

Although the bird was free-flying, was not banded, and showed no extreme signs of feather wear, there is still the possibility that it could have been an escape. South American gulls are unusual in captivity, according to a number of zoo people whom I contacted; but Charles P. Chase, a Miami dealer, imported several Band-tailed Gulls in 1968. According to him none escaped from his compound and none was sold to collections in Florida.

Correspondence with the Weather Bureau produced no noteworthy weather pattern preceding the record. Wind patterns are, of course, not adverse to northward movement in the weeks preceding the sighting. A further possibility could be transport by ship. The bird was not found on two subsequent trips in summer and fall.—CLARK S. OLSON, *c/o O. H. Olson, 613 Colfax, Elmhurst, Illinois 60126*. Accepted 10 Dec. 74.

Absence of "individual distance" in three swallow species.—Until recently, swallows have been thought of as "distance" rather than "contact" species. That is, they maintain some critical "individual distance" by aggressive behavior or by retreating, rather than allowing physical contact. Hediger (1942, *Wildtiere in Gefangenschaft*, 1950. English ed., *Wild animals in captivity*, London, Butterworth) first suggested separating animals into "contact" and "distance" species. Emlen (1952, *Condor* 54: 177) reported that perching Cliff Swallows (*Petrochelidon pyrrhonota*) maintain an individual distance of at least 4 inches (10 cm). Similar situations of spacing have been reported by Conder (1949, *Ibis* 91: 649) for Barn Swallows (*Hirundo rustica*) and by Grubb (1973, *Auk* 90: 432) for Tree Swallows (*Iridoprocne bicolor*).

Grubb (*ibid.*) has recently shown that the concept of "individual distance" cannot always be applied to the Tree Swallow, as during adverse weather the birds sometimes huddle together. Cold weather clumping behavior in Tree Swallows has also been reported by Leck (1972, *Cassinia* 53: 45). It has been suggested by Leck (*ibid.*) and Grubb (*op. cit.*) that such behavior has survival value because the swallows thus conserve energy reserves. Our recent observations seem to indicate that such energy-conserving behavior applies not only intraspecifically but interspecifically as well.

After several warm days in May in southern Massachusetts, the weather suddenly became cold. On the morning (0715) of 28 May 1974, the temperature was a chill 42°F and the sky was overcast. We noticed a group of swallows perched in two rows, one above the other, on telephone wires. We estimated about 100 Bank Swallows (*Riparia riparia*), accompanied by 6 Barn Swallows, 6 Tree Swallows, and 1 Cliff Swallow.

Most of the Bank Swallows, but not all, were closely pressed to at least one conspecific. These huddled groups varied from 2, 3, or 4 birds to a large group of 40 individuals. Four of the Barn Swallows were at the ends of rows and maintained a distance of several inches between one another or from Bank Swallows, but two Barn Swallows were tightly pressed to Bank Swallows. Some of the Tree Swallows were also huddled to Bank Swallows. Two of these were in the big group of 40 Bank Swallows. A single Tree Swallow was noted pressed against a Bank Swallow farther down the wire. The only attempted aggression apparent during 30 min of observation occurred between these two birds. The Tree Swallow briefly pecked at the head of the Bank Swallow, but the latter refused to move and the two remained pressed together. The single Cliff Swallow maintained its distance from all other

birds. Several times when automobiles passed some of the birds flew briefly but then landed and immediately resumed huddling.

Such behavior was very likely occasioned by the unusually cold weather and its resulting food shortage. During periods of environmental stress it is more advantageous for the swallows to abandon their normal "individual distance" in favor of body contact and thereby conserve their energy reserves. It appears that swallows, in addition to utilizing intraspecific huddling, will also huddle interspecifically if the opportunity arises.—W. ROGER MESERVEY and GEORGE F. KRAUS, *Zoology Department, Rutgers University, New Brunswick, New Jersey 08903*. Accepted 17 Dec. 74.

Migrant Golden-winged Warbler with a bivalent repertoire.—In Ithaca, New York on 8 May 1974 I heard a migrating male Golden-winged Warbler (*Vermivora chrysoptera*) sing the primary songs of both Blue-winged (*V. pinus*) and Golden-winged Warblers. The bird was feeding in a patch of maples and oaks within 5 feet of the ground. It first started singing the typical "bee-buzz" song of the Blue-winged Warbler. This would be song type IA (Lanyon and Gill 1964, Gill and Murray 1972). This song was not only in the form of Blue-wing type IA song but had the typical raspiness and timbre. The bird continued singing in this way for about 8 min. It then stopped abruptly and began singing the four-part song that is typical of the Golden-winged Warbler. Renditions of this song "zee-beee-beee-bee" were sung more rapidly than the Blue-wing song. Each "zee" was slightly higher in frequency than the succeeding "beee's." The Golden-wing song continued for about 1 min whereupon the Blue-wing song was resumed.

I am certain that this Golden-winged Warbler sang the type I songs of both the Blue-winged and Golden-winged Warblers, and that it did not sing either the type II or the AAA songs described by Gill and Murray (1972). This Golden-winged Warbler was seen actually singing every rendition of both songs. No other *Vermivora* was seen during the entire period of singing. The Golden-winged Warbler, carefully studied at 25 feet through 7 × 35 binoculars, was in bright spring plumage. No trace of yellow was apparent on the breast or belly below the black throat patch. I could detect no trace of green on the completely gray back. The wingbars were bright yellow and formed a patch. No signs of introgression were thus apparent.

There are only a few reports of warblers in the Blue-wing/Golden-wing complex with bivalent repertoires (Bilderssee 1904, Carter 1944, Short 1963). Males of these species usually have only one pattern of song type I in their repertoire (Gill and Lanyon 1964, Gill and Murray 1972). Gill and Murray (1972) conclude that a bivalent repertoire in the Blue-wing/Golden-wing complex must be "a rare phenomenon indeed" and stress the possibility of errors in such observations.

This observation confirms that occasional individuals do have an expanded repertoire. The singing behavior and territorial interactions of such individuals on the breeding grounds would be of interest.

I am grateful to B. Murray and especially to F. Gill for reading preliminary drafts of this paper and providing instructive comments.

LITERATURE CITED

- BILDERSEE, I. 1904. Notes on the nesting of the Lawrence's Warbler. *Bird-Lore* 6: 131-132.