

Silent Fall

by Paul Donahue

As a long-time grassroots environmental activist and as a creature living in the thrashing endgame of civilization, I am intimately acquainted with the landscape of loss.

Derrick Jensen - Santa Cruz, California, 2007

When I began birding in my teenage years, my first field guide was Roger Tory Peterson's classic work, *A Field Guide to the Birds*. In that book, in a paragraph about the birds he referred to as the "confusing fall warblers", Peterson wrote, "If at the end of ten years of field work you can say you know the fall warblers, you are doing very well." Many birders are justifiably confused by the "confusing fall warblers", preferring these little birds in their boldly patterned spring plumage, but the far less brightly colored fall birds captured my eye, and I took Peterson's statement as a personal challenge. With an artist's eye for recognizing patterns and discerning subtleties of shape, color, and shading, coupled with extraordinary amounts of time in the field, within two or three years I could honestly say that I knew the fall warblers.

Each year I would look forward to the fall migration, when large numbers of these south-bound olive, yellowish, and brownish little birds would fill the woods and hedgerows of my Massachusetts birding haunts. I would spend many, many hours afield tallying species and numbers of this diverse assemblage of birds. When I moved to Maine in the mid 1970's, I continued spending lots of time each fall with the "confusing fall warblers".

In the fall of 1975 I began spending large amounts of time on an island in Maine's Casco Bay. I was there primarily to count migrating raptors - hawks, falcons, ospreys, and eagles - moving southward along the Maine coast, but still devoted considerable time to watching warblers. Over the years, I came to know the fall bird life of this island extremely well, spending virtually all of September and October there since the mid-1980's.

Most small songbirds, including warblers, migrate primarily at night to avoid predators, and in fall, they prefer cool nights with northwest winds. During such nights the contact calls of many warblers could be heard overhead as they moved through the darkness, and in the morning I was always anxious to get out to see what new arrivals came in on the previous night's wind. It was always a little like Christmas morning, discovering what little avian gems had dropped in, pausing on the island for a day or two to rest and feed before continuing their southward journey.

Sadly, in Bob Dylan's words, "the times, they are a changin'", and with the natural world, those changes

are almost never for the better. Twenty-five years ago, after a night of northwest winds, I would step outside in the morning to be greeted by the "chip" notes of many warblers as mixed flocks of them moved through the treetops. These days, after a night of northwest wind, I usually step outside to the sound of silence.

The large mixed flocks of warblers we once saw on the island are mostly a thing of the past, with smaller and smaller numbers of warblers moving through the island every fall. With most of the once common species, I now see as many individuals of the species in a whole season as I used to see in a day. American Redstart, one of the more easily identified fall warblers, used to be quite common. I can remember sifting through them in search of the less common or rare species. Now when I see a single American Redstart on the island it is a special



One of the "confusing fall warblers", an immature Parula Warbler.

event. I am hardly the only birder to have noticed these declines. Life-long birders across the Northeast have been sounding the warning for years.

When they hear of these population declines, many people want to know why it is happening, but the answer is not a simple one. Most of the warblers, as well as other songbirds, that have seen the steepest declines in their numbers are what are known as neotropical migrants, birds that nest in North America, but migrate south to the American tropics (Caribbean, Mexico, Central America, South America) for the winter. Widespread deforestation throughout this region has undoubtedly played an important role in the declines, but the explanation is more complicated than that.

Many of these birds nest in the boreal forests of the northern U.S. and Canada, and this area has also experienced serious deforestation and habitat alteration. South of the boreal forest the landscape has actually seen an increase in its forest cover as former farmland gradually returns to its natural state, but these forests, as in southern New England, are steadily being fragmented by roads, housing developments, and other human infrastructure. While these woods might look great to human

suburbanites, many of these blocks of forest are not sufficiently large to provide adequate nesting habitat for many species of songbirds.

In case the loss of wintering habitat and breeding habitat isn't enough of a blow to these birds, their critically important migratory stopover sites are also under attack from human "development", gradually succumbing to vacation resorts, condominiums, housing tracts, and shopping malls.

In addition to the loss of wintering, breeding, and migratory stopover habitat, these beleaguered birds are subjected to a host of other serious threats to their continued existence. The more valid question is not why are our birds declining, but why we have any left at all.

Outdoor domestic cats are now considered to be the leading cause of death for wild birds and mammals in the United States. According to a recent study conducted by researchers from the Smithsonian Conservation Biology Institute and the U.S. Fish and Wildlife Service, cats are estimated to kill 1.4 billion to 3.7 billion birds each year. That's BILLION, with a B.

Window strikes are estimated to kill between 97 and 976 million birds a year, and cars are estimated to kill another 60 million. Almost 7 million birds in the U.S. each year are estimated to be killed by cell phone and television communication towers, not to mention how the electromagnetic energy they emit could potentially disrupt the navigational ability of migrating birds. Wind turbines are estimated to kill hundreds of thousands

more birds. Pesticides pose yet another huge threat to birds. According to one conservative estimate, 672 million birds in the U.S. are directly exposed each year to pesticides on farmland, and 10% of these birds die as a result of the exposure. In addition to those birds directly killed, the endocrine disrupting effect of most pesticides certainly impacts the breeding success of many birds.

Some of the causes for declines in small insectivorous birds in the Northeast are even more insidious than pesticides. Across northern New England, acid rain, which never really went away, has been responsible for the leaching of calcium from forest soils and directly from the leaves and needles of trees. Less calcium in a tree's foliage means there is less calcium for the production of the exoskeletons of the insects that feed on that foliage. In turn, there is less calcium available for the production of egg shells in the nesting birds that feed on those herbivorous insects, making their eggs fragile and more easily broken.

The concomitant decline in insects in the Northeast is a little discussed factor in the decline of insectivorous birds, including warblers. Do you remember back when your car's windshield would get covered with insects on

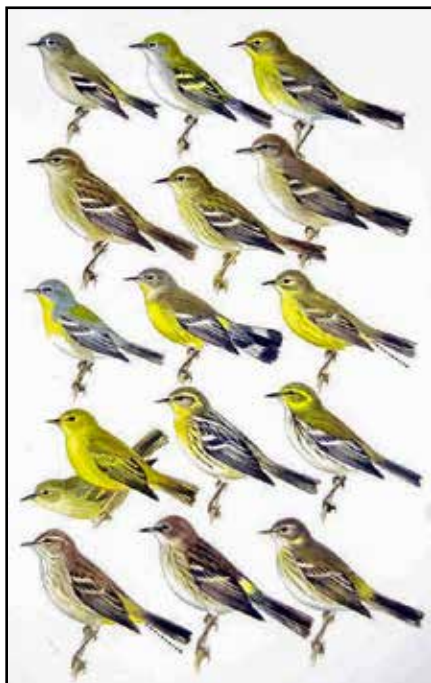
photo by Paul Donahue

warm summer evenings? How long has it been since that was a problem? Or how about how a screen door under a porch light would be covered with moths and other insects on those same warm summer nights? For many reasons, data on the decline in insect populations is difficult to come by, but the decline is certainly happening. Less insect food available means fewer birds can be supported by the environment.

The same principle applies as you move up in trophic levels. The Casco Bay island where I have spent so much time in the fall lies along an important migratory path for southbound raptors moving down the coast of Maine. The longest running data set on fall raptor migration in Maine comes from this island, with counts going back to the 1960's. Generally speaking, the most common hawk we see on the island during the fall migration is Sharp-shinned Hawk, a relatively small bird-eating hawk that nests throughout the boreal forest. Small insectivorous birds, like warblers, make up a large part of its diet.

Back on September 22nd, 1975, during my first fall on the island, there was one day when I counted 607 migrating Sharp-shins. I remember the day well, not so much for the tremendous number of hawks seen, but because I was alone, frantically trying to watch the whole sky myself while simultaneously recording my counts. Undoubtedly, many Sharp-shins slipped by uncounted that day. For the past almost 40 years since then, our fall tallies for the species have been dropping fairly steadily. This past fall I was on the island for virtually the whole migration, from the beginning of September through the first week of November. Our season total for Sharp-shinned Hawk was only 436, or 72% of what I saw on that single day in 1975. Insects decline, so the little birds that eat the insects decline, so the hawks that eat the little birds decline. Obviously, the situation is more complex than that, but that is certainly part of the story.

About ten years ago, to escape Maine winters and be closer to my wife Teresa's family, we began a slow motion move to the central California coast. Growing up in the Northeast, one of the things I initially liked about California birding was my lack of experience with how things used to be. Going afield in the Northeast now often pains me as I remember what bird numbers were like in the past, but I didn't have that baggage regarding



A plate of "confusing fall warblers" from Roger Tory Peterson's *A Field Guide to the Birds*.



An adult Sharp-shinned Hawk

California bird populations. Unfortunately, that's now catching up with me. In ten years time, I already can see changes.

In California, we're very fortunate to live right across the coast highway from a mile-long state beach. When I'm here, I walk on that beach about five days a week. I like warblers, and I like raptors, but my favorite birds are shorebirds - plovers, sandpipers, and their relatives. When I first started spending time on our beach, Marbled Godwits, Willets, and Sanderlings were all regulars - birds I saw on the beach through the winter months virtually every time I was there. The beach also hosted more than 20 wintering Snowy Plovers, a species listed as threatened under the federal Endangered Species Act. Now, it's been years since I've seen Marbled Godwits or Willets on the beach, Sanderlings are there only sporadically and in far smaller numbers, and this past winter the beach was home to only seven Snowy Plovers. The pang I have been feeling for some time over the gradual disappearance of birds in New England is now something I am starting to feel here in California.

I would like to think that the declines I am seeing in the numbers of birds are temporary. I would like to believe that if we could just make a few adjustments here and there to our environmental practices, then we could reverse the trend and bird numbers would start to rebound. I also would like to believe in Santa Claus and the Easter Bunny, but I know better, on all counts. I know that the

declines in bird populations will continue, and I know that there is very, very little that I or anybody else can do to significantly change the trend line - and I don't know which of those things makes me feel worse. Because of our species, the natural world is locked in a downward spiral, and there is no guarantee whatsoever that it will pull out before it crashes.

Back in 1962, Rachel Carson, a biologist with the U.S. Fish & Wildlife Service, published her landmark book, *Silent Spring*. In it Carson warned us of a silent future free of bird song if our society didn't change its environmentally destructive course. The book had a huge impact. It was responsible for setting off a wave of environmental legislation and was instrumental in galvanizing the growing environmental movement. Certainly, steps were taken, such as the banning of DDT, that hugely benefited birds. The rebounding of the populations of Bald Eagles and Ospreys were proof of the book's impact.

Unfortunately, however, Carson's book was not enough to seriously alter the trajectory of our society. As important as they were, the actions taken as a result of her book were not nearly enough to halt the coming silence.

Pacifica, California
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