

ANALYTICAL STUDIES

Dispersal and Flocking of Marked Young Robins (*Turdus m. migratorius*) after fledging. David H. Hirth, Albert E. Hester, and Frederick Greeley. 1969. *Bird-Banding*, 40:208-215.

Between 1963 and 1965, 183 nestling Robins were wing-tagged in Massachusetts, U.S.A. Of these, 106 (58%) were sighted after fledging. Fledglings generally remained in the territory of the parents for about three weeks, and then joined feeding flocks of adults and other immatures on a nearby source of abundant fruit. These feeding flocks ranged about a quarter mile from a central source of food, and the flocks remained intact until the fruit supply was exhausted. There was little interchange of members between flocks.

Growth and Mortality of Herring Gull Chicks. John A. Kaldec, William H. Drury and Daniel K. Onion. 1969. *Bird-banding*, 40:222-233.

Between 1964 and 1967 intensive studies were carried out on island nesting colonies of Herring Gulls (*Larus argentatus*), principally in Maine and Massachusetts, U.S.A. Plumage and leg development of chicks are tabulated from hatching to fledging (average age at fledging: 51 days). From one small sample, weighed at frequent intervals, chicks which presumably fledged were consistently heavier than the average of all chicks at any given age. Regular and frequent searches for dead banded birds at breeding colonies allowed mortality to be assessed from hatching to fledging; over half (51%) of known mortality occurred within five days of hatching, and in less detailed studies this could have been incorrectly attributed to lower hatching success. From nest history data on one colony over three years, some 39% of chicks that hatched disappeared within 15 days of hatching. Only one quarter of these dead chicks was found, in spite of regular and intensive searches; predation, scavenging or rapid decomposition are given as possible causes, but no direct evidence for any of these was found. Problems

of behavioural adaptation of the adults is suggested as the ultimate cause of the mortality.

Breeding Biology of the Coot. Bryan L. Sage. 1969. *British Birds*, 62:134-143.

The Hilfield Park Reservoir, Hertfordshire, England, was completed in 1954. As suitable habitat developed, the reservoir was colonised by Coots (*Fulica atra*) and one pair bred in 1957. Between 2 and 6 pairs bred until 1965, and 11-18 pairs have bred since 1966. The size of the non-breeding population varies widely. Mean clutch size was 5.9, which is less than the usually accepted range of 6 to 9. Double broods were not recorded and replacement clutches were uncommon. Hatching success was 33.8%, fledging success was 61.2%, to give a total breeding success of 20.7%. Most severe cause of egg failure was flooding (32.6%), but eggs knocked out of nests (7.5%) or buried under fresh material (5.7%) were also relatively serious. Known predators of eggs were Carrion Crows (13.7%) and Water Voles (2.2%).

Gull Orientation Behaviour: Influence of Experience, Sex, Age and Group Releases. William E. Southern. 1969. *Jack-Pine Warbler*, 47:34-43.

Ring-billed Gulls (*Larus delawarensis*) and Herring Gulls (*L. argentatus*) were used in a series of homing trials to determine the effect of several factors in orientation behaviour. Some evidence was obtained that gulls previously handled as "controls" (retrapped birds) respond more favourably when subjected to a homing trial, but all other results were inconclusive. Travel over a particular route had little effect upon homing success rates. There was no significant increase in homing success from older birds, or from gulls released in groups of two to ten birds. Males and females returned at similar rates, and at similar average speeds.

Transatlantic Migration of Juvenile Sooty Terns. W. B. Robertson. 1969. *Nature*, 223:632-634.

Between 1959 and 1968 some 200,000 (70,000 adult; 130,000 juvenile) Sooty Terns (*Sterna fuscata*) were banded at Bush Key, Dry Tortugas, off Florida, U.S.A. Eighty-six birds have been recovered, and recoveries of birds banded as juveniles are mapped; these include 29 birds recovered in West Africa.

Nesting starts in late March-early April, and most young can fly well by mid July. Up to early October many juveniles are recovered in the Gulf of Mexico or Florida, or further north when transported by hurricanes. The juveniles reach the open Atlantic by late September, and have reached the Gulf of Guinea, West Africa by late October. The deduced migration route avoids storm-centres but is in the opposite direction to the prevailing winds and is about 20% longer than the most direct route.

Those banded as juveniles straggle back to the breeding area from their second year (youngest returned

bird: 20 months) to at least their sixth year. Adult terns do not migrate, but disperse in the Gulf of Mexico, Florida and the Caribbean Sea. It is suggested that the juveniles migrate to reduce intra-specific competition in the vicinity of the breeding colony, and that an individual may leave more progeny by delaying its return until better able to compete for suitable nesting sites.

The Pukeko (*Porphyrio melanotus*) in New Zealand. A. L. K. Carroll. 1969. *Notornis*, 16:101-120.

The Pukeko (the Eastern Swamphen of Australia) colonised New Zealand in pre-European times. European occupation, and the drainage of swamps in particular, eliminated much Pukeko habitat, but the species is adaptable and has exploited changes in land settlement as long as adequate wet areas remain. Sixteen recoveries of banded birds are tabulated in abbreviated form; eight were recovered within 10 miles of banding, a further six were recovered between 10 and 46 miles, and two moved 105 and 112 miles respectively. The status of the species, district by district throughout New Zealand, is discussed. It is classified as a game species with an open season, and it is also shot on permit as a pest species. Shooting appears to cause concealment rather than movement away from the area.

Herring and Ring-billed Gull Populations of the Great Lakes 1960-1965. James Pinson Ludwig. 1966. *Univ. of Michigan Great Lakes Research Division, Publication* 15:80-89.

Following a rapid increase in the population of the herring-like Alewife (*Alosa pseudoharengus*) in Lakes Huron and Michigan, Herring Gulls (*Larus argentatus*) increased from 24,000 to 43,000 breeding pairs between 1960 and 1965, while Ring-billed Gulls (*L. delawarensis*) increased from 27,000 to 99,000 breeding pairs. The increased numbers of Herring Gulls are derived from higher breeding success in the lakes, but the Ring-billed Gulls also recruited adult gulls from Lake Ontario. Both species of gulls lose 60-70% of fledglings prior to first breeding, and adult populations have 10-12% annual adult mortality. Shortage of nesting space, pesticides, and probably butolism are factors threatening the future of the populations.

TECHNIQUES

Nightlighting: Its Use in Capturing Pheasants, Prairie Chickens, Bobwhites, and Cottontails. Ronald F. Labisky. 1968. Biological Notes No. 62 of Illinois Natural History Survey.

The history of using bright lights at night to capture animals and birds is briefly outlined. Equipment used by the Illinois Natural History Survey group is detailed, with particular emphasis given to detail of the electrical equipment and circuits. Particular techniques are necessary for different species, and methods of operation by the two man team are described. Efficiency of capture varies widely for each species, and overall 31% of pheasants flushed were captured, 19% of prairie chickens, 34% of bobwhites and about 20% of cottontails (rabbits). The paper is well illustrated with eight photographs, showing equipment and techniques.

A Technique for Capturing Nesting Grassland Birds with Mist Nets. Stephen G. Martin. 1969. *Bird-Banding*, 40:233-237.

It is often difficult to capture grassland bird species. The present paper describes and illustrates two methods of rigging mist nets over nests to capture the breeding adults. The first method involves a simple Vee of mist nets with the nest near the apex. The second method eliminates vertical escape by crossing the two end net poles and providing a slight overlap of the two nets along their entire length. In Wisconsin, U.S.A., 72 of 73 attempts to capture Bobolinks were successful. The basic advantage of the suggested method is that the equipment required is readily available to many banders.

MISCELLANEOUS

Reversed Migration as the Cause of Westward Vagrancy by Four Phylloscopus Warblers. Jorgen Rabøl. 1969. *British Birds*, 62:89-92.

Breeding ranges of four warblers are mapped, and records of these comparative rarities in Britain and Ireland are compared. The Yellow-browed Warbler has a more northerly breeding range than Pallas's Warbler, and the Arctic Warbler has a more northerly breeding range than the Greenish Warbler. In Britain and Ireland, Pallas's and Greenish Warblers are generally observed in the southern areas, while the Yellow-browed and Arctic Warblers are generally observed in the northern areas. It is postulated that these data indicate reversed migration by part of the populations.

Uncompleted Molt in Sterna Terns and the Problem of Identification. R. E. Scott and P. J. Grant. 1969. *British Birds*, 62:93-97.

Unusual plumages of Common Terns (*Sterna hirundo*) are described and sketched, and comparison is made with the "portlandica" phase of the Arctic Tern (*S. macrura*). It is considered that these plumages are due to incomplete molt, resulting in contrasts of old and new feathers. Field characters are given to distinguish the above two species in these plumages, together with criteria for separating both from immature Marsh Terns (*Chlidonias hybrida*).

Giant Petrels as Migrants to Northern New Zealand. R. B. Sibson. 1969. *Notornis*, 16:45-50.

Numbers of Giant Petrels (*Macronectes giganteus*) off northern New Zealand have increased during recent years; they are most plentiful between August and October, with fewest present between January and May. Counts are given for Auckland Harbour since 1952, where up to about 30 are seen in some years. Recoveries of banded birds are listed; most (25) are from the Falkland Islands (and from nearby Signy Island in particular) with three and five recoveries from Heard and Macquarie Islands respectively. Almost all (about 29 of 33) recoveries are of birds in their first year of life. Surf-fishing during the winter months has grown in popularity and consequently the chances of beach-washed banded birds being reported have increased.