

STATUS: HIGH CONSERVATION PRIORITY IN IOWA

Hooded Warbler

Wilsonia citrina

Introduction

The Hooded Warbler is a small Neotropical migrant songbird that is common across the southeastern U.S. but rare throughout the Midwest, and extremely rare in Iowa.

It is considered a forest-interior species because it is restricted to larger woodlots. Males have individually distinctive songs and are known to associate the song of each neighboring male with its usual location, a form of individual recognition. And long-term memory enables males to remember their individual neighbor's songs, from year to year, and this presumably reduces the amount of territorial defense that otherwise would be needed. The song is a piercing whistle, and the loudest song of the wood warblers.

A key feature of this species' social behavior is extra-pair matings. DNA fingerprinting studies have revealed that about one-third of the females produce offspring fathered by a neighboring male. Such a mating system is typical of most long-distance migratory passerines (perching birds) and may have implications for habitat selection if individuals avoid small woodlots where there are few opportunities for extra-pair matings.

Adult male Hooded Warblers have a distinctive plumage, most notably a conspicuous black hood contrasting with yellow cheeks and forehead. Females vary greatly in the extent of their black hood, and early reports were mistaken in identifying dark females as sub-adult males. Adults retain their plumage coloration year-round, and there is no noted geographic variation in appearance.

LINK TO IOWA IBA: HOODED WARBLER

Habitat Preferences

Hooded Warblers are found in moist leafy woodlands where they usually stay low in the shadowy understory, foraging actively in bushes and nesting close to the ground. But males move up into trees to sing and defend the territory.

Breeding takes place in the interiors of mixed hardwood woodlands. Territories usually include small clearings where a shrub understory is available for nesting. Deciduous forests that are occupied are usually dominated by maple, beech, or oak.

This species typically inhabits mature forests where trees are large enough to create significant gaps after trees blow down or topple. It commonly invades selectively logged deciduous forests 1 to 5 years after harvesting, and remains as long as there are suitable understory shrubs for nesting. In some cases, local populations have declined dramatically as shrub layers disappeared.

Feeding Habits

Foraging is mainly accomplished by hopping on the ground, on low branches, or on tree trunks. This warbler gleans insects from leaf surfaces and bark, and short flights are also made to capture flying insects in the understory.

The primary food items are a wide variety of insects and other small arthropods. These include: caterpillars, moths, grasshoppers, beetles, flies, and many others; and also many small spiders.

Breeding Biology

Hooded Warblers arrive in Iowa during the second half of April, with the male preceding the female by a few days and usually returning to occupy the same breeding territory as in previous years. However, females usually move to a different territory.

Females choose the nest site in patches of deciduous shrubs, and often place nests in a shrub at the forest edge. The female usually does most or all of the nest construction, taking 1 to 4 days. The nest is most often only 1 to 4 feet above ground.

Usually 4 eggs are laid. Incubation takes 12 days, and usually is by the female only. Brown-headed Cowbirds may parasitize up to 75% of nests in some areas, causing serious losses of reproductive potential. The young are fed by both parents, and leave the nest 8 to 9 days after hatching. The young can fly 2 to 3 days later. Hooded Warbler fledglings are divided by the parents, with each parent caring for half of the brood for up to 5 weeks. Two broods are often produced in the same nesting season.

Concerns and Limiting Factors

Hooded Warblers are “area-sensitive,” meaning that they are generally found only in larger tracts of mature forest on breeding grounds. Like many other area-sensitive woodland songbirds, this species is threatened on breeding grounds primarily by habitat fragmentation, which reduces availability of nesting habitat, and may have additional negative effects by increasing parasitism by Brown-headed Cowbirds, and predation rates.

Females sometimes abandon a nest site if disturbed while building, but do not abandon the site once eggs are laid. Video cameras reveal that nesting activities usually resume within 10 minutes of disturbances.

Future research should try to integrate previous studies of behavior and ecology with the conservation of this warbler, particularly habitat management to restore and enhance populations where numbers have declined.

Like other woodland dependent, high conservation priority species in Iowa, such as Broad-winged Hawk, Black-billed Cuckoo, Chuck-will's-widow, Pileated Woodpecker, Veery, Wood Thrush, Cerulean Warbler, Prothonotary, Worm-eating Warbler, and Kentucky Warbler, the Hooded Warbler is seriously impacted by the loss, fragmentation and degradation of the woodlands where annual breeding must take place.

Alteration of the habitat that is essential to Hooded Warblers should always be the first and primary concern that is considered by owners and managers of IBAs as well as non-IBA woodlands that these important species depend upon.

Habitat Management Recommendations

Ironically, for localized populations in fragmented forests, selective logging can be beneficial to Hooded Warblers in that it can help maintain the shrub layer for nesting. Systematic removal of adult cowbirds from a local population can reduce cowbird parasitism rates dramatically, but due to nest predation, population productivity is not usually increased substantially by this practice.

In past years, and because of its rarity and dependence on large woodland tracts, the Hooded Warbler was considered to be one of Iowa's highest priority species. Sustaining Hooded Warbler populations in Iowa today will require maintenance of large woodland stands and complexes where this species is found. These will serve as source populations for new breeders. New breeders can then disperse from source populations to less suitable and smaller sites and help maintain regional populations.

The same general prescription holds true for other woodland dependent species such as Broad-winged Hawk, Black-billed Cuckoo, Chuck-will's-widow, Pileated Woodpecker, Veery, Wood Thrush, Cerulean Warbler, Prothonotary Warbler, Worm-eating Warbler, and Kentucky Warbler. Each of these is a species of high conservation priority for the IBA Program in Iowa, and for each, quality habitat for nesting and feeding is the greatest need.

Species on this list of fairly resilient birds appear to respond favorably where Iowans protect and maintain large blocks of woodland, and where those essential habitats receive appropriate woodland management.

For general information about habitat management for the Hooded Warbler, as well as for the other declining species listed above, see the sections on Woodland Management for Birds and Recommended Woodland Management Practices – both are found in Part 3.