

———, R. B. PAYNE, AND S. M. DOEHLERT. 1986. Effects of muscle biopsy on survival and breeding success in Indigo Buntings. *Condor* 88:220–227.

PETER C. FREDERICK. *Department of Biology, University of North Carolina, Chapel Hill, North Carolina 27514.* (Present address: *Department of Wildlife, 118 Newins-Ziegler Hall, University of Florida, Gainesville, Florida 32611.*) Received 27 Sept. 1985; accepted 9 Dec. 1985.

**Loss of Nasal Saddle on Mallard.**—Nasal discs and, later, nasal saddles have been widely used to mark ducks for long-term individual identification without having the bird in hand (Bartonek and Dane 1964, Doty and Greenwood 1974, Greenwood 1977, Lindmeir and Johnson 1958, Sugden and Poston 1968). These workers apparently assumed that nasal markers did not materially change the behavior or increase the mortality of marked ducks. However, Greenwood and Bair (1974) reported problems with icing on Mallards (*Anas platyrhynchos*) with nasal saddles and Koob (1981) found that nasal saddles changed the behavior of male Ruddy Ducks (*Oxyura jamaicensis*) during the breeding season.

Erskine (cited by Bartonek and Dane 1964) stated that nasal discs increased the mortality of mergansers (*Mergus sp.*) and cautioned against their use on diving ducks. He assumed that the plastic discs caused mortality by entangling the ducks in under-water vegetation. Bartonek and Dane (1964) reported ducks losing their nasal discs by becoming entangled in fences and traps and tearing the disc and monofilament pin out through the dorsal surface of the bill between the nares. In the 2 or 3 cases where this was known to occur, the break between the nares had healed completely. These observations and concerns led to the development of the nasal saddle in an effort to reduce entanglement.

On my study area, a pair of Mallards were captured in a decoy trap on 17 April 1984 on the Bierbrauer Waterfowl Production Area in St. Croix County, Wisconsin. The birds were leg banded (female: 1337-75510, male: 1197-96283) and marked with color-coded nasal saddles similar to those described by Greenwood. The pair was observed together on 5 occasions in April on the same wetland where trapped.

On 29 April the female was found hanging by her nasal saddle from the 5 cm mesh netting on the top of a swim-in bait trap (Hunt and Dahlka 1953) in the same wetland. She appeared to be in good condition and was released. On 9 May, I flushed the female—identified by her nasal saddle—from the shoreline near the bait trap site.

On 15 May, I observed an unmarked female Mallard with saddled male Mallard 1197-96283 near the bait trap site. Through a 20× spotting scope, it appeared that her upper bill was torn at the nares. On 17 May, I recaptured female Mallard 1337-75510 in the bait trap. Her urethane saddle and nylon pin had torn out between the nares through the dorsal surface of the bill.

This is the first known incident of a nasal saddle being torn through a duck's bill in more than 800 ducks saddled in my study from 1982 to 1984. However, 2 Blue-winged Teal (*Anas discors*) were found hanging from their nasal saddles in the top netting of a bait trap in 1983. Both ducks were examined and released with nasal saddles intact. Blue-winged Teal entanglement in similar traps in southern Wisconsin has occurred with at least 1 mortality recorded (W. E. Wheeler, pers. comm.). Smaller-mesh netting for the trap top might reduce or eliminate this problem. Waterfowl researchers should be aware of the potential for entanglement and loss of nasal saddles.

Partial funding for my study was supplied by the Federal Aid to Wildlife Restoration Act under Pittman-Robertson Project W-141-R. I thank R. A. Hunt for critical review of the manuscript.

#### LITERATURE CITED

- BARTONEK, J. C., AND C. W. DANE. 1964. Numbered nasal discs for waterfowl. *J. Wildl. Manage.* 28:688–692.
- DOTY, H. A., AND R. J. GREENWOOD. 1974. Improved nasal-saddled marker for mallards. *J. Wildl. Manage.* 38:938–939.

- GREENWOOD, R. J. 1977. Evaluation of nasal marker for ducks. *J. Wildl. Manage.* 41: 582-585.
- , AND W. C. BAIR. 1974. Ice on waterfowl markers. *Wildl. Soc. Bull.* 2:130-134.
- HUNT, G. S., AND K. J. DAHLKA. 1953. Live trapping of diving ducks. *J. Wildl. Manage.* 17:92-95.
- KOOB, M. D. 1981. Detrimental effects of nasal saddles on male Ruddy Ducks. *J. Field Ornithol.* 52:140-143.
- LINDMEIR, J. P., AND L. L. JOHNSON. 1958. Marking ducks for research. *Flicker* 30:98-99.
- SUGDEN, L. G., AND H. J. POSTON. 1968. A nasal saddle for ducks. *J. Wildl. Manage.* 32:984-986.
- JAMES O. EVRARD, *Wisconsin Department of Natural Resources, Box 61, Baldwin, Wisconsin 54002.* Received 7 Feb. 1985; accepted 22 Dec. 1985.

**First Record of Purple Martin (*Progne subis*) in Mato Grosso State, Brazil.**—The Purple Martin (*Progne subis*) breeds from southern Canada south to Florida and Baja California (USA); winters in Colombia, Venezuela, Guiana, Surinam, northern Bolivia, and Brazil; and migrates through Central America (Meyer de Schauensee, R. A. Guide to Birds of South America, 329, 1982).

It has been reported from Brazil by Pinto (Catálogo de Aves do Brasil 2<sup>a</sup> parte—Museu de Zoologia, USP, 307-308, 1944) and Vizotto et al. (Resumos XI Congresso Brasileiro de Zoologia, 355-356, Sociedade Brasileira de Zoologia, São Paulo, 1984) from the localities shown in Figure 1. During banding operations at Pocone, Mato Grosso (Fig. 1), we located a roosting flock of almost 1500 martins on 17 December 1983. Most of them were Purple Martins. This represents the first record of the Purple Martin from west-central Brazil. Small numbers of Gray-breasted (*P. chalybea*) and Brown-chested (*Phaeo-progne tapera*) martins were also present.

The martin flock was roosting in the facilities for livestock exposition at Poconé which are located about 15 km southeast of the city on the bank of the Bento Gomes River (16°30'S, 56°30'W). The surrounding gallery forest has been cut and 14 houses and stables built within about 5 ha. Vegetation includes trees from an old orchard. The exposition facilities are used only 3-4 weeks per year and at other times only a guard lives there.

The houses had large accumulations of feathers and droppings. However, the guard had successfully chased the martins out of the houses with a mixture of firecrackers and an unspecified organochlorine pesticide. Between 17 and 20 December, when we were banding birds, the martins used a large tree (30 m) and utility wires as diurnal roosts. The Purple Martins used an unknown night roost to the west of the area, but some of the other two species still roosted at night on the houses and stables.

We mist-netted 47 Purple Martins, 2 Gray-breasted Martins, and 23 Brown-chested Martins. Each was banded with CEMAVE bands, sexed, aged, and examined for molt of the body and flight feathers. All Purple Martins were molting. Forty-two were in full molt, 1 had only rectrix and remex molt, 3 had body and remex molt, and 1 had body and rectrix molt. Three second year males were identified based on their almost completed body molt. Less than 1% of the Purple Martin flock appeared to be mature males. Based on molt status and the apparent number of mature males, we believe that most of Purple Martins were hatching year birds.

The Gray-breasted Martins included 1 hatching year and 1 adult, neither of which were molting. The Brown-chested Martins included 2 hatching year and 21 adult birds, none of which was molting and only one of which had a brood patch.

The presence of molt in all of the captured Purple Martins agrees with the data presented by Niles (Condor 74:61-67, 1972). Niles concluded that young Purple Martins migrate with juvenal feathers and molt after their arrival on the wintering grounds, although adults molt some remiges prior to migration. In January, we caught 1 bird in the same area in full molt.