months before he died suddenly while working alone in his museum, Shortridge wrote the writer some details of his visits to Western Australia and New Guinea.—H.M.W.

Funds Required

The Union cannot continue to maintain *The Emu* at the present standard out of its income. The Council is at present considering a proposal to increase the annual subscription to 25/-. Members are asked voluntarily to pay that amount. They are also invited to make donations. Above all, members are urged to continue membership and to endeavour to persuade others to join the Union.

Reviews

Drongo Family Revision.—The drongos comprise an essentially old world group, which is a "natural, self-contained and sharply-defined family". Their systematic relationships have been recently assessed by Charles Vaurie in 'A Revision of the Bird Family Dicruridae' (*Bull. Am. Mus. Nat. His.*, vol. 93, part 4, 1949, pp. 201-342). He accepts twenty species, thus agreeing with the number recognized by Ernst Mayr in 'The Number of Bird Species' (*Auk*, vol. 63, 1946, pp. 64-69). All except the Papuan Mountain Drongo (*Chætorhynchus papuensis*) are included in the genus *Dicrurus* Vieillot. Only one species reaches Australia. This bird, called *Chibia bracteata* in the *Official Checklist* (1926), is regarded by Vaurie as a subspecies of the Hair-crested (Spangled) Drongo (*Dicrurus hottentottus*), which is accorded a wide range from India and north China, through the Philippines and Malaysia (omitting the Malay Peninsula) to New Guinea, Australia and the Solomon Islands. Thirty-two subspecies are accepted under *hottentottus*, *D. montanus* of the mountains of Celebes and *D. megarhynchus* of New Ireland being included in the same superspecies, which comprises no less than three genera and 34 'species' of Sharpe's *Hand-List* (1909).

The omission of Mathews' genus *Notochibia* from the synonymy of *Dicrurus* is surprising, as is also the statement (p. 212) that ". . . since the time of the 'Handlist' two additional generic names had appeared, but one, being a *nomen nudum* brought forth by Mathews, will not be quoted here". The acceptance of *Notochibia* can scarcely be feasible—(Mathews himself relegates it as synonymous with *Dicruropsis* in the *Systema Avium Australasianarum*, 1930, p. 862)—but it is not a *nomen nudum* as the type species is clearly designated in the *Austral Avian Record* (vol. 5, 1923, p. 41).

Field-notes, habits, ecology, etc., play little part in so many recent revisions, but they can be investigated to advantage, *e.g.* by Delacour and Mayr in 'The Family Anatidae' (*Wilson Bull.*, vol. 57, no. 1, pp. 3-55, 1945). Australian ornithologists would have gladly supplied such information as known concerning *bracteatus*. Australian distribution of its sole accepted subspecies is both brief and vague, possibly because the author believed little was available on the subject. However, one would have liked to see reference to K. A. Hindwood's recent article on 'The Spangled Drongo in Victoria' (*Vic. Nat.*, vol. 65, no. 1, pp. 4-5, 1948) where known Victorian records are detailed and the species' status as a migrant and breeding bird in south-eastern Australia is given.

The author is to be congratulated upon the free use of text-figures, maps and statistical tables.—A.R.M.

The Cape Hen.—In *The Ibis*, 91 (3), 422-426, C. A. Gibson-Hill, under the title 'Notes on the Cape Hen', *Procellaria aequinoctialis*', deals with field characters of the Cape Hen, a paper designed to supplement what appears in Dr. Murphy's *Oceanic Birds of South America*, pp. 641-647. Topics dealt with include flight, wing span, net weight, nesting burrows, chick, food, and enemies.

The author's observance of pairs of birds and single birds at nests without eggs is a common occurrence among members of all species of petrels which I have studied. Some birds of these species lose their eggs, and others are without eggs because they are non-breeders and appear to be indulging in pair-formation activities. The suggestion that frequently appears in the literature that petrels nesting in the higher latitudes lay again in any given season if the egg is destroyed is not in accordance with my experience. The Royal Albatross (*Diomedea epomophora sanfordi*) certainly does not, and Buller's Mollymawk (*Diomedea bulleri*), when I was watching at The Snares Islands, did not lay again. Finally, the restricted span of hatching dates for *Puffinus griseus*, *Pachyptila turtur*, and *Pachyptila vittata* suggests that re-laying does not occur in those species.—L.E.R.

Stomach Oil in Petrels.—L. Harrison Matthews in *The Ibis*, 91 (3), 373-392, deals with this matter ('The Origin of Stomach Oil in the Petrels, with Comparative Observations on the Avian Proventriculus'). The anatomy and histology of the proventriculus in four species of petrels—*Fulmarus glacialis*, *Hydrobates pelagicus*, *Puffinus puffinus*, and *Daption capensis*—were examined and compared with the conditions in fourteen other species of birds. The observations provided strong evidence, but not absolute proof, that the stomach oil of petrels originates in the cells of the proventricular glands. The chemical nature of the oil led to the conclusion that it is a true secretion and that it is not directly derived from the food.

Suggestions concerning the possible function of petrel stomach oil are discussed. The oil may supplement the secretion of the preen gland; it may be an excreted by-product of the metabolism of excessively fat foods; or it may play an important part in water metabolism, especially in the nestling. Without further work, none of these theories can be upheld or refuted, and it is possible that all are partly correct, for they are not mutually exclusive.

The author states that many petrels shoot stomach oil when disturbed. The reviewer has found, within his experience, that this is true of the young of the Royal Albatross (*Diomedea epomophora sanfordi*), Sooty Shearwater (*Puffinus griseus*), Mottled Petrel (*Pterodroma inexpectata*), White-faced Storm Petrel (*Pelagodroma marina*), and Giant Petrel (*Macronectes giganteus*). It is not true, however, of the young of the Diving Petrel (*Pelecanoides urinatrix*), Broad-billed Prion (*Pachyptila vittata*), and Fairy Prion (*Pachyptila turtur*). On The Snares Islands, the reviewer observed an incubating Buller's Mollymawk (*Diomedea bulleri*) cough up greenish fluid when disturbed; the author notes a similar instance for the young of *Æstrelata trinitatis*.—L.E.R.

The Curlew's Secret.—A fascinating account of the discovery of the nest and eggs of the Bristle-thighed Curlew (*Numenius tahitiensis*), a species closely resembling the Whimbrel that migrates to Australia from eastern Siberia, appears in the *National Geographic Magazine*, Dec., 1948, pp. 751-770—'The Curlew's Secret', by Arthur A. Allen. The species was first collected by Banks and his assistants at Tahiti in 1769 during Cook's first voyage of discovery. For a hundred years or so it was thought that the species nested somewhere in the Pacific south of the equator, then odd specimens were collected or observed in Alaska. As the years passed more specimens came to hand, including an immature bird, and the evidence available indicated that the breeding range was probably somewhere near the Yukon River, a surmise that eventually proved correct. Reports from two enthusiastic observers in the area, Warren M. Petersen and Henry

Kyllingstad, induced Professor Allen to organize an expedition by plane (actually three planes were used) to the locality. Eighteen hours of flying from Ithaca, New York, to Anchorage in Alaska, then by smaller plane to Bethel, and finally in a single-engine seaplane to an unnamed lake twenty miles north of Mountain Village on the Yukon.

"What news?" asked Professor Allen as he stepped from the plane, addressing his son David and Henry Kyllingstad, both of whom had preceded him. "We have found the Curlew's nest', was the reply. One can well imagine the excitement of the occasion, a dramatic incident in the annals of ornithology, so aptly described by Professor Allen. Thus, 179 years after the species was discovered and 163 years after it was scientifically named, its nest and eggs were found—and the distance between the two places—5,500 miles. It was also the last of the 800-odd species of North American birds to give up the secret of its nesting place.

The article is magnificently illustrated in kodachrome and half-tone, showing a fine series of the adult, nest and eggs and young. One unusual photograph shows Petersen with his face less than a foot from the brooding bird. Other delightful kodachromes illustrate such birds as the Pectoral Sandpiper, Turnstone, Eider, Canada Goose, Yellow Wagtail, and the Little Brown Crane.

In all this is a splendid piece of work embodying sound field observation, initiative, anticipation, co-operation, the latest photography, and modern means of travel, spiced with a not inconsiderable element of danger from fogs and bad weather—the result, an historic ornithological achievement.—K.A.H.

Detailed Penguin Studies.—Papers in the *Emu* by L. E. Richdale, of Dunedin, N.Z., on the sea-birds found breeding in New Zealand, have all been noteworthy for their attention to detail. Now he has produced an 88-page monograph, *A Study of a Group of Penguins of Known Age*, which carries much further the fortunes of some of the families of Yellow-eyed Penguins (*Megadyptes antipodes*) which were the subject of previous studies, and the same attention to detail is observable throughout.

If there has ever previously been such a thorough and continuous study of a large community of birds, each banded for individual recognition, this reviewer has never seen or heard of it; the probability is that such a task has never been undertaken before, and certainly nothing approaching it has been done previously in Australia or New Zealand. The work covers 460 young penguins whose fortunes have been followed over an observation period of twelve years, during which the subjects have attained ages from one to eleven years. Of 162 of these, the exact age, place of hatching, and the individual parents, are known; the remaining 298 were met for the first time as juveniles—their age is known within three weeks, but their precise parentage and the nest from which they were hatched are not known.

Topics considered in the monograph are the rate of maturing, the social and marital relationships of the birds, tendency of the young to return to their native breeding-ground when they, in turn, breed, age of mating, fecundity, mortality, influence of age on size of eggs, and (to a less detailed degree) wanderings between breeding seasons.

A few of the unusual points brought out are that males generally mate with females younger than themselves; that fertility among the younger birds, especially the males, may be low; that size and dimensions of eggs vary with the age of the parents. A point worthy of further investigation is that the tail feathers in juveniles at the end of the first year are longer than in adults by about 20 per cent.

The monograph is published privately; it is illustrated, and the price is 12/6 sterling (10/- on direct order from the author).—P.C.M.

The date of publication was October 31, 1949.