## NOTES ON THE FAUNA AND FLORA OF EAST AND MIDDLE SISTER AND NORTH HARBOR ISLANDS, LAKE ERIE.

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The following observations were made during a two days' trip to the islands, which are situated a few miles west of Pelee island in western Lake Erie. All have rocky shores with much shingle or coarse gravel and have a number of bays and shoals. Owing to a severe gale most of the time was spent on North Harbor island which contains but slightly over an acre in its area. The island is narrow and a ridge follows the centre. The following trees were found, being arranged in order of their abundance: - White Elm, Hackberry, Kentucky Coffee Tree, Sugar Maple, Chokecherry, Cottonwood, Staghorn Sumach and a shrubby willow. Along shore were observed several large stumps of the Red Cedar no doubt flourishing many years ago. Of the shrubs and vines the common elder (Sambucus Canadensis) is represented and Virginia Creepe: Climbing Bittersweet (Celastrus), Wild Grape and Poisin Ivy abound. No attempt has been made to tabulate the herbaceous plants as a number were not familiar to the writer.

The item of greatest biological interest however is a large colony of the Common Tern (Sterna hirundo) the estimated number of birds being 2,000 to 2,500. Some 800 occupied nests were counted over half of which contained three eggs, about one quarter containing two, a few with four and the remainder with one. The nests were situated on the shingle a few feet above the water. Some were somewhat concealed by foliage and driftwood, others were in plain view but blended rather well with the shingle, thus making it necessary to pick one's steps. Most of the nests were composed of broken reeds and bits of driftwood but in some green leaves were employed, while in still others there was merely a hollow in the shingle; these were exceptional however. The sests were often as close as two feet to one another and were most numerous in the troughs of shingle formed by the action of the waves. The ground color of the eggs is a pale greenish or yellowish buff with variable dark spots sometimes forming a ring at the larger end. The eggs vary greatly in color, even in the same nest very light and very dark examples being frequent. During our whole stay the birds kept up an incessant noise and seemed to treat our presence with great disapproval. While at this island only one bird had hatched this being found just previous to our departure on the 21st of June.

The bird population of the island other than tern was scant consisting of a Red-eyed Vireo and

a Song sparrow, a visiting (?) pair of Kingbirds, as well as several Bronzed Crackles and a Crow, present no doubt for nest robbing as the terns made a great noise during their presence. Several Herring Gulls and a Bank Swallow were also noted flying past.

The next island visited was East Sister and contains thirty or more acres, about ten of which is cleared and is planted to peach trees and garden crops chiefly. As might be surmised, owing to its much larger size all branches of the fauna and flora were represented by a larger number of species than was the island previously visited. In addition to the trees enumerated as found on North Harbor the following were found on East Sister:-Basswood, Shellbark Hickory, White Ash, Silver Maple, Aspen, Sycamore, Red Elm and a species of Dogwood. The most abundant bird on this island was the Bronzed Grackle but the House sparrow, Kingbird and Red-winged Blackbird were also well represented. The following were also noted in small numbers:-Crow, Red-eved Vireo, Wood Pewee, Cedar Waxwing, Cowbird, Robin, Killdeer and Turkey Vulture. According to report the Cottontail is found here but no other mammal is known, but no doubt others occur.

The last island visited is somewhat isolated, being about ten miles from the others and about twelve from the mainland. It contains some eleven acres, all of which are densely wooded, and has high rocky banks. On the side facing east is a promontory of rock and on the opposite side great windrows of gravel where Common Terns nest in great numbers. The tern population of this island was estimated at some 8,000 and the occupied nests at 1,500 to 2,000. Apparently over half of these had been robbed earlier in the season as the unoccupied nests were quite as numerous as the occupied ones. On the day the island was visited (June 22nd) about twenty per cent. of the birds were hatched but probably these did not start to hatch before the 20th.

The trees found on this island were almost identical in species to those found on North Harbor, the Red Cedar being alive in this case and the Sumach absent. Other than the terns, the following birds were noted:—Indigo Bunting, Kingbird, Red-eyed Vireo, Carolina Wren and a flock of about 500 Herring Gulls which left the bar on our approach. A visit to the island on May 30 revealed the pres-