



Wildlife Note — 47
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Wood Warblers

by Chuck Fergus

Like jewels strewn through the woods, our native warblers appear in early spring, the males arrayed in gleaming colors. Twenty-seven warbler species breed commonly in Pennsylvania, another three are rare breeders, and seven migrate through Penn's Woods for breeding grounds farther north. In central Pennsylvania the first species begin arriving in late March. The great mass of warblers passes through between May 10 and 15, and then the migration trickles off until it ends in late May — by which time the trees have leafed out, making it tough to spot canopy-dwelling species.

In southern Pennsylvania, look for the migration to begin and end a few days to a week earlier; in northern Pennsylvania, it's somewhat later. In August warblers start moving south again, with migration peaking in late September and ending in October, although stragglers may still come through into November. But by now most species have molted into cryptic shades of olive and brown: the "confusing fall warblers" of field guides.

The wood warblers (subfamily Parulinae) are found only in the New World. The group includes 110 species, with more than 50 found regularly in North America. Wood warblers are small lively birds that use a range of habitats. All of the North American species are migratory; almost certainly, most developed in the tropics and extended their ranges northward to exploit new breeding zones.

The name "warbler" is a misnomer, because few species possess warbling voices and many have thin, scratchy, unmusical songs. Males use two calls: a song to advertise territory, and a shorter call to attract a mate and to communicate with her.

Wood warblers breed in May and June, in woods and brushland, in areas that may be dry, moist or wet. They forage from ground level to the treetops and eat mainly small insects plus a few fruits; some warblers take flower nectar. When several species inhabit the same area, their feeding strategies are usually different enough that they don't compete directly with one another. Nesting habits vary



Yellow Warbler

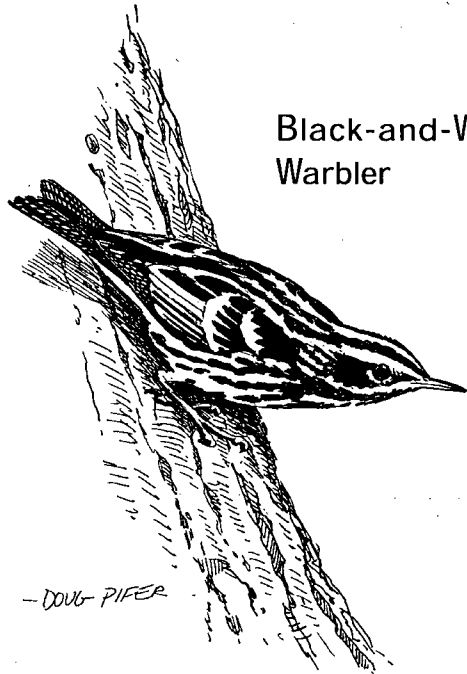
widely. The prothonotary warbler (*Protonotaria citrea*), a rare breeder in wetlands and bottomland forest in Pennsylvania, builds its nest in a tree cavity, often an old downy woodpecker hole. The Nashville warbler (*Vermivora ruficapilla*) is one of several species that nest on the ground. Some warblers nest exclusively in conifers; others use hardwood trees. The northern parula warbler (*Parula americana*) weaves its nest into hanging clumps of lichens, twigs or pine needles. Most species are monogamous. Generally the female builds the nest. The eggs, usually two to five per clutch, are whitish with dark spots. Typically the female does most or all of the incubating, and both parents feed the young.

We know less about warblers' habitat requirements and feeding activities on their winter range. Most species winter in Mexico, Central America and South America, where they forage in mixed flocks with several to many different species. Wood warblers tend to shun lowland rain forests, preferring foothill and mountain forests instead. A few hardy species (the yellow-rumped warbler, *Dendroica coronata*, is one) stay in North America all winter.

Warblers are small birds with limited fat reserves, and many perish from the rigors of migrating. A route followed by many species in spring requires a nonstop flight from the Yucatan Peninsula across the Gulf of Mexico to Louisiana, Mississippi, Alabama and Florida. If migrating birds encounter headwinds, many exhaust their strength, fall into the ocean and drown. Tremendous numbers of warblers and other night-migrating birds die when they fly into communications towers and tall buildings, particularly on cloudy

nights. Many individuals are killed by the smaller hawks and owls. Warblers have been documented to live for more than 10 years in the wild, but most die before reaching that age.

Some wood warbler populations are holding their own. Those of others, such as the cerulean warbler (*Dendroica cerulea*), which breeds in mature forests, have declined.



**Black-and-White
Warbler**

When northern woodlands are broken into smaller patches by logging or home development, warblers lose habitat. In fragmented woods, native birds and mammals, including blue jays, raccoons, foxes and squirrels, and feral house cats can prey more easily on warblers and their nests. Brown-headed cowbirds, which live in open areas, find greater access to warblers' nests: The female cowbirds surreptitiously lay eggs in the nests, and when the young cowbirds hatch, they are raised by the host adults, whose own smaller, slower-to-develop young usually don't survive.

Following is a closer look at eight common wood warblers of Pennsylvania.

Yellow Warbler (*Dendroica petechia*) — This showy all-yellow bird has a rufous-streaked breast. The male's song is a lively weet weet weet weet tsee tsee. The most widespread of all wood warblers, the species breeds statewide in Pennsylvania. Look for yellow warblers in low brush or shrubs, woods edges, orchards, parks and gardens; they're often found along streams and near swamps.

Caterpillars may make up two-thirds of the diet. Yellow warblers also snatch up mayflies, moths, mosquitoes, beetles, damselflies, treehoppers and other insects, plucking their prey from twigs and leaves, hovering to glean from the undersides of foliage, and making short flights. The nest is a neat open cup built of plant materials and lined with plant down or fur. Yellow warblers are often parasitized by cowbirds.

Foreign eggs cause some yellow warblers to desert their

nests or to build a new nest on top of the cowbird eggs. Yellow warblers arrive in Pennsylvania in April and May and head south again as early as July or August. They winter in Mexico, Central America and northern South America.

Chestnut-Sided Warbler (*Dendroica pensylvanica*) — In spring, both sexes sport a yellow crown, black face markings, and chestnut streaks on their sides. The song is similar to the yellow warbler's and has been rendered as *please please please ta meetcha*. This now common species increased its numbers after Pennsylvania's virgin forests were logged. Chestnut-sided warblers inhabit brush and briers, slashings of cut-over woods and reverting fields. They forage for insects by hopping from branch to branch, darting out now and then to intercept prey in midair. The nest is built in low, dense shrubs or blackberry tangles, and is woven out of strips of cedar or grapevine bark, weeds, grasses and roots, with a soft lining. Immature birds and adults in autumn wear a dull greenish plumage and look not at all like their bright spring selves. The winter range extends from Mexico through Panama.

Black-Throated Blue Warbler (*Dendroica caerulescens*) — One of the handsomest birds in the forest, the black-throated blue is aptly described by its name. (The slatey blue is set off by a white breast.) The species typically nests in deep woods, often in cove forests well stocked with hemlocks, with a bubbling stream nearby and plenty of gnats, moths, crane flies, caterpillars, and other insects. Males usually forage higher in the understory than do females; some black-throated blue warblers steal insects from spider webs. Males sing a buzzy, drawn-out *zur, zur, zree*. The nest is a bulky cup hidden in a rhododendron, laurel, or shrubby conifer. The species nests commonly in the mountains of northern Pennsylvania and north into Canada; it winters in the Bahamas and the Greater Antilles.



**American
Redstart**

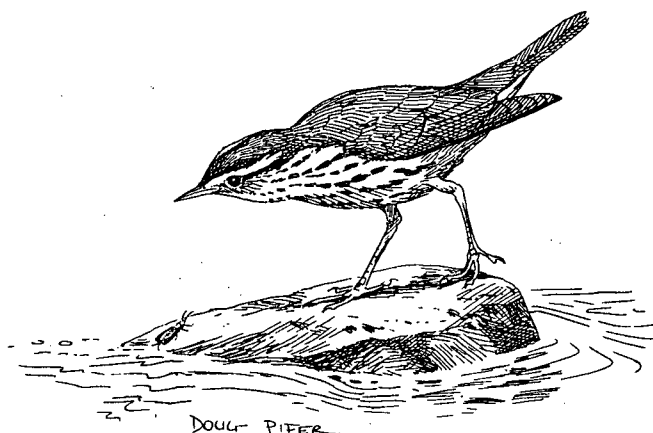
Black-and-White Warbler (*Mniotilta varia*) — This abundant bird acts more like a nuthatch or a creeper than a warbler, foraging methodically in tree bark, circling trunks and limbs of trees while looking for insects and their eggs. Both males and females have zebra stripes on their back and crown. Next to the Louisiana waterthrush, the black-and-white warbler is the earliest spring migrant; individuals are easily observed before the leaves push out. They often feed low in trees and usually nest on the ground in deciduous woods. The male sings a thin *weeseee, weeseee, weeseee*, etc., repeating the phrase at least seven times. The female builds a nest out of dry dead leaves and lines a central cup with grasses, strips of grapevine bark, rootlets and weed fibers. The nest is built at the base of a tree or tucked partway under a log, stump or rock. Cowbirds often heavily parasitize black-and-white warblers. Black-and-whites winter in Florida, the Gulf Coast states, the West Indies, and from Mexico south into South America.

American Redstart (*Setophaga ruticilla*) — Males are an eye-catching mix of black, orange and white; orange patches show on the wings and tail, which the bird often flashes open and shut. Redstarts flutter about in treetops, hovering among leaves, leaping up or darting out like a flycatcher to grab a passing insect: A redstart even has bristles framing its mouth to help it catch flying prey. The song is a series of high-pitched, indistinct *tsee* notes. American redstarts inhabit sapling woods, river groves, forest edges and treelined creek banks. A Wisconsin study found the species to be three times as common in woods of greater than 80 acres than in woodlots comprising less than 14 acres. In Pennsylvania the American redstart is rare in the highly agricultural southeast, common in the forested northcentral and northeast. Redstarts eat insects, spiders, seeds and berries. The female builds a cup-shaped nest in a tree fork 4 to 70 feet in the air. Some males breed with more than one female in their territories. Redstarts head south in August and September; they winter in the Gulf Coast states and from Mexico south to South America. The species is named after a European bird whose name means "red tail."

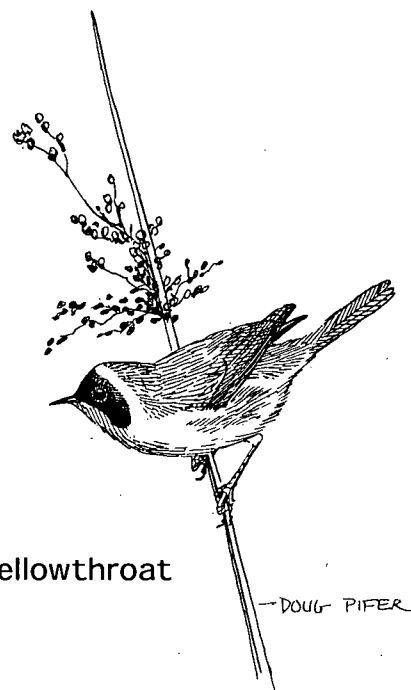
Ovenbird (*Seiurus aurocapillus*) — This bird gets its name from the covered dome-shaped nest it builds on the ground; early observers were reminded of a Dutch oven. An ovenbird looks like a little thrush, olive-brown above and with a dark-streaked (rather than a spotted) breast and an orange, black-rimmed stripe atop the head. Ovenbirds prefer dry mature deciduous woods, but they also inhabit other forest types including swamplands; they do best in extensive wooded tracts. Ovenbirds feed on the ground, taking beetles, ants, caterpillars, bugs, worms, spiders and snails. The song is an emphatic *Teacher! Teacher! Teacher!*, repeated about 10 times at increasing volume, three to four sessions per minute. The species nests statewide, although it's absent from heavily farmed and urbanized districts. The ornithologist Hal Harrison found cowbird eggs in six of seven Pennsylvania ovenbird nests that he monitored one summer, but research at Hawk Mountain Sanctuary found that few nests in deep forests contained those unwanted guests.

Ovenbirds arrive here in April and May, depart in September and October, and winter in Mexico, Central America, Florida and the Caribbean.

Louisiana Waterthrush



Louisiana Waterthrush (*Seiurus motacilla*) — In April, trout fishermen see this shy warbler walking on stones along the edges of streams, turning over wet leaves with its bill and flitting out over the water to catch prey. A Louisiana waterthrush looks like a thrush and acts like a sandpiper, teetering and dipping, elevated above slick rocks on its long legs, stabilized by large, long-toed feet. Waterthrushes eat bugs, beetles, adult and larval mayflies, dragonflies, crane fly larvae, ants, caterpillars and other insects, plus centipedes, small crustaceans and snails. They breed from April to June along rushing brooks, sluggish swamp streams, and moist hillsides, always in woods. Pairs build their nest in a hole in the stream bank, hidden by tree roots, weeds or grass. Louisiana waterthrushes nest throughout the East; they winter in streamside forests in Mexico, Central America, the Bahamas and the Greater Antilles.



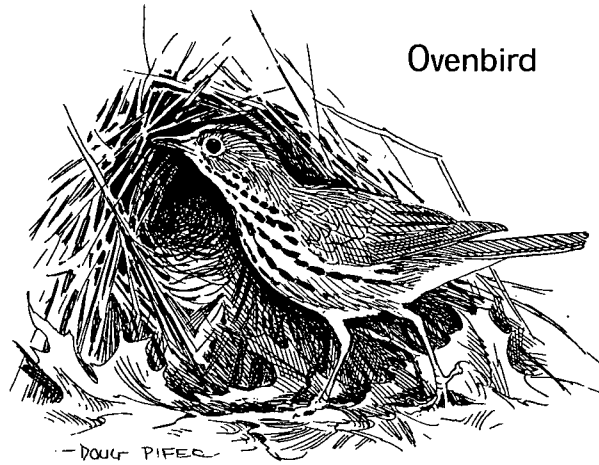
Common Yellowthroat

Common Yellowthroat (*Geothlypis trichas*) — *Witchity, witchity*, *witchity* sings this bird with the gray back, black mask, yellow throat and whitish belly. (Females lack the black mask.) In Pennsylvania, yellowthroats nest in cattail marshes, alder swamps, shrubby bogs, wet meadows, forest edges and openings, and old fields. They like thick briary cover and take advantage of small habitat patches: An ornithologist once found 17 nests in a half-acre swamp in Illinois. As the result of this broad habitat use, they are the most widespread of the warblers.

Nests are built on or near the ground, hidden in tussocks, weed stalks and shrubs; they're bulky, made of dry leaves and coarse grasses lined with finer plant matter. Yellowthroats eat insects (grasshoppers, dragonflies, mayflies, beetles, moths, ants, aphids and many others), spiders and seeds. They nest statewide across Pennsylvania and winter in the southern United States, Mexico and Central America. Illegal draining and filling of wetlands — even very small ones — harms yellowthroats and many other forms of wildlife. Yet the population of this spunky, active bird has increased in recent years in the Keystone State.

The other breeding warblers in Pennsylvania are the blue-winged, golden-winged, Nashville, northern parula, magnolia, yellow-rumped, black-throated green, Blackburnian, yellow-throated, pine, prairie, cerulean, worm-eating, Ken-

Ovenbird



tucky, mourning, hooded and Canada, and the northern waterthrush and yellow-breasted chat. Rare breeders include blackpoll, prothonotary and Swainson's warblers. Seven other warblers migrate through Pennsylvania: Tennessee, orange-crowned, Cape May, bay-breasted, palm, Connecticut and Wilson's.

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