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A POSSIBLE CASE OF ADULT INTRASPECIFIC KILLING IN THE TREE SWALLOW[1]

MICHAEL P. LOMBARDO
Department of Biological Sciences, Rutgers University, Piscataway, New Jersey 08854 USA

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Despite considerable interest in its occurrence or potential occurrence (e.g., Lorenz 1963), both direct and circumstantial evidence of intraspecific killing in adult passerines is rare (see Davis 1940, Cottrille 1950, Grubbs 1977, Loflin 1982). The purpose of this note is to add to this meager data base by presenting evidence of intraspecific killing in adult Tree Swallows (*Tachycineta bicolor*).

My study site is a nest box colony on the salt marshes of the John F. Kennedy Memorial Wildlife Refuge located adjacent to Tobay Beach on the south shore of Long Island, New York (see Schaeffer 1972 for a description of the study site). On 10 May 1983 I discovered two birds, a male and a female in brown second-year plumage (see Dwight 1900, Cohen 1980, Hussell 1983) inside Box 134 during a routine census. The male was on top of the female. I banded both birds with U.S. Fish & Wildlife Service aluminum bands. The box did not contain nesting material. I returned to Box 134 on 14 May 1983 and found the female dead on the floor of the box, flat on her stomach with her wings spread out to her sides. Her head was tilted up and back; her forehead was defeathered and covered with dried blood and puncture wounds.

For several reasons, I believe that another Tree Swallow caused these wounds. First, no other species used the nest boxes at my study site. Therefore, Tree Swallows competed only among themselves for these sites, so it is unlikely that an interspecific nest site competitor was responsible for the female's death. Second, Kuerzi (1941) presented evidence of intraspecific killing in Tree Swallows and reported two fights between a male and a female in brown plumage. During one fight the brown female had the male pinned on the ground, and she pecked at the back of his head until he escaped when Kuerzi approached for a better view. Kuerzi (1941) also reported that a Tree Swallow killed a female Eastern Bluebird (*Sialia sialis*). This evidence indicates that Tree Swallows are capable of inflicting mortal wounds on one another. Third, infanticide is known in this species (Shelley 1934). Quinney (1983) attributed the greater disappearance rate of eggs and very young nestlings at polygynous nests relative to monogamous nests to the action of females attempting to prevent other females from using the same nest box in polygynous pairs. In 1981 I found a dead one-day-old nestling with a puncture wound behind one eye, a type of wound common in victims of avian infanticide (see Mock 1984; Crook and Shields, 1985). Last, in an experiment to determine the responses of breeders to conspecific intruders at the nest (Lombardo, in prep.), breeders landed on the back of a stuffed model Tree Swallow intruder and pecked violently at the head. This kind of pecking could have resulted in wounds like those found on the dead female and could have been fatal. Kuerzi (1941) suggested that competition for nest cavities was responsible for potentially high levels of aggression in this species.

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