

Wrens and Bluebirds, although they were much less common than in Ohio. In the bits of woodland and in great trees left in the open fields were the nests of Bald Eagles, and Red-shouldered and Red-tailed Hawks, and Great Horned Owls were also found in the woods.

## Part II.

### MIGRATION CONDITIONS.

During the migrations there were four, or possibly five, different groups. Some worked south by stages, resting at night in the swamps, others followed the beach, or flew out over the water, some flew right out the point from base to tip, either continuing their flight all the way, or lighting in the trees occasionally to rest; but by far the greatest number of birds worked along gradually through the woods, only starting in their flight when they reached the limit of shrubby vegetation. These are the birds that cannot often be seen in the act of migrating, and which Pelee Island is especially suited to catch in the act.

The Swamp-frequenting migrants were the Pied-billed Grebe, Mallard, Coot and Black Duck, where there was open water; the Wilson's Snipe, Yellow-legs, and Solitary Sandpiper on the mudflats. The Least, Semipalmated, Baird's and Spotted Sandpiper and the Killdeer and Semipalmated Plovers occasionally visited the mudflats, although usually staying on the beach. The Little Blue Heron, a straggler from the south, may as well be mentioned here. Its occurrence so far north is rare, but not unprecedented. The Rails and Herons were probably migrating, but we could not detect their movement with certainty.

Over the water migrated the Bonaparte Gull and Caspian Tern, and along the beach came a host of shore-birds. The Dowitcher, Knot, Baird Sandpiper, Hudsonian Godwit, and Black-bellied Plover were some rarities that were seen; the Baird Sandpiper in considerable numbers. The Least, Semipalmated, and Spotted Sandpiper, the Sanderling, the Ruddy Turnstone, and the Piping, Semipalmated and Killdeer Plo-

vers were all seen in unusual numbers. Only the Pectoral and Red-backed Sandpipers were seen more rarely than might have been expected.

Of the birds that flew over the trees, the Swallows and Blackbirds were easily the most noticeable, the former flying in loose aggregations, the latter in compact flocks. The Swallow bands were usually composed of all the species, but with a decided predominance of one or two kinds. At first the commonest were the Rough-winged, but soon the Bank also became prominent, only to be outnumbered in turn by the Purple Martin. The Barn Swallows were always present in good numbers, but the Tree and Cliff Swallows, while usually present, were never seen in large numbers. The Swallows migrated mostly before 9:00 a. m. and after 5:00 p. m., but on favorable days a steady stream would be passing from morning until night. Of the Blackbirds, the Bobolinks came past in flocks of Bobolinks alone, ranging in number from twenty-five to three or four hundred. Red-wings, Bronzed Grackles and Cowbirds came in flocks mostly of one species, but containing also some individuals of the other two. Blackbirds (including Bobolinks) were only seen passing in the morning and at night, not in the middle of the day. Once an enormous flock of Grackles was found scattered and feeding around the west end of the swamp. The passing Red-wings also often paused at the swamp. After passing the base of the point, however, they did not usually light again.

The Swallows were usually accompanied by a few Chimney Swifts; and Nighthawks, Ospreys and Marsh Hawks were also seen migrating, flying usually high in the air. The Marsh Hawks seemed to migrate usually in pairs.

The Goldfinch, Rose-breasted Grosbeak and Bluebird migrated singly or in small companies, and lit, here and there, in the trees to rest. They act much like the Bluebirds, but light more. The Mourning Dove, Flicker, Red-headed Woodpecker, and Kingbird traveled in small, loose, companies, which in the case of the last mentioned, almost reach the dignity of flocks sometimes. They light even more than the

Goldfinches and Bluebirds, almost always stopping to rest and discuss the matter before starting out for the crossing to Middle Island. The Sharp-shinned Hawk and Goshawk hang on the skirts of the great warbler and thrush flocks, taking their toll of victims, and necessarily lighting to devour them. The Ruby-throated Hummingbird does not really light, but is mentioned here because of its habit of stopping to hover in front of a primrose blossom before speeding on close to the sand and off over the water.

Of the birds that worked out through the woods there are three groups, the flycatchers, the thrushes, and the warblers. The Purple Finch, House Wren, Blue-gray Gnatcatcher and Red-breasted Nuthatch also came down the point in this way. The Red-breasted Nuthatches and Blue-gray Gnatcatchers seemed to prefer the cedars to the deciduous trees. The Thrushes were satisfied with anything that kept them well concealed and out of sight. The Flycatchers had no choice, as far as I could see. The little red dragonflies (*Sympetrum rubicundulum*) that formed a large part of their food, were equally numerous everywhere. Early in the season, the warblers seemed to prefer the red oaks, usually surrounded by cedars, but later they were perhaps crowded out into the cedars, for they often left the oaks empty, while the cedars near by were full. In the great jams, the cedars and oaks alike were packed with birds. The warblers seemed to eat mostly small spiders and beetles, which they gleaned from the branches.

Of the flycatchers, the Olive-sided kept mostly to certain favorite tall, dead tree-tops, just south of the swamp. Occasionally we could get a look at one with the shining flank feathers over the wing, making a most striking field-mark. The Least, Acadian, and Yellow-bellied Flycatchers were all exceedingly numerous, especially the first. They were found everywhere, throughout both cedar and deciduous belts.

The Wood, Wilson, and Olive-backed Thrushes arrived just as we were about to leave. They kept so closely to the underbrush a satisfactory identification was extremely difficult.

The fall warblers were present in almost unbelievable numbers. The Golden-winged, Cape May, Pine, Palm, Prairie, and Connecticut Warblers and the Water-Thrush were species, usually rare, that were seen there in numbers, the Cape May and Water-Thrush being exceedingly abundant on some days. The commonest of the warblers were the Cape May, Black and White, Magnolia, Bay-breasted, Blackburnian, Black-throated Green, and Redstart. All these were exceedingly abundant at some time. On the big warbler days, all of the species just mentioned, together with the Water-Thrush, Louisiana Water-Thrush, Nashville, Tennessee, Black-throated Blue, Cerulean, Chestnut-sided, Black-poll, and Canadian deserved a better mark than "common." The Blue-winged, Golden-winged, Pine, Palm, Prairie, Connecticut, Mourning, Wilson, and Oven-bird were seen time after time. Almost every day these warblers were all present except the extreme rarities, and almost all of them were seen in every plumage, from the full adult to the most disguised youngster. It was a chance to study fall warblers that none of us will ever see the like of again, and we certainly improved it.

In all, 138 kinds of birds were seen on the island. Of these, 85 breed in the latitude, and may be considered as summer residents, 51 are clearly migrants and 2, the Little Blue Heron and Goshawk, are stragglers.

### Part III.

#### MAMMALS OF THE ISLAND.

The only mammals seen were the cotton-tail rabbit, the black and fox squirrels, and the deer or white-footed mouse. It is peculiar that no grey squirrels were seen. Mr. Ackley reported seeing one, however, and perhaps it was due to our lack of observation. The black squirrels were very large and fine specimens. One fox squirrel was found far out on the point, where there was nothing but small shrubs, and killed with a stick. Its presence there was probably due to sympa-