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NEST USURPATION OF A STARLING NEST BY A PAIR OF RED-BELLIED WOODPECKERS

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Competition for nest cavities between Red-bellied Woodpeckers (*Melanerpes carolinus*) and European Starlings (*Sturnus vulgaris*) has been well documented. After conducting studies from 1984 until 1987 Ingold (1990) concluded that "starlings are intense competitors with Red-bellied Woodpeckers for freshly excavated cavities, partly because their nesting phenologies overlap considerably." After thirty years of observations, Sutton (1984) stated that the Red-bellied Woodpeckers may be in danger of local extirpation in Oklahoma "as a direct result of the Starlings (sic) unremitting piracy." Additionally, Ingold (1989) found that "52% of red-bellied nest cavities were usurped by starlings and that those pairs unable to avoid starling competition suffered apparent reductions in fecundity."

Here we report an observation of interspecific nest usurpation by a pair of Red-bellied Woodpeckers on 29 April 1990 near the eastern shore of Lake Harney in Volusia County, Florida. A male, followed by a female, Red-bellied Woodpecker was observed entering a cavity in a cabbage palm (*Sabal palmetto*) tree. Five minutes earlier a pair of starlings had entered and subsequently left the same cavity. The female red-bellied left the cavity but remained perched on the tree. The male emerged from the cavity with a naked starling nestling in its beak. It struck the nestling's skull against the tree trunk and then dropped it to the ground. It immediately reentered the cavity and flew out with another nestling to a nearby taller cabbage palm. As before, it struck the nestling's head against the tree trunk and dropped it to the ground. The male then entered the cavity a third time and repeated the same procedure. The entire incident took less than five minutes, after which both woodpeckers reentered the nest hole. After a few minutes the female exited the cavity while the male remained inside and began excavating. The adult starlings were not seen during the episode. We looked under the tree and found the starling nestlings, two dead and one barely alive.

It is likely that the nest cavity in quesiton was originally excavated by the red-bellied pair. The starlings had probably occupied the cavity for at least a few weeks (i.e., nestlings present) prior to the nest usurpation by the woodpeckers. We are unable to ascertain if the usurped cavity was originally occupied by the red-bellieds, or, whether this particular red-bellied pair simply decided to usurp the cavity from the starlings.

We could not find any published reports of nest usurpations by Red-bellied Woodpeckers. Ingold (1989, 1990) found no evidence that Red-bellied Woodpeckers actively usurp

nest cavities occupied by starlings. Red-bellieds often tenaciously defend their nest cavities from intruding starlings, but once starlings have successfully usurped a cavity, victimized red-bellieds usually make no subsequent attempt to retake the cavity while the starlings are nesting in it (D. J. Ingold, pers. comm.). Thus, nest usurpation by Red-bellied Woodpeckers appears to be an uncharacteristic behavioral response to starling nest-site competition.

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FISH CROWS CHASE TREE SWALLOWS

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On 12 April 1989 at 1331 EST while censusing raptors approximately 3 km east of Okeechobee center, Glades County, Florida, I observed a group of approximately 50 Fish Crows (*Corvus ossifragus*) foraging in a palm hammock and the surrounding improved pasture. A widely scattered flock of Tree Swallows (*Tachycienta bicolor*) also was foraging in the area. A Fish Crow was circling at approximately 150 m elevation, apparently in a thermal. I stopped my vehicle to observe the crow continue soaring higher. The circling crow began to chase a nearby swallow and both birds moved quickly upward in small circles, one of which I estimated to be 3 m in diameter. The crow was remarkably agile, turning abruptly, and approaching to within 0.3 m of the swallow. The swallow responded by flying in a more erratic manner, making acute turns in its flight as the crow approached closely. This interaction continued for an estimated 20 s, but the crow did not succeed in catching the swallow.