MRN-DOI\_1971 - Martin WildenosStudy

# MARTIN WILDERNESS STUDY



# MARTIN NATIONAL WILDLIFE REFUGE SOMERSET COUNTY, MARYLAND

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THE REFUGE SYSTEM IS A NATIONAL NETWORK OF LANDS AND WATERS MANAGED AND SAFEGUARDED FOR PRESERVATION AND ENHANCEMENT OF THE HUMAN BENEFITS ASSOCIATED WITH WILDLIFE AND THEIR ENVIRONMENTS. IT PRESENTLY CONSISTS OF OVER 320 UNITS, EMBRACING NEARLY 30 MILLION ACRES IN 46 STATES. ABOUT 90 REFUGES CONTAINING 25 MIL-LION ACRES IN OVER 30 STATES QUALIFY FOR STUDY UNDER THE WILDERNESS ACT.

#### PREFACE

The Wilderness Act of September 3, 1964 (Public Law 88-577), requires that the Secretary of the Interior review every roadless area of 5,000 contiguous acres or more and every roadless island, regardless of size, within the National Refuge System within ten years after the effective date of the Act, and report to the President of the United States his recommendations as to the suitability or non-suitability of each such area or island for preservation as wilderness. A recommendation of the President for designation as wilderness does not become effective unless provided by an Act of Congress.

In defining wilderness, the Act also included areas of less than 5,000 acres that are of sufficient size to make preservation and use in an unimpaired condition practicable.

Sections 4(a) and (b) of the Wilderness Act provide that: (1) The Act is to be within and supplemental to the purposes for which National Wildlife Refuges are established; and (2) Wilderness areas shall be administered so as to preserve their wilderness character and shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use insofar as primary refuge objectives permit. Wilderness does not remove or alter an area's status as a National Wildlife Refuge.

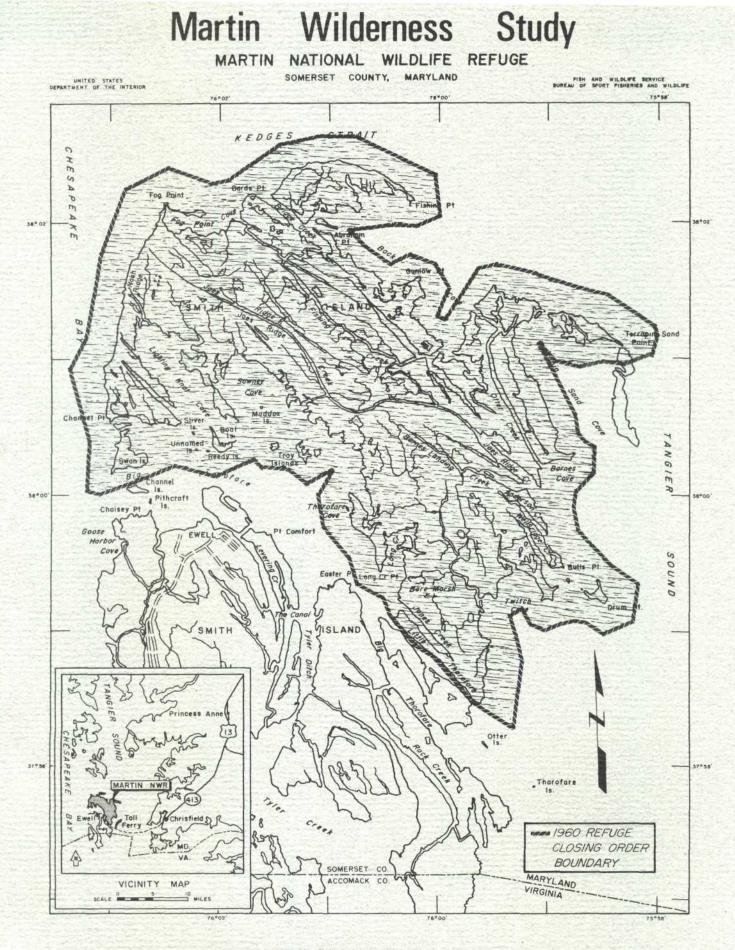
This brochure concerns a national wildlife refuge that has been studied by the Bureau of Sport Fisheries and Wildlife at the direction of the Secretary of the Interior. Its purpose is to summarize the wilderness study in sufficient detail to enable the reader to form an opinion regarding study conclusions concerning the suitability and desirability of including all or part of the refuge within the National Wilderness Preservation System.

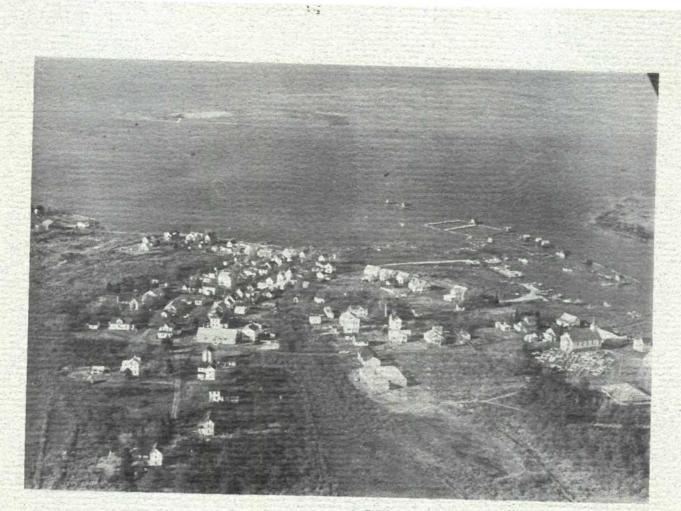
# INTRODUCTION

Martin National Wildlife Refuge, the northern sector of Smith Island in Chesapeake Bay, is located in Somerset County, Maryland. The Federally-owned land acreage, which totals 4,423 acres, extends to the mean high tide mark. The refuge was established in 1954 with the acceptance by the Government of a 2,569.86acre land gift from the late Glen L. Martin. Additional land purchases approved by the Migratory Bird Conservation Commission increased the size of the refuge to its present acreage. A 1960 Secretarial Closing Order provided the refuge with a 300-yard wide proclamation boundary inside which hunting is not permitted. The entire refuge was the subject of the wilderness study report.

Primary objectives of the refuge include providing resting and feeding habitat for ducks and geese and providing nesting habitat for waterfowl, wading birds, shorebirds, and ospreys. The marsh and estuary of the refuge are also important in the production of crabs, oysters, and many other marine species.

Martin Refuge is administered from the Blackwater National Wildlife Refuge near Cambridge, Maryland. Travel to the refuge is restricted to boats traveling a distance of approximately 11 miles from Crisfield, Maryland.





EWELL, ONE OF THE THREE SMITH ISLAND VILLAGES, WITH MARTIN REFUGE IN THE BACKGROUND

#### HISTORY

Smith Island, the location of Martin Refuge, was explored by Captain John Smith in 1607. The island, named for Captain Smith, is the most remote of all islands in the Chesapeake Bay.

The three villages of Smith Island, including Ewell, Tylerton, and Rhodes Point, have a rich history of providing large quantities of high quality seafoods. Marine arts, including the carving and painting of waterfowl decoys, have long been outstanding products of the inventive villagers. The economy of Smith Island is almost totally tied to the productiveness of its fertile marshes and shallow estuaries.

The inhabitants of Smith Island are an extremely hearty people of almost entirely British ancestry. They have lived in the past, and continue to live today, in and over the waters on which they depend. Destructive storms in past years that would have discouraged most people have only served to strengthen the faith of the Smith Islanders. They have always recovered from their ordeals and continued to live as their ancestors.

## PHYSICAL DESCRIPTION

Smith Island is a compact archipelago about 8 miles long, north to south, and 4 miles wide, east to west. Martin Refuge, as most of the Smith Island acreage, is primarily saltmarsh with numerous tidal creeks and several very small potholes. Approximately one dozen higher man-made mounds dot the refuge scene. The refuge is actually one large island and several small islands within Smith Island.

Needlerush dominates the Martin Refuge vegetation with occasional stands of salt-meadow and salt-marsh cordgrass. The higher areas of the refuge support such plant species as high-tide bush, groundsel bush, honeysuckle, wax myrtle, and some unmerchantable red cedar and loblolly pine.

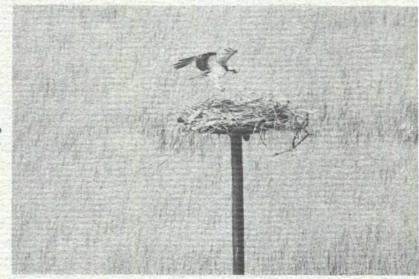
Physical structures on Martin Refuge at this time include picnicking facilities on Swan Island, an office-boat house on Joes Ridge Creek, and eighteen artificial nesting structures for ospreys.

Normal tidal fluctuation affecting the refuge is approximately two feet with exceptionally low tides occurring in the winter and extreme high tides covering the marsh during the summer months. Average annual precipitation is approximately 49 inches with temperature extremes ranging from the subteens in the winter to the nineties in the summer.

THE MARSHES OF MARTIN AND A WADING BIRD ROOKERY SITE



BLACK DUCK NEST



AMERICAN OSPREY NEST ON STRUCTURE CONSTRUCTED AND ERECTED BY REFUGE PERSONNEL



YOUNG EGRETS — ONE OF THE SEVERAL SPECIES OF WADING BIRDS WHICH REPRODUCE ON MARTIN REFUGE

#### RESOURCES

The natural resources of Martin Refuge are in many respects typical of the general Chesapeake Bay region. Many thousands of waterfowl funnel through the area on their way to southern wintering grounds. A wide variety of waterfowl, water, and marsh bird species utilize refuge habitat for nesting, rearing, resting and feeding purposes. Peak waterfowl numbers using refuge habitat during the winter are estimated to be 10,000 ducks and 4,000 geese.

Refuge management is primarily directed toward providing nesting habitat for the American osprey, which is a threatened species on the east coast, the black duck, and various water and marsh birds. Martin Refuge is unique for its artificially induced osprey nesting population. In 1970 fifteen pairs of ospreys nested on artificial nest structures and produced 26 birds. An additional 32 structures will be erected this year to bring the total number of structures to 50.

The magnitude of the artificial nesting structure operation on Martin Island will depend upon the success that is achieved with the additional structures that are scheduled to be erected later this year. Since the welfare of the osprey is seriously jeopardized on the east coast, maximum production and the demonstration of management techniques will be the goal of the Bureau on Martin Island until the security of the species is assured. This is consistent with the objectives of the National Wildlife Refuge System.

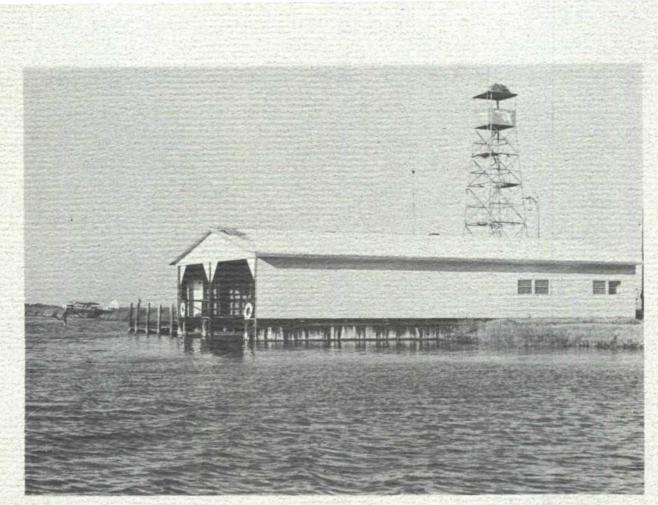
Martin Refuge produced over 2,200 marsh and water birds of 11 different species during 1970. Low dikes and low earthen mounds are planned for construction to further enhance the use of the refuge for these and other species of birds and animals.

Martin Refuge has no commercial woodlands, and there are no known extractable mineral resources.

#### PUBLIC USE

Fishing, crabbing, birding, photography, boating, and picnicking are the primary public use activities available in and around Martin Refuge. The marsh and water environment of the refuge and the 11 mile boat ride required to reach the refuge from the Maryland mainland tend to restrict visitation by the public.

Waterfowl hunting is a favorite activity outside the proclamation boundary of the refuge. Smith Island has the reputation of being one of the best waterfowl hunting areas in Chesapeake Bay.



OFFICE-BOAT HOUSE-TOWER COMPLEX ON JOES RIDGE CREEK COMPLETE WITH AMERICAN OSPREY NEST

### DEVELOPMENT AND MANAGEMENT

The picnicking facilities on Swan Island, the office-boathouse complex on Joes Ridge Creek, and eighteen artificial osprey nesting structures are the only physical structures on Martin Refuge at the present time.

Due to the nesting requirements of American ospreys using the refuge, there are plans to increase the number of artificial nesting structures throughout the refuge. The potentially very productive nesting black duck population will also be enhanced by the construction of nesting islands and subimpoundments. The number and location of these structures, nesting islands, and small impoundments will depend on the requirements of the two species, but the entire refuge acreage will be involved.

Occasional prescribed burning will be utilized as a management tool in improving the predominantly needlerush marsh. The marsh, as it now exists, provides excellent wildlife cover but very little natural food. Burning will encourage the growth of more beneficial vegetation.

#### SOCIAL AND ECONOMIC CONSIDERATIONS

Waterfowl hunting is a major recreational activity and industry around the Chesapeake Bay area. State and Federal waterfowl refuges, including Martin Refuge, are important in maintaining and protecting the waterfowl resource. With the continuing loss of wetlands throughout the Chesapeake Bay area, existing wetlands must be maintained and improved if waterfowl species, particularly those which nest in the bay area, are to be maintained at desirable levels.

The black duck is a very important species to Maryland and Virginia waterfowl hunters and bird watchers. A significant number nest on Martin Refuge. With a minimum of development the refuge can provide nesting habitat for at least twice as many as presently nest there, thus doubling the benefits that now are provided by this resource.

Recreational opportunities on and around Martin Refuge such as fishing, picnicking, and general nature and wildlife study and enjoyment will be continued so long as they are compatible with primary refuge objectives. The navigable waters of the refuge will remain open to commercial fishermen who are so dependent on the rich marine resources of Chesapeake Bay.

#### CONCLUSIONS

Martin National Wildlife Refuge was established in 1954 primarily to be of benefit to the migratory waterfowl resource. This relatively small 4,423-acre refuge has filled its niche well in providing habitat for approximately 15,000 waterfowl each winter.

Recent history has shown that Martin Refuge has outstanding potential as a major American osprey production area. The initial response to artificial nesting structures has been outstanding, and it now appears that with the erection of additional nesting structures the refuge will be in a position to make a significant contribution toward preserving this threatened species. The refuge also offers excellent development opportunities for improving nesting and feeding habitat conditions for marsh and water birds, particularly the black duck.

The needed developments for ospreys and marsh and water birds will eventually be placed in several locations on the refuge. Since man-made developments are needed to enable Martin Refuge to meet high priority objectives of the National Wildlife Refuge System, it is concluded that Martin Refuge is not suitable for inclusion in the National Wilderness Preservation System.

SEPTEMBER 1971

PERSONS INTERESTED IN THE PROPOSAL ARE ENCOURAGED TO INSPECT THE MARTIN NATIONAL WILDLIFE REFUGE. ARRANGEMENTS FOR BOAT TRANSPORTATION SHOULD BE MADE PRIOR TO A VISIT TO THE AREA. ADDITIONAL INFORMATION MAY BE OBTAINED FROM THE REFUGE MANAGER, BLACKWATER NATIONAL WILD-LIFE REFUGE, ROUTE 1, CAMBRIDGE, MARYLAND 21613; OR THE REGIONAL DIRECTOR, BUREAU OF SPORT FISHERIES AND WILDLIFE, PEACHTREE-SEVENTH BUILDING, ATLANTA, GEORGIA 30323.





AS THE NATION'S PRINCIPAL CONSERVATION AGENCY, THE DEPARTMENT OF THE INTERIOR HAS BASIC RESPONSIBILITIES FOR WATER, FISH, WILDLIFE, MINERAL, LAND, PARK, AND RECREATIONAL RESOURCES. INDIAN AND TERRITORIAL AFFAIRS ARE OTHER MAJOR CONCERNS OF AMERICA'S "DE-PARTMENT OF NATURAL RESOURCES."

THE DEPARTMENT WORKS TO ASSURE THE WISEST CHOICE IN MANAGING ALL OUR RESOURCES SO EACH WILL MAKE ITS FULL CONTRIBUTION TO A BETTER UNITED STATES—NOW AND IN THE FUTURE.