



**STATUS: HIGH
CONSERVATION
PRIORITY IN IOWA**

White-eyed Vireo

Vireo griseus

Introduction

The White-eyed Vireo is a migratory songbird more frequently detected by ear than by eye. Although cryptic in both plumage and behavior, male White-eyed Vireos compensate with explosive and complex singing. Individuals have repertoires of a dozen or more distinct songs, each comprising six to ten highly variable elements. Because of its complex song delivery, this species is a compelling subject for studies of vocal communication.

The White-eyed Vireo's preferred habitat is dense secondary deciduous scrub, wood margins, and overgrown pastures. Since the dense scrub this species prefers has little economic value, it is rarely protected. A principal restriction on White-eyed Vireo numbers appears to be the declining availability of this type of habitat. This species is thought to be rare in Iowa.

Predominantly a southern species, the White-eyed Vireo has expanded the northern edge of its range into Iowa, and is most frequently encountered in the southern half of the state. It is gradually being seen further north. As long as secondary deciduous scrub is available, some White-eyed Vireos should continue to persist in the state. Consequently, ensuring that the preferred habitat type is protected and managed in a sustainable way should be a consideration in most if not all large-scale habitat management plans where the habitat type is present.



Habitat Preferences

This species most often utilizes secondary deciduous scrub, overgrown pastures and abandoned farmland, wood margins, late- to middle-stage succession, stream-side thickets; and areas characterized as intermediate between shrubs and low trees.

Common birds in the same breeding habitat as White-eyed Vireos include Carolina Wren, Blue-gray Gnatcatcher, Tufted Titmouse, Gray Catbird, Brown Thrasher, and of course the suite of species that are also species of high conservation priority in our state: Loggerhead Shrike, Bell's Vireo and Yellow-breasted Chat. In general, White-eyed Vireo prefers slightly later succession stages than do Yellow-breasted Chat, and Bell's Vireo.

Feeding Habits

The diet of White-eyed Vireos is primarily made up of insects and berries. Insects are known to be almost the entire diet during the breeding season, when nearly one-third of that may be caterpillars, moths, and butterflies. Also included can be true bugs, many kinds of beetles, ants, wasps, scale insects, bees, and grasshoppers. Prey, less often taken includes snails, an occasional small lizard, and spiders.

In breeding season foraging is done in deciduous growth including shrubs, vines, and trees. Most foraging takes place at intermediate heights, between 5 and 20 feet above ground.

A skulker and a foliage gleaner, White-eyed Vireos forage deliberately in dense, low cover foliage, with short hops or flights, pausing to look for insects by tilting its head and peering. Insects are captured by vireos picking, hovering, reaching, lunging, hanging, or leaping actions.

After food is captured this species typically perches and pins larger prey to a branch with one foot, before disassembling and eating.

Breeding Biology

In the breeding season, male White-eyed Vireos sing incessantly from early spring to late summer, and defend territories for the monogamous breeding pair. In courtship, males display to females by fluffing plumage, spreading tail, and uttering a call that might be called whining.

Nests are pendulous cups that are usually well hidden in dense shrubs or saplings. Nests are within 25 feet of the ground and are frequently much lower than this. Both parents participate in nest-building.

Four eggs are normally laid, but the number may range from 3 to 5. Incubation is by both parents and takes from 13 to 15 days; and both parents care for the nestlings. The young leave the nest about 9 to 11 days after hatching. Nearly half of all White-eyed Vireo nests are parasitized by Brown-headed Cowbirds, in which case vireo offspring do not survive.

Concerns and Limiting Factors

As with many nocturnal migrants, concerns for White-eyed Vireos include: collisions with artificial structures such as TV, radio and cell phone towers; dependence on biocides in agriculture and other land-uses; and, the most serious issues of habitat loss, fragmentation and degradation.

Because typical White-eyed Vireo habitat is not valued by humans, nesting areas, particularly in rural regions, are frequently cleared mechanically. When this happens, the resident birds usually wander in adjacent areas for several weeks, even if habitat is less than suitable, and eventually depart.

Many aspects of the natural history of the White-eyed Vireo are poorly understood. Studies of regional differences in reproductive success and impacts of pervasive Brown-headed Cowbird parasitism are needed. The nature, control, and routes of migration remain largely

unknown. The White-eyed Vireo provides an excellent subject for studies of vocal communication, as its song system is complex in both structure and function.

Habitat Management Recommendations

Because this vireo utilizes a fairly broad array of habitats, and has a large contiguous geographic breeding range, it generally is considered not at risk. Nevertheless, significant declines in White-eyed Vireo populations have been reported since the 1960's, suggesting that carefully planned conservation measures should be considered. Perhaps the most feasible would be to promote suitable scrub habitat, either by leaving open areas to grow or by opening some forested areas through partial cutting. The effectiveness of these measures remains untested.

As more attention is given to IBA Criteria Species, and more and better management practices are planned and implemented across our state, and the White-eyed Vireo should be able to sustain, and possibly increase its population.

Managing habitat for Iowa's high conservation priority White-eyed Vireos is also likely to benefit Loggerhead Shrikes, Bell's Vireo, and Yellow-breasted Chat – each with the same species of high conservation priority status – in Iowa. Consequently, special attention ought to be given to protecting and maintaining habitat for this entire suite of species.

For general information about habitat management for White-eyed Vireo, see the sections on Woodland Management for Birds and Grassland Management for Birds. For more specific details see Recommended Woodland Management Practices and Recommended Grassland Management Practices. All of these sections are in Part 3.