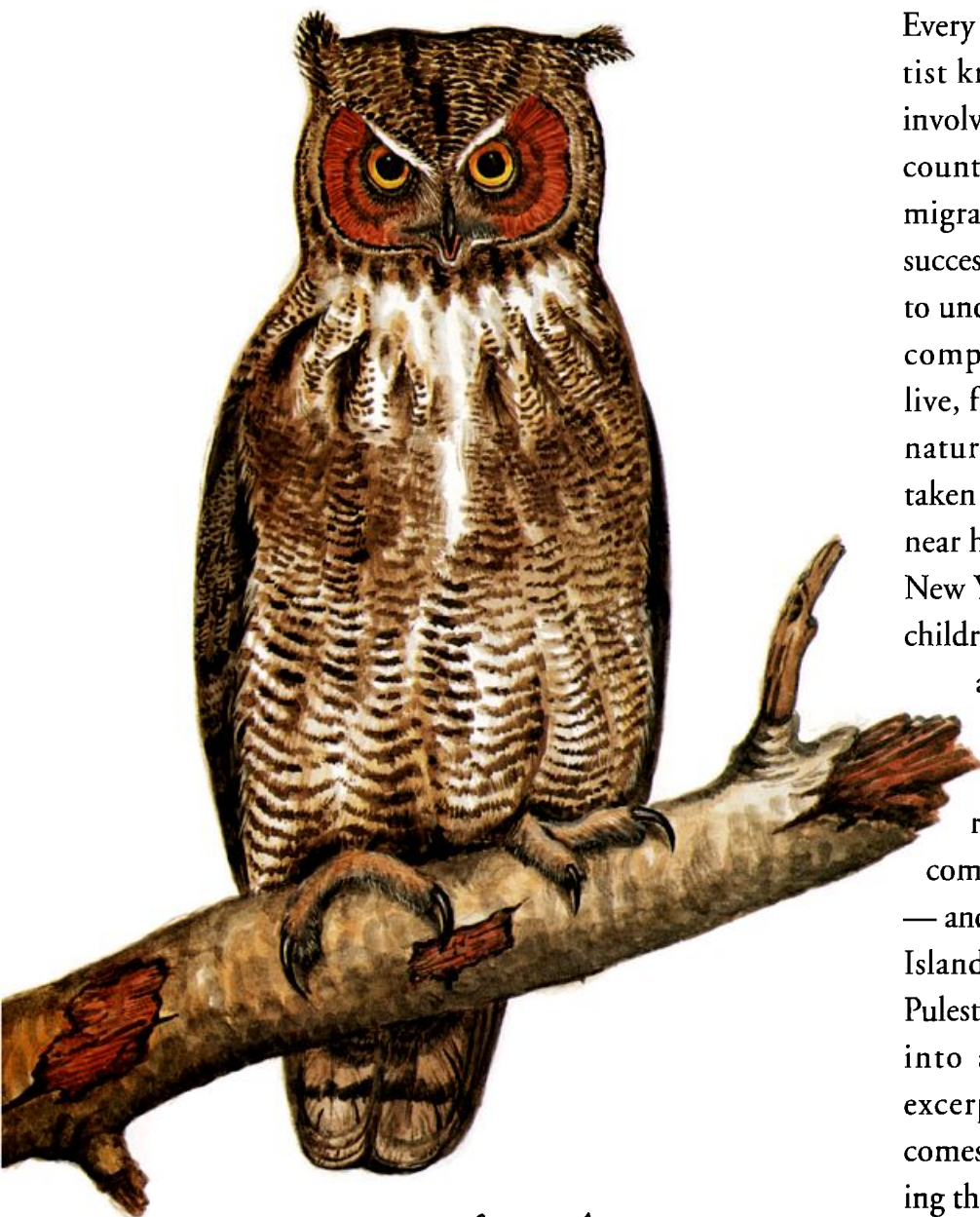


Chronicle of
a Year on
Long Island
A Nature Journal by Dennis Puleston



Great horned owl

Every birder, naturalist, or scientist knows that watching birds involves much more than simply counting species that pass by in migration, or recording nesting success in a census area. We need to understand the intriguing and complex world in which birds live, feed, and nest. Author and naturalist Dennis Puleston has taken time to explore that world near his home on Long Island in New York. As a gift to his grandchildren, he put together painted and written observations of a year in his beloved “neighborhood.” The result was a beautiful and compelling look at the richness — and fragility — of life on Long Island. At the urging of friends, Puleston had the collection made into a book. The following excerpt from *A Nature Journal* comes from the chapter describing the month of March. Perhaps his work will spur others to take stock of the environment in their own backyard — *The Editor*

Sometimes March, the blustery month, comes in like a lamb, only to remind us later of its unpleasant reputation, as if it were reluctant to allow winter to slide gradually into spring. Yet there are plenty of signs of the coming change in seasons: Buds are fattening, day lilies and daffodils are thrusting their green spikes above ground, and even in the early days of the months, one can hear the loud, cheery song of the Carolina Wren: “tea-kettle, tea-kettle, tea-kettle.” Cardinals, too, are in song, and the males are pursuing females and driving rival males out of the territories they are establishing.

Hazel catkins are suddenly several times larger than they were during the winter; they hang down like yellow lambs’ tails, and after a few warm days, a flick of the finger will release a small puff of pollen. Yellow and purple crocus are in flower by the second week of the month, and the silky gray catkins of pussy willow are fully developed and dusted with golden pollen.

In boggy areas the skunk cabbage pushes up a pointed spike, which then develops into a shell-like spathe. This opens to reveal the curious flower, one of the season’s first to attract the early bees and other insects. After a snowfall, the skunk cabbage, by oxidizing carbohydrates, generates a temperature many degrees higher than ambient and literally melts its way through the frozen ground and snow.

About half an hour after sunset on a quiet night, the male woodcock begins his spectacular spring courtship flight. He emerges from the moist woods where he has spent the day and alights in an open field or clearing. Strutting like a tiny turkey cock, he utters an explosive, nasal, buzzy sound at intervals of several seconds. Then, like a little helicopter, he suddenly takes to the air in a steep spiral to a considerable height, circles several times, and then descends in a

series of abrupt side slips and a final dive that looks as if he will crash. During the final stages of flight, he produces a string of melodious twitterings that so fill the air they appear to come from every direction. Once he has descended, this strange routine begins all over again, and if the moon is out, it may continue on and off all night.

Small, round holes in moist earth indicate where woodcocks have been probing for earthworms, which are more than ninety percent of their diet. The birds probably locate the worm through their sense of hearing. The tip of the woodcock’s upper mandible is flexible, so it can close on a worm even when the bill is closed at the base. And because the woodcock spends so much of its life probing, it is useful for it to have binocular rear vision; thus its large eyes are located toward the back of the head.

The doleful calls that give the Mourning Dove its name are heard now as pairs begin breeding. The nest is a frail structure of small sticks in a bush or small tree, the two white eggs often visible through its underside. The parent doves may raise as many as four broods during the year, feeding the nestlings a predigested liquid from their crops known as “pigeon milk.”

The Mourning Dove ... prefers open fields and woodland borders; it is probably far more abundant now than in pioneer days, when so much land was covered in forest. Its close relative, the Passenger Pigeon, occurred in flocks of more than a billion over one hundred years ago, but was massively slaughtered by hunters and deprived of its habitat as forests gave way to settlements and agriculture. Its eventual extinction was due in part to its require-

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ments being much more specialized than those of the Mourning Dove, which can subsist on weed seeds, waste grain, and insects. Unfortunately the Mourning Dove is categorized as a game bird in the South and hunted mercilessly.

On the bays and rivers the Bufflehead are present in large groups, the males displaying to several of the dark-brown females by rearing up and then skimming along the surface to reveal their pink feet. This hardy, dapper little duck derives its name from the male's puffy head, reminiscent of the massive head of the American buffalo. Locally, it is known as "butterball," because of its plump body. Now that they are beginning to pair off, the Bufflehead will soon depart for their breeding grounds in the wooded regions of northwestern Canada. Like the wood duck, they nest in tree cavities, often using woodpecker holes.

Another sign of the onset of spring, keyed to the appearance of earthworms at ground level, is the arrival of robins in our fields and gardens. Some of the hardier individuals have been here all through the winter, but naturally there is nothing to interest them on a frozen lawn. They have been surviving in shrubberies and thickets, feeding on fruits and berries. It was once thought that the robin was listening for earthworms when it cocked its head to one side. Not so. Careful studies proved that it is instead watching for the slight stirring of the ground that indicates a worm moving below the surface. This American bird is not at all like the European robin, but because our bird also has a red breast, it was so named by the early settlers, who were probably homesick for the lands they had left behind.

In addition to the skunk cabbage and

some of the early bulbs, one of the flowers of March is the delicate little periwinkle, or myrtle, a creeping plant that forms a carpet on banks and roadsides. An introduction from Europe, it has spread successfully throughout temperate America.

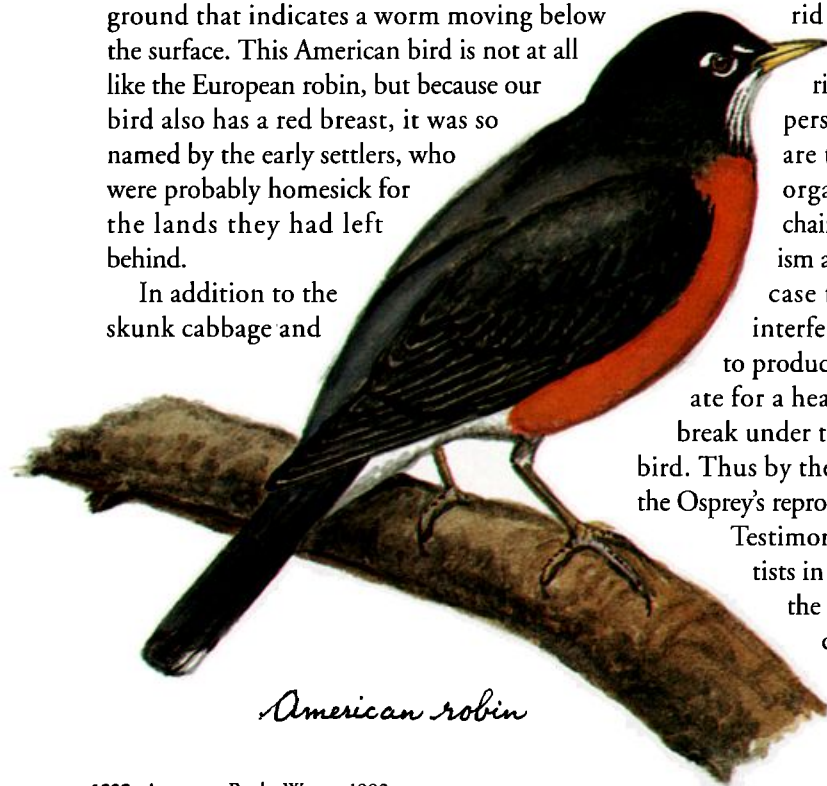
The Great Horned Owl is the earliest nester in the northeastern United States, and by mid-March its young are usually hatched. It does not build a nest but takes over that of a crow, hawk, or other large bird. This splendid bird is an extremely efficient hunter and with its powerful talons can kill a skunk, opossum, and sometimes a domestic cat, although rabbits and voles are its chief food.

By mid-March the first Ospreys have arrived, and within the following few weeks they begin to repair their huge stick nests. That we are now seeing these magnificent birds along our shorelines is remarkable; in the fifties and sixties their populations declined so rapidly that many biologists predicted they would disappear from the northeastern United States within twenty years. In the forties, there were about three hundred active nests on Gardiners Island, but by 1965, there were less than twenty and only three chicks could be found. The culprit was DDT, a pesticide commonly used on Long Island to control mosquitoes.

The use of a broad-spectrum, persistent chemical like DDT to kill mosquitoes can be compared to torpedoing an ocean liner to get rid of the rats on board. DDT and most of the other chlorinated hydrocarbon pesticides persist in the environment and are thus transmitted from one organism to another in a food chain, concentrating in the organism at the top of the chain, in this case the Osprey. The chemical interferes with the Osprey's ability to produce sufficient calcium carbonate for a healthy eggshell, and the eggs break under the weight of the incubating bird. Thus by the sixties, DDT had reduced the Osprey's reproductive success to near zero.

Testimony by a group of local scientists in a 1966 lawsuit put a stop to the use of DDT to control mosquitoes in Long Island's Suffolk County. This suit resulted in the formation

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American robin

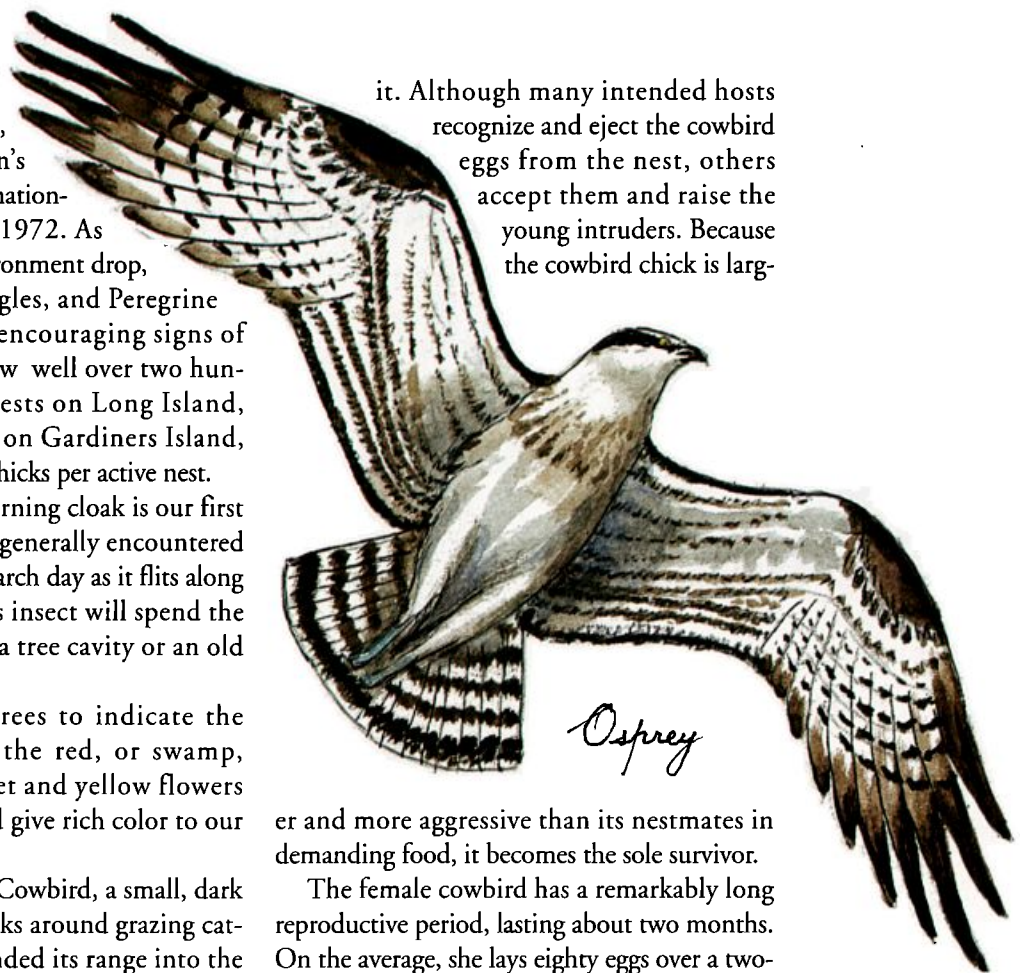
of the Environmental Defense Fund in 1967, and this organization's efforts contributed to a nationwide ban on DDT in 1972. As DDT levels in the environment drop, birds like Ospreys, eagles, and Peregrine Falcons are showing encouraging signs of recovery. There are now well over two hundred active Osprey nests on Long Island, including about sixty on Gardiners Island, with an average of 1.5 chicks per active nest.

The handsome mourning cloak is our first spring butterfly and is generally encountered on a warm, windless March day as it flits along a woodland path. This insect will spend the winter hibernating in a tree cavity or an old building.

One of the first trees to indicate the changing seasons is the red, or swamp, maple. Its small scarlet and yellow flowers open in late March and give rich color to our freshwater wetlands.

The Brown-headed Cowbird, a small, dark bird, often feeds in flocks around grazing cattle. This bird has extended its range into the Northeast since the clearing of the forests and the introduction of cattle. Formerly, it associated with the great herds of American bison in the prairies. The cowbird developed the habit of depositing eggs in the nests of other birds, taking no further part in the reproductive process. It is now parasitizing many species of birds in the new areas that have opened up for

it. Although many intended hosts recognize and eject the cowbird eggs from the nest, others accept them and raise the young intruders. Because the cowbird chick is larg-



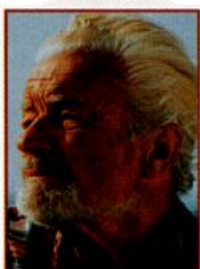
er and more aggressive than its nestmates in demanding food, it becomes the sole survivor.

The female cowbird has a remarkably long reproductive period, lasting about two months. On the average, she lays eighty eggs over a two-year reproductive lifetime, and though it has been estimated that only three percent of cowbird eggs result in adults, this is enough to continue the expansion of the breeding range and possibly affect the future of some of the bird species that are victimized. The Song Sparrow, many flycatcher, warbler, and vireo species are frequent unwitting hosts. ♣

Passion for the Treasures in His Backyard

Dennis Puleston began watching nature at an early age, led by two uncles who were avid naturalists in his native Great Britain.

"I particularly remember when one uncle lifted me up to look at Song Thrush eggs in a nest," says Puleston. "They were beautiful! I was very little at the time, but that really turned me on."



That interest has since spanned eight decades and seven continents. His book, *A Nature Journal: A Naturalist's Year on Long Island*, is a

culmination of years of observations at his adopted home in New York State.

Painting and writing about the minutiae of life involving animals and plants is "a way to express your love for nature," says Puleston. "I had a great deal of fun doing it."

Puleston began to know Long Island's flora and fauna when he settled on the island in 1945. He used much of his spare time scouting out the different habitats near his home in the village of Brookhaven, and taking students on weekend field trips.

Since the 1970s, when he retired as head of technical information at Brookhaven National Laboratory, he has led ecology trips and expeditions around the world, including in Alaska, Patagonia, the Amazon, and the Antarctic. But he always returns to Long Island to observe the ample show in his own backyard.

Puleston's watercolors are part of a nearly life-long avocation. He is currently painting all the bird species that occur regularly on Long Island, with some 160 of over 200 birds completed.

The snowy-haired naturalist hopes his book will educate Long Island's new settlers. He has watched pell-mell development destroy diverse habitat on Long Island. It's a story that resonates in communities around the country, says Puleston.

And Puleston also has seen firsthand the devastation of wintering grounds of neotropical migrants in Central and South America. He notes the impact of that loss on Long Island.

"We used to be able to go into the woods in the middle of May and see warbler waves," he recalls. "There used to be an ailment called 'warbler neck,' caused by watching the birds in the tops of the trees. No more."