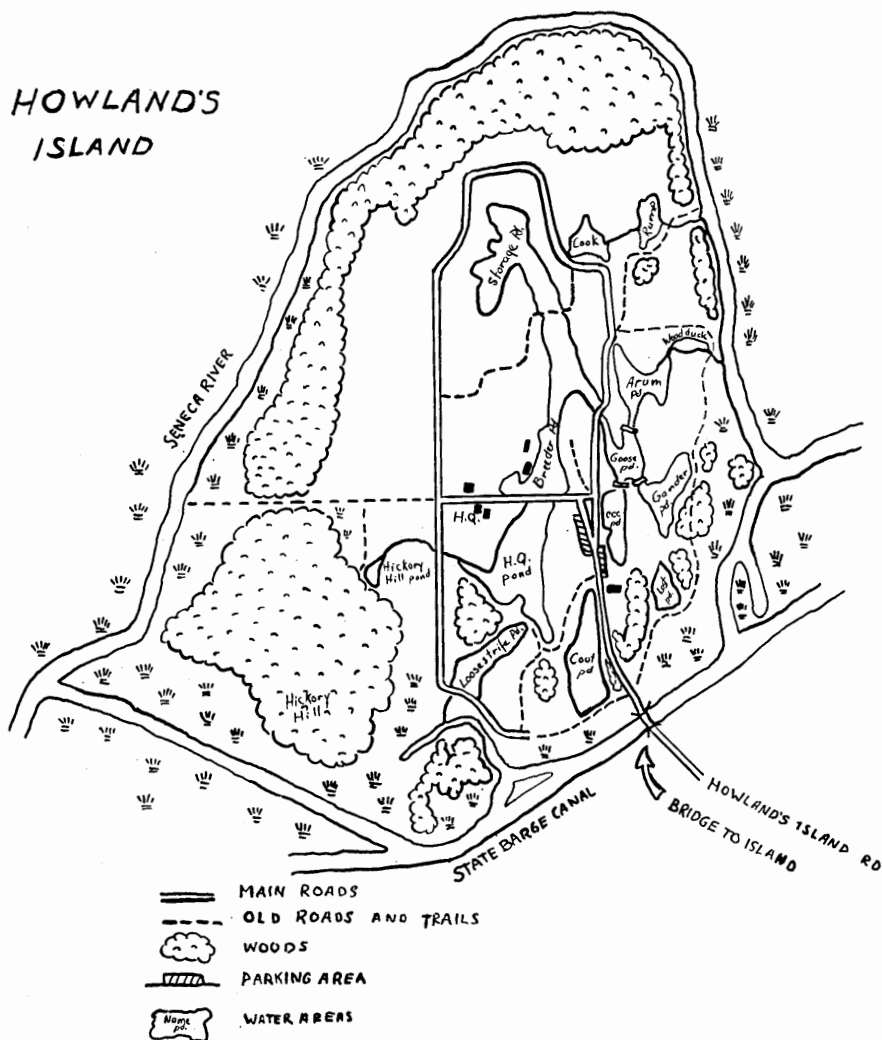


HOWLAND ISLAND GAME MANAGEMENT AREA

PAUL M. KELSEY

Prior to World War I, the State Barge Canal was dug cross lots to eliminate a large crook in the Seneca River route, creating the present 3,200 acre island. It is bounded on the south by the canal and on the remaining sides by the Seneca River.

HOWLAND'S ISLAND



Located just inside Cayuga County, northwest of Port Byron, it can be reached by following route 38 north out of Port Byron about one mile beyond the village limits until the Owasco Lake Outlet is crossed, and then immediately turning left on Howland Island Road. Taking the "line of least resistance" at the one junction, $1\frac{3}{4}$ miles of macadam road ends at the only bridge leading onto the island.

In 1931, the New York State Conservation Department bought the island from its private landowners to establish a wildlife refuge. Beginning in 1934, the area was managed primarily for waterfowl with particular attention given to the planting of food patches for migrating geese. This also was the era of the C. C. C. Camps; and it was one of these camps, located on the island, which created most of the 300 acres of pond and marsh, which are now the basis for the current waterfowl program.

During the 40's, the major emphasis was switched from waterfowl to a game farm for rearing pheasants. This was during the first major pheasant decline, and the state pheasant stocking program was pushed to the 100,000 birds per year level. As the pheasant population began to recover and more was learned about the value, or lack of value, of indiscriminate stocking, the pheasant propagation program was drastically curtailed.

Pheasant rearing was discontinued in 1951; and at that time, plans were made to take advantage of the water area made during the C. C. C. days to develop the island for waterfowl. A major item in this program was to establish a study center and investigate the possibility of introducing, through artificial propagation and liberation, ducks that were not native breeders in New York State. The feasibility of such a program had been demonstrated by our experience with mallards and through banding studies, particularly those carried out at the Delta Waterfowl Station in Manitoba.

Before the war, there were indications that the mallard duck was extending its nesting territory toward the east. The Conservation Department gave this move a hand by producing and releasing mallards. New York's banding studies, and those at Delta and elsewhere, revealed that young hens returned to the area where they had been reared the following spring. Young drakes, on the other hand, followed their hen back to her home territory. Artificially reared ducks released before they could fly, had responded in the same manner with the release site being their home ground.

The attempt to introduce new nesting species of duck was not to give the waterfowl hunter a more colorful game bag, but rather as one means of increasing the carrying capacity of New York's marshes, and, therefore, the production potential of our wetlands. For some reason, mated pairs of ducks have a very limited tolerance for other ducks of their own kind, while they can live in harmony with ducks of other species in close proximity. For instance, a small marsh which would only produce one brood of black ducks and a brood of wood ducks, under native conditions, now will also support a brood of mallards. If others could be introduced to nest on this marsh, it might be possible to more than double its production without even touching the area.

Initially, duck eggs collected at Delta were hatched and the young released; but this method was only scratching the surface. The few returns,

however, gave further backing to the principle and encouraged the Conservation Department to attempt to establish breeder flocks to make large liberations possible. Before such a rearing program could be a reality, many problems faced the game farm and research personnel. The two biggest were those of getting eggs from breeders and improving the hatchability of the eggs obtained.

Under the old mallard program, they were happy when they got 65 percent hatchability from their fertile eggs. Based on this, the 25 percent hatchability of redhead eggs was discouraging. As evidence of the time and effort put into this phase, the redhead hatchability has been increased to 88 per cent and mallards have been boosted to 90-95 per cent.

Several techniques were modified to bring this about, but the most striking is one which recreates the effect of the hen leaving the nest to feed. Each day the eggs are cooled for 15 minutes and sprinkled with luke warm water before being returned to the incubator.

Even before hatching problems can be solved, egg production must be achieved. Egg production in redheads was all right, but the pintails had been dragging their feet in this activity for some time with a production rate of about one egg per hen. This year, Bob Bauer, the island's foreman, moved 20 pair into a covered holding pen where they would not be bothered by the coming and going of wild ducks. This one change, from open to closed pens, jumped egg production to about 17 eggs per hen. As a result of this, a second covered holding yard is currently being constructed and will be ready for use next spring.

This jump in egg production made possible the first release of pintails in New York since the Delta ducks in 1951 and 1952. Three hundred fifty 5-week old pintails were put out this summer. Evidence that pintails should establish themselves under New York conditions is the fact that in 1960, 15 pair nested on the island. This past summer, in addition to the nearly 20 broods raised, 280 wild pintail eggs were collected and run through the incubator with the eggs collected from pen reared birds.

The method of raising young ducks from hatching to 5 weeks at Howland Island represents a major change from former techniques. Old hands at duck rearing assured the Department their new ideas wouldn't work. Traditionally, wild ducklings had been kept away from water for their first three weeks. This method had created two problems. First, being kept away from water, their oil glands do not develop properly and their down will quickly soak up the water. It is necessary to keep chasing them out of the water until their post-wetwing preening gets their oil glands functioning properly. The other problem was that without water, there was nothing to do. The ducklings just sat around and were not in good physical condition. Where they now have water, they are extremely active and develop into sturdy well-conditioned ducks. The old system had a mortality rate of about 5 per cent at 3 weeks. Under the Howland Island technique, this has been cut to 1 per cent.

The Howland Island brooder house is located right on the bank of Breeder Pond where it is visible from the road leading across the main dike. The concrete floor of this long building gives way to water along the east side of the building where it actually extends several feet into the pond. Sliding doors along the back of the building permit access to outside yards



where grass resting areas and more water are available. The partitions, separating each little unit, run across the brooder house from the pond to the back wall. They are only about 18 inches high, so the catwalk running across them and the length of the building gives good visibility and access to all units.

As the ducklings come into the brooder from the incubator, they are kept in confinement near the brooder lamp the first 24 hours to learn where home is. For the first couple days, a white sheet is placed over the wood chip litter and the food pellets placed on it. They quickly learn that the pellets are edible. When the ducklings were placed directly on the chips, rather than on the sheet, it was found that they were dying of thirst even while swimming in water. They had picked up bits of wood fiber, which had impacted in their throats, preventing them from taking either food or water.

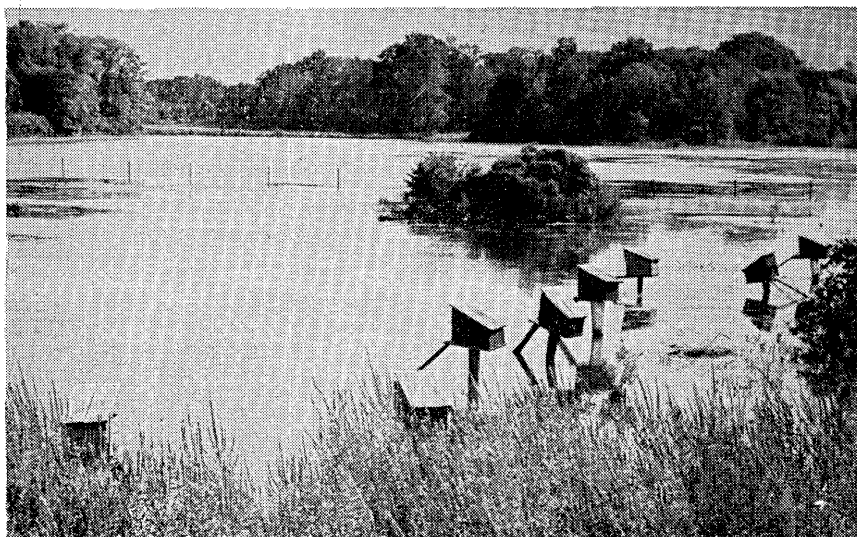
Each week, the ducklings are moved toward the far end of the brooder to make room for the weekly hatch. At the end of three weeks, they graduate from the brooder house and move to the large outside holding pens, where they remain two more weeks before they are given Fish and Wildlife Service bands and liberated on suitable marshes around the state by Conservation Department personnel.

One little oddity that strikes visitors to the brooder house is that each swimming pen in the brooder has several bullheads. Bob Bauer explains that these are his sanitary engineers, and they are placed there intentionally to help keep the pool clean.

While the department's waterfowl biologists feel that the range for the redheads is mainly limited to large areas like Montezuma, Oak Orchard, Perch River and Wilson Hill, it is felt that the pintail has possibilities of nesting where one now finds mallards. Since breeding populations of redheads have been established on these major waterfowl areas, the purpose of raising this species has been accomplished. Stocking waterfowl for the

gun is a highly impractical procedure, and so hunting regulations must be maintained with the idea that waterfowl hunting is dependent on natural reproduction, not stocking. Current regulations, protecting the canvasback and redhead and reducing the pressure on other species, recognizes the importance of returning breeders in the spring. The mission of establishing the redhead as a breeding duck in New York has been basically accomplished. It is planned to cease their production following the 1964 season and place time and energy on other species, particularly gadwall. Also, in the future, there may be ring-necked ducks for the Adirondacks and baldpates to supplement the dabblers on the downstate marshes.

This summer 900 5-week-old redheads were released, with the remaining 500 to replace breeders next spring, and to go out as spring breeders on our marshes. The wild birds on the island did well too, producing 9 broods.



Agricultural operations on the island include 150 to 200 acres of grain each year, which makes a real contribution to the feed used by the state game farms. Like farmers everywhere, the grain production is subject to federal control; but unlike other farmers, additional acreage may be planted and left standing for wildlife. To help feed the migrating waterfowl that utilize the area in the spring and fall, the planting of food grain patches is an important activity.

The southwestern edge of the island appears to lend itself to the development of a 500 acre open water marsh by constructing a $3\frac{1}{2}$ mile long dike along the river bank. Including the additional wooded area that would be flooded, this would be more than double the present water area on the island. Plans are in the mill for this operation, which it is hoped can be started in the next year or two.

Though waterfowl are the main concern on the island, turkey and quail have both been released. This summer, there were 3 known broods of quail on the management area. The turkeys drifted across the Seneca River and brought off two broods on the far shore.

Like every refuge where deer exist, they became a problem. The area has been open to gunners on 3 occasions, first in 1950 when they harvested 359 deer, and again in 1952 and 1955 when a total of 305 more were removed. Since 1955, archers have had an annual hunt under careful control and have brought the total number of deer removed to over 1,000. It is presently estimated that the deer herd numbers around 100, a much more reasonable figure than what existed in 1950 when $3\frac{1}{2}$ times that were actually removed. One trained in reading the story of deer from signs left on the vegetation can still see the deer line on the apple and other favored trees, dating back to the old refuge days.

Future plans for Howland Island will continue to stress the waterfowl program. Controlled hunting will be needed to keep the deer herd in check. Agricultural activities will continue to furnish feed for local and migrating waterfowl and grain for other needs of the Conservation Department. In line with present thinking of multiple use of all state lands, the public is encouraged to enjoy the pleasures of observing wildlife on this interesting area.

For those in more distant sections of the state, a trip to Howland Island can be conveniently combined with one to the Fish & Wildlife Service's Montezuma Waterfowl Refuge, a scant 10 miles away.

District Game Manager, 21 Clinton Ave., Cortland.

CONSERVATION NEWS

MAXWELL C. WHEAT, JR.

Forest Preserve: After you have vigorously attacked a conservation bill for offering too little protection, you are likely to slap a hand against your mouth as if to cry "what have I done?" when you hear a developer jump to his feet to whack at the same measure for providing too much sanctuary.

The developers, worried that they may not be able to gain eventual access to all the Forest Preserve, are condemning the bill that would set aside two thirds for possible multiple use leaving the rest as wilderness. They charge that the bill is just for the few who are willing to "play at being an Indian". Yet many conservationists have praised it for leaving some lands in the Adirondacks and Catskills that would be recognized by the old Iroquois. So all this would seem to leave you in that proverbial 'foot in mouth' predicament.

Except that the bill, introduced by Assemblyman Robert Watson Pomeroy, chairman of the Joint Legislative Committee on Conservation, has been obscured by a cloud of confusion and misconception.

For one thing, many assume it will be several years before the bill can possibly be passed. Not so! Many think that the wilderness areas to be set aside will be "new". Not so! It is becoming a widely held view that the Preserve's chief function has come to be that of recreation. Absolutely not so!

If you are able to ascertain the correct basis on which to form your attitude you may wish to testify at one of the public hearings yet to be held: 8 p. m., December 8, State Office Building, Buffalo: 1:30, Dec. 9, Country Squire Motel, Rochester: 3:30, January 11, American Museum of Natural History, New York City: 1:30, Jan. 13 Assembly Chamber, Albany. Those wishing to testify can apply to Mr. Pomeroy's committee, care of the Assembly Chamber, Albany.

What has caught many of us by surprise is the fact that the measure can be given final approval at the legislative session this winter. One would have thought that such an important proposal would have required amendment of the 'forever wild' clause of the state constitution which has safeguarded the Preserve all these years. This would have necessitated the longer, more cautious process culminating in voter approval.

Proponents have been able to avoid this by presenting the bill as something of