

CURRITUCK N.W.R.

INTRODUCTION

The Currituck NWR is located in northern Currituck County, North Carolina along the Outer Banks barrier island chain. The Currituck Banks are part of an extensive coastal lowland that stretches from Newfoundland southward to Florida, and westward into the Gulf of Mexico. Along the Currituck Banks, inlets have periodically formed and reformed depending on the occurrence of storms, amount of sedimentation, the tidal heights, and degree of vegetation on the barrier beach.

Acquisition of Currituck NWR was intended to preserve and protect a portion of the North Carolina Outer Banks, one of the largest undeveloped coastal barrier ecosystems remaining on the East Coast. Service ownership ensures perpetuation of basic wetland functions, including nutrient cycling, floodplain and erosion control, and will help preserve the role of Currituck Sound estuaries as nurseries. The sound is an important black duck wintering area. Ownership of the protective buffer east of the productive marshes bordering the sound protects the marsh from direct pollution sources associated with development.

The Fish and Wildlife Service has long recognized the dynamic and fragile character of coastal barrier islands and has endeavored to represent the national interest in protection of barrier islands in general. The estuaries and sounds that these barrier islands protect are among the richest and most productive ecosystems known to man. They provide nesting and feeding grounds for numerous bird and mammal species in addition to being important nursery and spawning areas for fin and shellfish.

The Outer Banks remained isolated from the mainstream of activity in early America, and those few people who lived there relied heavily on activities associated with the area's natural values for their subsistence. Activity in the Currituck Sound area reached a peak in the late 1800's when commercial fishing and market hunting were at an all time high. A number of hunting clubs were established for sport hunting of waterfowl and drew much of their membership from affluent northern businessmen and professionals.

The hazards created by shoals near the Outer Banks resulted in numerous shipwrecks along the coast. Lifesaving stations were established at intervals along the beach of which several still exist. One of the lifesaving stations is located on an inholding within the Swan Island Tract and is used as a seasonal residence by a private citizen. The Currituck Lighthouse at Corolla still functions and is in use throughout the year.

During 1975 and 1976, The Nature Conservancy (TNC) acquired several parcels of land on the Currituck Outer Banks. The two major tracts of land were being utilized by the Swan Island and Monkey Island Hunting Clubs. Funds to purchase these areas were provided by the Melon Foundation, a sponsor of the National Wetlands Project. TNC transferred approximately 500 acres of the Monkey Island Tract to the State of North Carolina for inclusion in the National Estuarine Sanctuary System as the Currituck Banks component. A narrow strip from sound to sea of about 50 acres was retained by TNC between the Sanctuary and the Monkey Island Tract.

The Migratory Bird Conservation Commission (MBCC) met to consider the Currituck Refuge on August 2, 1983. The MBCC approved the boundary of the refuge in two parcels: the Monkey Island Tract, which is 1.5 miles north of Corolla, NC, and the Swan Island Tract some 3.5 miles further north. Two phases of acquisition resulted in 1,567 acres in fee title, 166 acres in conservation easement and some hunting blind rights at a cost of \$3.9 million. A third tract, 54 acres of marsh, was acquired in 1988, through a trade with Currituck County, NC, for Monkey Island and is located along the west side of Corolla village. All three tracts comprise about 1,787 acres and have been administered by the Mackay Island NWR from their office on Knotts Island, NC, since July of 1990.

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K. FEEDBACK NTR

L. INFORMATION PACKET ---
(INSIDE BACK COVER)

A. HIGHLIGHTS

Piping plovers were seen on and adjacent to the refuge tracts but no nests were located.

The refuge beachfront escaped Hurricane Bob but was impacted by the "Halloween" Nor'easter and a second strong nor'easter in November.

F. HABITAT MANAGEMENT

1. General

Currituck NWR is located on the Currituck Banks stretch of North Carolina's Outer Banks barrier island. This island chain was formed when melting glaciers caused a world-wide rise in the sea level. Later, when sea level rise slowed, a combination of factors were set in motion to create barrier islands on the continental shelf. The bays and estuaries that formed behind these barriers became shallow, due to sedimentation from rivers draining the coastal plain and storm overwash. Currituck Spit and the other Outer Banks islands are primarily perpetuated by the following processes: long shore currents, tides and tidal currents, wave action, storm surges and wind action. These dynamic forces cause shorelines to undergo constant change. The adaptability of these islands to constant physical change is a major part of their natural ecology. The approximate size of the habitat types are: 18% sand and dune, 43% brush and 39% marsh.

2. Wetlands

The water control structure installed in 1988 continues to serve the Swan Island Tract well. It blocks the flow of rain water from the sandy flats between the dune lines into Ferebee Creek. This area, known as the "Flats", is maintained in a moist soil condition during the growing season, provided summer rains are sufficient. Moist soil species that thrive here consist of *Eleocharis* spp., *Bacopa* spp., and *Cyperus* spp. The water control structure is adjusted in the fall to hold more rain water for the benefit of migratory waterfowl. The marshes along the western shoreline are frequently inundated by wind driven water in the sound, creating "wind tides." The Flats and natural marshes support thousands of migratory waterfowl and marsh and water birds.



"The Flats"

A plot of three-square sedge provides good fall and winter waterfowl food.

8/91 BN

6. Other Habitats

Approximately 243 acres of beachfront and sand dune are contained within the Swan Island and Monkey Island tracts. The refuge's fee title ownership extends along the beachfront out to the mean high water line. The intertidal zone falls within the state's ownership according to state law.

A dynamic habitat, the beach and dunes are shaped and developed by natural processes ranging from constant tidal influences to abrupt severe storms. In August, the refuge escaped a potentially severe storm in the form of Hurricane Bob. At one time it appeared this hurricane would hit the Outer Banks but instead it only lightly brushed the tip of the Outer Banks at Cape Hatteras. However, with the exception of a slightly higher high tide, this storm passed offshore. A patrol was made to inspect storm damage from Hurricane Bob on August 19. Very little erosion was noted. However, at the end of October a strong storm identified as "The Halloween Nor'easter" appreciably impacted the beach and dunal area along the Outer Banks.



A Nor'ester washed out parts of the Monkey Island Track. 11/91 MP

On the Monkey Island tract, approximately 20 feet of dune line was lost and three blow-outs across the dune line occurred. On the Monkey Island tract, the overwash could not return to the sea and it cut a ditch eight feet deep through the path of the old inlet to the Currituck Sound. Several beachfront signs were lost on the Monkey Island Tract.

The Swan Island Tract was changed in an opposite manner and was the beneficiary of sand accretion. This occurrence combined with some overwashing improved piping plover habitat because the storm built up the beach and carved small pools across the primary dune line.



By contrast, the Swan Island Tract received sand from the storm. 11/91 MP

G. WILDLIFE

1. Wildlife Diversity

No inventories, except waterfowl and piping plover surveys, have been conducted. Species diversity is largely comparable to other nearby barrier islands.

2. Endangered Species

The beach front and foredunes on Currituck Outer Banks have provided breeding habitat for three to five pairs of piping plovers since 1987. Nesting has been documented on both Currituck National Wildlife Refuge and private lands in the area from the Virginia-North Carolina state line to the north end of the village of Carolla, NC; this stretch encompasses about 11.7 miles. During the 1991 nesting season, several surveys were conducted to monitor nesting activity. A survey led by David Leake and several other volunteers from the Outer Banks Audubon Society was conducted on June 5 in participation of a coordinated statewide survey. This survey recorded 14 adults from the beach at the Carolla ramp to 10 miles northward. Virginia Department of Game and Inland Fisheries Wildlife Biologist Don Schwab and Refuge Officer Mike Panz conducted a survey a couple of days later on June 7. This effort revealed two single males and a male-female pair that were feeding along the shoreline of the Swan Island tract of Currituck NWR. The two single males were seen just off the refuge at different sites on the north and south ends of the Swan Island tract; both appeared to be showing territorial behavior. A rough northeast wind hampered finding any nests at any of these sites.



Piping Plover use Currituck NWR, but how many young fledge here?
7/91 LW

Another survey was conducted on June 30 by Refuge Officer Panz. At this time only two adult piping plovers were observed with one being sighted on the refuge and the second on private lands. No nests or chicks were discovered at this time. Regretfully no other surveys were conducted to more specifically assess production. Plans in 1992 are calling for greater survey effort by volunteers and refuge staff to monitor plover breeding activity and surveil for disturbance activity by people. Human disturbance on nesting activities has been suspected to be minimal but remains largely undocumented to present.

On January 24, ARM Munson participated in the 1991 International Piping Plover Winter Census by surveying the 11.7 mile strand for wintering piping plover. Though it had been a relatively mild winter up to that point, no plovers were seen on the survey.

PL Souheaver commented on a draft "Economic Analysis of Designing Critical Habitat for the Atlantic Coast Population of the Piping Plover" since Currituck NWR was included in the Critical Habitat designation.

Loggerhead sea turtles have been known to utilize the beach areas of Currituck NWR and adjoining private land on a limited basis for nesting activity. Nests have been documented north of the refuge in previous years and this year one nest on Carova Beach was found in June. Eggs were relocated by staff of Back Bay NWR to their refuge for incubation and hatching. Development, commercial fishing and increased vehicular traffic along the intertidal beach strand undoubtedly impacts nesting by loggerhead along this beach stretch.

Modest numbers of Peregrine falcons pass over the refuge coastline during their fall migration; some occasionally feed and roost in various refuge habitats during this time. To a lesser extent bald eagles also seasonally pass through the refuge in the fall-winter period.

3. Waterfowl

Irregular aerial waterfowl surveys were conducted during the winter. These flights were done most times in conjunction with surveys over Mackay Island NWR. Due to a relatively mild winter and a minor water management problem (see Section J.3.), all waterfowl numbers were low during the 1990-91 winter. The peak wintering population of ducks appeared to occur in early January 1991. During this time, approximately 250 mallards, 150 pintail, 150 black duck, 50 gadwall, and 50 green-wing teal were observed either in the flooded Flats or at the marsh edges on the sound. Green-wing teal numbers increased to 150 during mid-February.

Snow geese and whistling swans utilized the sound marshes for feeding and roosting. Snow geese numbers peaked at about 1500 individuals and swans peaked at about 350 individuals.

Wood duck nest habitat was enhanced through the cooperative efforts of the Swan Island Gun Club which installed four nest boxes along woodland-marsh borders in the Ferebee Creek area.

4. Marsh and Water Birds

Several species of herons and egrets utilize the Flats and the sound marshes either on a seasonal or year-round basis. Great blue, little blue, and green-backed herons feed and roost in the refuge wetlands year-round. Tri-colored herons are less abundant and virtually absent in the winter. Cattle, snowy, and common egrets range across the refuge's wetlands throughout the year. Modest-size (15-30 birds) assemblages of roosting cattle and common egrets are found near refuge wetlands in the summer. Common egret usage is undoubtedly linked to the nearby rookery on nearby Monkey Island. Glossy ibises use the refuge wetlands during the breeding season as this species also uses Monkey Island as a nest site.

Additionally, the refuge marshes on the Currituck Sound provide breeding habitat for Virginia and clapper rails.

5. Shorebirds, Gulls, Terns, and Allied Species

The coastline of the Currituck Banks provides important migratory habitat for a variety of shorebirds during their spring and fall passages. Several species using this beachfront such as sanderling, least sandpiper, and black-bellied plovers are recognized by the Service as species of special concern which have probably suffered recent declines in their continental populations. Sanderling, ruddy turnstone, dunlin, semipalmated plovers, and black-bellied plovers are among the most abundant migrants along the Currituck Banks during both migrations. Semi-palmated plovers, dunlin, least and semipalmated sandpipers also utilize the intertidal zone for feeding stopovers.

Refuge marshes and irregularly exposed mudflats on the Currituck Sound are foraged over by greater and lesser yellowlegs, solitary and spotted sandpipers, and by willet during spring and fall migrations. Exposed mudflats on the east side of Currituck Sound are heavily used yellowlegs, plovers, and peeps for protection and forage zones during spring Nor'easter storms.

A typical assemblage of gulls and terns also utilize the Currituck Banks. Gulls present year-round include laughing, herring, great black-backed, and ring-billed gulls. Terns frequenting this shore from spring through fall include common, royal, sandwich, and least terns.

6. Raptors

Modest numbers of American kestrels, sharp-shinned hawks, merlins, northern harriers, and Cooper's hawks pass over the refuge during their fall migrations.

15. Animal Control

Feral horses, pigs, domestic cattle and dogs roam all three tracts of the refuge. No efforts to control these animals have been undertaken.

H. PUBLIC USE

1. General

The refuge is open to hiking, birdwatching and photography. Vehicular access is prohibited. Visitation is estimated at approximately 2,000 persons, most of whom beachcomb on the Swan Island Tract. Vehicular access along the intertidal zone is regulated by the county. Roughly 30,000 vehicles traverse the beach each year; most of this passage is contributed to by full-time or seasonal residents coming and going to their houses in the communities of Carova, North and South Swan Beach, and Carolla.

8. Hunting

The refuge is closed to all hunting. Waterfowl hunting blind rights were retained on two blinds on the Swan Island Tract. The Swan Island Hunt Club has deeded rights for those two blinds, however they do not hunt them.

Hunting blind rights were acquired with the purchase of the Monkey Island Tract. Each year, the refuge leases these 13 blind locations, but does not allow hunting from them. Some of the blind locations also lie on the adjacent Nature Conservancy Tract and the North Carolina National Marine Estuarine Reserve. County regulations restrict hunting from within 500 yards of a licensed blind which gives the refuge at least a 300 yard buffer area along the western shoreline. These 13 blinds were posted and bushed for the first time in a number of years. Hunting within 500 yards of a brushed blind is restricted by a Currituck County law. On December 18, two float blinds were found tied out too close to the refuge blinds. Both parties were warned by Officer Panz and they subsequently moved.

17. Law Enforcement

Mackay Island Refuge Officers patrol the refuge on an irregular basis. North Carolina Wildlife Officers patrol the Swan Island Tract on occasion. Three hunting details by NC Wildlife and Officer Panz were unproductive. Thirty-one other patrols were made to repair or replace worn and vandalized signs.

Notable Incidents

On January 26, Refuge Officers Panz and Ron Crayton, from Back Bay NWR, caught four men hunting on the NC Marine Estuarine Reserve, adjacent to the refuge. The men had driven through the dunes and hid their vehicle. Hunting on the reserve is permitted but one of the hunters had a .357 pistol concealed in a shoulder holster under his coat. He and the driver were charged, found guilty in state court and fined \$101.

Officer Panz and NC Wildlife Sgt. David Stokes worked a special detail on the Swan Island Tract on March 24. Numerous reports of vehicle trespass, dogs and hunting prompted the effort. Officer Panz came in by boat, Stokes by ATV. By 10 am, Sgt. Stokes had

determined from a group of boy scouts camping nearby that the individuals we had hoped to catch had been hunting the day before. The officers did catch one of their dogs on the refuge and returned it to the hunting camp along with a stern warning.

On March 24, Officer Panz also checked out a report of an arson fire on the Swan Island Tract. He found that the fire had been set along the back trail and from a boat on the sound side. An estimated 500 acres were burned and no incendiary devices were found. It was a very good burn, nonetheless as it consumed areas that had not burned two years earlier during a prescribed fire.

A call was received on April 8 reporting the existence of tire traps on the Swan Island Tract. Seven nail board traps had been found along the trail. Each board was about five feet long and had at least 20 nails driven through it. The boards were buried in the sand with only the nails protruding. We were aware of such traps as the NC Wildlife Officers have suffered three flats in the past five years in that area. One trap was found in March near the water control structure. No suspects are known but the problem seems to have abated by year's end.

Approximately 35 head of cattle were found grazing on the south end of the Flats on the Swan Island Tract on May 18. Refuge Manager Souheaver visited the area by boat on May 24 and walked through the Flats. No cattle were seen but several horses were encountered at this time. When Officer Panz returned on the 26th, he found that the cattle had been rounded up and herded off the refuge with a truck and ATV along the entrance path. No reports of lost cattle were ever received.

J. OTHER ITEMS

3. Items of Interest

Throughout the year, various refuge staff had contact with the partners of the adjacent private land to the north of the Swan Island tract concerning water management on the Flats and access to upland area between Currituck Sound and the Flats. The exchange ensued in January when acting Manager Jim Munson received a letter from Mr. Jim Covington, one of the partners, who stated that the refuge had not acquired permission to flood the partner's land in the upper end of the Flats. As noted earlier, the refuge operates a water control structure on the Flats. This inquiry took the refuge somewhat by surprise as no previous concern had been voiced to Alligator River NWR staff (previous administrative office for the refuge) or to the previous Swan Island Gun Club owners. As details later revealed, these concerns were apparently raised because the partners were having difficulty in developing the former dune ridge behind the Flats. In response to the inquiry, Manager Munson pulled a number of stop-gap boards lowering the water level where flooding impact was essentially avoided. This action came at a very unfortunate time- in the middle of the wintering waterfowl season.

In February, the refuge learned that Mr. Covington and his partners had applied for both a state permit (Division of Coastal Management) and a Corps of Engineer permit to develop an

access road across the upper end of the Flats. This proposal consisted of filling a wetland area over 1130 feet long by 60 feet wide. The response from the review agencies, including the Raleigh Field Office, suggested alternative access routes be explored. This prompted the partner's environmental consultant to request a road easement from the refuge where Mr. Covington and his partners would be able to access their property from around the south end of the Flats. New Project Leader Souheaver denied this request citing the incompatible use with the refuge and she suggested that alternative access be pursued on land north of the Covington tract. In early October, ARM Nottingham and Refuge Officer Panz met with Mr. Covington, his partners, his environmental consultant, his realtor, and a bank representative concerning the refuge's current water management practices on the Flats. This meeting was congenial and served as an information exchange session where Mr. Covington and others learned that the refuge would continue to manage the water control structure at levels where water would not cause a backup onto their land. This however does not entirely change the hydrology on their land because the Flats hold rainwater in depressions across their stretch of the Flats.

The refuge is hoping with marginal prospects that this issue will be resolved permanently when and if The Conservation Fund (TCF) is able to negotiate a reasonable purchase with Mr. Covington and his associates for this valuable wildlife land. Discussions between these landowners and TCF were active in the first half of the year but have recently waned as the landowners seem steadfast on asking exorbitant purchase prices.

4. Credits

E. Souheaver	-	Sections A., C., D., E., I.
B. Nottingham	-	Sections B., F., G., J.
M. Panz	-	Sections H.
P. VanZant	-	Typing, Colating

Photo Credits

BN - Ben Nottingham
 MP - Mike Panz
 LW - Larry Wales

CURRITUCK NATIONAL WILDLIFE REFUGE
MACKAY ISLAND NATIONAL WILDLIFE REFUGE
POST OFFICE BOX 39
KNOTTS ISLAND, NORTH CAROLINA 27950
(919) 429-3100

Currituck National Wildlife Refuge, on North Carolina's Outer Banks, was established in 1983 with the purchase of the Monkey Island Hunt Club property. The marshes and dune areas of the Swan Island Hunt Club were donated by The Nature Conservancy the following year. A third tract of land was acquired in 1988, through a trade with Currituck County, NC, for Monkey Island and is located at the village of Corolla, NC. All three tracts comprise about 1,787 acres and are administered by the Mackay Island N.W.R. from their office on Knotts Island, NC.

Currituck Refuge is open throughout the year for hiking, bird watching and photography. Vehicular access is prohibited. Some portions of the dune flats area, above the high tide line, may be closed to all public use during the spring and summer for protection of nesting sites of the endangered Piping Plover shorebird. Watch for "AREA CLOSED" signs that outline these areas. Please refrain from trespassing beyond those signs as the Piping Plover does not tolerate human intervention and may abandon their nests. Free roaming dogs present an extreme danger to the recovery of these tiny birds so the use of leashes is mandatory. Help us restore these birds by leaving them alone.

Hunting, firearms, air guns, bows, camping, fires, all terrain vehicles, littering and collecting of plants or animals are not permitted. The refuge is open during daylight hours only, any night time use is prohibited.

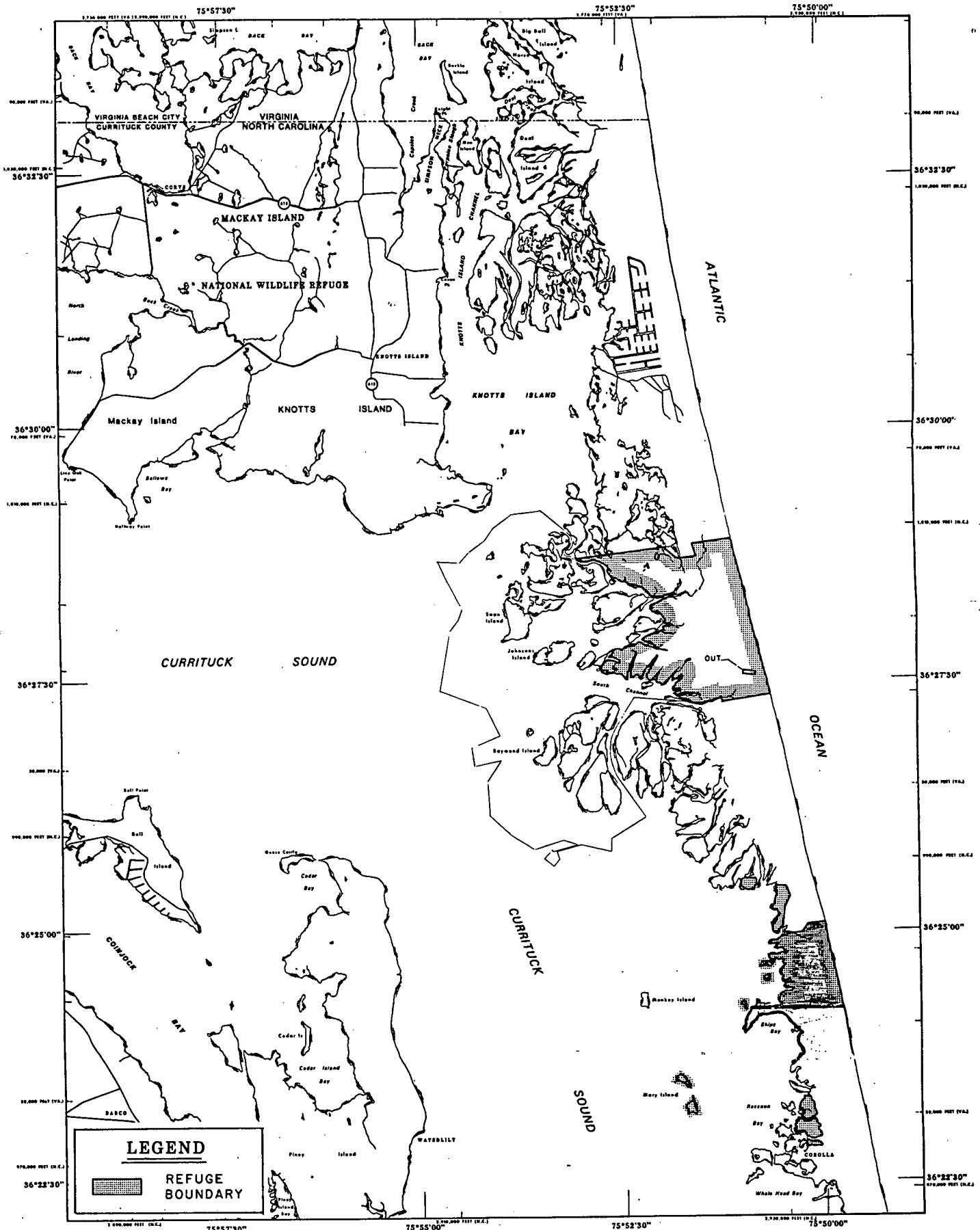
In addition to these provisions, all County codes, State laws and Title 50 of the Code of Federal Regulations are enforced on the refuge. If you have any question regarding the legality of any activity, consult the refuge manager before participating in that activity.

CURRITUCK NATIONAL WILDLIFE REFUGE

CURRITUCK COUNTY, NORTH CAROLINA

UNITED STATES
DEPARTMENT OF THE INTERIOR

UNITED STATES
FISH AND WILDLIFE SERVICE



COMPILED IN THE OFFICE OF REALTY
FROM ORTHOPHOTOQUADS AND AERIAL PHOTOGRAPHS
ATLANTA, GEORGIA JULY, 1983

SCALE 0 2000 4000 6000 8000 FEET
0 0.5 1.0 1.5 2.0 KILOMETERS

True North
Magnetic North

MEAN
DECLINATION
1971

4R N.C.1036 405

MACKAY ISLAND NATIONAL WILDLIFE REFUGE
POST OFFICE BOX 39
KNOTTS ISLAND, NORTH CAROLINA 27950
(919) 429-3100

GENERAL REGULATIONS

The refuge office is open all year, Monday through Friday, from 8:00 am to 4:00 pm. Visitors are permitted to drive on the Mackay Island Road and to walk or bicycle either the 4 mile Mackay Island Trail or the 6.5 mile Live Oak Point Trail from March 15 through October 15, during daylight hours only. Mackay Island Road is open to walking and bicycling up to the dike gate from October 16 through March 14 during daylight hours only. The trails and marshes are closed during this time to protect resting and feeding areas for migratory birds.

Designated areas of the refuge are closed during Deer Hunts.

Firearms, bows, air guns, off-road vehicle use, airboats, camping, fires, littering and collecting of plants or animals are not permitted within the refuge boundary.

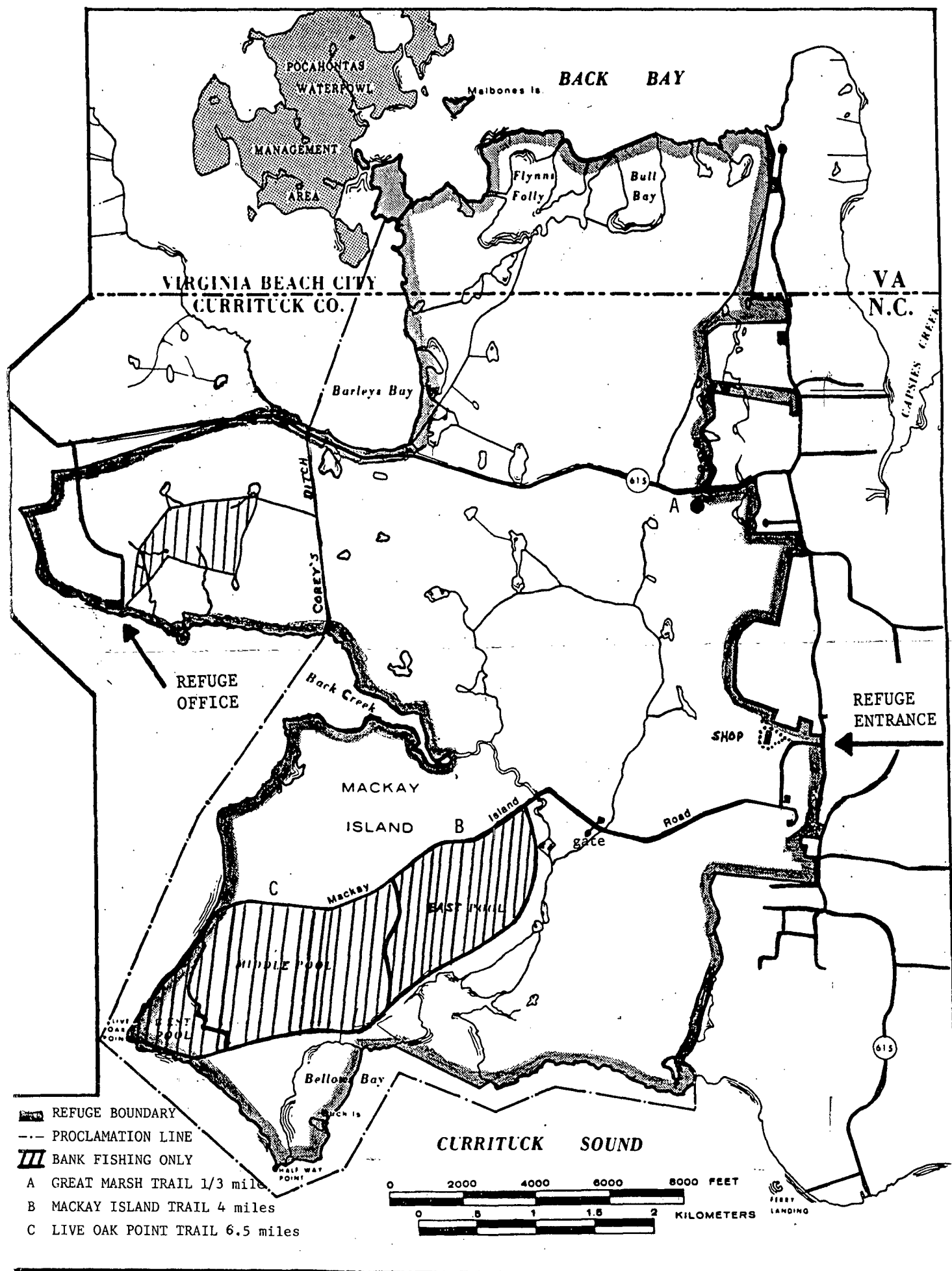
SPORT FISHING REGULATIONS

Sport fishing is permitted in all canals and bays between March 15 and October 15 ONLY, with the following conditions:

- a. The use of boats or other flotation devices is not permitted within refuge impoundments. Bank fishing only.
- b. Sport fishing is permitted during daylight hours only.
- c. Commercial fishing, trot lines, eel and crab pots, bait traps and nets are not permitted.
- d. Launching of small boats from the Knotts Island Causeway (Rt. 615) is permitted from March 15 through October 15 during daylight hours only. Airboats are prohibited.
- e. Corey's Ditch, the Marsh Trail and the canal adjacent to the north bank of the Knotts Island Causeway are open to fishing throughout the year, or as indicated by signs.

In addition to these provisions, all County codes, State laws and Title 50 of the Code of Federal Regulations are enforced on the refuge. If you have any question regarding the legality of any activity, consult the refuge manager before participating in that activity.

MACKAY ISLAND NATIONAL WILDLIFE REFUGE



SP S F W

___ Yellow-rumped Warbler o a a
 ___ Yellow-throated Warbler o r
 ___ Yellow Warbler o

CARDINALS, GROSBEAKS AND BUNTING

___ Blue Grosbeak u u
 ___ Indigo Bunting u u
 ___ Northern Cardinal* c c c c
 ___ Rose-breasted Grosbeak o o o

SPARROWS

___ Chipping Sparrow o c
 ___ Dark-eyed Junco u u u
 ___ Field Sparrow c c
 ___ Fox Sparrow u
 ___ Rufous-sided Towhee* c c
 ___ Savannah Sparrow* c c c c
 ___ Sharp-tailed Sparrow r
 ___ Song Sparrow* c c c
 ___ Swamp Sparrow c c
 ___ White-crowned Sparrow o
 ___ White-throated Sparrow c c c

BLACKBIRDS, MEADOWLARKS ORIOLES AND COWBIRD

___ Boat-tailed Grackle c c c c
 ___ Bobolink o
 ___ Brown-headed Cowbird* c c c c
 ___ Common Grackle* c c c c
 ___ Eastern Meadowlark* c c c c
 ___ Northern Oriole o
 ___ Orchard Oriole* u u
 ___ Red-winged Blackbird* c c c c

FINCHES

___ American Goldfinch u u
 ___ Purple Finch o o o

WEAVER FINCHES

___ House Sparrow* u u u r

SIGHTING NOTES

Date: _____ Time: _____ to _____

Weather: _____

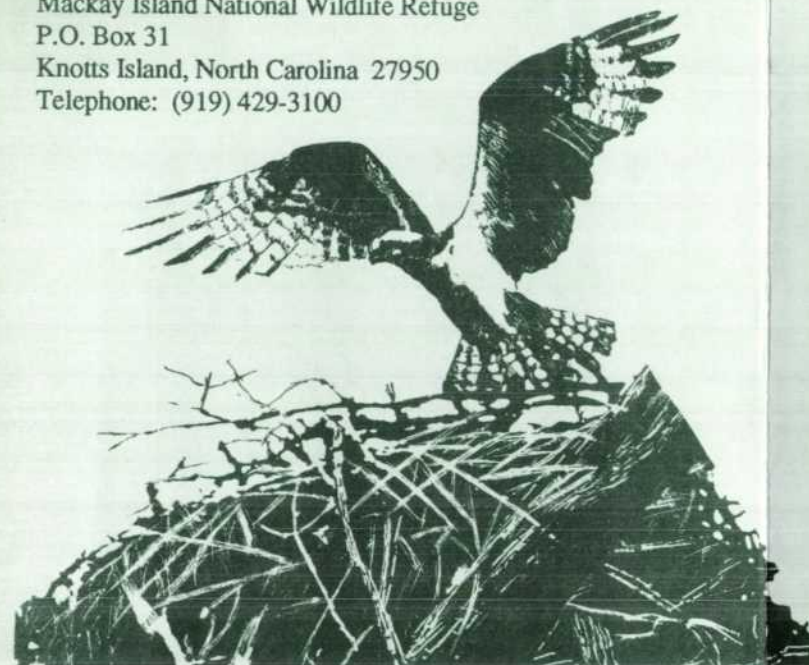
No. of species: _____

Route or area: _____

Observers: _____

Remarks: _____

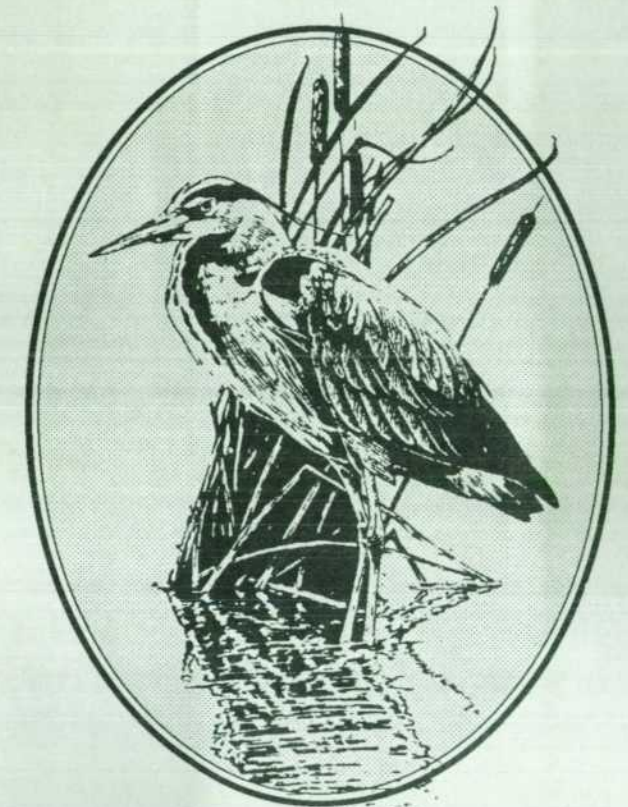
For additional information, contact:
 Refuge Manager
 Mackay Island National Wildlife Refuge
 P.O. Box 31
 Knotts Island, North Carolina 27950
 Telephone: (919) 429-3100



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

DEPARTMENT OF THE INTERIOR
 U.S. Fish and Wildlife Service
 RF-41660-2 - December 1989

BIRDS of Mackay Island National Wildlife Refuge



Virginia/North Carolina

This checklist includes 182 species of birds and is based on observations by refuge personnel and visiting ornithologists. If you should find an unlisted species, please let us know at Refuge Headquarters. We will appreciate your help in updating our records.

LOONS AND GREBES

SP S F W

Common Loon			o	o
Horned Grebe	o			
Pied-billed Grebe	o	o	c	c
Red-necked Grebe				r
Red-throated Loon			r	r

PELICANS AND CORMORANTS

Double-crested Cormorant	o	o	c	c
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BITTERNS, EGRETS AND HERONS

American Bittern*	u	u	u	u
Black-crowned Night-Heron	o	o	o	
Cattle Egret	c	c	o	
Great Blue Heron	c	c	c	c
Great Egret	c	c	c	c
Green-backed Heron*	c	u	u	r
Least Bittern*	u	u	u	u
Little Blue Heron	u	u	o	
Snowy Egret	u	u	o	o
Tricolored Heron	o	o	o	
Yellow-crowned Night-Heron	r	r	r	

IBISES AND STORKS

White Ibis	r			
Glossy Ibis	u	u	o	o

DUCKS, GEESE AND SWANS

American Wigeon	u		c	c
Black Duck*	c	o	c	c
Blue-winged Teal	c		c	c
Bufflehead			o	u
Canada Goose*	o	o	u	u
Canvasback	o		o	o
Common Goldeneye			r	r
Common Merganser			u	u

	SP	S	F	W
Eurasian Wigeon			r	r
Gadwall			a	a
Greater Scaup			r	r
Green-winged Teal	c		c	c
Hooded Merganser*	r	r	u	u
Lesser Scaup	o		u	u
Mallard*	c	u	c	c
Northern Pintail	o		c	c
Northern Shoveler	u		u	u
Redhead			u	u
Red-breasted Merganser			u	u
Ring-necked Duck			u	u
Ruddy Duck			c	c
Snow Goose	c	r	c	a
Whistling Swan	r	r	c	c
Wood Duck*	c	c	c	u

VULTURES

Black Vulture	r	r	o	o
Turkey Vulture	c	c	a	a

OSPREYS, KITES, EAGLES, HAWKS AND FALCONS

American Kestrel	c		c	c
Bald Eagle	o		o	o
Broad-winged Hawk		u	u	
Cooper's Hawk	o		u	u
Golden Eagle			r	r
Northern Harrier	c		c	c
Merlin			o	o
Osprey*	c	c	c	
Peregrine Falcon			o	o
Red-shouldered Hawk	o	o	o	o
Red-tailed Hawk*	u	u	u	u
Rough-legged Hawk			r	
Sharp-shinned Hawk		u	u	u

GALLINACEOUS BIRDS

Northern Bobwhite*	c	c	c	c
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RAILS, CRANES, GALLINULES, AND COOTS

American Coot*	c	r	c	c
Common Moorhen*	c	c	c	u
King Rail*	c	c	c	c
Purple Gallinule	r	r		
Sora*	o	o	o	o
Virginia Rail*	u	u	u	u

SHOREBIRDS

SP S F W

American Woodcock	o	r	o	r
Killdeer	u	u	u	o
Common Snipe	u		u	u
Greater Yellowlegs	o		o	
Least Sandpiper	o		o	o
Lesser Yellowlegs	o		o	r
Semipalmated Sandpiper	u		u	o
Solitary Sandpiper	r			
Spotted Sandpiper	u	o	u	o

JAEGERS, GULLS AND TERNS

Black Tern		u		
Bonaparte's Gull			o	o
Caspian Tern	o	o	o	
Common Tern	u	c	u	
Forster's Tern		r	o	o
Great Black-backed Gull	u		u	u
Herring Gull	u	u	u	u
Laughing Gull	u	u	c	c
Least Tern		o	o	
Ring-billed Gull	u		u	u
Royal Tern	r	r		
Sooty Tern			r	

PIGEONS AND DOVES

Mourning Dove*	c	c	c	c
Rock Dove	o	o	o	o

CUCKOOS

Black-billed Cuckoo		r	r	
Yellow-billed Cuckoo*	c	c	c	

OWLS

Barred Owl			r	r
Common Barn-Owl	r	r	r	r
Eastern Screech-Owl	c	c	c	c
Great Horned Owl*	u	u	u	u
Short-eared Owl*	r	r	r	r
Snowy Owl			r	r

GOATSUCKERS

Chuck-will's widow*	u	u		
Common Nighthawk	r	r		

SWIFTS, HUMMINGBIRDS, KINGFISHERS

SP S F W

Belted Kingfisher*	c	c	c	c
Chimney Swift	o			
Ruby-throated Hummingbird*	u	u		

WOODPECKERS

Common Flicker*	c	c	a	c
Downy Woodpecker	u	u	u	u
Hairy Woodpecker	u	r	r	r
Pileated Woodpecker*	u	u	u	u
Red-bellied Woodpecker	u	u	u	o
Red-cockaded Woodpecker*	r	r		
Red-headed Woodpecker	r	r	r	r
Yellow-bellied Sapsucker	o	o	o	o

FLYCATCHERS

Eastern Kingbird*	u	c	u	
Eastern Phoebe			c	
Eastern Wood-Pewee*	c	o		
Great Crested Flycatcher*	c	u		

MARTINS AND SWALLOWS

Barn Swallow	c	c	c	
Northern Rough-winged Swallow ..	r	r	r	
Purple Martin*	u	c		
Tree Swallow	c	c	a	o

JAYS AND CROWS

Blue Jay*	u	u	c	u
Common Crow*	c	c	c	c
Fish Crow	u	u	u	

CHICKADEES AND TITMICE

Carolina Chickadee*	c	c	c	c
Tufted Titmouse*	u	c	c	

NUTHATCHES AND CREEPERS

Brown Creeper	o			o
White-breasted Nuthatch		u	u	