

Correspondence

THE LAMBERT DRAWINGS AND *Turdus volitans*

To the Editor,
Sir,

May I add a further note to my letter which you kindly published in *The Emu*, 43, p. 224, 1944, as it would seem that Dr. Mayr has misunderstood that letter. It was not intended to refer to genera or composite scientific names, but to names based on composite drawings or composite descriptions. Judging by Dr. Mayr's remark on p. 303, 43, 1944, it would appear that we are both in agreement on this point.

Yours, etc.,

London,
September 4, 1944.

C. H. B. GRANT.

Reviews

Ecology and the Origin of Species.—Mayr in his book on *Systematics and the Origin of Species* (1942) has reviewed generally the subject of species formation among birds and other organisms. As a sequel to some of the lines of thought developed in it, the English ornithologist, David Lack, who has for several years devoted close attention to the relation between habitat and speciation, has now published a useful essay in the *Ibis*, July 1944, pp. 280-286, entitled 'Ecological Aspects of Species-formation in Passerine Birds.' The problem concerns itself with such questions as why closely-related species so often occupy separate but adjacent habitats, and why closely-related species may differ so markedly in size. Briefly, Lack adopts the view that each species is adapted to and occupies a specialized habitat, or ecological niche, and no two animal species with the same ecological requirements can live in the same area. New forms of birds originate in the first place through geographical isolation, and later, when circumstances allow them to come in contact with each other, there will be competition. If one of them is not altogether eliminated as a result, various situations will develop where one or other will prevail according to its adaptation to the particular habitats available. There is no conscious strife between them: natural selection operating over a long period determines which will survive better in the various ecological niches comprising the general habitat. "As a result, the members of each species gradually evolve behaviour responses which restrict them to the part of the habitat where they are successful, so that, after a time, they rarely attempt to breed outside this part, which becomes the specific habitat." When two or more related forms live together in the same habitat they tend to eat mainly different foods, and size differences between them almost always mean that they also possess different food preferences. Lack invites attention to the problem of *Acanthiza ewingii* and *A. pusilla*, two closely-similar forms existing together, apparently in the same habitat, in Tasmania, and it is implied that closer investigation will show that they have somewhat different food habits or that they occupy slightly different ecological niches. He suspects that it was

the introduction of *Zosterops lateralis* into Lord Howe Island which led to the decline of the similar *Zosterops tephroleura*.—D.L.S.

N.Z. Bird Notes.—No. 6 of vol. 1 of this publication (Sep. 1944) contains a number of papers of both local and general interest. A short article on the Eastern Rosella in North Auckland, by C. A. Fleming, indicates some extension since the species entered the avifauna as a 'cage escape.' In another short account of a petrel on the North Auckland 'mainland' Fleming withdraws his identification (*Emu*, vol. 38, p. 403) of certain Chatham Island skulls as *Pterodroma inexpectata*. There is a lengthy paper on Stilts in the Firth of Thames, by R. B. Sibson and H. R. McKenzie. Reviews of *Emu* papers serve to bring our journal before New Zealand bird observers.—C.E.B.

Sea-bird Studies.—The extent of L. E. Richdale's investigations of sea-birds is apparent not only from *Emu* papers, but also from contributions to other publications and privately-printed booklets. The latter includes the recent 'The Royal Albatross' (2 pp. and pl.) and 'Camera Studies of New Zealand Birds,' no. 4 (Penguins).

'The Titi Wainui or Fairy Prion' (*Trans. Roy. Soc. of N.Z.*, vol. 74, pts. 1 and 2) is an account of *Pachyptila turtur* on Whero. Mr. Richdale's usual detailed descriptions, with tables, deal with every aspect concerned with the breeding cycle of the species, and follow what has become a familiar pattern to readers of *The Emu*. Although of undoubted value as methodical and systematic life-studies of species generally neglected, the masses of figures and data included necessitate concentration in perusal and close application to detail.

'The Sooty Shearwater in New Zealand' (*Condor*, vol. 46, no. 3, pp. 93-107, May-June 1944) is not so 'statistical.' Several popular beliefs are discredited—the contention that the young precede the older birds on the southern journey, the statement that the species requires a dark place in which to nest, the impression that the laying period is protracted.—C.E.B.

Avicultural Notes.—The *Avicultural Magazine*, 5th ser., vol. ix, no. 5, contains a number of papers dealing with Australian birds in captivity. These are 'Notes from Taronga Park,' by Robert A. Patten; 'Breeding the Australian Black-breasted Plover,' by Sydney Porter; and 'Attempted Breeding of Kookaburras,' by M. D. England. This last is entertainingly written, if light, and one notes the hope expressed that 'one day more aviculturists will become ornithologists'.—C.E.B.

Birds of Ceylon.—*Spolia Zeylanica*, vol. 23, pts. 3 and 4, is devoted to 'The Avifaunal Survey of Ceylon, conducted jointly by the British and Colombo Museums,' by Hugh Whistler, with map and eight plates.

Ceylon is divisible into three broad climatic tracts—the low country dry, low country wet, and central hill zones. In the hills altitude is of less importance than humidity, though insularity and not humidity is claimed as the important factor in the evolution of Ceylon races.

Wait accepted 372 species and subspecies in his *The Birds of Ceylon*: Whistler includes 384 forms. Some species are rejected as probably being aviary escapees, including *Munia atricapilla*. This bird, taken in North Australia, was not only not rejected for the same probable reason, but dubbed a new subspecies by Mathews.

There are 162 resident forms not peculiar to the island and in every case but one they are the same as Indian forms. This positive association with the Indian Region avifauna is supported from the negative side by the lack of affinities with Australian Region birds. The systematic list shows that there is but one passerine bird common to Ceylon and Australia, viz. *Cisticola juncidis* (Hartert having shown that *Corvus macrorhynchos* is not conspecific with *C. coronoides*), although there are congeneric relationships—*Lalage*,

Dicrurus, *Artamus*, *Acrocephalus*, *Oriolus* and others—and, outside the passerines, some species, for example raptors and waders, are represented in both countries.—C.E.B.

Audubon Magazine.—This magazine is always presented in an attractive style that undoubtedly assists very materially in popularizing ornithology in America. Considerable space is usually devoted to conservation, nature education, and national park and sanctuary areas. Vol. XLVI, no. 5, Sep.-Oct. 1944, has some excellent photographs of waders accompanying an article 'September Snipe,' by Dr. Heathcote Kimball.—C.E.B.

'Anting.'—Stray notes on this subject may have appeared in publications extending back over decades, but A. H. Chisholm's queries concerning it gave it the impetus that stimulated recent interest. In 'The Problem of Anting,' *Ibis*, July 1944, pp. 389-405, he gives an account of recent investigations and notes—in Europe, America and India, as well as here—and discusses the various hypotheses suggested as reasons for the practice. These fall under the heads of food-carriage (which he doubts), food-cleansing ('Adlersparre's theory'), which is subject to some formidable objections, skin-cleansing, skin-stimulation, and odour-attraction. He considers the likely reasons associated with these three last, which are inter-related, and with a desire to free from acid ants which are in fact eaten, though not necessarily for food-cleansing as such so much as external stimulus preceding the benefit of food.—C.E.B.

Variation of Clutch-size.—R. E. Moreau (*Ibis*, vol. 86, p. 286) writes on 'Clutch-size: A Comparative Study, with Special Reference to African Birds.' Interesting problems of ecology and evolution are raised by the differences in clutch-size between (a) different populations of a species, and (b) different species of a genus or family. The author has attempted to find biological reasons for the variations by a comparative study of the eggs of 700 species of African birds inhabiting (a) the African Equatorial belt, and (b) South Africa, respectively.

The figures are too comprehensive for inclusion of samples, but, considered family by family, it is the exception, not the rule, for the biggest birds to have the smallest clutches. There is a tendency for species of evergreen habitats to have a smaller clutch than closely-related birds of drier habitats. Birds nesting with special devices assumed to be protective do not have appreciably-smaller clutches than closely-allied birds not so 'protected.'

In about 400 of the 700 African species clutch-size is sufficiently well established for use in comparison, and full details are set out in tabulated form. The work involved has been tremendous and the article should be of particular interest to Australian readers because of the general similarity of African conditions with those pertaining in Australia. Unfortunately for exact comparison between Australia and Africa it would be necessary to include the New Guinea region, since the mainland of Australia only reaches north to approximately latitude 10° south, and information from the New Guinea area is scanty.

The author has had difficulty in obtaining sufficient data for his work and states his dislike for the type of generalization such as 'usually three, sometimes two, and occasionally four'. Often, however, a misleading conception arises because collectors often do not take what are considered as short clutches, though large clutches are collected.

Mr. Moreau apologizes for the inadequacy of his discussion and states that "in the tropics we cannot hope to get much further with the problem until we have a vast amount more data, most critically assembled, and associated with comprehensive studies on local populations of species after species."—R.S.M.

The date of publication was January 12, 1945.