LITERATURE CITED

BRADY, J. R., AND H. W. CAMPELL. 1983. Distribution of coyotes in Florida. Fla. Field Nat. 11: 40-41.

GIPSON, P. S. 1978. Coyotes and related canids in the southeastern United States with a comment on Mexican and Central American *Canis*. Pages 191-208 *in* Coyotes: biology, behavior, and management (M. Bekoff, ed.). New York: Academic Press, Inc.

HILL, E. P., P. W. SUMMNER, AND J. B. WOODING. 1987. Human influences on range expansion of coyotes in the southeast. Wildl. Soc. Bull. 15: 521-524.

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A Case of Competition Between European Starlings and West Indian Woodpeckers on Abaco, Bahamas

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Competition between European Starlings (*Sturnus vulgaris*) and other cavity-nesting species has been well documented in North America (e.g. Wood 1924, Shelley 1935, Howell 1943, Polder 1963, Zeleny 1969, Ingold 1989). Cruz (1977) reports competition between starlings and Jamaican Woodpeckers (*Melanerpes radiolatus*), but I have found no published accounts of starlings competing with woodpeckers in the Bahamas. Bond (1985) lists the starling as wintering in the Bahamas (14 October-18 March).

I here report competition between the West Indian Woodpecker (*M. superciliaris*) and European Starling on Abaco, Bahamas. This also documents European Starlings breeding on the island. I observed nesting West Indian Woodpeckers from 10 May to 4 August 1988, and 13 May to 25 June 1989. No starlings were observed during the 1988 field season.

On 14 May 1989, at Bahama Palm Shores, Abaco, I first observed a European Starling while watching a male West Indian Woodpecker pull nest material out of a cavity within the eaves of a house. This cavity was successfully used as a nest by woodpeckers in 1988 when no starlings were observed. The starling approached the cavity and chased the woodpecker away. There was no physical contact, the woodpecker was simply displaced. The starling then joined another starling, presumably its mate, in a nearby tree.

On 31 May the starlings had established a nest and were incubating in the woodpecker cavity. There also was a pair of woodpeckers in the area. The banded female woodpecker drummed on the house above the cavity and gave territorial cells while a starling was in the cavity. The male woodpecker was nearby. When the starling came out of the cavity, the starling pair chased away the woodpecker pair. The starling pair then returned and one went into the cavity. On 1 June the male woodpecker was in the area but no interaction was observed. The starlings were still incubating.

The woodpecker nest site within the house was unusual and may reflect a general scarcity of large dead trees suitable for nest sites. However, such a site is typical for the more anthropophilic starling (e.g. Kessel 1957, Zeleny 1969). In June 1989 I also found several starlings at Casuarina Point, another small community on Abaco, approximately 9 km from Bahama Palm Shores. My studies of West Indian Woodpeckers on Abaco suggest that the limited availability of suitable nest sites in the forest is forcing the West Indian

Woodpecker to populated areas where coconut palms (*Cocos nucifera*) have been introduced and thus available as nest sites. Should the starling population increase sufficiently, it may pose a threat to the West Indian Woodpecker as well as to other cavity-nesting birds on the island (e.g. Stolid Flycatcher (*Myiarchus stolidus*), and Bahama Swallow (*Callichelidon cyaneoviridis*)).

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Literature Cited

Bond, J. 1985. Birds of the West Indies. Fourth Edition. Boston, Massachusetts: Houghton Mifflin, Co.

Cruz, A. 1977. Ecology and behavior of the Jamaican Woodpecker. Bull. Florida State Mus., Biol. Sci. 22: 149-204.

Howell, A. B. 1943. Starlings and woodpeckers. Auk 60: 90-91.

Ingold, D. J. 1989. Nesting phenology and competition for nest sites among Red-headed and Red-bellied Woodpeckers and European Starlings. Auk 106: 209-217.

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

Polder, E. 1963. Starling and woodpecker interactions. Iowa Bird Life 33: 42-43.

Shelley, L. O. 1935. Flickers attacked by starlings. Auk 52: 93.

Wood, C. A. 1924. The starling family at home and abroad. Condor 26: 123-127.

Zeleny, L. 1969. Starlings versus native cavity-nesting birds. Atlantic Nat. 24: 158-161.