

## BREEDING BIRDS OF BEAR SWAMP, NEW JERSEY

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Bear Swamp consists of about 5,000 acres in Southampton Township, Burlington County, New Jersey. The habitat consists of mixed pine-oak forest, cedar swamp, used and unused cranberry bogs, and a power-line clearing four miles long through the center. Such a habitat is typical of the New Jersey pinelands. Most of the land is under water or just above water (0-5 feet water table). The swamp is bounded by New Jersey Route 70, Tabernacle Road, Route 206, and Skeet Road. The land is privately owned but entry is permitted in most sections. Only one road (mostly dirt surface) goes through the swamp. That road is Hawkins Road.

This paper reports the breeding birds found in the swamp in the years 1974-79. Parameters confirming breeding are a nest find, an adult bird carrying nesting material, or the sighting of juvenile birds during the breeding season.

The highlight of the study was the confirmed nesting of ten warbler species. It is interesting to note that some species, such as the Golden-winged Warbler, Kentucky Warbler, and the Yellow-breasted Chat nested only one year out of six. Common species such as House Finch and Song Sparrow were not present. Hooded Warblers were very common.

Following is an annotated list containing details of each breeding occurrence or the possibility of such an occurrence.

### ANNOTATED LIST

- GREAT BLUE HERON—Breeding status is uncertain. A pair of these birds has summered in Bear Swamp every year since 1975. No nest has been found.
- GREEN HERON—A common breeder in the swamp. Numbers remain steady, about 15 pair.
- MALLARD—A fairly common breeder and summer resident. Some nests have been located.
- BLACK DUCK—A fairly common breeder; a few nests have been found. One nest in 1978 contained 13 eggs.
- WOOD DUCK—Summer resident and uncommon breeder. Only four breeding locations have been found.
- TURKEY VULTURE—A common summer resident. At least ten pair are known to nest (J. Jacobs).
- SHARP-SHINNED HAWK—A rare breeder. A pair was seen in the summer of 1978. No nest was found.
- RED-TAILED HAWK—One pair has nested on the outer boundary of the swamp for five years.
- BROAD-WINGED HAWK—An uncommon breeder, no nest has ever been found. Two pairs were sighted in the summer of 1978 and one pair was sighted in all other years.
- RUFFED GROUSE—A regular breeder; it can be found throughout the area.
- BOBWHITE—Breeds sporadically in the swamp, but is not considered common.
- WOODCOCK—An uncommon breeder in the swamp. A nest with two eggs was found on the ground in second growth. A high count of 12 have been seen in aerial display along the power lines.
- MOURNING DOVE—A common breeder and summer resident.
- YELLOW-BILLED CUCKOO—A common breeder throughout the swamp.
- BLACK-BILLED CUCKOO—A suspected breeder but no confirmation.
- SCREECH OWL—Uncommon permanent resident and breeder.
- GREAT HORNED OWL—Two pair have always bred in the swamp. They are prevalent along Hawkins Rd.
- CHUCK-WILLS-WIDOW—This breeder has been seen and heard in the summers of 1976, 1977, and 1978. They were heard calling in late June, but no nest could be found.
- WHIP-POOR-WILL—Common breeder and resident. A nest with two eggs was found in 1977.

COMMON Nighthawk—Does not breed to my knowledge. Birds sighted in summer are probably from a small breeding colony in Atsion.

CHIMNEY SWIFT—A common breeder in area, but no localities are known in the swamp.

RUBY-THROATED HUMMINGBIRD—An uncommon breeder but the population seems to be increasing. At least ten pair are known and several nests have been found.

BELTED KINGFISHER—Formerly bred. The last nesting location and sighting were in 1975.

RED-BELLIED WOODPECKER—An uncommon breeder and permanent resident. Two pair breed in the swamp.

RED-HEADED WOODPECKER—I have no breeding records but they are occasionally seen in summer and late spring. Status unknown.

HAIRY WOODPECKER—Uncommon permanent resident and breeder. Nests have been found.

DOWNY WOODPECKER—Common permanent resident and breeder.

EASTERN KINGBIRD—A common breeder throughout the area.

GREAT CRESTED FLYCATCHER—A common breeder in the swamp. It sometimes will nest in boxes provided for Bluebirds (fide A. Sexauer).

EASTERN PHOEBE—Uncommon breeder and summer resident. It nested in 1975, 1976 and 1979.

EASTERN WOOD PEWEE—An uncommon to common breeder. Sometimes only two pairs can be found (76), other times up to 20 (78).

TREE SWALLOW—Common breeder and summer resident. Two small colonies exist along Hawkins Rd. They will not nest in Bluebird boxes, reason unknown.

BARN SWALLOW—A few breed around old buildings near the swamp.

BLUE JAY—Abundant permanent resident.

COMMON CROW—Common permanent resident and breeder.

FISH CROW—A couple pair breed every year. They would have to be considered an uncommon breeder.

CAROLINA CHICKADEE—Very common breeder and permanent resident. Nests have been found on two occasions in childrens' swing sets.

TUFTED TITMOUSE—Very common breeder and permanent resident. This bird takes to nesting boxes well.

WHITE-BREASTED NUTHATCH—A common breeder. Several have nested in boxes.

HOUSE WREN—Very common breeder and permanent resident.

CAROLINA WREN—Formerly very common, but no longer breeds, to my knowledge. Breeding pairs stood at 30 in 1975, 25 in 1976, 3 in 1977, 1 in 1978 and none in 1979. Future status remains dim.

MOCKINGBIRD—Uncommon breeder and permanent resident.

CATBIRD—Very common breeder and summer resident throughout area.

BROWN THRASHER—A common breeder in area. Nests have been found.

ROBIN—Very common breeder and permanent resident.

WOOD THRUSH—Common breeder and summer resident. I have yet to find a nest.

EASTERN BLUEBIRD—Spotic breeder in area. I have found them nesting in boxes and holes in dead snags. I find a few nests each year.

BLUE-GRAY GNATCATCHER—Scarce breeder and summer resident.

STARLING—Uncommon breeder and permanent resident.

WHITE-EYED VIREO—Uncommon breeder. It will nest in same locality year after year.

YELLOW-THROATED VIREO—Rare breeder in Bear Swamp. No more than two pairs have been found in area.

RED-EYED VIREO—A common breeder and summer resident. Records show 14 pair in 1975 and 1976, 15 in 1977, 22 in 1978, and 17 in 1979.

BLACK AND WHITE WARBLER—A regular breeder; about ten pairs nest each year.

PROTHONOTARY WARBLER—A scarce breeder. Only three pair reside in the area.

BLUE-WINGED WARBLER—Uncommon breeder and summer resident. Only four pairs could be found in 1976, and there was a high count of 14 in 1978.

GOLDEN-WINGED WARBLER—Possible nesting in 1978. This bird doesn't breed here, but in 1978 four pair remained throughout the summer. No nest could be located, but birds were observed mating and carrying nesting material. A late spring that year could have made the birds remain south of their normal breeding range. I suspect this bird could be a rare breeder in certain years, but more study is needed. Also, what I thought were two Brewster's hybrids were observed and drawings were made.

PARULA WARBLER—A rare breeder in the area. I never found a nest but in 1976, 77, and 78 a pair was observed in the same locality. Others believed it to breed (fide H. Fenimore).

YELLOW WARBLER—Uncommon breeder and summer resident. No more than four pairs located.

PRAIRIE WARBLER—Uncommon breeder and summer resident. Irregular at times.

OVENBIRD—Common breeder and summer resident.

LOUISIANA WATERTHRUSH—Rare breeder and summer resident. Possibly one pair in 1975, none in 1976-78, and two pairs found along Route 70 in 1979.

YELLOWTHROAT—Fairly common breeder and summer resident.

YELLOW-BREASTED CHAT—Breeding not confirmed but singing males occurred in 1976 and 1978.

KENTUCKY WARBLER—Confused on status. A common breeder in 1979 only with 8 pair found on routinely covered route, but never sighted in spring migration previously. Possibility of expansion of range. More study is needed.

HOODED WARBLER—Very common to abundant breeder and summer resident.

HOUSE SPARROW—Uncommon breeder and summer resident. This bird always seems to locate a bluebird box or two but never does well. Not a common bird here.

RED-WINGED BLACKBIRD—Scarce summer resident and breeder. No more than four pair.

COMMON GRACKLE—Very common breeder throughout the area.

BROWN-HEADED COWBIRD—Very common parasitic breeder.

NORTHERN ORIOLE—Fairly common summer resident and breeder. Nests have been found.

SCARLET TANAGER—Scarce and irregular summer resident and breeder. Immature sighted July 15, 1979 (Specimen).

CARDINAL—Common permanent resident and breeder.

BLUE GROSBEAK—Rare breeder. One pair was found nesting along the power lines near Route 70 in 1976 and continues to breed there.

INDIGO BUNTING—Common breeder in open areas in and around Bear Swamp.

AMERICAN GOLDFINCH—Uncommon breeder and permanent resident.

RUFOS-SIDED TOWHEE—Very common breeder and permanent resident.

CHIPPING SPARROW—Uncommon breeder and permanent resident. I estimate four pairs do nest on the borders of the swamp.

FIELD SPARROW—Common breeder and permanent resident in open areas.

SWAMP SPARROW—Uncommon breeder. A small colony of about eight pairs do nest along Route 70. Habitat is being destroyed.

Following is a list of species which I suspect could breed in the future or could possibly be breeding now.

Ring-necked Pheasant	Worm-eating Warbler
Sparrow Hawk	American Redstart
Barred Owl	Orchard Oriole
Saw-whet Owl	Summer Tanager
Acadian Flycatcher	House Finch
Bank Swallow	Song Sparrow

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#### LITERATURE CITED

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