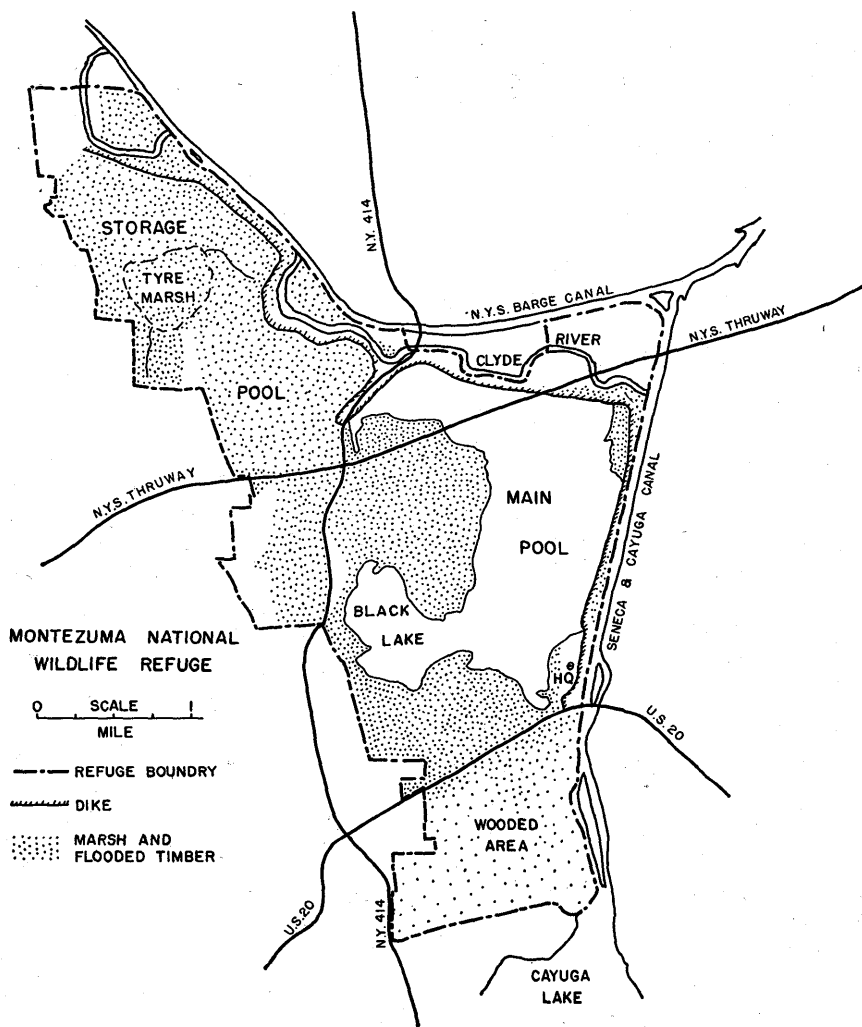




THE MONTEZUMA NATIONAL WILDLIFE REFUGE

OLIVER H. HEWITT

Only a century ago, one of the finest wildlife areas in the northeast was a part of New York's heritage. Vast fresh-water marshes stretched northward from the foot of Cayuga Lake, fed by the Seneca and Clyde Rivers and their tributaries. The Indians called the marshes "Squagonna", which, loosely translated, means "Home of the Big Mosquito". White men rechristened them "Montezuma" for no apparent reason. The name of the Aztec king seems out of place in the land of the Cayugas.

The great marshes were rich in waterfowl and sport fishes. Hunters came from as far as Boston and New York City to shoot ducks and shore-birds. Early fish stories recommend the bass and pike of Montezuma ponds. It is unfortunate that we have little knowledge of the enormous numbers of birds and beasts which lived in the marshes as the Indians knew them.

But such great marshes were thought to be obstacles in the path of progress and development. The history of Montezuma is similar to that of other great marshes such as the Horicon in Wisconsin and the Klamath in Oregon: early drainage and, later, partial restoration. The Montezuma marshes lay in the way of travel between Albany and Buffalo. The possibility of putting the fertile muck soils under the plow encouraged several early, unsuccessful attempts to drain the marshes. In 1852, a committee of the State Legislature reported that "The immense body of land is in the heart of the most fertile, beautiful and prosperous part of the state, and is capable of being made itself of the most productive and most valuable quality, instead of being, as it now is, not only utterly unprofitable and totally useless to its owners, but an unsightly blemish upon the fairest portion of our State, a colossal nuisance, and a source of continued and wide spreading pestilence to the surrounding country."

It was not until completion of the N. Y. State Barge Canal changed the course of the Seneca River, about 1911, that the major part of the Montezuma Marshes were drained. By the mid-twenties, even that part which is now the National Wildlife Refuge was dry. In a Cornell thesis written in 1929, Claude W. Leister says "Today, the Seneca River, at the south end of the marsh, is some eight or ten feet below its former level and the old back-waters running into the marsh are dry. Black Lake, the largest body of open water, is almost dry. Onions are being raised on much of the former marsh land and it seems to be only a matter of time until that prosaic vegetable will replace the flowing cat-tail."

Thanks to S. C. Vanderbilt of Clyde, a portion of the western arm of the Montezuma Marshes, called the "Sink Hole Marsh" has been preserved with few changes. His marsh provides an economic return from muskrats, cat-tail and waterfowl hunting. It remains today a haven for many forms of marsh wildlife, where the student can still observe the network of creeks, ponds and "islands" as they existed years ago.

Development of the Refuge

The area immediately north of Cayuga Lake was never successfully farmed, because of shallow muck and a stubbornly high water table. Yet its value to waterfowl, to marsh birds and to other wildlife had been lost. In 1937, the U. S. Bureau of Biological Survey (now the Fish and Wildlife Service) purchased some of this area, and established the Montezuma National Wildlife Refuge. During the following four years, more land was acquired until the Refuge area totalled 5819 acres. About eight miles of earthen dikes were built, with deep channels alongside. West of Highway 414, a storage pool of 1200 acres was created, into which Black Brook and White Brook flow. Water levels are controlled by two concrete spillways. When needed, water from the storage pool can be directed into the main pool east of Route 414. Filling of the storage pool drowned a large area of elm and maple woodlands and recharged Tyre Marsh, creating a very productive habitat for wood duck. In the drowned timber also nest other birds which might well be absent, such as Bald Eagles, Red-headed and Red-bellied Woodpeckers, Brown Creepers, and occasionally Hooded Mergansers. It is in this area, between the dike and the Clyde River that one finds nesting Prothonotary Warblers.

The main pool comprises 1500 acres of excellent habitat, with wide open expanses of shallow water, great areas of cat-tail and bulrush, and lowland timber. Near the main entrance on the south side are the headquarters, including the familiar observation tower, 115 feet high, offices, shops and the home of the Refuge Manager, Lawrence S. Smith.

Over the reflooded marshlands many species of aquatic plants soon flourished to provide food and cover for wildlife. In addition to the widespread cat-tail and bulrush are bur-reeds, rice cut-grass, smartweeds, pondweeds, coontail, and great quantities of duckweeds. Natural vegetation is occasionally supplemented with plantings of sago, wild celery, wild rice, and millet. Surrounding uplands are plowed and planted to grains for the thousands of ducks and geese that flock to the refuge during migration.

Management

Management of the refuge is directed toward its main objective—the maintenance of the best habitat for breeding and migrating waterfowl. Water level control by an adequate system of dikes and spillways is of prime importance. Contrary to popular belief, the N. Y. State Thruway, which was built across the northwest corner of the main pool in 1953, will improve the possibilities for water level manipulation. While the Thruway may be somewhat of a nuisance to visiting naturalists, there is no reason to believe that it will reduce the wildlife values of the refuge.

Muskrat populations must be maintained at a stage which will allow an interspersed of cat-tail and open water. To accomplish this, muskrats are harvested each spring in pre-determined numbers. Private trappers do the job on a share-crop basis. Racoon, fox, mink and opossum are taken in season in order to reduce predation. Refuge products such as logs, firewood, poles and some crops are sold in quantities consistent with the primary refuge

objectives. Cat-tails are cut for chair bottoms and coopeage where growth is too heavy for ideal waterfowl habitat. Grazing and agricultural lands may be rented to private individuals under Special Use Permits. Twenty-five per cent of net income from such sources are returned to Wayne, Seneca and Cayuga Counties, in which the refuge is located.

Carp, which destroy aquatic vegetation and roil the water, have been controlled whenever practicable. In 1952, carp were eliminated from the storage pool by rotenone poisoning. The results were gratifying. A marked increase in the use of this area by breeding waterfowl occurred the following year. Unfortunately carp control is expensive and difficult.

Wildlife

Jesuit missionaries who were the first white men to see the Montezuma Marshes, expressed great wonder at the abundance of wildlife. Their records state that "the sunlight over the marshes was actually cut off by the clouds of millions of ducks and geese and the woods abounded with deer. Fish were plentiful." Into the early part of the present century, waterfowl and shorebirds were killed by the boatload for city markets.

Our knowledge of wildlife on the original Montezuma would be almost nil, were it not for the late Foster Parker. Born and brought up near Cayuga, on the edge of the marsh, Mr. Parker was a keen and reliable ornithologist. He knew the marsh better than anyone else. Many of his observations and specimens, as recorded in Eaton's "Birds of New York", constitute the only information we have on certain species occurring as summer residents in New York.

Ornithological records show that no less than 247 species of birds have been recorded as breeding there. The possibility of seeing some rare or accidental visitor has always excited bird watchers at Montezuma. Over the years, such species as Eared Grebe, White Pelican, Glossy Ibis, European Teal, Avocet, Parasitic Jaeger and Little Gull have been spotted; some of them more than once. During the last four or five years several species of ducks, rare as breeders in New York, have returned to raise broods in the improved habitat of the refuge. These include Gadwall, Shoveler, Redhead, Ruddy Duck and Hooded Merganser. The flight of ducks, herons and egrets between the storage pool and main pool of an August evening is a thrilling sight. And there is always the opportunity to see nesting, such uncommon small birds as Prothonotary, Cerulean, Golden-winged and Mourning Warblers, Red-bellied Woodpeckers and Brown Creepers.

The abundant wildlife will provide hours of delight. With a little patience, one can observe intimately the family life of Black Ducks, Wood Ducks and Blue-winged Teal; Coots, Gallinules and Pied-billed Grebes; Common Terns and Black Terns and, of course, the Bald Eagles. Often one may watch deer, raccoons, and muskrats with their young.

Fortunate are we in New York that this great section of Wildlife paradise has been restored as the Montezuma National Wildlife Refuge. It will always be one of the finest natural areas in the country.

Department of Conservation, Cornell University, Ithaca, N. Y.