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- Research to determine wintering patterns of Harlequin ducks.

# A HISTORY AND SELF-GUIDING TOUR OF

# STEVE POWELL WILDLIFE MANAGEMENT AREA

SWAN·ISLAND
·ON THE KENNEBEC RIVER·

Maine Department of Inland Fisheries & Wildlife
Wildlife Division
284 State St., 41 SHS
Augusta, ME 04333-0041
***www.state.me.us/ifw***


## ACKNOWLEDGEMENTS

The Maine Department of Inland Fisheries and Wildlife wishes to extend its appreciation to staff of Swan Island whose efforts make your visit to the Steve Powell Wildlife Management Area an enjoyable and educational event.

Special thanks is offered to 1977 island summer employees Edward Kennedy and Dale Farrar, who were instrumental in the original preparation of this brochure.

Most of these photographs provided by Bill Silliker, Jr. @
***www.camerahunter.com***

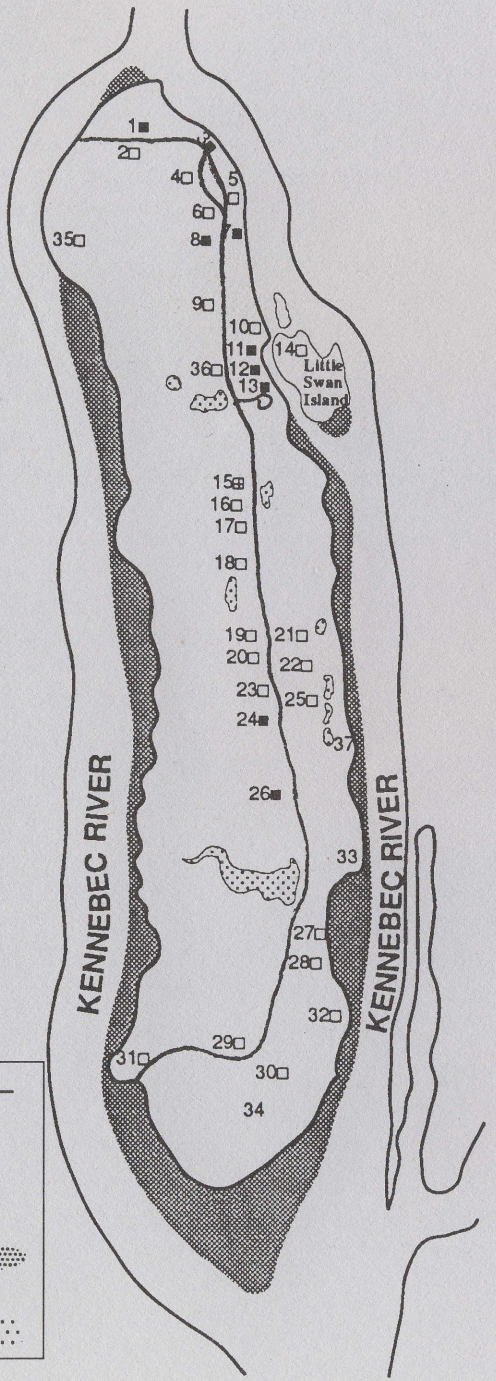
Further appreciation is expressed to Maine sportsmen and the Federal Aid to Wildlife Restoration Program for their financial support of management programs on the Island. Without these funds the wildlife observed here could not be maintained.

Revised - April 2000




## Historic Sites Map

1 Tubbs-Reed House
2 Tubbs-Reed Barn
3 Sheds
4 Priest-Blen House
5 Machine Shop
6 Priest Buildings
7 Saunders-Underwood-Priest House
8 Turner-White House
9 Lewis House
10 Foss-Perkins-Hibbard House
11 Boathouse
12 Gardiner-Dumaresq-Hibbard House
13 Robinson-Powell House
14 Day-Lewis House
15 Curtis Cemetary
16 Curtis House
17 Curtis Barn
18 Washington-Call House
19 Schoolhouse
20 Lewellen-Call House
21 Tollman-Derrah House
22 Lewis House
23 Wade House
24 Lilly-Wade House
25 Lovett-Leavett-Consumer House
26 Maxwell-Tarr House
27 Jackson-Reed Barn
28 Jackson-Reed House
29 Unnamed cellar
30 Barker-Harward House
31 Theobald Barn
32 Red camp
33 Site of Deering Ice House
34 Supposed Site of Whidden Stockade
35 Charles Smith House
36 Sarah Lilly House
37 Site of Consumer Ice House



The Steve Powell Wildlife Management Area, owned and managed by the Maine Department of Inland Fisheries and Wildlife, is comprised of two islands and several hundred acres of adjoining freshwater tidal flats.

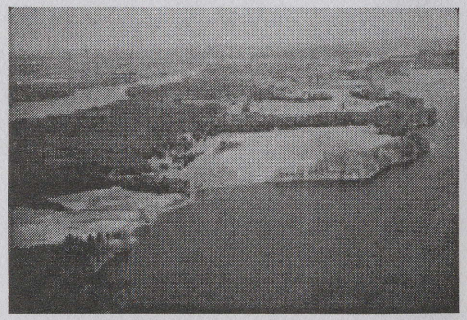
It lies within Sagadahoc County, in the Kennebec River at the head of Merrymeeting Bay and totals about 1,755 acres. Swan Island is approximately 4 miles long and varies between 1/2 and 3/4 of a mile in width. Little Swan Island is nestled on the east side of Swan Island, directly across from the campground, and is separated from the larger island by "The Narrows". A small rocky island just north of Little Swan Island, Spauldings Rock, is not included in the management area.

The islands in the Steve Powell Wildlife Management Area and the surrounding towns share a rich and colorful history.

## BRIEF HISTORY

The Merrymeeting Bay area was inhabited by the Abenaki Indians, a branch of the Kennebec tribe, long before the first European-American settlers arrived in the area. In fact, the chiefs of the Abenakis used Little Swan Island as a stronghold, and the remains of a stone fortress could still be found there as late as 1897. An Indian village also existed near the southern end of Swan Island for many years. Merrymeeting Bay derives its name from the Indian gatherings that the early explorers observed in the area.

Exactly how Swan Island received its name is debatable. Even the earliest records refer to it by this name. The Indians called the island "SWANGO" (Island of Eagles). Some say the name was simply shortened to Swan. Another legend contends that the bay was once the stopping place of many swans and that this is the origin of the Island's name. The real story is probably lost forever in the memories of those early explorers who first reached the island. An attempt in 1718 by the Plymouth proprietors to change the name to Barden Island soon failed.



Little Swan Island does not share such a stable name. It was first termed Small Island, then, in 1718, Calf Island. Eventually the name Little Swan Island became most popular.

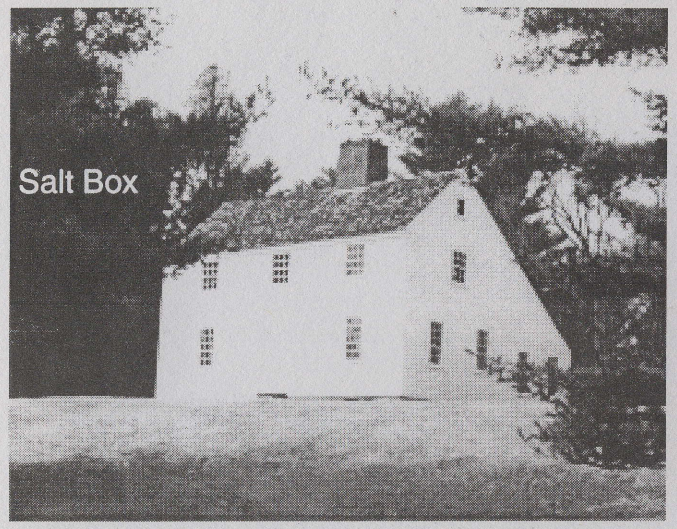
Spaulding's Rock is named for an English lady, Ann Spaulding, who came to Swan Island to marry a colonist. Upon her arrival she found the man of her dreams had "jumped the gun" and married someone else. As a result, Ann Spauldlng chose to live alone on Spaulding's Rock.

The first recorded visit of Europen-American settlers to Swan Island came in 1607 when members of the Popham Colony stopped at the island. A second visit occurred in 1614 when Captain John Smith visited the Kennebec Indians on Swan Island.



The next record of European-American settlers in connection with Swan Island occured in 1667 when Christopher Lawson bought the island from the Indian chief Abbagadasett. In 1668 Lawson used Swan Island as collateral for a loan from wealthy Boston merchant Humphry Davy. Four years later, in 1672, Lawson defaulted on the loan and transfered title to Swan Island to Davey. The first record of colonists actually living on Swan Island is in 1730, when a Thomas Percy homesteaded there. No further mention of the Percy family is recorded. In 1750, the only family living on the island was the Whidden family.

0n September 8, l750, Indians attacked the house of Captain James Whidden. The Whiddens escaped by hiding in the cellar. However, their



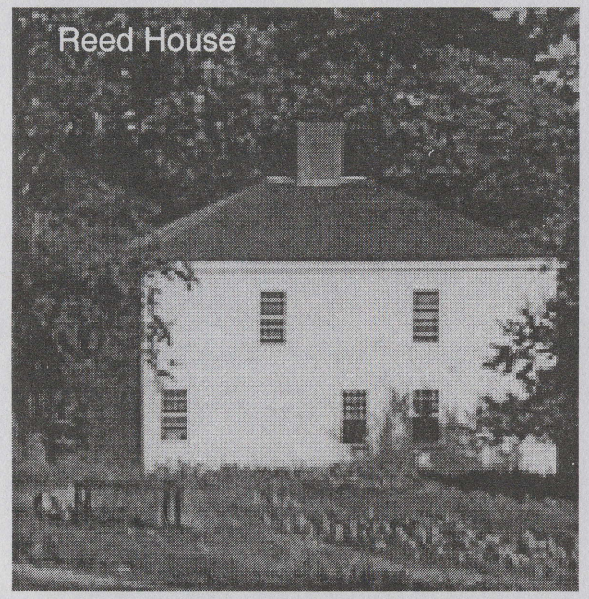

daughter (Abigail Noble) and her husband (Lazarus Noble), along with their seven children and two servants, were captured. The Indians took the captives up the Kennebec River to Canada, where they sold them as slaves to the French. The adults fetched $29 each, while the children went for next to nothing.

The youngest Noble child (Fanny) was adopted by a young French couple, and was baptized as Eleanor in a Catholic church and given a convent education. Later, government agents found the girl, and despite her desire to remain with her foster parents, she was returned to Swan Island. Upon her return, she found that her mother was dead and her father in poverty. Fanny later became a teacher.

Despite the Indian problems, Swan Island continued to attract colonists. Sometime between 1756 and 1763, the Dumaresq or "salt box" house was built by Dr. Sylvester Gardiner. This house was a wedding present for his newly married daughter (Rebecca) and her husband (Philip Dumaresq). The Dumaresq house was haunted by disaster. Four members of the family,

including Rebecca and Philip, plus a visitor, died by drowning. Three of these people (Rebecca, her young daughter, and a visiting playmate of her daughter's) drowned in "The Narrows" between Swan Island and Little Swan Island, directly in front of the Dumaresq house.

In 1775, Benedict Arnold's expedition journeyed up the Kennebec River on their way to attack Quebec. It is reported that both Benedict Arnold, Aaron Burr and General Henry Dearborn spent one night in the Dumaresq house. According to legend, while on the island, Aaron Burr met an Indian princess, Jacataqua, who accompanied him to Canada and later to New York. When Burr shot Alexander Hamilton in a very controversial duel, Jacataqua became so upset that she threw herself from Hell's Gate into the East River, NY.




Around 1800, the Tubbs-Reed House was built by Major Samuel Tubbs, a Revolutionary war veteran. Mr. Tubbs later sold the house to the Reed family.

As the danger of Indian attacks subsided, an increasing number of colonists settled on Swan Island. On June 24, 1847, Swan Island separated from the town of Dresden, of which it had been a part, and became incorporated as the town of Perkins. A census in 1860 recorded 95 residents on Swan Island.

Originally, the island's occupants looked to farming, fishing, lumbering, shipbuilding, and ice cutting to provide a livelihood. At one time, three large icehouses were active there (Deering's, Consumer's, and Underwood's). During this same prosperous era, at least seven ocean-going vessels were built on the island. However, by the early 1900s, a definite change had occurred. Modern refrigeration rapidly brought an end to the ice cutting. At



about the same time, iron ships became popular, and the island lost its shipbuilding business. Pollution in the Kennebec resulted in a loss of fishing income. Much of the Island had been converted to field, or so heavily cut that lumbering dwindled as a source of income; and many island residents were forced to leave in search of other jobs. By July 1, 1918, the island population had decreased to the point where insufficient numbers of men were available to fill the town offices, and the Town of Perkins became Perkins Plantation.

Farming remained the one major source of income on Swan Island, but as the effects of the Great Depression were felt, the farmers, too, began experiencing very difficult times. Many younger residents left the island seeking better jobs. The older people remaining could no longer make a living from farming, and many of the farmsteads were given up in lieu of taxes.

Termination of Swan Island as an active community came in 1936 when the Richmond-Swan Island-Dresden ferry service closed down. People began leaving the island rapidly after this occurrence.

The Maine Department of Inland Fisheries and Wildlife had long been interested in purchasing land in the Merrymeeting Bay area because of its waterfowl management potential. As more and more of its residents left, Swan Island became a potential site for such an acquisition. The Department of Inland Fisheries and Wildlife, through the use of federal aid to wildlife restoration monies, began buying the farms on the island in the early 1940s, and by the early 1950s the only remaining piece of private land was the cemetery, which was willed to the Department in 1988.

Swan Island soon became Swan Island Game Management Area. One of the early biologists working there was Stephen E. Powell. When Powell left the island he became head of all the wildlife management areas in the state. At this time, he donated a strip of land in the Kennebec and adjacent to Swan Island Game Management Area to the Department. This area, known as the "Middle Ground", is a very valuable feeding area for migrating ducks and geese. After Steve Powell's death in 1971, the name of the area was changed, in his memory, to Steve Powell Wildlife Management Area.

When Swan Island first became a management area, there were initial plans to use it primarily as an experimental site. There is still one large fenced enclosure on the island which was used in testing various types of deer repellents. The experimental plans for the island were gradually dropped as the University of Maine at Orono became better equipped to handle such

work. Today, management on the island is directed to benefit migrating waterfowl. This management is funded by monies derived from the sale of hunting and fishing licenses and federal funds derived from an excise tax on firearms and ammunition.

With a five-to seven-foot freshwater tide, nesting bald eagles, 25 to 200 white-tailed deer, wild turkeys, and 2000 to 3000 visitors each year, Swan Island is truly unique. It is the only state-owned Wildlife Management Area that is also a game preserve, providing sanctuary for migrating waterfowl, turkeys, and the resident white-tailed deer. It is also the only Management Area where camping is allowed and information and educational programs are provided for visitors. The value of the historical sites here further enhances the uniqueness of this area.



# KNOW YOUR SILHOUETTES

## Buteos

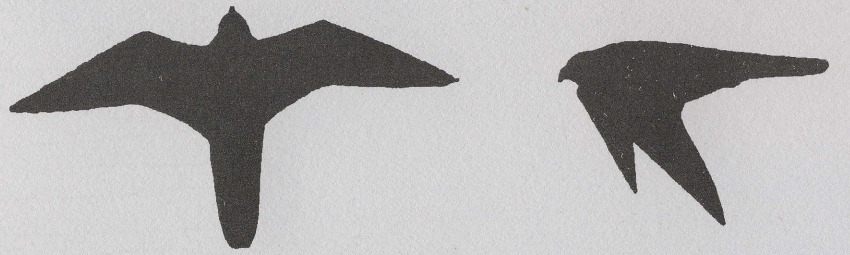
BROAD WINGS AND BROAD ROUNDED TAILS; OFTEN SEEN SOARING IN WIDE CIRCLES HIGH IN THE AIR.

Examples: Red-tailed Hawk, Broad-winged Hawk

## Falcons

STREAMLINED-LONG POINTED WINGS; LONGISH COMPRESSED TAPERED TAILS; STRONG ROWING WING BEATS; LOSE SOME OF THEIR POINTED WING AND TAPERED TAIL LOOK WHEN NOT IN DIRECT FLIGHT.

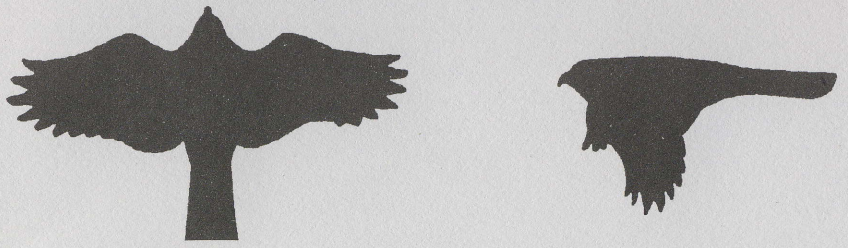
Examples: Peregrine Falcon, Kestrel



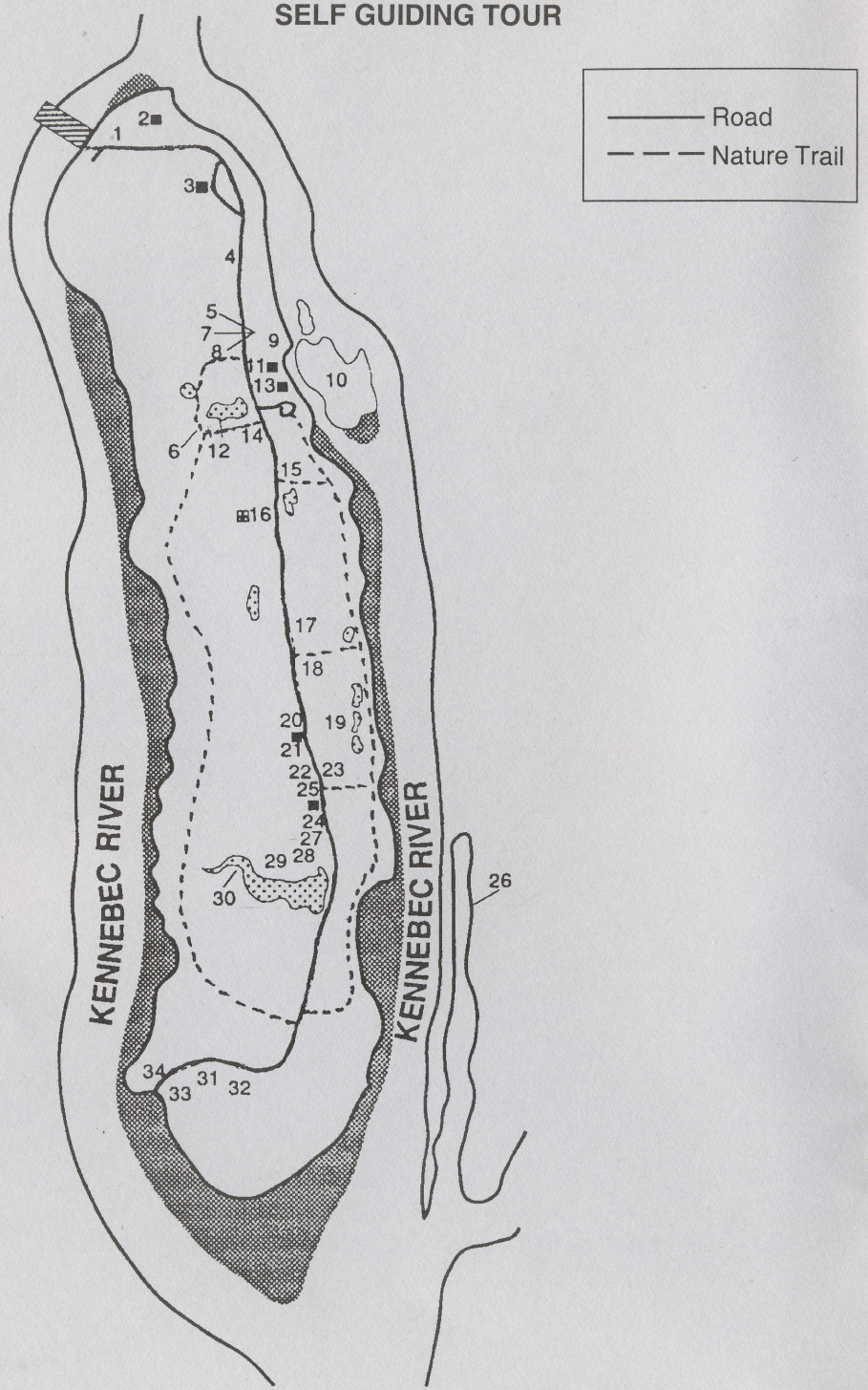
## Accipiters

SHORT, WIDE, ROUNDED WINGS; LONG TAILS; FLAP, FLAP, FLAP-SAIL FLIGHT.

Examples: Goshawk, Sharp-shinned hawk, Cooper's hawk



## SELF GUIDING TOUR



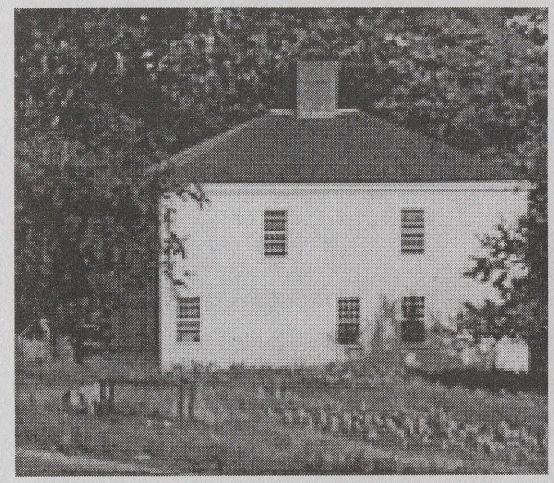



## Introduction

This tour is organized to run from the northern end of Swan Island along the gravel road to the southern tip. Each major feature discussed is represented at the site by a numbered wooden sign which corresponds to the numbered locations on the Self-Guiding Tour map. Unfortunately, the houses are not open to the public due to lack of staffing and supervision for visitors.

**1. FENCED WELL** There are many hand dug wells on the island. For your safety, the wells have been enclosed with fencing.

**2. TUBBS-REED HOUSE** This house was built just after 1800 by Major Samuel Tubbs (1739-1810) of Berkley, Massachusetts. Tubbs was reportedly commissioned a Major in the Massachuetts militia in 1776, and as a reward for his service during the American Revolution was apparently granted land at the head of Swan Island. Tubb's son Samuel, Jr. probably lived in the house until the 1830s when Captain David Reed purchased the house when he married Drusilla Tallman of Swan Island. The house was restored in 1968 with federal money (Bureau of Outdoor Recreation funds) and since that time has been maintained by the State.



The square house is of the federal period in architecture, with several interesting rounded corners inside. There is a large fireplace with a dutch oven and extended hearth. Stenciling may still be observed on the upstairs floor and several old pieces of furniture, including a bed and spinning wheel, are in the house.

**3. PRIEST-BLEN HOUSE** This house serves as the administrative headquarters and residence for management area staff. The other buildings are workshops and storage areas that support the maintenance activities on the island. In 1987, Central Maine Power Company donated electrical service to this house as well as to other buildings on the island.

**4. FIRE LANE** There is very little problem with the maintenance of fire lanes because the deer eat all the young trees which start to grow. This is one of four fire breaks designed to help prevent the spread of fires while providing interior forest access.

**5. CAMPGROUND** The campground was built in 1966. Ten Adirondack shelters hold 6 people each, providing a full capacity of 60 overnight campers. Water and firewood are provided for all campers.

**6. NATURE TRAIL** The Maine Conservation Corps (MCC) began construction of the nature trail system in 1985. It now consists of three separate trails. The Beaver Pond trail is approximately 1/2 mile long and encompasses a variety of habitat types, including an old field and manmade pond. The West Side trail is approximately 3 miles long and runs through the wooded portion of the western interior side of the island. The East Side trail is approximately 3 miles long and runs along and through the glently sloping fields of the eastern side of the island.

**7. MULBERRY TREE** There is a legend that at one time a silk industry was attempted on the Island. The climate was probably too severe, but a few trees have survived.

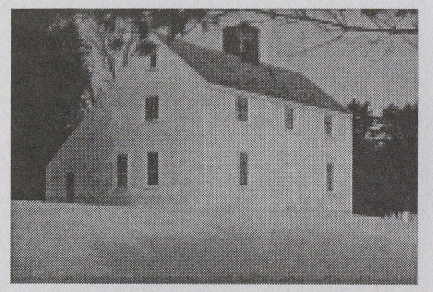
**8. WHITE OAK** Acorns of the white oak are much less bitter than those of red oak. The Indians ground these acorns to make a crude flour. Note that the leaves of white oak are more evenly rounded and smoothly lobed than those of the more common red oak.

**9. BUTTERNUT** The Indians used the oil from the nuts of this tree to make butter. The nuts are also a favorite food of many types of wildlife.

**10. LITTLE SWAN ISLAND** This island is located two-thirds of the way up and just off the east shore of Swan Island. Just under thirty acres in size, the island is heavily wooded. There are no standing buildings on Little Swan Island. Once headquarters of the Kennebec Indian chiefs, this island is part of the management area. However, no active management is occurring on the island at this time. The small island located just off the north tip of Little Swan Island is Spaulding's Rock.

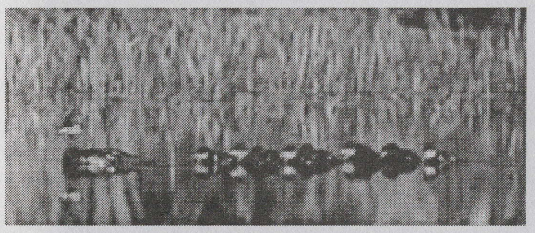


**11. DUMARESQ HOUSE** The Dumaresq House is often called the 'salt box' because of its architectural design. The house was built by Sylvester Gardiner sometime between 1758 and 1763 as a summer residence for his daughter and her husband. It was restored in 1968 with federal money (BOR funds) and has been maintained by the state since that time.



**12. MAN MADE POND** This is one of 8 man made ponds on the island. If you look closely you will see several wooden boxes on trees, several feet above the water. These are wood duck nesting boxes. Other waterfowl species which may use these boxes include common goldeneyes and hooded mergansers.

The wood duck was nearly extinct in the early 1930s. As a result of restrictive hunting regulations and the installation of thousands of nesting boxes by the Department of Inland Fisheries and Wildlife and other private organizations, the wood duck is now one of the most abundant ducks in Maine. The male wood duck is one of the most beautiful birds in the world, and its feathers are very valuable for fly tying. An average of 300 young ducklings are raised annually from the island's nest boxes.



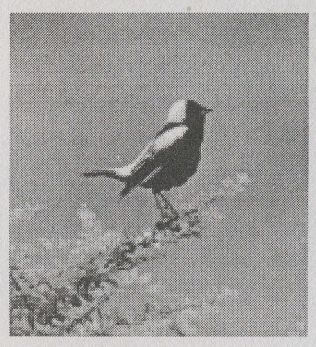
**13. POWELL HOUSE** This house was built sometime during the 1880s. Summer employees occasionally live in this house. There is a phone here in case of emergencies. Stephen E. Powell, the original biologist on Swan Island, resided here with his wife for many years.

**14. BLACK BIRCH** An extract from the inner bark of this species is used to make birch beer.

**15. OLD EAGLE'S NEST** This dead white pine used to contain a nest built in 1962. The nest fell in 1969 and was not rebuilt. There are two other eagle nests on the management area, one of which is located on Little Swan Island.

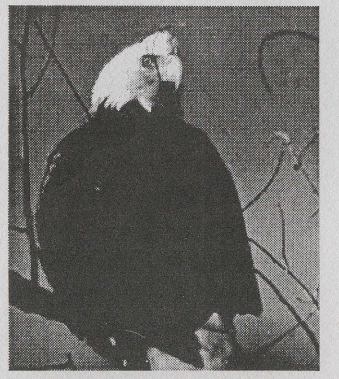
**16. CURTIS CEMETERY** Traditionally, Maine families had separate burial areas. Thus it was on Swan Island until Ben Curtis suggested putting all the graves in one spot. All but one family moved their graves. The cemetery was the only privately owned land left on the island until 1988, when it was willed to the Department.

**17. GRASSLAND BIRD MANAGEMENT** Historically, most of the northeast was forested. Natural, permanent grasslands were uncommon. By the 1880s, grasslands were widespread as land was cleared for pastures and hayfields. Grassland birds undoubtedly benefited from this expanded habitat. Historically, the large grasslands in the Northeast provided habitat for many grassland birds, particularly the endangered grasshopper sparrow, savannah sparrow, vesper sparrow, upland sandpiper, eastern meadowlark and bobolink. However, early 20th century agriculture technology, increases in human populations and movement of farms to the west caused a decline in the quantity and quality of grasslands for wildlife. Today, conservation of grassland habitats and changes in management practices can maintain good quality habitat for these rare birds.



**18. MOWED FIELD** This is a 60 acre field; altogether there are over 300 acres of fields on the island. Traditionally all these fields were mowed once or twice each summer. This helped the clover and timothy to grow well and thus helped provide the geese with low foraging grasses. Today, mowing continues, but done in such a way as to provide a variety of grassland types and sizes to best optimize grassland bird use, and at the same time benefit migrating geese and curtail sucession.

**19. EAGLE PLATFORM** The wooden platform near the middle pond is a winter feeding station for bald eagles. Deer found dead in the winter are placed here for eagles to feed upon rather than the pesticide-contaminated fish from the river. Although improvements in water quality should reduce the pesticide load in eagles' natural foods, dead deer will still be placed at this and other feeding stations in the Merrymeeting Bay vicinity. This practice has been shown to greatly increase the survival of young eagles during the winter months.



**20. CORN CRIB** Notice the cement legs which kept the corn up away from the moisture. The metal at the top of each leg was to keep mice and rats out of the corn. The crib is screened with air slats to help dry the corn, which was husked, dried, and then could be stored and fed to cattle in the winter.

**21. LILY-WADE HOUSE** This house was built sometime in the 1880s and was sold to the state in the early 1940s. The shed is used to store equipment used on the island.



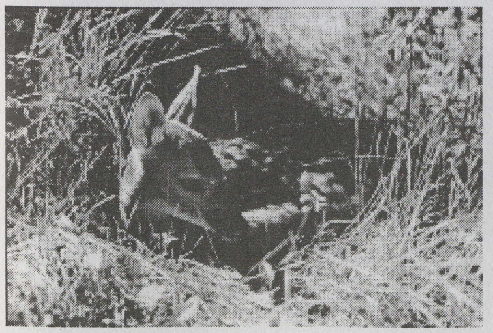
**22. EXPERIMENTAL EXCLOSURE** When Swan Island first became a Wildlife Management Area in the middle 1940s, this wire exclosure was built for experimental purposes, particularly experiments with various types of deer repellents.

As you go by the exclosure, please notice the number and variety of trees and shrubs growing inside. Then when you get to the end of the fence, compare what you see inside with what is growing outside the fence. This will give you some idea of what deer eat and the effects of having too many deer in one area.

Deer numbers in the more settled portions of the State rapidly decreased during colonial times as a result of very intensive farming, timber harvesting, and uncontrolled hunting. Population levels in these areas remained very low until extensive farmland abandonment after 1880 created ideal deer habitat. In addition, a closed season was established in Cumberland, Knox, Lincoln, Waldo, York, Sagadahoc, Androscoggin, and Kennebec counties in the 1890s. Deer became more abundant by the turn of the century and deer seasons were established in all previously closed counties by 1903.

Although Sagadahoc County was again opened to deer hunting, Swan Island apparently was never reopened to the legal harvesting of deer. Legislative action in 1929 (P.L. Chapter 77) resulted in the lawful declaration of Swan Island as a Game Preserve, making it unlawful to hunt, chase, trap, kill, or pursue any wild animals or birds on either Swan Island or Little Swan Island, known collectively as Perkins township.

During the early 1900s, human habitation on Swan Island decreased due to a combination of social and economic factors. This resulted in an assortment of reverting farm and mixed growth forest which provided ideal habitat for deer. Favorable habitat conditions coupled with the prohibition of hunting on the area resulted in a substantial increase in deer. The latter habitat changes were similiar to that which occurred throughout much of the central and coastal portions of the State, and which were responsible for the upswing in the overall deer numbers in these areas.



Initial deer management and research efforts on Swan Island included: animal repellent studies, limited forest cuttings, and trapping

and removing surplus deer in an effort to control damage to crops planted primarily for goose management.
Records indicate that from 1947 through 1957, 364 deer were trapped, tagged, and relocated. However this deer removal had no significant long term impact on the size of the island deer population, and the habitat continued to decrease in quality. Trapping after 1957 was limited to a few animals needed for research at the University of Maine at Orono.

In an effort to control the deer population, the Department of Inland Fisheries and Wildlife proposed an experimental three day hunting season on Swan Island in the early 1950s. However overwhelming public sentiment against the proposal at a public hearing in Richmond defeated the proposal.

Very high deer population levels continued to be a common occurrence at the area through the 1960s and 1970s (200-300 animals). With the arrival of the coyote and the reduction of winter feeding in the early 1980s, deer numbers on the island have decreased and appear to have stabilized at approximately 75-130 animals.

Average winters in this portion of Maine enable deer on the Island to do limited ground pawing for acorns etc.; however, prolonged periods of deep snows and/or crusty conditions eliminate this means of food gathering. Continuous over-utilization of winter browse has resulted in little or no woody material available as an alternate food source. Local game wardens and biologists report that many deer will cross the frozen river daily to feed on the mainland. Domestic dogs and coyotes often kill deer along the treacherous shore ice, which rarely stays snow-covered in winter due to flooding at each high tide. Why deer return and attempt to winter on the Island is not clearly understood. In all likelihood it is in response to the availability of sheltered conditions, which are not present on the adjacent mainland.

Legislative action in 1969 repealed the public law which constituted the game preserve section relating to Swan Island. This placed all Department owned refuges under the classification of Wildlife Management Areas and granted the commissioner the power to



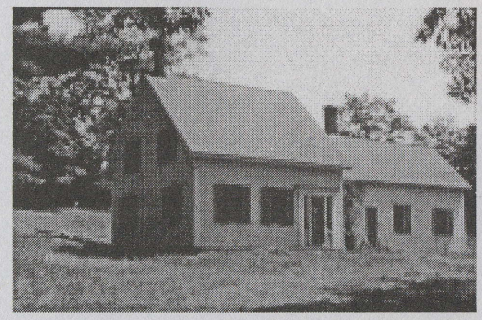
regulate and control seasons and bag limits on these areas. The Steve Powell Wildlife Management Area (Swan Island) is currently the only wildlife management area where all public hunting is prohibited.

As we have seen, the deer on Swan Island have been subjected to no forms of controlled harvests for approximately 100 years. The result of this protection on the deer population and the available habitat are typical of areas regulated for prolonged periods as game preserves. Populations expand beyond the capacity of the range and the majority of the browse producing plants (food) are completely destroyed or severly stunted. On Swan Island, even the less palatable foods (i.e., white pine and alder) show extremely over-browsed conditions. Timber cutting conducted to stimulate browse production accomplished little, since sprout and seedling growth are quickly consumed and not given enough time to become established.

Future management of Swan Island may include timber harvesting and increased farming activities to increase food availability for both deer and waterfowl. The Department may also consider annual hunting seasons as a method to help maintain deer numbers at a level in harmony with existing habitat and conditions.

**23. SELECTIVELY HARVESTED AREA** Timber on this area was selectively cut (some trees were left) in the late 1950s. Since that time, the only thing that has been able to grow here is ferns. The deer eat any young hardwood trees which begin to grow.

**24. MAXWELL-TARR HOUSE** This house was built sometimes around 1850. The farm associated with this property was one of the last active farms on the island when the Tarrs resided here during the 1920s. There are no plans to restore this building further, due to a lack of funds and the deteriated condition of the structure. This house was also used by Game Warden Higgins as his residence when the island was first acquired by the Department of Inland Fisheries and Wildlife.



**25. BALD EAGLE NEST SITE** The large oak tree located behind the house contained an intact and active nest until several years ago. The nest was over 20 years old and had been the most active nest on the island in recent years. In 1985, a new nest was constructed about one-half mile north on the east shore and in 1989 a new nest was built on the northern tip of Little Swan Island. In 1975, the eagle laid one egg which was presumed to be infertile due to pesticides. Fertile eggs from Wisconsin were brought to Maine by the U.S.

Fish and Wildlife Service, and one egg was switched with that of the egg in this nest. This new egg hatched, and the young eaglet was raised by the adults and banded by biologists. The adult eagles returned to the nest in 1976-78 but did not lay any eggs. An eaglet, bred in captivity, was placed in the nest in 1979 and was successfully raised. In 1980, 1981 and 1984 two eaglets were successfully raised in this nest, and in 1989 and 1990 a total of three eaglets were successfully raised in the new nest on Little Swan Island.

Eagles become mature at four years of age. While immature eagles are a brownish-black color with a few white streaks; they eventually gain the white head, neck, and tail which marks them as adults. At this time, they select mates and build a nest.

Over the years a pair of bald eagles may establish several nests. Each spring a pair of eagles return to either the same nest or one of the alternate nest sites. A new layer of material is added to the nest each time it is used! The nest at this site was over 30 years old, hence its large size. It was 7 feet deep and is estimated to have weighed over 3,000 pounds.

You may be wondering why the eagles on Swan Island did not lay eggs during past years and why they laid infertile eggs in 1975. This was likely the result of one or more chemical contaminants which are found in the environment and are known to adversely affect reproductive success. These chemicals include pesticides (DDT, DDE) and other materials such as mercury and Polychlorinated biphenyls (PCBs) which were detected in high levels in the unhatched eggs. These chemical contaminants dramatically increase in concentration as they are carried through the food chain by each successively larger predator. Consequently, bald eagles receive large doses of the pesticides from feeding upon fish in the Kennebec River watershed. A drastic decline in bald eagle reproduction occurred because of this.

Looking at the bright side, the status of the bald eagle in Maine is improving as a result of pollution abatement, protection, and management. Today, bald eagle nest sites across Maine are designated as 'Essential Habitats', and are subject to protection standards under the amended Maine's Endangered Species Act (1988). We are encouraged by a steady long-term trend of bald eagle population growth. Numbers of breeding pairs of eagles increased to a high of 202 in 1998 compared to 56 in 1980, while total productivity increased from 40 to 188 eaglets.

Large numbers of immature eagles have been seen at winter feeding stations and will be joining the breeding population in 1-3 years. This should result in further increases during nesting surveys.



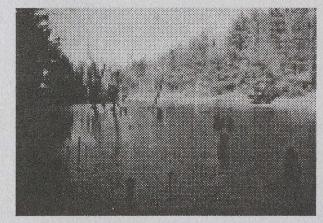
**26. MIDDLE GROUND** The strip of green extending down the center of the river is the 'middle ground'. This land extends further upstream and downstream. At low tide, it amounts to about 20 acres of very productive feeding area for ducks, geese and a variety of shorebirds.

Steve Powell owned the middle ground, but in the early 1950s when he left the island to become head of the wildlife management areas in the state, he donated the middle ground to the wildlife managment area.

**27. WOODCHUCK DEN** The hole at the base of a hemlock tree was dug by a woodchuck. There are several holes in the area, typical of woodchuck habit. The spare holes are escape ways. Woodchucks feed on grass during the summer, becoming very fat by fall, in preparation for a winter of hibernation. Abandoned dens are often used by red foxes.

**28. GRAVEL PIT** The gravel from this pit provides the material needed to maintain the road, an integral part of the overall maintenance program.

**29. DEER EXCLOSURE** This fenced-in area was clearcut during the 1976-1977 winter and then fenced late in the summer of 1977. This was done to illustrate how rapidly trees will grow in an area protected from deer.



**30. TROUT POND** This pond is the deepest on the island and is periodically stocked with brown trout by IF&W's Hatchery Division. It is open to fishing under general law for kids only.

**31. FIRE BOX** The large, white, wooden boxes on the island are fire boxes. In them are Indian pumps (metal tanks, with back carrying straps, and a spray nozzle to be used in spraying water on fires) plus axes, shovels, and other fire fighting equipment. It would be impossible to get a fire truck to the island quickly; therefore, these equipment caches are the Island's first line of defense against wild fires.

**32. WHIDDEN HOUSE HISTORY** In 1750, a house near this end of the Island belonged to the Whidden family. In the house lived Mr. & Mrs. Whidden, their daughter and her husband (Mr. & Mrs. Noble), seven children, and two servants.

**33. SWEET FERN** The leaves of this plant may be boiled to make tea, put in a small bag (sachet) to scent clothes, or crushed and rubbed on poison ivy to speed the healing. It is also a favorite deer food.

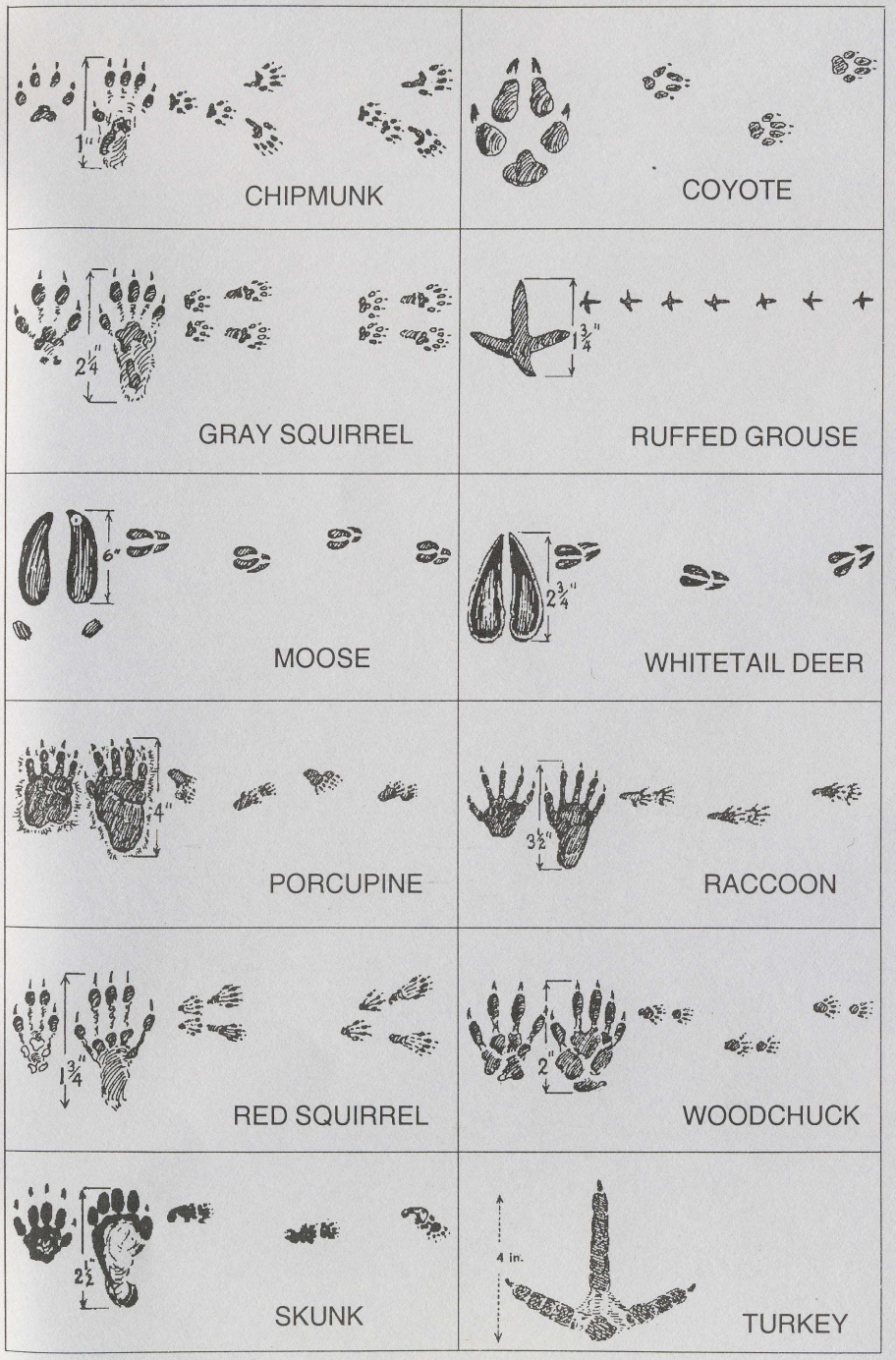
**34. THEOBALD POINT** This is the end of the road; you are standing on Theobald Point. If you look down the Kennebec, you will see the power lines (from Maine Yankee Atomic Power in Wiscasset) crossing the river to Bowdoinham. Directly across the river is a skeet range and hunting camp.

Here you are looking at a portion of Merrymeeting Bay, which contains approximately 9,000 acres and is fed by 6 different rivers (Kennebec, Androscoggin, Eastern, Cathance, Abbagadasett, Muddy). With the river inflow and the tidal turnover of nutrients, the bay is a very rich and productive area. Most of the light green vegetation in the water is wild rice, a favorite food of the ducks and geese. The darker green vegetation is mostly bulrush. The wild rice grows throughout the summer until it is above the water even at high tide. It ripens in September and provides food for many waterfowl and other bird species.

**WE HOPE YOU ENJOYED THE TOUR!**



# ANIMAL TRACKS



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