

## FROM FIELD AND STUDY

**The Display of the Sickle-billed Bird of Paradise.**—Crandall (*Zoologica*, 11, 1932:82-84; 31, 1946:9) has described the display of captive specimens of the eastern New Guinea Long-tailed Bird of Paradise (*Epimachus meyeri meyeri*). Few people have watched this species or its relative *Epimachus fastosus* in the wild state. In March, 1938, I was camped at 5200 feet on Mount Kourangen in the Tamrau Range which runs from east to west along the northern coast of the Vogelkop of Netherlands New Guinea. In the course of two and a half weeks on the mountain, we collected several specimens of the Sickle-bill (*E. f. fastosus*), but only twice did I manage to have any detailed view of the birds. At this season other species of Birds of Paradise were displaying on their display posts, but, at the time, thinking only of the display in a restricted cage described by Crandall (*loc. cit.*) for *Epimachus*, it had not occurred to me that I was watching a type of display when I witnessed the following activity of a Sickle-bill (notes of March 20):

"A male was sitting very high up on the bare branch of a huge dammar, *Agathis* sp., in a display posture. The pectoral shields were spread out and upwards like two raised arms. The tail was partially spread showing the shorter, outer feathers. A brownish bird, presumably a female, was sitting near on a lower branch. Suddenly the male called, a loud penetrating whistle sounding like the syllable 'whick.' Then, so rapidly that I could not see the pectoral shields retracted, he turned and dived straight downwards off the branch towards the ground, perhaps a hundred feet below."

From my position on the steep hillside partly above the base of the dammar, it was impossible to estimate the exact distance from the ground when the bird concluded its maneuver, but it must have been only a few feet from the bushes at the base of the tree.

"At the bottom of the dive, the male came out with spread wings and sailed back up again to the same branch almost as if on the rebound, so rapidly that it took me an instant to realize anything had happened at all."

In retrospect, this striking performance, which I witnessed only once, seems undoubtedly to have been a type of display. Its pattern bears an interesting resemblance to the display flight of the Anna Hummingbird (*Calypte anna*) so well described by Woods (*in* Bent, *Bull. U. S. Nat. Mus.*, 176, 1940: 371-2).—S. DILLON RIPLEY, *Peabody Museum, Yale University, New Haven, Connecticut, January 21, 1957.*

**The Classification of the Oscine Passeriformes.**—Any arrangement of the family groups among perching birds is subject in some part to individual conviction, since it is obvious that to compress what is definitely a three-dimensional relationship into a linear sequence on the printed page requires occasional arbitrary decision as to the order among families that are closely related. However, the general framework should be based on characters that point to the basic standing of the various groups. This is particularly true of the assemblage that is to stand at the head of the list, assuming that this position is to be assigned to those birds that are believed to have advanced to the greatest degree in their general evolution from their ancestral stock.

Current acceptance of the position of the nine-primaried fringilline assemblage at the head of the list has been general in recent years, although with differences of opinion as to the family limitations within this group. My own opinions on the matter are covered in the classification that I have proposed (*Smiths. Misc. Coll.*, 117, No. 4, 1951:12, 21-22) in which the orders have followed rather closely those of Gadow, with changes due to more modern information, while the family limitations have been considerably modified.

Mayr and Greenway (*Mus. Comp. Zool., Breviora*, 58, 1956:1-11) recently have published an outline classification of Passeriformes which it is proposed to follow in the final volumes of the *Check-list of Birds of the World*, begun by James L. Peters. In this they return again to the procedure used generally by the previous generation of ornithologists, in which the Corvidae are placed at the end. In this I believe that certain basic data either have been overlooked or have not been accorded sufficient weight.

The position of the Corvidae relative to the other families is a matter that has intrigued me from my earliest studies in this field. In the beginning it seemed reasonable to accept the prominent position

usually accorded them, because of the outstanding size found in the genus *Corvus* that gives the family its name, and also the strong learning ability that corvids possess.

Consideration of passeriform classification led me to careful examination of the skeleton, and I observed differences in the form of the head of the humerus (fig. 1) that offered aid in family arrangement. In the Corvidae, the internal tuberosity, separated from the rounded articular head by the broad capital groove, overhangs the pneumatic fossa from which the rather large foramen leads into the hollow shaft. This is illustrated in figure 1a, which shows the upper part of the humerus in the American Crow (*Corvus brachyrhynchos*).

Among major groups of nine-primaried Oscines, such as the Fringillidae, Thraupidae, and Icteridae, on the other hand, this internal tuberosity has a bladelike form, while the fossa from which the foramen opens is enlarged so that it extends back beneath the base of the head. The tuberosity, while varying somewhat in different species, is included in the lateral boundary of the fossa as an irregular projection on its anterior wall, and tends to divide the concavity into two irregular parts. The narrowed blade thus becomes decidedly more prominent, as illustrated in the Cardinal (*Richmondena cardinalis*) shown in figure 1c.

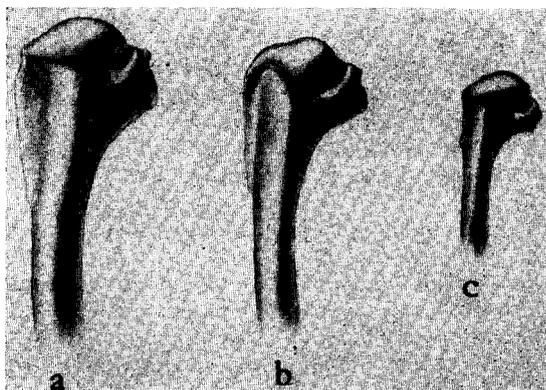


Fig. 1. a, upper part of the humerus of American Crow (*Corvus brachyrhynchos*); b, Pileated Woodpecker (*Dryocopus pileatus*); c, Cardinal (*Richmondena cardinalis*).

Curiously enough in these early studies it became evident at once that the resemblance of the Corvidae in this regard was with the Tyrannidae and their allies, and these are universally considered as low in the passeriform order. And further, it was seen that the Corvidae resemble also the Piciiformes, illustrated in the Pileated Woodpecker (*Dryocopus pileatus*) shown in figure 1b. In fact, this style of formation of the humeral head, sometimes in slightly modified form, continues through the Coraciiformes, Trogoniformes, and other adjacent orders.

The form of the head of the humerus is not subject to stresses which might cause modification with any of the usual changes in type of food, habit, or habitat that appear to have affected the form of such structures as the bill and the feet, with their supporting bony framework. It remains the same in related groups, regardless of whether the method of flight is strong and direct, like that of a grackle, or weaker and undulating, like that of the cardinal already mentioned. The meadowlark, which alternately flits the wings rapidly and sails, resembles its relative the grackle. Even the swifts, highly modified for rapid flight, show no marked departure from related groups in this portion of the humerus. It must be evident, therefore, that there is here a character of phylogenetic significance, of value in judging close relationship, and useful as a detail in arranging the levels of classification. It has been this close resemblance of the Corvidae to groups that all admit stand low that has led me to join Ridgway and some others in deposing the crows and their allies from the lead position that they long had occupied and to place them near the beginning of the oscinine families.

The Fringillidae and related families at the same time have been elevated to the higher level.

Repeated consideration of these matters in expanding studies over a period of nearly 40 years has sustained fully my early opinions. To place the Corvidae at the highest level on the basis of greater mental capacity is to ignore these actual facts.—ALEXANDER WETMORE, *Smithsonian Institution, Washington, D.C., January 15, 1957.*

**Unusual Early Winter Records from Oregon.**—In 1953 and 1955, field work in connection with distributional studies being carried on for the United States Fish and Wildlife Service took me into Oregon for a brief interval in late November and December. My activities then were concerned largely with migratory game species, but notes were kept of other birds observed while in the field, and an occasional specimen was taken to verify unusual occurrences. Among the latter, the following seem of sufficient interest to justify placing on record at this time. In each instance subspecific determination was made by John W. Aldrich.

*Regulus calendula cineraceus*. Ruby-crowned Kinglet. At Pendleton, on December 12, 1953, a male was collected as it fed with a flock of Black-capped Chickadees (*Parus atricapillus*) in woods bordering the Umatilla River. Gabrielson and Jewett (Birds of Oregon, 1940) consider this species rare in winter in eastern Oregon and state that only *Regulus calendula grinnelli* has been taken east of the mountains at this time of year. It is of interest, therefore, that this specimen was found to represent the race *cineraceus*.

*Dendroica townsendi*. Townsend Warbler. Rather unexpected was the presence of a female Townsend Warbler at Pendleton on December 12, 1953, where it was feeding with the previously mentioned flock of Black-capped Chickadees in woods bordering the Umatilla River. Gabrielson and Jewett list but three winter records for the state, all for the Portland area; this is apparently the first record at this season of the year for eastern Oregon.

*Wilsonia pusilla pileolata*. Pileolated Warbler. At Coquille, 17 miles south of Coos Bay, a female Pileolated Warbler, representing the race *pileolata*, was collected on December 6, 1955, as it fed alone in underbrush fringing a small stream. This would appear to be not only the first winter record of this race for Oregon, but also the first record for its occurrence in the western part of the state. Gabrielson and Jewett give the status of *pileolata* in Oregon as a fairly common summer resident east of the Cascades, with extreme dates of occurrence as April 29 and September 21.

*Melospiza lincolni gracilis*. Lincoln Sparrow. Although considered by Gabrielson and Jewett (*op. cit.*) as an uncommon migrant in the state, the presence of *gracilis* in western Oregon in December suggests the possibility that the Lincoln Sparrow winters in at least small numbers. At Coos Bay on December 7, 1955, three individuals were noted feeding with Song Sparrows in alders bordering a stretch of open marsh and a male that was collected was found to be typical of this northern coastal race.

*Melospiza georgiana ericrypta*. Swamp Sparrow. At Tillamook, on November 29, 1955, a female Swamp Sparrow, representing the race *ericrypta*, was collected as it fed with other sparrows in alders bordering a large open marsh. As far as now known this is the first record for the occurrence of this species in Oregon.—THOMAS D. BURLEIGH, *Fish and Wildlife Service, Moscow, Idaho, January 14, 1957.*

**Migratory Flight of a Zonotrichia at 10,000 Feet Above Ground Level.**—On October 31, 1956, Mr. Francis Drake was flying a single-engine Beech Bonanza airplane from Sacramento to San Bernardino, California. Between 9:00 and 9:15 p.m. while following a Civil Aeronautics flight plan at 10,000 feet above sea level, he felt a dull thud in the forward part of the plane. On landing at San Bernardino he inspected the front of the plane and found a dent at the right border of the air vent. Part of a bird was lodged in the air intake and this was retrieved for identification. It proved to be the foot, tarsus, and lower shank of a sparrow of the genus *Zonotrichia*. I am much indebted to Marshall G. Richardson and J. Stuart Rowley, as well as to Mr. Drake, for supplying information about this incident and for forwarding the specimen for examination.

The foot and lower leg feathering match in all details of size, color, and structure those of a Golden-crowned Sparrow (*Zonotrichia coronata*). The tarsus and foot are too large for *Zonotrichia leucophrys*. However, the Harris Sparrow (*Zonotrichia querula*), which reaches California in small numbers, cannot be distinguished on the basis of these parts from the Golden-crowned Sparrow. But