FROM FIELD AND STUDY

The Arrangement of Songbird Families.—In the summer of 1957, it was my task to prepare a classification of fossil and Recent birds for a forthcoming text on the biology of birds. After considerable study, I decided to base the arrangement of songbird families on the well-documented classification of Wetmore (Smiths. Misc. Coll., 117[4], 1951:1–22). In this classification, the corvine assemblage is placed first, the Old World insect eaters next, and the New World "nine-primaried" birds last. The same year two other classifications following the same general sequence of passerine families appeared independently: that of Amadon (Proc. Zool. Soc., Calcutta, Mookerjee Mem. Vol., 1957:259–268), reversing his earlier opinion (Mayr and Amadon, Amer. Mus. Novit. 1496, 1951:1–42), and that of Delacour and Vaurie (Los Angeles Co. Mus. Contrib. Sci. 16, 1957:1–6).

While it must be admitted that our knowledge of the morphology and behavior of passerine birds needs far more study, there are several important reasons which can be advanced for using this arrangement of families. The basic principle behind most systems of classification is that the older, more slowly-evolving groups are placed first and the newer, more rapidly-evolving groups last. (Some of the older classifications start with the "highest" groups and end with the "lowest" ones. Such reversals of order have no bearing on our thesis concerning the *sequence* of families, and for purposes of simplicity, we will consider all classifications as ending with the "higher" groups.) If this principle of placing rapidly-evolving groups at the top of the classification is to be used, the degree of specialization, more often than not, will run counter to the arrangement because, generally speaking, the more specialized an organism is, the less potential it has for further evolutionary radiation. For example, it is difficult to find more highly specialized birds than the penguins, yet these birds are almost universally placed near the beginning of classifications and show no evidence of having recently undergone evolution comparable to that, for instance, in the passerines. Arguments for placing the corvine assemblage last are based primarily on the supposedly superior mental capacity of the corvids and the extreme specializations of plumage and behavior of the birds-of-paradise and the bower birds. With regard to the first supposition, it may be noted that the undisputed mental superiority of the primates, and particularly of our own species, has not been considered sufficient reason for placing the primates at the top of the widely accepted recent classification of mammals by Simpson (Bull. Amer. Mus. Nat. Hist., 85, 1945:xvi + 350 pp.).

Both the Old World insect eaters and the New World nine-primaried birds have undergone remarkable adaptive radiations into many genera and species. This is particularly true of the babblers (Timaliidae) in Asia and the finch-tanager-woodwarbler group in the New World. On this basis, both groups would qualify for a position at the end of the passerines. In spite of the remarkable array of bill forms, and presumably attendant radiation in feeding habits which have evolved in the timaliids, the nine-primaried assemblage is believed by most ornithologists to be the more "progressive" and rapidly evolving, and for this reason it is usually placed after the Old World insect eaters in classifications.

For many years, European ornithologists favored classifications of the songbirds in which the corvine assemblage was considered the "highest" group and the Old World insect eaters the "lowest." On the other hand American ornithologists almost universally follow arrangements starting with the corvine assemblage and ending with the finches. This lack of agreement has made it necessary for ornithologists to learn two different sequences. The resultant inconvenience is an annoyance to many workers (see, for example, Mayr, Condor, 60, 1958:194–195), but the very fact that there is a difference of opinion is in itself of considerable value as a stimulus to further work. It is not unlikely that we shall eventually achieve a much clearer idea of the phylogeny of the passerines than we have at present, and until we do, we cannot expect universal agreement on the sequence of families.

At the XI International Ornithological Congress at Basel in 1954, a committee was set up to propose a sequence of passerine families which would be acceptable to the majority of workers. I firmly believe that it is wrong to attempt to legislate, however tentatively, matters which, like this one, may be determined by biological evidence. Even granting the desirability of action in this matter, the Basel committee was hardly representative of world opinion. It was a foregone conclusion that six European ornithologists trained in the "crows highest" arrangement would vote to place the Old

World insect eaters first and the corvine assemblage last, just as six ornithologists raised in the New World would have unanimously favored placing the corvine assemblage first and the New World nine-primaried birds last.

Since the congress at Basel, there has been a decided swing away from the arrangement proposed by the committee. In addition to the three classifications mentioned earlier (Amadon, 1957; Delacour and Vaurie, 1957; and Storer, MS), the recent list of Finnish birds by Merikallio (Fauna Fennica 5, 1958:1–181), the recent check-list of Swedish birds by Lundevall (Förteckning över Sveriges Faglar, 4th ed., Almqvist and Wiksell Gebers Förlag A.B., Stockholm, 1958), and Vaurie's forthcoming check-list of Palearctic birds may be cited as examples of new works using the "finches last" arrangement. However, it was probably the earlier decision of the British Ornithologists' Union to follow this arrangement and the subsequent appearance of Peterson, Mountfort, and Hollom's, A Field Guide to the Birds of Britain and Europe, 1954, which were most influential in establishing this trend. Whether or not we are willing to admit it, most of us are prejudiced in favor of the first classification we learn. In most cases this is the system followed in our field guides. Thus, when one field guide like that of Peterson, Mountfort, and Hollom is used so widely, its importance in teaching younger ornithologists a system of classification which they will probably favor all their lives should not be underestimated.

It thus appears that in spite of the proposal by the Basel committee, the order almost universally followed in the New World is fast gaining support in the Old World. The major opposition appears to stem from the editors of Peters' Check-List of Birds of the World, Mayr and Greenway (Breviora, 58, 1956:1–11). It is, of course, their right to decide on the arrangement to be followed in this work, but in following the arrangement which places the corvine assemblage last, they are not following the system used by Peters himself as a member of the American Ornithologists' Union Committee on Classification and Nomenclature, by the majority of contributors to Peters' Check-List as indicated by their published classifications or major regional works, or by the majority of English-speaking ornithologists. If their aim is, as Mayr apparently feels it should be (Condor, 60, 1958:194–195), to effect a sequence which will be followed by most ornithologists, they would have a far better chance of achieving it if they used that followed by the A.O.U. and the B.O.U.—ROBERT W. STORER, *Museum of Zoology, University of Michigan, Ann Arbor, Michigan, November 1, 1958.*

Notes on the Taxonomy and Zoogeography of the Genus Elanus.—I had finished a short manuscript on the genus *Elanus* when I read Parke's recent paper on the same subject (Condor, 60, 1958:139–140). My paper was based on a short talk I gave in the Bird Biology Conference held at Oxford in the first week of January, 1958. I now think that there is no need of publishing that portion of my paper which deals with the species relationships in the genus *Elanus*. My views almost entirely agree with those of Parkes, but there are some points which are not discussed by him.

The under wing coverts which were described by previous authors (Mathews, Birds of Australia, 5, 1915–1916:206; and others) as pure white in *E. caeruleus* are not always so. In other forms there is more or less black forming a patch, and it is largest in *E. scriptus*. Some of the under wing coverts in *E. caeruleus* have black tips, especially in the Indian race *E. c. vociferus*. Perhaps at one time this form possessed a black patch on the under wing coverts which later became reduced. It should be noted that Gurney (Ibis, 3[11], 1879:330–341) was the first author to suggest that *leucurus* of America should be considered a subspecies of *notatus* of Australia. He, however, said nothing about *caeruleus,* probably because of the supposed absence of the black patch on the under wing coverts. In my paper I also pointed out that *scriptus* appears to be the earlier arrival in Australia, as suggested by Mathews (*op. cit.*), and not *notatus,* as Condon and Amadon (Rec. South Austr. Mus., 11[2], 1954:159–246) think.

The history of the genus *Elanus* may be outlined as follows: The genus most probably evolved somewhere in the Oriental or Ethiopian region from where it extended to Australia and America. In Australia, it gave rise to *E. scriptus,* which retained the large black patch on the under wing coverts, while the original Afro-Asian population was gradually losing it. After a long interval, the Afro-Asian population extended to America (*E. c. leucurus*) and again to Australia (*E. c. notatus*). These two groups, *leucurus* and *notatus,* retained the reduced black patch, but in the Afro-Asian population it became further reduced, so that it is now represented only by the black tips of some of the under wing coverts. In Australia, *E. scriptus* was sufficiently different to be reproductively isolated by the