



Wildlife Note — 50  
LDR0103

# Vireos

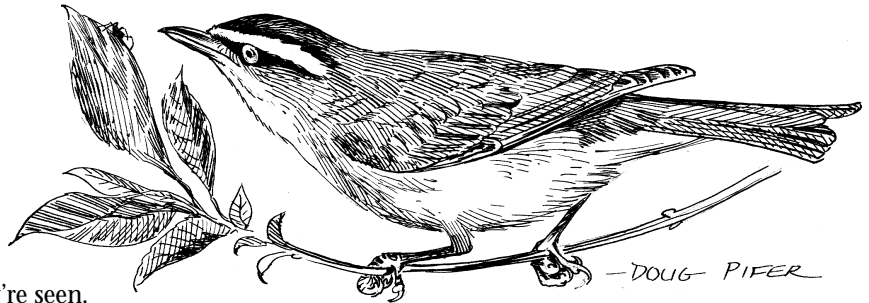
by Chuck Fergus

The more than 50 species of vireos (family Vireonidae) live only in the New World. Medium size (about five to six inches long) and olive or gray in color, they keep mainly to the treetops and are heard — thanks to the males' incessant singing — more frequently than they're seen. Five species breed in Pennsylvania, including the red-eyed vireo, perhaps the most abundant bird of mature hardwood forests in the Northeast. Another species, the Philadelphia vireo, migrates through our state. The word "vireo" comes from Latin and means "green bird."

Vireos feed mainly in the upper and mid-level canopies of mature trees and understory shrubs. They glean insect prey while walking along or hopping among branches, hovering near leaf surfaces, making short flights, and inspecting furrows. Vireos also eat berries, especially in fall and winter. The best time to look (and listen) for them is in early spring, after migratory birds have arrived and before the leaves come out fully. During breeding season males sing throughout the day, even during hot noon hours, and they keep on singing into late summer after most other birds have quieted.

Vireos breed in May, June and July. Males perform stylized posturings in front of prospective mates. They may spread their tails and fluff up their feathers while weaving their bodies from side to side or up and down; both males and females may flutter their wings. Pairs are thought to be monogamous and nest among the foliage of trees and shrubs. The typical nest is a cup made out of plant matter held together by spider or caterpillar silk, hanging hammock-like in the fork between two twigs. In most species, the sexes share in building the nest. Vireos' eggs are white, marked with brown or black spots. The usual clutch is three to five, with an average of four eggs. Both parents share in incubating the eggs and bringing food to the nestlings. In Pennsylvania, most vireos rear one brood per summer. Brown-headed cowbirds heavily parasitize many vireos, which may be contributing to recent population declines; fragmented forests in the Northeast may give cowbirds better access to vireos' nests. Several vireo species also face problems on their wintering ranges in Central and South America, where thousands of acres of tropical forest have been logged into oblivion. Vireos are preyed on by accipiter hawks.

**Red-eyed Vireo** (*Vireo olivaceus*) — Although common and abundant throughout temperate North America, the red-eyed vireo is seen infrequently. Its greenish, leaf-matching coloration; counter-shading (the pale belly, when seen



Red-eyed Vireo

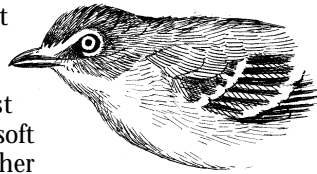
from below, blends with sun-dappled foliage and sky); and treetop habits conspire to make this an unfamiliar bird to most Pennsylvanians. The species' song is a series of robin-like phrases (ornithologists have noted around 40 of these locutions), often repeated for an hour or longer without cease. Red-eyed vireos breed in every county in Pennsylvania. They use a variety of woods settings, including second-growth forest, woodlots, mature deciduous or mixed woodlands, and shade trees in towns and cities. An ideal habitat is provided by an extensive stand of mature moist forest with an understory of shrubs and smaller trees.

Male red-eyed vireos feed in the high canopy, while females forage lower down. Red-eyed vireos hover while picking insects from leaves and flowers. They eat caterpillars — gypsy moth, tent caterpillars, fall webworms and many others — plus other insects including beetles, bugs, flies, walkingsticks, cicadas and treehoppers. They also feed on fruits of Virginia creeper, dogwood, sumac and other plants. In spring, males establish territories of one to two acres. Unlike our other vireos, the male red-eyed vireo does not help the female build the nest, which is a deep cup 2 to 60 feet (on average, 5 to 10 feet) above the forest floor. Chipmunks and red squirrels may eat eggs and nestlings. Hal Harrison, author of *A Field Guide to Birds' Nests*, found one red-eyed vireo female incubating four cowbird and no vireo eggs in its nest (the cowbird apparently having punctured or pitched out the vireo's eggs).

In unparasitized nests, three to five young hatch after 11 to 14 days' incubation. Both parents feed them. The juveniles leave the nest when 10 to 12 days old. Their parents feed them for several more weeks; the adults quit defending a home territory and lead the young about, looking for food. The species winters in northern South America, including the Amazon River basin, where individuals feed mainly on fruit. Despite wholesale cutting of tropical forests and fragmenting of woods in the Northeastern breeding range, the red-eyed vireo seems to have a stable population, perhaps because it can adapt to different wooded habitats.

**White-eyed Vireo** (*Vireo ariseus*) — This smallish vireo sings *chick-oh-oerweeh-chick*: the sharp notes at the couplet's beginning and end are distinctive among vireos. The bird has yellowish eye-rings and white eyes. The species inhabits woods edges, overgrown pastures, brushy swamps, swales, glades and alder tangles. White-eyed vireos feed actively in the branches and foliage of low dense cover, taking moths, butterflies, caterpillars, beetles, wasps, ants, bees, flies, and many other insects, as well as spiders and snails. As summer wanes and during migration, they eat fruits and berries.

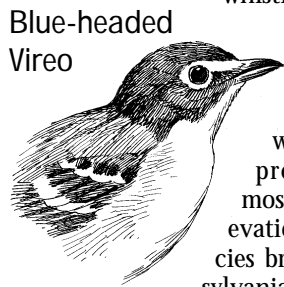
White-eyed vireos nest throughout the East. Pennsylvania is at the northern limit of the breeding range, with most nesting reported from the state's southwestern and southeastern corners, including suburbs of Philadelphia and Pittsburgh. The nest, usually two to six feet above the ground, is slightly cone-shaped (distinguishing it from the more rounded and cup-like nest of the red-eyed vireo). The nest consists of small pieces of soft wood and bark held together with cobwebs, with an inner lining of dry grass and fine stems.



White-eyed Vireo

The eggs are incubated for about two weeks, and the young fledge 9 to 11 days after hatching. In some areas, brown-headed cowbirds parasitize nearly half of all nests; in parasitized nests, vireo offspring usually do not survive. White-eyed vireos winter in the southern United States, Mexico and Central America.

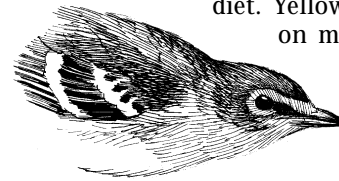
**Blue-headed Vireo** (*Vireo solitarius*) — Formerly called the solitary vireo, the blue-headed vireo has a blue-gray head and white eye-rings. It is our earliest spring vireo, arriving in April and May. The song, a series of short whistled phrases, has been judged the most mellifluous of all vireos' calls. The species thrives in a wide range of forested settings, particularly in open woods where pines or hemlocks predominate. In Pennsylvania most blue-headed vireos nest at elevations above 1,000 feet. The species breeds widely in northern Pennsylvania and is absent from the state's southeastern and southwestern corners. In summer blue-headed vireos feed almost exclusively on insects and spiders, foraging among the leaves, branches and twigs in the upper zones of trees. The nest is an open cup made of grasses, inner bark and other plant materials, its outside adorned with lichens or papery scraps from old hornets' nests. It is usually placed less than 10 feet high in a tree.



Blue-headed Vireo

**Yellow-throated Vireo** (*Vireo flavifrons*) — This is the most colorful of our vireos, with a bright yellow throat and breast. The male's song is a string of short, buzzy robin-like phrases given 20 to 35 times per minute. Yellow-throated vireos inhabit edges of bottomland and mature upland forests, as well as open wooded areas such as orchards, parks and shady areas in towns. The species avoids coniferous

woods and the unbroken forest interior. The bill, typical for vireos, is sturdy, slightly curved, and has a hook at the tip, useful for nabbing and tearing apart caterpillars, the single food item most prevalent in this species' diet. Yellow-throated vireos also feed on many other insects and eat



Yellow-throated Vireo

fruits of multiflora rose, sassafras, wild grape, pokeberry and other plants. The nest, a thick-walled cup made of strips of inner bark and grasses, is generally 20 to 40 feet up in a tree, within 20 inches of the trunk. Cowbirds frequently parasitize this species. *Vireo flavifrons* breeds throughout the eastern half of the United States and in southern Canada, and winters in Mexico, Central America, and South America.

**Warbling Vireo** (*Vireo gilvus*) — This drab grayish-olive bird has a whitish breast and a faint pale stripe above the eye. Roger Tory Peterson terms the song "a single languid warble unlike the broken phraseology of the other Vireos." Males sing from late April until mid-September. Warbling vireos feed on many caterpillars, as well as insects ranging in size from aphids to dragonflies. In late summer they turn to berries and small fruits of dogwood, pokeberry, sumac, elderberry and others. Warbling vireos breed across much of North America in open, mixed or deciduous woods, fence-row and roadside trees, shade trees in open country, woodlot edges, and trees along streams and rivers. Nests are built in trees, higher above the ground than those of most other vireos: 20 to 90 feet up. Both sexes build the neat cup out of bark strips, leaves, grasses, feathers and plant down. Male warbling vireos are such persistent singers that they even give voice while helping to incubate eggs. In Pennsylvania, the population of warbling vireos seems to be concentrated in the state's four corners and along the major river systems.

**Philadelphia Vireo** (*Vireo philadelphicus*) — Its name notwithstanding, the Philadelphia vireo does not nest in Philadelphia or anywhere else in Pennsylvania. (The type, or first, specimen of this bird was collected in Philadelphia.) Experienced birdwatchers may spot this uncommon migrant in May, and again in September and October, as it passes through the Keystone State, shifting between its northern breeding grounds, primarily New England and southern Canada, and its wintering range in Central America.



Warbling Vireo

— DOUG PIFER

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