

## WILSON'S WARBLERS

by Richard K. Walton

Cook's Petrels, Magellanic Penguins, and Darwin's finches -- bird names that conjure up images of faraway places. Less than fifty years ago such images would have remained mere fantasies. Nowadays the combination of a worldwide commercial airline network and a burgeoning nature-tour business allows birders to visit, in their spare time, the far-flung destinations of early explorers and pioneering naturalists. Armed with checkbook, credit cards, and binoculars, a modern-day bird-seeker can comfortably check off manakins and cotingas, bee-eaters and hornbills, or emus and cassowaries. Rivaling all these exotics is a family of birds that occurs, at least seasonally, in many of our own backyards, city parks, and local cemeteries. The North American wood-warblers (Parulidae) appear at the top of the list for many bird-aficionados, professional and amateur alike.

This family of diminutive passerines is both diverse and unique. The fifty-four species of nesting wood-warblers make this the second largest family of North American songbirds. Although the distribution of the various species favors eastern birders, there are many gems west of the Mississippi as well. The Colima, Golden-cheeked, and Red-faced warblers attract birders from the east just as Swainson's, Prothonotary, and Magnolia warblers are sought by westerners. Superlatives are commonplace in any description of the wood-warbler group: the rarest songbird in North America -- Bachman's Warbler; the most limited nesting range of any species in North America -- Kirtland's Warbler. Three warblers are among the top twenty-five on the American Birding Association's "most-wanted list" -- the two cited above as well as the Connecticut Warbler. Many birders consider one or another of the warbler species (the Blackburnian is frequently mentioned) to be the most beautiful of North American songbirds.

There is, however, a dark side to the warbler family's reputation. Many birdwatchers consider warblers difficult, if not impossible, to identify. While this position is scoffed at by the more capable field ornithologists (who like nothing better than a mute *Empidonax* flycatcher), some birders never get over the warbler hump. There are legitimate difficulties in the identification of warblers. Congeneric species such as Tennessee and Orange-crowned warblers or Mourning and Connecticut warblers can be a problem. Another problem is the fall plumage of many species. The Blackpoll, Bay-breasted, and Pine warblers that are confidently "called out" in spring, return to us in September a confusing blur of olive greens. One eminent Massachusetts ornithologist tells us that such inconveniences to identification "can't hold a candle to the Old World

warblers, which are confusing at all seasons," and then advises us to "check the soles of the feet which are yellow in the Blackpoll!"

Certainly one can forgive the occasional fall groan, but how is it that this group of strikingly marked birds can be a problem even in the springtime? The facts are that a large proportion of warblers are active feeders in the canopy. Many of them simply flit their way through the leaves, never to be identified. Other warblers are skulkers, bashful to a fault. So at times complaints concerning warbler identification are justified.

But as confusing as these birds may sometimes be, the present-day difficulties with warbler identification pale to insignificance when compared with the warbler problems faced by America's early ornithologists. One hundred and eighty years ago, men like Alexander Wilson and John James Audubon wandered the woods without any of the birding conveniences we consider essential. That they succeeded in writing the pioneering works on the North American wood-warblers is a credit to their persistence.

However, Wilson and Audubon had less success with this group than might at first be expected. Nowadays, a capable observer in Central Park, New York, or Mount Auburn Cemetery, Cambridge, Massachusetts, may see warbler species that were never seen by one or the other of America's two most famous ornithologists. In all his wanderings, Audubon never saw the Cape May Warbler and saw only one Chestnut-sided Warbler. Wilson missed Swainson's and Orange-crowned altogether and collected only one Mourning Warbler (the *first* one). Interestingly, these men described two warbler species that have *not* been seen since. Wilson published a bird he called the Blue Mountain Warbler (*Dendroica montana*), and Audubon pictured and described the Carbonated Warbler (*Dendroica carbonata*). Actually, twenty-five of the thirty-nine recognized species of eastern warblers had been described before the work of Wilson or Audubon. Men such as Mark Catesby and the Bartrams had provided pictures or skins for which Linnaeus and other Europeans wrote the first formal descriptions. However, Wilson and Audubon would, between them, add twelve new species and provide the first detailed information on the life histories of many of the other wood-warblers.

A chance meeting of Wilson and Audubon occurred on March 19, 1810, in Louisville, Kentucky. Although much of Audubon's work was in front of him and Wilson would be dead within three years, these men shared a passion for birds and a perspective of their adopted country that was unique. At the time of their meeting, Wilson was engaged in the frustrating business of selling subscriptions to his book, while Audubon, never one to mind the store, was doing just that. We know that the men shared their work with each other and perhaps spent a morning together looking for birds. Beyond this, the record of their meeting is clouded by subsequent disagreement, jealousy, and

recrimination between Audubon's and Wilson's supporters in Philadelphia. Wilson left Louisville on March 23 of that year.

Nearly two centuries have passed since that meeting, and Audubon has become a familiar figure. Such is not the case with Alexander Wilson. Posterity has been overly kind to the former and more or less forgotten the latter. In the matter of warblers, however, there is cause to celebrate Alexander Wilson.

Alexander Wilson (1766-1813) was born in Paisley, Scotland. Wilson's father was a smuggler, moonshiner, and sometime weaver. When "Alick" was thirteen, his mother died. This spelled an end to his schooling and set him on a round of jobs that included herdsman, apprentice weaver, and peddler. Wilson's avocation was writing verse. It was a combination of this poetic ability and a political conscience that landed him in the first significant trouble of his short life. In May of 1794, a satiric poem titled "The Shark, or Lang Mills Detected" appeared in Paisley. Wilson sent a copy to a certain Mr. Sharp, who owned the Long Mills. The implication was not lost on anyone. A libel trial was held, and although Wilson repeatedly "took the fifth" regarding authorship, he carefully explained that the sentiments expressed in the verse were his own. Although no one seems certain how much time the young poet spent in jail for this adventure, by the spring of 1794 Wilson had booked passage on a ship bound for America, and he arrived at New Castle, Delaware, that summer.

During his first years in America, Wilson was forced to return to the drudgery of weaving and peddling. This was followed by a series of teaching positions in New Jersey and Pennsylvania. In 1802 an unhappy, if not illicit, love affair prompted Wilson to leave Milestown, Pennsylvania, and move to Philadelphia. It was in this setting, during the last ten years of his life, that Alexander Wilson turned a sometime interest in birds into his nine-volume masterpiece, *American Ornithology*.

Happily for Wilson, in Philadelphia at that time was a circle of scholars and artists devoted to the exploration and publication of a young country's natural treasures. The center for this group was the Bartram botanical gardens established by John Bartram during the middle of the eighteenth century. Although John had died in 1777, his son William was continuing the tradition. Here, Wilson would meet the zoologist George Ord and the engraver Alexander Lawson. These last two men were to have important roles in Wilson's ornithological endeavors. By 1804 Wilson was resolved to expand his growing collection of American birds, make drawings and engravings of each species, and publish these with detailed accounts. Neither the economic hurdles of such a project nor Wilson's lack of ornithological knowledge (he was still learning the names of common birds) would deter him. In 1806 Wilson got the break he needed. He was hired as an assistant editor by the firm of Bradford and Inskeep, a Philadelphia publishing company. The job paid \$900 per year, enough to allow

him to use all his spare time to work on his bird project. More importantly, Samuel Bradford expressed an interest in publishing Wilson's work.

Alexander Wilson's *American Ornithology* is an astonishing achievement. Wilson had arrived in America with no money or references and little schooling. The physical demands of the peddler's trade were his only preparation for the fieldwork that lay ahead of him. Available references on American ornithology were sketchy at best; more often they were confused or simply mistaken. Despite all this, Wilson prevailed. Perhaps his greatest asset was a willingness to take little on faith and instead, to do the careful and painstaking observations of the living birds that the project demanded. Wilson succeeded in compiling the first set of comprehensive life histories for most of the American birds then known. Wilson himself added nearly thirty new species to the list. Included among these were ten warblers previously undescribed.

Wilson was especially successful with those skulkers of the warbler world known by their generic epithet *Oporornis*. He was the first to describe three of the four species in this genus: Kentucky, Connecticut, and Mourning warblers. Those birders who have spent considerable time trying to coax these birds, particularly the last two, out into the open will appreciate Wilson's problem. He commented on the Connecticut Warbler that "it was found in every case among low thickets, but seemed more than commonly active, not remaining in the same position for a moment." The following is Wilson's account of the Mourning Warbler.

I have now the honor of introducing to the notice of naturalists and others a very modest and neat little species, which has hitherto eluded their research. I must also add, with regret, that it is the only one of its kind I have yet met with. The bird from which the figure in the plate was taken, was shot in the early part of June, on the border of a marsh, within a few miles of Philadelphia. It was flitting from one low bush to another, very busy in search of insects; and had a sprightly and pleasant warbling song, the novelty of which first attracted my attention. I have traversed the same and many such places, every spring and summer since, in expectation of again meeting with some individual of the species, but without success. I have, however, the satisfaction to say, that the drawing was done with the greatest attention to peculiarity of form, markings, and tint of plumage; and the figure on the plate is a good resemblance of the original. I have yet hopes of meeting, in some of my excursions, with the female, and, should I be so fortunate, shall represent her in some future volume of the present work, with such further remarks on their manners, &c., as I may then be enabled to make.

There are two species mentioned by Turton, to which the present has some resemblance, viz., *Motacilla mitrata*, or Mitered Warbler, and *M. cucullata*, or Hooded Warbler; both birds of the United States, or, more properly, a single bird; for they are the same species twice described, namely, the Hooded Warbler. The difference, however, between that and the present is so striking, as to determine this at once to be a very distinct species. The singular appearance of the head, neck, and breast, suggest the name.

The Mourning Warbler is five inches long, and seven in extent; the whole back, wings, and tail, are of a deep greenish olive, the tips of the wings, and the center of the tail-feathers, excepted, which are brownish; the whole head is of a dull slate color; the breast is ornamented with a singular crescent of alternate, transverse lines of pure glossy white, and very deep black; all the rest of the lower parts are of a brilliant yellow; the tail is rounded at the end; legs and feet, a pale flesh color; bill deep brownish black above, lighter below; eye, hazel.

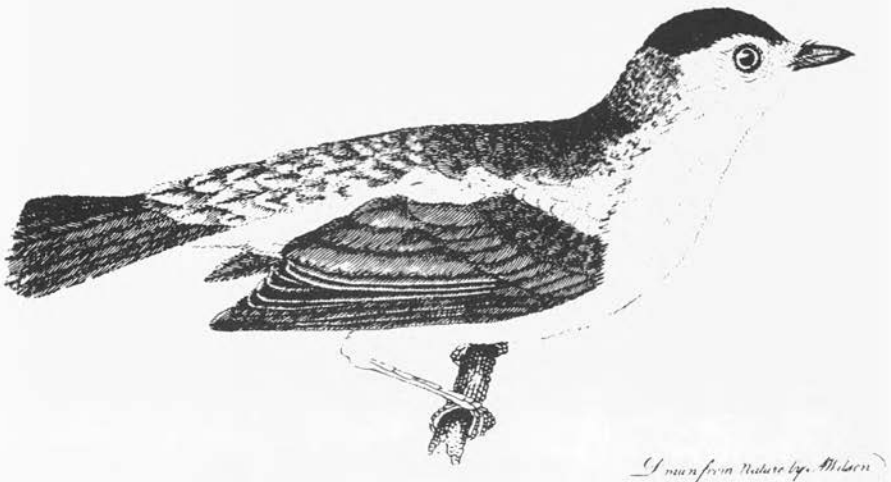
Wilson's careful descriptions did much to rectify the mistakes and confusions created by earlier authors. Of the Pine Warbler he wrote,

Catesby first figured and described this bird; but so imperfectly as to produce among succeeding writers great confusion, and many mistakes as to what particular bird was intended. Edwards has supposed it to be the Blue-winged Yellow Warbler! Latham has supposed another species to be meant; and the worthy Mr. Pennant has been led into the same mistake; describing the male of one species and the female of another, as the male and female Pine Creeper. Having shot and examined great numbers of these birds, I am able to clear up these difficulties by the following descriptions, which will be found to be correct. . . .

Wilson's description resulted in his being credited with naming this species. Other warblers first described by Alexander Wilson are the Tennessee, Nashville, Magnolia, Bay-breasted, Cerulean, and of course, Wilson's. He left Audubon only two of the eastern species, Bachman's and Swainson's. Although most of the western warblers would remain undiscovered and undescribed for several decades, awaiting the work of men such as Townsend and Baird or their agents, by 1810 Wilson had completed most of the pioneering work on the eastern wood-warblers.

The mistakes that Wilson did make in his studies of the warblers are ones that can be fully appreciated by anyone who has tried to sort out this group.

Wilson described five separate species that are either winter-plumaged birds or females of species that he described elsewhere. For example, he gives the Autumnal Warbler full species status, whereas it is actually a Bay-breasted Warbler in winter plumage. The opening sentence in Wilson's description of the Autumnal Warbler (in fact, the name itself) offers, in hindsight, a clue to his problem. "This Plain, little species regularly visits Pennsylvania from the north, in the month of October, gleaning among the willow leaves; but, what is singular, is rarely seen in spring." In another instance Wilson gave two different species accounts for the Blackburnian Warbler, describing what is actually the female as the Hemlock Warbler. Unfortunately, Audubon repeated most of Wilson's mistakes in *Birds of America* and in *Ornithological Biographies*. In his account of the Hemlock Warbler, Audubon states, "It is to the persevering industry of Wilson that we are indebted for the discovery of this bird. . . . I visited the Great Pine Forest, where that ardent ornithologist found it . . . and had not spent a week among the giant hemlocks which ornament that interesting part of our country, before I procured upward of twenty specimens." Actually, Wilson was well aware of the plumage variations in many species. His difficulties arose mainly with those birds he experienced solely as migrants. Among the warblers, Wilson did make a start at clearing up some of the confusions occasioned by plumage sequences and differences. His accounts of Blackpoll and Yellow-rumped warblers indicate his knowledge of variations evident in adult female and immature plumages as well as seasonal differences.



*Alexander Wilson's Green, black-capt Flycatcher (Wilsonia pusilla)*

Wilson's energies were not directed solely to ornithological problems. Once he had completed the fieldwork for a given species, done a drawing, and written a species account, his work had just begun. The matters of engraving, printing, coloring, binding, promotion, and sales lay ahead of him. Although his engraver Lawson and publishers Bradford and Inskip were responsible for production, the task of promoting and selling *American Ornithology* was mainly Wilson's. This involved long treks through the north and south from Maine to Louisiana. The fact that Wilson was trying to sell a work on birds for \$120 per set didn't make his task any easier. After hard weeks on the road, Wilson the peddler, faced the prospect of dealing with men such as the Governor of New York, Daniel D. Tompkins. In response to Wilson's pitch, Governor Tompkins replied, "I would not give a hundred dollars for all the birds you intend to describe, even had I them alive." Despite such responses, Wilson obtained 450 subscribers. The responsibilities and pressures of all these duties may have contributed to his early death. Audubon in fact suggested that Wilson had succumbed "under a book seller's lash."

Alexander Wilson died in August of 1813, a month after his forty-seventh birthday. One version of his death has Wilson catching a chill after chasing a rare bird across an icy stream. More likely, he died of a combination of dysentery and tuberculosis. He completed eight volumes of *American Ornithology* before his death. George Ord, his apologist and editor, wrote the ninth volume.

It is doubtful that Alexander Wilson will ever achieve the legendary status of an Audubon. There can be no doubt, however, that Wilson deserves the title, "father of American ornithology." His enthusiasm for the task, detailed work, and persistence led to a work that helped to define America's nature and culture. A small wood-warbler, olive green above and bright yellow below, the male with a black cap, commemorates this man. Wilson's Warbler is a reminder of the pioneering days of American ornithology and of the man from Philadelphia who did much for future generations.

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