A Record of Intraspecific Injury in the Purple Martin,—Although aggression in Purple Martins (Progne subis) consists largely of threats (Johnston and Hardy, 1962), my martin studies indicate that intraspecific fighting among martins is moderately frequent when the birds are establishing territories. The fights often appear severe and last for several minutes, but usually little damage to the martins occurs except for loss of a few down feathers. Allen and Nice (1952: 618) state, "The birds do not seem to get much hurt in the fighting.

On 1 March 1976 at about 0715 while watching my martin colony in Sherman, Grayson County, Texas, I observed a newly-arrived adult male martin attempt to appropriate a nesting room on a tier of three rooms of one of the martin houses. These three rooms were claimed by an established adult male that was paired to

an adult female.

This male that owned the rooms was a very dominant individual, and had been one of the first martins to arrive at the colony in 1976. At first the owner entered one of the rooms and sat in the entrance while the newcomer perched on the porch. Males advertise ownership by rapidly entering rooms with resulting retreat by most newcomers. But this new male was aggressive and entered a room. The owner shoved the newcomer out of the room on several occasions, but the new male continued to return. They soon began fighting on the porch of the house. The owner sat on the newcomer's breast and pecked his head as the newcomer lay on his back. Once the newcomer managed to knock the owner over, and the newcomer sat on the owner and pecked him.

After a short time the two fighting martins fell off of the house and continued to fight on the ground. They ignored all else, and I approached within about 2 m of them. They fought for about three minutes on the ground, after which the owner returned to the martin house. The newcomer lay on the ground, apparently exhausted. He soon attempted to fly away, but his right wing was injured. He partly flew and partly ran across the lawn into some bushes. Later I searched for him but did not find him. I do not know whether he recovered or

This incident illustrates that Purple Martins are capable of inflicting significant injury during intense intraspecific fighting. Intense intraspecific fighting has been noted for certain species, e.g. Lack (1956) in the Common Swift (Apus apus), Kessel (1957) in the Starling (Sturnus vulgaris), Van Tyne in Lunk (1962) in the Rough-winged Swallow (Stelgidopteryx ruficollis), and Palmer (1962) in the Brandt's Cormorant (Phalacrocorax penicillatus). But there are apparently few records of actual injury during intraspecific avian fighting (see Lack, 1956: 30). Postures and song reduce intraspecific fighting in many species (e.g. Mock (1976) in the Great Blue Heron (Ardea herodias), Pulich (1976) in the Goldencheeked Warbler (Dendroica chrysoparia), and many other authors). Threat display is likely important for Purple Martins in minimizing fights such as the one reported here.

LITERATURE CITED

Purple Martin (*Progne subis*). Amer. Midl. Nat., 47:606-665.

Johnston, R. F., and J. W. Hardy. 1962. Behavior of the Purple Martin. Wilson Bull., 74:243-262.

Kesset, B. 1957. A study of the breeding biology of the European Starling (Sturnus vulgaris L.) in North America. Amer. Midl. Nat., 58:257-331.

LACK, D. 1956. Swifts in a Tower. London, Methuen and Co, Ltd.
LUNK, W. A. 1962. The Rough-winged Swallow Stelgidopteryx ruficollis (Vieillot),
a study based on its breeding biology in Michigan. Publ. Nuttall Ornithol. Club, No. 4: 153 p.

Mock, D. W. 1976. Pair-formation displays of the Great Blue Heron. Wilson

Bull., 88:185-230.

Palmer, R. S., ed. 1962. Handbook of North American Birds. Vol. 1. New Haven and London, Yale Univ. Press.
Pulich, W. M. 1976. The Golden-cheeked Warbler, a bioecological study. Texas

Parks and Wildlife Dept., Bull. 52: 172 p.

Charles R. Brown, Box 1309, Austin College, Sherman, Texas 75090. Received 2 March 1977, accepted 8 April 1977.