and found no young, eggs, or eggshells. I suspected that the young had hatched and moved away a short distance, or that a predator had devoured or removed the eggs. As we stood at the nest, my dog flushed a female from a site about 15 feet farther off the path. This nest also contained two eggs, and was similarly located, but partially concealed from the path by a small tangle of vines.

The terrain between the nests was level, but leaves, pine needles, sticks, and debris would have made rolling the eggs a difficult task. Although it is possible that there were originally two nests, one of which was destroyed, it seems unlikely that nests would be located only 15 feet apart. Furthermore, only one female was observed and only a single male called in the 18-acre woods during the spring and summer of 1966.

I related this incident to several persons at the time and expressed an opinion that the eggs had been moved by some means. The coincidence between my observations and those of Audubon is remarkable, to the extent that his statement provides a logical explanation for my own observations. At any rate, this incident justifies keeping the subject of egg transport in Chuck-will's-widows open to investigation.—DENZEL E. FERGUSON, *Zoology Department, Mississippi State University, State College, Mississippi 39762, 9 January 1967.*

Nest site movements of a Poor-will.—On 2 August 1965 the nest of a Poor-will (*Phalaenoptilus nuttallii*) was found in Little Valley, Nevada at an altitude of 7,300 feet. Little Valley is 25 miles south of Reno in the Carson Range. The nest, which was in a slight depression in pine needles and which contained two eggs, was on an east-facing slope. The dominant tree of the area is Jeffrey pine (*Pinus jeffreyi*), and the most common shrub of the immediate nest area is manzanita (*Arctostaphylos patula*).

In the course of taking daily weights of the Poor-wills I found that the nest site was frequently shifted. On 7 August the parent bird flushed, exposing the young, 14 feet west of the original site. On 8 August the young were found 20 feet north of site number two. The nest site was in the same place on 9 August but on 10 August the nestlings were found 35 feet west of site number three. On 11 August they were found 17 feet south of site number four. Because of inclement weather the nest area was not checked on 12 and 13 August, but on 14 August the nest was found 7 feet west of site number five. The bad weather persisted through 15, 16, and 17 August, and on 18 August the young birds could not be found.

This study was carried out at the University of Nevada Field Station in Little Valley.—RAYMOND N. EVANS, *Biology Department, University of Nevada, Reno, Nevada, 31 October 1966.*

The amphirhinal condition in the Passeriformes.—The occurrence of the amphirhinal condition has largely been ignored by ornithologists. Many of the early avian anatomists mentioned it briefly, usually in reference to the suboscines. For example, Forbes (1881. *Proc. Zool. Soc. London*, 1881:435–438) stated that in *Conopophaga* the external nares are divided into an anterior and posterior opening by the ossification of the alinasal cartilages, but he placed little taxonomic importance on the character because of its seemingly spasmodic occurrence in other families. Von Ihering (1915. *Auk*, 32:150) proposed that the term amphirhinal be used to apply to the "style of skull structure in which instead of one large bony nostril we have two, a posterior and anterior one . . . ." He was referring to the condition of the nostril found in the members of the Formicariidae that he had examined. Since that time very little work has been directed towards documenting the occurrence of this character or determining its functional significance.

TABLE 1

OCCURRENCE OF THE AMPHIRHINAL CONDITION IN PASSERINE FAMILIES

Families	No. forms examined		No. amphirhinal	
	Genera	Species	Genera	Species
Dendrocolaptidae	10	23	2	2
Furnariidae	29	48	1	1?
Formicariidae	26	37	24	33
Conopophagidae	2	2	1	1
Cotingidae	14	24	8	11
Tyrannidae	73	129	21	30
Phytotomidae	1	2	1	2
Corvidae	17	39	2	2
Grallinidae	2	2	1	1
Timaliidae	7	11	1	1
Pycnonotidae	6	13	3	4
Chloropseidae	3	3	1	1
Vangidae	2	2	1	1
Laniidae	8	14	5	8
Prionopidae	2	2	2	2
Ploceidae				
Bubalornithinae	2	2	2	2
Passerinae	4	8	1	1
Ploceinae	3	17	1	7
Estrildinae	8	26	1	1
Thraupidae	27	69	1	1

While studying the Dendrocolaptidae and Furnariidae I was surprised to find the amphirhinal condition present in the woodhewer *Xiphorhynchus erythropygius*, but absent in the six other members of the genus that I examined, especially in view of the fact that the genus *Xiphorhynchus* (as delimited by Peters, 1951. "Check-list of birds of the world." Vol. VII. Cambridge, Harvard Univ. Press) is a rather uniform group with respect to other details of skull structure. In an attempt to learn the taxonomic distribution of this character I surveyed the passerine birds in the skeletal collection of the University of Michigan Museum of Zoology.

In Table 1 are listed the families that I examined that contain amphirhinal members. The sequence of families follows that proposed by Wetmore (1960. *Smithsonian Misc. Coll.*, 139). The following is a list of the families that I examined which contain no amphirhinal members. The first number in parentheses represents the number of genera examined, the second, the number of species.

Rhinocryptidae (2,2), Pipridae (6,14), Alaudidae (6,9), Hirundinidae (10,21), Dicruridae (1,4), Oriolidae (1,5), Ptilonorhynchidae (1,1), Paradisaeidae (1,1), Paridae (4,17), Sittidae (2,6), Certhiidae (2,3), Chamaeidae (1,1), Campephagidae (2,4), Cinclidae (1,2), Troglodytidae (9,31), Mimidae (10,20), Turdidae (16,58), Sylviidae (18,34), Muscicapidae (15,19), Prunellidae (1,1), Motacillidae (3,14), Bombycillidae (1,3), Ptilogonatidae (3,4), Dulidae (1,1), Artamidae (1,1), Cyclarhidae (1,1), Sturnidae (6,12), Meliphagidae (6,8), Nectariniidae (2,12), Dicaeidae (1,1),

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: