

## GENERAL NOTES

**Aerial transfer of *Circus cyaneus*.**—"Food passing by nesting Marsh Hawks", *Bird-Banding* 41(1) 1970: 41 is an account of the typical aerial transfer of this species, both as described in the literature and from my own observations of more than 100 nesting pairs. Food passing is thus the usual situation. It is interesting to note, however, that since 1963 males on my study area have tended to drop the food from lesser heights and I have seen more talon-to-talon transfers. I attribute this change to high pesticide residues (Hamerstrom 1965. A harrier population study. *In* Peregrine Falcon Populations, Their Biology and Decline. University of Wisconsin Press).—Frances Hamerstrom, Rt. 1, Plainfield, Wisconsin 54966.

**Introduction of Foreign Eggs into Nests of Starlings and House Sparrows.**—At the Patuxent Wildlife Research Center, Laurel, Maryland, during 1964, I made attempts to press into service three Starlings (*Sturnus vulgaris*) and a House Sparrow (*Passer domesticus*) for rearing young birds of more desirable species. Eggs of a Mockingbird (*Mimus polyglottus*) and two Robins (*Turdus migratorius*) were introduced into active Starling nests, and eggs of a Phoebe (*Sayornis phoebe*) were introduced into a House Sparrow nest.

In a nest with seven recently laid Starling eggs, 4 eggs were, on 4 May, replaced with Mockingbird eggs which had been incubated about five days. Yet on 14 May the four Mockingbird eggs were in the nest with the three Starling eggs, but the Mockingbird eggs were settled into the nesting material as though they had remained long in the same positions; whereas the Starling eggs were not similarly settled into the nesting material. On 21 May, two Starlings several days old were in the nest, and the remaining Starling egg and the four Mockingbird eggs were gone from the nest. No eggs could be found on the ground outside the nest.

Three Robin eggs were used on 27 April to replace a clutch of five Starling eggs, and the Robin eggs were all on the ground in front of the nesting box at the next visit on 29 April. There was already another clutch of four Starling eggs in the nesting box on 8 May. At another Starling nest three slightly incubated Robin eggs were used on 5 May to replace a clutch of four Starling eggs. On 14 May there were two Robin eggs in this nest, and the third Robin egg was gone from the nest. The two nestling Robins were attended by the Starlings only until they were about one week old, and then the Robins died.

On 25 April, five House Sparrow eggs, incubated 5-6 days, were replaced with five Phoebe eggs at an unknown stage of incubation. The House Sparrow incubated the Phoebe eggs only about two days before deserting the nest.

Each of the four attempts to get Starlings or House Sparrows to hatch the eggs and rear the young of another species was unsuccessful: one Starling incubated but seemingly failed to turn the Mockingbird eggs; a second Starling threw the eggs from its nest onto the ground below soon after introduction; a third Starling hatched and reared two Robins until they were about one week old; a House Sparrow abandoned its nest about two days after Phoebe eggs were introduced into the nest.—Paul A. Stewart, Entomology Research Division, Agricultural Research Service, USDA, Oxford, North Carolina 27565.

**Band Wear on Ruddy Turnstones.**—The recent note by Jehl (*Bird-Banding* 40: 47) has prompted me to write about our use of aluminum bands on the Ruddy Turnstone (*Arenaria interpres*). In 1964 we began banding turnstones in Alaska with standard United States Fish and Wildlife Service aluminum bands. In 1965 and 1966 when many of these birds were recaptured, the bands were wearing badly but at that time we had no substitute. In 1967 we sought the advice of Mr. G. C. Lambourne, of Lambournes (B'ham) Ltd., Birmingham 19, England and suggested to him that Monel metal bands might be of value. He replied that "Monel metal is a great improvement in some situations. We have had a few cases of crevice attack due to electrolytic action and occurring mainly in estuarine waters. Another disadvantage with some species is a darkening of the band; some going almost black." Mr. Lambourne suggested that we use Incoloy, a nickel alloy, which the British Trust for Ornithology had adopted for some species, particularly waders. Mr. Lambourne stated that due to their hardness,

Incoloy bands could be difficult to close but that he had developed a special technique that gave a close butted joint.

We first applied Incoloy bands in 1967. Returns in 1968 banded with these bands showed no evidence of wear; we therefore rebanded all returns from previous banding seasons with Incoloy and used it for all new bandings that year.

Extreme wear in the turnstone bands can be attributed to the turnstones' behavior. They have been observed in the Central Pacific and in Alaska squatting on their tarsi to get more leverage to flip over a rock. In doing so, they rub the band across the ground and the abrasion takes off the aluminum.

The elimination of salt water as a cause of band wear seems justified for other reasons in addition to those mentioned by Jehl. Aluminum bands used on Sooty Terns banded on Howland Island in 1938 and recaptured in 1965 were almost like new. Returns with legible aluminum bands of Redfooted Boobies banded 13-15 years previously also provide evidence that aluminum bands on seabirds are little affected by salt water. However, Monel bands placed on Redfooted Boobies showed crevices after only one year of wear. The turnstones we banded in Alaska winter on Pacific islands mainly along the shore and band wear was not due to saltwater corrosion but to mechanical wear.

Mr. Ed Martinez has banded several thousand shorebirds in Kansas and is finding his aluminum bands illegible after one year (personal comm.).

I disagree with Jehl's statement that persons studying the Stilt Sandpiper or any other shorebird should use anodized bands. Anodizing wears off rapidly and the bands would then corrode. The above evidence and that provided by Jehl shows that the use of standard aluminum bands on shorebirds is pointless and should be discontinued in favor of Incoloy or some other alloy equally as good.

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#### Observation of "billing" in courtship behavior of Tree Swallow.—

Since 1966, I have been engaged in a breeding biology study of the Tree Swallow (*Iridoprocne bicolor*) colony in the John F. Kennedy Memorial Wildlife Refuge, near Jones Beach, Long Island, New York. In previous years, an average of 35 nest boxes were in use per year, but this year, *circa* 55 new boxes have been added.

On four occasions, April 13, 15 and 27, 1969 and on April 16, 1970, I observed behavior just prior to attempts to copulate which is similar to "billing" in the case of the Hawfinch, *Coccothraustes coccothraustes* (Hinde, 1955, A comparative study of behavior of certain finches. *Ibis* 97: 706-745, and Marshall, 1961, Biology and Comparative Physiology of Birds, Book II, Chapter 23 (R. A. Hinde: Behavior) pp. 400-401.

On the four occasions mentioned, the adult birds were observed to face each other, on a perch or atop the nest box, assuming a very erect stance. Loudly chattering, they moved their heads up and down, bills opening and closing rapidly. As the male's bill would be up, the female's would be down. Their bills did not quite touch. This behavioral pattern lasted from 2 minutes (April 27th, 1969—interrupted by human disturbance in the nesting area) to 13 minutes, twice or thrice interrupted by frantic preening of both birds.

Observations were made in each case from *circa* 250 feet, or in a blind, with a 20x telescope. The last date this behavior was observed the birds flew off, out of the line of sight, but in all of the 1969 observations, attempts to copulate almost immediately followed this billing behavior. Also interesting was the fact that in the April 15, 1969 observation, copulation took place on top of a box which was occupied by another pair of Tree Swallows.—Frederick S. Schaeffer, P. O. Box 3295, Grand Central Station, N. Y., N. Y. 10017.

**A Nylon Belt for Holding Birds.**—I constructed and tested a belt for holding Wood Ducks (*Aix sponsa*) during weighing. The device was made of plastic-coated nylon fabric (VN 13159 Armor-tite, Cooley Inc., Pawtucket, Rhode Island) and Velcro (available locally in fabric stores), a fastening material now used in the clothing industry as a substitute for buttons and zippers.