Zosteropidae (2,6), Vireonidae (2,17), "Coerebidae" (6,12), Parulidae (21,69), Ploceidae: Viduinae (3,4), Icteridae (18,42), Tersinidae (1,1), Fringillidae: Richmondeninae (12,24), Fringillinae (1,2), Carduelinae (14,36), Emberizinae (47,123).

The oropendolas and caciques of the Icteridae and the Cracticidae are excluded, for in these massive-billed birds it is impossible at present to state whether or not the condition of the nostril was preceded by the amphirhinal condition. In many cases several specimens of each species were examined, in other cases only one specimen was available. I found that in some species the amphirhinal condition may be present in some specimens, but not in others. I was unable to determine if an age factor is involved, but I suspect it may be, because in certain specimens a partially formed bony plate is present in the nostril that would represent the amphirhinal condition if fully formed. In some specimens preparation of the skull may account for the apparent absence of the amphirhinal condition, especially in soft-billed species. For these reasons, it is likely that some families listed here as lacking the amphirhinal condition will be found subsequently to possess it in some species.

The apparent parallel evolution of the amphirhinal condition in diverse passerine families probably indicates a potential for producing the character in all passerines. In fact, all that is necessary is the ossification of a cartilage. Of interest in this respect is one specimen of the ovenbird *Philydor rufus* which shows the nostril bounded by a membrane that has become partially ensheathed with bone; if ossification were completed this would represent the amphirhinal condition. Both available specimens of *Philydor lichtensteini* lack the condition. One specimen of the cotinga *Gymnoderus foetidus* shows no sign of the amphirhinal condition; in another specimen one side of the nostril has a condition very similar to that described above for the specimen of *Philydor rufus*.

The apparent ease with which the amphirhinal condition has arisen in so many passerine families, plus the fact of its occurrence in some species but not in others of reasonably well-defined genera is sufficient recommendation for extreme caution with its use, if any, in passerine taxonomy. Genera in which the amphirhinal condition is present in some species but not in others include *Xiphorhynchus*, *Cyanolyca*, *Garrulax*, *Lanius*, and *Passer*.

Detailed analysis of foraging behavior and of the forces acting on the bill might give a clue as to the function of the amphirhinal condition.

I am indebted to R. W. Storer and H. B. Tordoff for criticizing the manuscript, and to N. L. Ford and J. R. Jehl, Jr. for offering many helpful suggestions.—J. ALAN FEDUCCIA, *The University of Michigan Museum of Zoology, Ann Arbor, Michigan, 27 September 1966.*

A Common Grackle learning to soak bread.—There is only a little information available on specialized feeding techniques learned by wild birds, and still less data on how these are acquired. This has prompted me to record the following observations made on a lawn in Chesterton, Indiana, in the spring of 1966.

In April and May, 1966, when a half dozen pair of Common Grackles (*Quiscalus quiscula*) were feeding on our lawn, we put out bread and water and grackles came regularly to eat dry bread, and to drink. But, our desultory watching gave no record of "dunking."

Then on 15 May 1966, I noticed a female grackle with white marks acquired from the newly painted wall of a neighbor's garage against which its nest was placed. The following itemized observations refer to this bird:

3:50 PM White-marked female ate dry bread; flew to nest.
4:00 PM White-marked female came, ate dry bread, swallowing with difficulty, and went to water. As she bent to drink, several crumbs fell from gape into water, apparently accidentally. She drank, then picked two crumbs from water and swallowed them; then walked back to bread, picked up a piece, walked back to water, dropped it in, and ate the wet bread; flew to nest.
4:10 PM Female came, carried a piece of bread to water, dropped it in, and ate it; then flew on to nest.
4:30 PM Female came, drank, walked over to bread, carried a piece to water, dropped it in, picked off pieces; after eating about one-half of piece, female flew back to nest.
5:00 PM Female returned to food, ate part of dry bread but too hard to manage and abandoned it; got another piece, ate it dry; walked to water, drank, flew to nest.

There is no doubt what happened. The following interpretation is possible. The grackle was in the habit of feeding on dry bread and drinking. By accident it found dropping bread into the water made it easier to swallow. This association was utilized immediately, and was used in two following periods of feeding, about 10 and 20 minutes apart. At the next feeding period, 30 minutes later, the association had been lost.

Some six or eight other grackles, males and females, came to feed on the bread and to drink during this same period and some were there while the white-marked female was "dunking" bread. At 4:35 three grackles found the bread left in the water by the white-spotted female at 4:30 and ate it greedily. But, no other bird dunked its bread. Can it be that the habit of dunking bread, a fairly common, but irregularly used one of grackles is a matter of learning by each individual? The general habits of the birds would make the acquiring of such a specialized feeding technique an easy step. The sporadic use of the technique would support this view that each learns it.—A. L. RAND, *Field Museum of Natural History, Chicago, Illinois, 29 September 1966.*

Prealternate molt in the Summer Tanager.—One of the most useful qualities of the method of study of molts and plumages introduced in 1959 (Humphrey and Parkes, *Auk*, 76:1–31) has proved to be its predictive value. It has been possible to find molts, previously unreported, whose presence in a sequence was deduced from sequences of related forms. For example, we have encountered, thus far, no bird species with two definitive ("adult") plumages per cycle which does not also have two corresponding plumages in its first year. The discovery of the "missing" first alternate plumage of the Great Blue Heron (*Ardea herodias*) is described in our later paper (1963. *Auk*, 80:500). Equally, we know of no species which has a prealternate molt in its first year of life, but never thereafter. A plumage sequence of this type has been alleged to occur in some genera of Icteridae (*Cassidix*, *Molothrus*), but the limited prealternate molt of adults of these birds had simply been overlooked (A. R. Phillips and R. W. Dickerman, MS.).

The seasonal change of plumages of males of the Scarlet Tanager (*Piranga olivacea*) is highly conspicuous, with a prealternate molt involving the exchange of greenish for bright red body feathers. Males of its close relative, the Summer Tanager (*P. rubra*), however, never lose their pinkish red color once it has been attained at the first prealternate molt. Dwight (1900. *Ann. New York Acad. Sci.*, 13:223) described in detail the "partial prenuptial moult" (= first prealternate molt) whereby the greenish or yellowish "first winter" (= first basic) plumage of Summer Tanager males is replaced by red feathers of the "first nuptial" (= first alternate) plumage. Dwight, however,