

AN INVESTIGATION OF THE COLONIES OF SEA BIRDS ON THE COAST OF MAINE BY THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, JUNE 23 TO JULY 14, 1931, AND A COMPARISON OF PRESENT CONDITIONS WITH THOSE EXISTING IN 1900 AND SUBSEQUENT YEARS OF THE ASSOCIATION'S PROTECTION.

By ROBERT P. ALLEN AND ARTHUR H. NORTON.

From the beginning of European adventuring to the coast of Maine to the year 1900, the practice of gathering in unlimited numbers the eggs of sea birds, throughout the laying season was freely indulged in.

The passage of about three centuries of egg gathering, combined with more or less other forms of destruction, carried on at will, had brought the sea birds to a low level of abundance. Puffins had been greatly reduced in numbers and restricted in range; black guillemots were confined to about a dozen of the more distant islands and ledges, cormorants had ceased to breed, and but few remained through the summers; eider ducks, which had nested as far west as Muscongus Bay down to the fifth decade of the last century, had been driven eastward from their smaller colonies to Penobscot Bay, which marked the western limit of their breeding range until quite recently; terns, slightly more numerous, were scattered in about seventy colonies, none of them very populous, from the Isles of Shoals eastward to Machias Bay.

During the eighth and ninth decades of the nineteenth century, an extensive killing of terns on their breeding grounds took place, which brought most of the larger and middle sized colonies to a close.

Late in the ninth decade of that century an extensive demand for the plumage of gulls brought these birds to a very low ebb of numbers, and terminated several of their important rookeries.

The year of 1899 marked the potential extirpation of both gulls and terns as well as other sea birds on the coast of Maine. Another year of two of destruction would have swept the few remaining sea birds from the entire coast of Maine. Elsewhere on the Atlantic and Gulf coasts, the slaughter had gone on with even more appalling results.

To prevent the complete destruction of the few colonies of sea and marsh birds on these coasts, particularly the gulls and terns, the Thayer Fund, amounting to \$1400 was raised, and made available for use in the summer of 1900. This movement rapidly developed into the great organization now known as The National Association of Audubon Societies, which to day, through its unceasing work is prepared to witness, what in a moment of enthusiasm, might be called a miraculous increase and-return of the bird life, which but three decades ago lung low in the balance of existence.

This new endeavor, in 1900 was begun through an extensive correspondence with ornithologists, Life Saving Stations, Light house Keepers and others. Along the 1319 miles of the coast of Maine, but twenty-eight colonies of gulls and terns, with a small total of about 9,000 gulls and fewer terns, could be found. From their widely separated and isolated locations, the great stretch of the coast and marsh to receive attention, and the limited fund, it was found practicable to guard but thirteen of the Maine colonies, at that time.

The founders of this great work, possessed of much fore-sight laid emphasis on three great principles for the future; 1. immediate guarding of the nesting places of the birds; 2. the adoption over the United States of adequate laws for the protection of the birds, and 3, a wide spread campaign of education on the importance of bird life to man.

For the first year the work of guarding the colonies was accomplished through the anti-trespass laws, put into effect through the hearty cooperation of the owners of the several islands protected. The Maine legislature of 1901, also cooperated with the work by passing the "Model Law" so called. The result of these two measures, guarding the breeding places and the enactment of the model law for

protection of non-game birds, was most promising from the first. An extensive inspection of the coast carried out in the summer of 1903, brought to light thirty-two colonies of gulls and terns; several of the tern colonies were new, and due to the protection received through the Thayer Fund and the events which had followed in its wake. A census made at the same time reported about 14 colonies of Herring Gulls; 18 colonies with about 6,500 common and arctic terns; colonies with about 20 eider ducks; 11 colonies with about 125 black guillemots, 2 colonies of puffins and about 15 colonies of Leach's petrels, both of the latter with undetermined numbers. There were also two groups of non-breeding double-crested Cormorants, numbering about 75 birds now roosting for the summer.

At the termination of the first decade of the work of the Association, 1900-1910, the locations of the colonies had changed but very little while their populations had reached large measures of abundance, and prepared the way for a general overflow and an extensive adjustment of territory among the species.

The gulls numbering about 22,000 were all nesting on the outer islands, much of the food of the colonies was obtained along shallow shores and harbors, five to fifteen miles distant. Young birds of pre-nuptial ages also feeding at the same harbors, found resting places near by, and finding themselves secure from molestation there became strongly attached to these resting places. On reaching maturity, some of these resorts became breeding places, and now important colonies. Terns numbered about 17,000 and some of them had already begun moving into the bays and reoccupying numbers of their old breeding places. The sense of security shown by these relocated gulls and terns soon attracted a number of other species, as shown beyond.

The decade of 1910-1920 found the herring gulls enlarging their

territory extensively, forming new colonies not only within the adjacent bays, but also to the southwestward as far as the coast of Massachusetts. Continually increasing and requiring more territory they seized upon numbers of islands then occupied by terns, forcing the latter to find smaller breeding places even nearer the mainland, where they were brought into closer contact with such natural enemies as crows, hawks and brown rats.

Terns in Maine have no doubt reached and passed the climax of favorable breeding conditions and abundance.

During this decade, other steps of great importance in the conservation of bird life came into full effect. In 1913 a statute was enacted by Congress, generally known as the "Federal Law", placing the ownership of all migratory birds in the nation, rather than in the various states or sections thereof, as had formerly been held. This was followed by a code of regulations for the hunting of wild fowl, whereby closed seasons were established prohibiting the hunting of all migratory birds in spring. During the period of litigation which followed this step on the part of Congress, the populace had time to grow into a general state of approval of the wisdom of the act, and by the time the said ownership had been fully established through the conclusion of the Migratory Bird Treaty with Great Britain its popular acceptance had been largely accomplished.

While the benefit to migrants on their journeys in spring was immediate, the regulation of the hunting season had other far reaching and highly beneficial results, perhaps not fully anticipated at that time. Gulls, terns, cormorants, eider ducks and perhaps other species concerned, require from two to four years to reach full maturity. It follows, that large numbers of pre-nuptial birds of various species must pass from one to several seasons in acquiring what is nothing

less than a large measure of geographical experience, in which dangerous places, places of refuge, and satisfactory feeding grounds stand out most prominently.

Under the conditions of safety brought about by spring protection, these young birds have full opportunity to choose summer resorts and form strong territorial attachments in sections where they would have been driven away under the former regime, and in some cases from which their elders had been expelled largely through spring shooting.

Furthermore, gulls of the larger species may be regarded as the watch dogs of the sea fowl communities; their keen vision, high degree of intelligence, their social habits and their lofty flight enable them to detect every intruder in their domain. Every object of a suspicious or dreaded nature is an object of widespread alarm. Where these vigilant guardians of avian safety are in repose, there all associated wild fowl feel a sense of security and assurance.

There can be no doubt, that through making the entire land a great refuge for spring migrants, and the return of large numbers of gulls, has had a most potent influence in bringing back eider ducks, double-crested cormorants, great black-backed gulls and razor-billed auks to the coast of Maine.

The following remarks are intended to show definitely the conditions of the sea birds breeding on the coast, as we witnessed them this season, compared with the conditions which existed when the work began. The field notes of the journey, represented in a chronological order given in another section of this report.

Fratercula arctica: Puffin: Sea Parrot.

At a time slightly previous to 1900, colonies of puffins had been driven from the Egg Rocks in Muscongus Bay and from

Matinicus Seal Island. A few pairs had been saved at Matinicus Rock, through the zeal of a former Light Keeper, Capt. William Grant. These have increased considerably; the well known colony at Machias Seal Island continues to thrive. The date of our inspection June 24 was just before hatching took place; very few puffins were flying about the island.

Cerophus grylle gryllae Sea Pigeon; Black Guillemot.

This species has not been known to have bred west of the Western Egg Rock in Muscongus Bay, nor have the birds been driven from that vicinity. In 1903, this species was found breeding at 14 islands and ledges, with a probable population of 150 birds. The inspection of 1931 found the sea pigeon breeding at 24 islands and ledges with a population of about 600 birds.

Alca torda : Razor-billed Auk.

This species has casually bred at several points along the Maine coast west to Muscongus Bay. None were found on any inspection of the Association in Maine until 1911 when Dr. T. Gilbert Peareson and Norton saw one adult bird at Machias Seal Island. At the present time half a dozen or more were seen at that island, where they were seen all summer, and probably are breeding.

Oceanodroma leucorhoa leucorhoa : Leach's Petrel.

No census of these birds has been made; such a census would involve several weeks of observation conducted on moonlight nights, owing to the nocturnal habits of the birds, and the fact that their nests are placed in holes in the earth, often well hidden by rank masses of vegetation, in dark passages among piles of bowlders where there is no visible evidence of nesting, under logs, stumps and in woods where their discovery is a time consuming task. Occupied nests were found on 12 islands, while 7 others were probably tenanted, though landings

on the days of our visits were impossible owing to heavy surf.

Large colonies still exist on Machias Seal Island, Little and Great Duck Islands and Matinicus Seal Island. Light keepers at Machias Seal Island, Great Duck Island and Metinicus Rock, all expressed the belief that this species is less numerous this year than in other recent seasons.

Larus marinus: Great Black-backed Gull.

For many years this has been regarded as only a moderately common winter resident on the coast of Maine. About 1905 it was observed that considerable numbers were passing the summer on some of the outer islands. Since that time the bird has been a regular sojourner at various places. It was found breeding this year by us in its characteristic manner of one or two pairs, from Cutler to Bristol. Proof of its breeding was found at eight islands with strong probability of breeding at five other islands. It appears to breed about two weeks earlier than *Larus argentatus*.

Larus argentatus smithsonianus: Herring Gull.

We found this species breeding in numbers ranging from 25 to 8,000 birds at 77 islands. It is by far the most abundant species on the coast.

Larus atricollis: Laughing Gull.

During the period 1870-1880 a few small colonies of this attractive gull occupied a number of off shore islands in Casco Bay, Muscongus Bay and Penobscot Bay. In 1900 a single group numbering about four pairs of breeding birds with about 50 non-breeding associates remained. Under protection they increased at one of their strongholds in Muscongus Bay. About 1920-1923 herring gulls began to encroach upon at breeding place, with the result that this species moved to another old resort or breeding place in Penobscot Bay, where they now number about 300.

Western Gull

Little Gull
Herring Gull
Laughing Gull

Sterna hirundo : Common Tern.

This tern formerly bred in numbers all along the coast of Maine wherever off shore islands suited to their needs existed. At times from 1886 to 1896 extensive shooting took place among the larger and medium sized colonies: this resulted in reducing the tern colonies composed of this and the next species from about 70 colonies of early years to 16 colonies in 1900. Colonies and their populations increased until 1919 when the herring gulls began encroaching heavily upon their nesting places, with the result that the terns have been confined to 19 colonies, the largest of about 1200 birds. The total population of common terns on the coast of Maine this year is about 7,300 birds.

Sterna paradisæa: Arctic Tern.

Arctic terns have always shown a pronounced preference for the outermost islands of the coast, a condition which prevails today. The present population of this species on the Maine coast is about 7,400 birds which occupy 6 islands.

Sterna dougalli: Roseate Tern.

A few roseate terns were to be found among the colonies of common terns east to Knox County in early years. They appear to be increasing in Maine at Present, though no nesting birds of this species were found east of the Kennebec River. Three colonies showing a population of about 550 birds, the largest showing about 400 birds was found. C. F. Jackson reports a small colony at Londoner's Island, Isles of Shoals just over the state line in New Hampshire. See Jackson and Allen Auk 1931, Vol 47, p. 18.

Phalacrocorax auritus auritus: Double-crested Cormorant.

A few cormorants of this species nested on Black Horse Ledge in Jerico Bay, where they had been reduced to two breeding pairs in 1896.

This seems to have been the last nesting there. A few of the non-breeding birds remained on the coast, all summer, "roosting" at points in Penobscot Bay, Black Horse in Jericho Bay, Black Rock, Jordan's Delight and Shipstern in Narraguagus Bay and at Pulpit Rock in Machias Bay. Careful search at these places at various times, revealed no nests, and none were reported nesting anywhere by well informed coast seamen. Since 1916 the number of summer sojourners has increased at several of the places named, while others have moved away to join them.

This summer we found five nesting places of this species, the largest colony, nesting in dead trees, numbering about 1,000 birds. These birds we are reliably informed began nesting about five years ago. All of the others were nesting on rocks; the breeding population of this species is about 1,700 birds.

Somateria dresseri: American Eider.

In early years this species nested at various points along the Maine coast west to the Egg Rocks in Muscongus Bay. In 1900 none of the birds were found or reported. In 1903 two nesting places were reported with about 21 birds. The eggs of this species are prized above those of gulls and other sea birds, by epicures, and oologists, and the temptation to try raising the young ducks has been strong. These factors, and spring shooting of sea fowl made gain in numbers slow, and any slight increase was soon lost. The protection extended to this species at all seasons, with the general protection of all migratory water fowl in Spring has begun to show results of a very helpful nature.

We saw 166 Eiders between Cutler and Metinic, and found nests on six islands or ledges; a few groups of eiders were found at other old breeding places where we failed to find nests, making the total number of islands still resorted to in summer by this species 17. Broods of young on the water with parents numbered 25.

Ardea herodias herodias: Great Blue Heron.

Great Blue Herons were found well distributed along the coast; we visited six colonies of from 40 to 200 birds. These great birds seem at all times and places to feel a sense of helplessness, shrieking in tones of distress at the plunges of ospreys or other birds, and on approaching their nesting places flying close to the tree tops, where they are not visible from any distance. They are in a continual state of alarm, sounding warning notes which silence the young, on hearing any sound in the woods. Lumbering operations, wind storms in winter which prostrate their nesting trees, and active enemies of an unknown nature preying upon the young, make their tenure of territory most uncertain. Large colonies may spring up in secluded places, to be routed and broken into smaller colonies in a few years. This seems to be the regular order of their lives. The location of these new colonies is time consuming in the extreme. In the larger colonies which we found, there were usually entire broods of fledged young, not quite able to fly, found dead on the ground, their bodies wholly or partly eaten on the spot. The young of this species seem much less able to climb about the branches than are the young of the next species. With nests usually placed on the top of dead trees, the young herons have little opportunity of developing their climbing propensities, or of escaping from the swoop of a real or imagined enemy. The empty nests with the young birds' bodies lying on the ground seemed to us to have been vacated in moments of panic; in such moments the young herons might leap from their nests and fall to the ground where they would be at the mercy of minks and in some locations of skunks and foxes.

Judging from the number and general distribution of the adults seen along the coast, it would seem that there must be several colonies

of some size still unlocated by us. The Great Blue Heron shows a marked increase since 1900.

Nycticorax nycticorax hoactii : Black-crowned Night Heron.

We saw but one colony of Night Herons, that on Little Duck Island, where we saw about 75 nests in low spruce trees. This heron conceals its nests among the branches well down from the crown of the trees in which they are placed. The young, as soon as they are feathered climb very skillfully among the branches surrounding the nests, scattering widely at the approach of any object they fear. We saw no dead young herons at the nesting place of this species. Little Duck is owned by Mr. Benjamin W. Arnold of Albany, New York, who devotes it to the purpose of a bird sanctuary.

Actitis macularia : Spotted Sandpiper.

Spotted Sandpipers breed in single pairs at almost every island, and on the mainland at every considerable clearing of the entire coast. At some places there may be a half a dozen well scattered pairs nesting. This species shows none of the social tendencies of its relatives, at any season.

Pandion haliaetus carolinensis : Osprey; Fish Hawk.

Ospreys seem to be increasing on the coast of Maine. We saw nests at many points, all the way from Cutler to Casco Bay. In some cases there were small colonies of about a half dozen pairs. The nests placed on navigation spindles, dead and living trees, on rocks and even on the ground. One or more nests were usually to be found in the immediate vicinity of the colonies of Great Blue Herons, where the Ospreys were constantly watching the movements of the herons with zealous eyes, giving chase to every heron crossing some point regarded to near to the osprey's home. The Osprey lunged savagely at such luckless birds; though we have seen this happen many times, we have never seen an Osprey strike a Heron; yet the latter is filled with terror, shrieking piteously at these thrusts.

Puffins.

Records of Robert P. Allen and Arthur H. Norton June 23- July 14, 1931. From unpublished report to National Audubon Society.

Machias Seal Island. June 24, 1931. Puffins nest in great numbers. Only eggs were seen and little of the birds was seen at that time.

Metinicous Rock July 6, 1931 A few nesting.

Seal Island. July 6, 1931 Probably nesting. Feathers seen at the entrance of a burrow.

Razor-billed Auks

Machias Seal Island. June 24, 1931. Small flock nesting

Black Guillemots

Nesting Islands and records of Black Guillemots along the Maine Coast.
by Robert P. Allen and Arthur H. Norton. June 23- July 14, 1931.
From unpublished Report to the Audubon Society.

Nachias Seal Island. June 24, 1931. Numbers nesting

Pulpit Rock June 25, 1931. Many nesting. Birds flew from nests on
rocky sides of island.

Freeman Rock. June 26, 1931. Two pairs seen.

Jordan's Delight. June 27, 1931. Birds nesting. Found one egg.

Ironbound Island off Mt. Desert. June 28, 1931. 25 seen flying to
and from the ledges.

Little Duck Island. 57 counted June 30, 1931. One egg found. One
bird behaved as if it had young.

Little Green Island. June 30, 1931. A number of Guillemots seen.

Big Green Island. (Swan's Island) June 30, 1931. 8 Guillemots seen.

John's Island. June 30, 1931. A few Guillemots.

Mason's Ledge. July 1, 1931. Several Guillemots.

Black and White Horse Islands. July 1, 1931. 2 or 3 pairs Guillemots

Marblehead Island. July 5, 1931. At least 2 pairs nesting. Downy
young seen.

Little Green Island. July 5, 1931. Nesting.

Metinic Rock. July 5, 1931. Large numbers seen as island appro.
Many nests and eggs seen.

Two Bush Island. July 5, 1931. Some observed.

No Man's Land. July 6, 1931. & Guillemots seen and a large bunch
which could not be counted.

Little Brimstone. July 7, 1931. Two seen off island.

Western Egg Rock. July 12, 1931. A few Guillemots nest.

Metinic Green Island. July 12, 1931. 40 nesting.

Eastern Egg Rock. July 12, 1931. 12 Guillemots nesting.

Leach's Petrel

Nesting islands and records of Leach's Petrel along the Maine Coast by Robert P. Allan and Arthur H. Norton June 23-July 14, 1931 From unpublished Report to the Nat. Aud. Soc.

- Nachias Seal Island. June 24, 1931. Many nesting, 1 nest and egg observed.
- Great Duck Island. June 30, 1931. More numerous than elsewhere with the exception of Nachias Seal Island
- Little Duck Island. June 30, 1931. Many nesting in open places and in the spruce woods.
- Big Green Island. June 30, 1931. A number of burrows seen.
- John's Island. June 30, 1931. A few Petrels nesting.
- Little Green Island. July 5, 1931. Petrels nesting.
- Metinicous Rock. July 5, 1931. Wilson's Petrels seen off Island.
- No Man's Land. July 6, 1931. Extensive colony of petrels.
- Seal Island. July 6, 1931. Many Petrel burrows.
- Western Egg Rock. July 12, 1931 Petrels nesting
- Pumokin Island. July 13, 1931 Petrels probably nesting.

Black-backed Gull

Nesting islands and records of the Black-backed Gull along the Coast of Maine by Robert P. Allen and Arthur H. Norton June 23- July 1 1931. From unpublished Report to the National Audubon Society.

- ✓ Old Man Island. June 26, 1931. Several nesting
- ✓ Double headed Shots. June 26, 1931. Several seen. Adults seen feeding young.
- ✓ Brothers Islands. June 26, 1931. Large numbers seen at least 2 pairs breeding.
- ✓ Egg Rock. June 26, 1931. Several nesting
- Flat Island. June 26, 1931. Several seen.
- Ladle Island. June 27, 1931. Several roosting.
- ✓ Cone Island. June 27, 1931. Several nesting. Adults seen feeding yg.
- ✓ Hop Island. June 28, 1931. One seen.
- ✓ Little Duck Island. June 30, 1931. Numerous B.B. Gulls. 2 pairs with young.
- ✓ Big Green Island (Swan's Island) June 30, 1931. One pair of Black-backed Gulls nesting.
- ✓ Hardhead Island. July 2, 1931. One pair nesting. Four young in juvenal plumage seen.
- ✓ Spoon Ledge. July 2, 1931. 6 adults seen. 2 nests found. Two young seen in the water.
- ✓ Fisherman's Island. July 5, 1931. Several adults seen. No nests identified.
- Nedrick Rock. July 7, 1931. 4 Black-backs seen. No nests found.
- Hurricane Island. July 9, 1931. 2 adults seen.
- ✓ Yellow Ridge. July 9, 1931. 1 pair Black-backs. One young ready to fly was found.
- Eastern Egg Rock. July 12, 1931. Five Black-backed Gulls roosting.
- Long Ledge. July 12, 1931. 1 Black-back seen at rest.
- ✓ North White Island. July 13, 1931. One young Black-backed Gull was discovered, and when hauled from his hiding place he ran like fury, and leaping into the surf and swimming far off shore. The adults flew out to him and kept the Herring Gulls from the vicinity. This was the farthest west record obtained of N.
- Black Rocks. July 13, 1931. Two Black-backed Gulls roosting.

Herring Gull.

Records of Robert P. Allen and Arthur H. Norton Lake along the Coast of Maine, June 23 - July 14, 1931. From unpublished Report made to the National Audubon Societies.

- Old Man Island. June 24-25, 1931. There were about 4,000 Herring Gulls nesting all over the island, on the bluff sides, deep in low hollows that were choked with weed growth and among fallen spruce directly beneath the nests of the Cormorants. Eggs and downy young were discovered. The Herring Gulls and Cormorants seem to get along together without difficulty, each being a match for the other.
- Double-headed Shots. June 25, 1931. There were about 5,000 Herring Gulls nesting there scattered well over the island with nests of many kinds and forms
- Brothers Islands. June 25, 1931. There were about 2,000 Herring Gulls nesting
- Green Island. June 25, 1931. We counted about 500 Herring Gulls nesting.
- Pulpit Rock June 25, 1931. Herring Gulls breeding. Of the 300 Herring Gulls observed a few were nesting on the rocks near the nests of the Cormorants.
- Freeman's Rock. June 26, 1931. We saw 100 Herring Gulls, a few gulls doubtless nest there.
- Egg Rock June 26, 1931. A number of Herring Gulls were resting on the island.
- Flat Island. June 26, 1931. There were 40 Herring Gulls nesting.
- The Ladle. June 27, 1931. There were about 200 Herring Gulls nesting.
- Cone Island. June 27, 1931. There were 5,000 Herring Gulls nesting
- Jordan's Delight June 27, 1931. Herring Gulls feeding. One Herring Gull was found dead of a head injury that may have been done by a mink.
- Schoodic Island. June 27, 1931. We found some 700 Herring Gulls a very few of which were nesting. We actually discovered three nests and one young bird, well grown, escaping into cover of heavy fern growth
- The Hop. June 28, 1931. 600 Herring Gulls were nesting. Long Porcupine, Rum Key and Burnt Porcupine appear to be merely roosting places.
- Little Duck Island. June 30, 1931. June 29, 1931. There is a great colony of about 3,000 Herring Gulls that range all over the island, nesting among rocks, in the deep grass, and far back amid the shade of the heavy spruce. Captured an adult in spruce for photograph.

Herring Gull (continued)

Great Duck Island. June 30, 1931. We did not find a great many gulls and suppose that many formerly nesting on the island have taken up their home-making activities on Little Duck. We estimated Herring Gulls as about 3,000.

Little Green Island. June 30, 1931. There were about 200 Herring Gulls nesting, the young well grown

Big Green Island (Swan's Island) June 30, 1931. About 300 Herring Gulls were nesting

~~7/1/31~~ Heron Island. July 1, 1931. About 3,000 Herring Gulls breeding.

Mason's Ledge. July 1, 1931. About 150 breeding Herring Gulls.

Black Ledge. July 1, 1931. A number of resting Herring Gulls.

Spirit Ledge. July 1, 1931. Counted 130 breeding gulls.

Great Spoon Island. July 1, 1931. About 1,500 Herring Gulls nesting.

Little Spoon Island. July 1, 1931. About 1,200 Herring Gulls nesting.

White Ledge. July 1, 1931. 200 Herring Gulls nesting.

Green Ledge. July 1, 1931. 300 Herring Gulls.

Lower Mark Island. July 1, 1931. 1,500 Herring Gulls nesting 100 were roosting on Saddleback.

~~7/1/31~~ Crow Island. July 1, 1931. A few gulls nesting.

Hard Head Island. July 2, 1931. 50 Herring Gulls nesting.

Bald Island. July 2, 1931. 300 Herring Gulls nesting

Sheep Island. July 2, 1931. 150 Herring Gulls nesting

Downfall Island. July 2, 1931. 150 Herring Gulls nesting.

Dagger Island. July 2, 1931. 150 Herring Gulls nesting

Oak Island. July 2, 1931. 150 Herring Gulls nesting

Barred Island. July 2, 1931. 100 Herring Gulls nesting.

Spoon Ledges. July 2, 1931. 50 gulls, 6 Black-backs nesting.

Mouse Island. July 2, 1931. 200 Herring Gulls nesting.

Goose Island. July 2, 1931. 50 Herring Gulls nesting

Robinson's Rock. July 2, 1931. 50 Herring Gulls breeding.

~~7/5/31~~ Fisherman's Island. July 5, 1931. 1,000 nesting Herring Gulls. We found a large number of young gulls dead and in many cases torn to pieces as if by ravens or even gulls.

Herring Gull. (continued)

- Marblehead Rock. July 5, 1931. A few Herring Gulls were nesting on the edge of the Shag colony, and many of the young were all grown.
- Green Ledge. July 5, 1931. 100 Herring Gulls nesting
- Two Bush Island. July 5, 1931. 100 Herring Gulls nesting.
- Ten Pound Island. July 5, 1931. 1,000 Herring Gulls nesting
- Pudding Island. July 5, 1931. 150 Herring Gulls nesting
- No Man's Land. July 5, 1931. 2,000 Herring Gulls nesting.
- Calderwood Island. July 6, 1931. 150 Herring Gulls nesting.
- Gull Rock. July 11, 1931. 20 Herring Gulls nesting.
- Ross Island. July 12, 1931. 15 Herring Gulls nesting.
- Western Egg Rock. July 12, 1931. 400 Herring Gulls nesting.
- Wreck Island July 12, 1931. 100 Herring Gulls nesting.
- Jone's Garden Island. July 12, 1931. 100 Herring Gulls nesting.
- Long Ledge. July 12, 1931. 200 Herring Gulls nesting
- Old Hump Ledge. July 12, 1931. 75 Herring Gulls nesting.
- Shag Ledges. July 12, 1931. 100 Herring Gulls roosting.
- Metinic Green Island. July 12, 1931. 2,500 Herring Gulls nesting.
- Hog Island and The Nubble. July 12, 1931. 500 Herring Gulls nesting.
- Little Egg Rock. July 12, 1931. 100 Herring Gulls nesting.
- Shark Rock. July 12, 1931. 50 Herring Gulls nesting.
- Eastern Egg Rock. July 12, 1931. 300 Herring Gulls breeding.
- Inner Hypocrite Island. July 13, 1931. 30 Herring Gulls roosting and probably 2 or 3 pairs nesting, as we saw 2 downy young.
- Outer Hypocrite Island. July 13, 1931. 100 Herring Gulls 50 of them breeding birds.
- Northern White Island. July 13, 1931. 600 Herring Gulls breeding. We found a great many of the young birds just beginning to fly.
- Souther White Island. July 13, 1931. A very few Herring Gulls nesting.
- Pumpkin Island. July 13, 1931. 300 Herring Gulls were nesting.

Martinicus Rack	1865—
frank of Rack	1873—1889—1916, 1917—1918. 1928 one
Machias Seal Isl	1879 — 1939
Danaseau Isl	— 1884
Near Bristol	— " 1895,
Little Green Isl	— 1885—1886 — 19
Pumpkin Huah	1888. — 1890 —
Martin's Green	1883—
Egg Rack Paphos	1895— 1897—leave
Muscovy Bay	1884—1897—
H Green Isl	1897, leave
Black Racks	1897 = 16. 1'
Ship	1898
Barge	"
Krumpholt	"
E. W. Lit Egg	
Shark	
Jamesport-Egg.	1902
Freeman's Rack	
Libby Island	
Hatter's Isl -	1905— 1931.
Inner Sugar Loaf	1924 — 12

MAINE TERN COLONIES IN 1885.

Saco Bay.

Bluff island.

Casco Bay.

Upper Green Islands, (2).

West Brown Cow

Lower Mark Island

Inner Green Island

Outer Green Island

Junk-of-pork

White Bull .

Eastern Brown Cow.

Phippsburgh.

Heron Islands

Egg Rock.

Sheepscot Bay and John's Bay.

Black Rock

(Damascove Island)

Dr. T. M. Brewer reported a colony on this island
(1884, Watre Birds N. Am II, 302).

Pumpkin Knob

Hypocrites.

Thrumcap

Muscongus Bay.

Shark Rock

Eastern Egg Rock

Western Egg Rock

Little Egg Rock

Georges Islands.

Shag Ledges

Sistars.

East Penobscot Bay

Metinic Green Island

Little Green Island

Big Green Island

Big Two Bush (Ceased about 1884)

Clam Ledges

Garden Island

Marblehead Island

Fisherman's Island

Little Hurricane.

Fox Islands;

Medrick Rock

Green Ledges

Green Island

Egg Rock

Compass Island

Grass Ledge

Sloop Island Ledges

Spoon Ledge

Hay Island

Robert's Island

Little Brimstones, (3)

Robinson's Rock

Goose Island

Mouse Island

Hardhead

Matinicus Islands

Matinicus Rock

Wooden Ball

Seal Island

Jericho Bay.

Little Spoon Island
Big Spoon Island
Green Ledge
North Popplestone
Southern Mark Island
Halibut Rocks
Saddleback Ledge

Bluehill Bay

Tinker's Island
Trumpet Island
Ship Island
The Barges (2).

Petit Manan Region

Green Islands.
Egg Rock

Jonesport Region

Pot Rock
Ladle
Egg Rock

~~Mason's/Ledge~~ Freeman's Rock

Englishman's Bay, (or "Machias Bay")

North Libby Island

Cutler.

Machias Seal Island.
Gull Rock

During the years of 1886 and 1887 a wholesale slaughter of terns was carried on in Muscongus Bay, Penobscot Bay, Matinicus Seal Island and the Wooden Ball, Blue Hill and Jericho Bays. Several of the most populous colonies were annihilated.

A change in "fashion" in millinery, and the passage of a law for the protection of terns in Maine passed by the legislature of 1889 caused a pause in the destruction of these birds.

Survivors from the persecuted colonies joined other established colonies and some of these became populous again. In 1890 colonies were known at the following places.

Maine Tern Colonies in 1890.

Saco Bay

Bluff Island

Casco Bay

Junk-of-pork
Outer Green Island

Lower Mark Island

White Bull.

Phippsburg.

Heron Islands

Egg Rock

Sheepscot and John's Bays.

Black Rock

Pumpkin Knob

Thrum Cap (?)

Muscongus Bay

Eastern Egg Rock

Westwrn Egg Rock

Penobscot Bay

Metinic Green Island

Matinicus Rock

Marblehead Island

Fisherman's Island

Fox Islands,

Egg Rock

Slop Island Ledges.

Jericho Bay.

Big Spoon Island

Saddleback Ledge
Green Ledge

Halibut Rocks

Green Islands.

Osprey.

Records of Osprey by Robert P. Allen and Arthur H. Morton on the Coast of Maine June 23- July 14, 1931. From unpublished Report to Aud. Soc.

Cross Island Channel June 25, 1931. Nest on Spindle erected for Nav.

Double-headed Shot Island June 25, 1931. Nesting in the top of a dead fir tree.

Hardwood Island June 26, 1931. Nest atop a 60 foot derrick which had been abandoned.

Jordan's Delight. June 27, 1931. Ospreys feeding along the shore on the Atlantic side of the island.

Ironbound Island. June 28, 1931. Three nests each in live spruces on the bluff.

Bartlett's Island. June 28, 1931. Several pairs nesting in trees. One at the edge of Heron colony.

Heron Island. July 1, 1931. Nest close to the ground in a dwarfed Spruce. Contained 2 young recently hatched.

Crow Island. July 1, 1931. One nest atop a spruce.

Pickering Island. July 2, 1931. Two nests one flat on the rocks. Young in low nest 10-12 days old.

Outer Porcupine Island. July 2, 1931. Nest built high on top of a boulder.

Sheep Island. July 2, 1931. 1931 Two nests both flat on ground.

Downfall Island. July 2, 1931. Two nests similar to those on Sheep Id.

Hog Island. July 2, 1931. Nest atop a rock. Young partly feathered with long quills.

Barred Island. July 2, 1931. One nest.

Flying Island. July 2, 1931. One nest on ground.

Pulpit Rock July 3, 1931. Nest with two partly feathered young.

Calderwood Island. July 6, 1931. Nest on rocks. Young well advanced.

Raven.

Records of Robert P. Allen and Arthur H. Norton June 23 - July 14, 1931. From unpublished Report to the Audubon Society.

- Old Man Island. Ravens nesting June 24, 1931.
- Brothers Island. June 25, 1931. On steep bluff 100 feet above the sea Ravens were nesting.
- Head Harbor. June 26, 1931. Adult Raven seen.
- Schoodic Island Three young seen June 27, 1931.
- Little Duck Island. June 30, 1931. Young Raven seen with Crows which were nesting on the island.

Laurent, Arctic, and the two summer parties have
reoccupied the same island on the coast of Davis's Sea during
winter.

My presence they seeing, rather boldly, nothing we have
noticed, and the heales, as the proper practice where the grass
is cropped short and lowly. The colonies were very
extended on islands of this description, especially distant
from the shore of the main land to be secure from predatory
mammals. Several such ^{small} islands, some attended
by them in pairs, threes, and where commonly hunted.

Especially the *peruvianus* *maiculatus* *metator*, and
more at this spring, these birds were scarce, and abundant
in colonies stretching from ^{2000 ft} ~~2000 ft~~ ^{2000 ft} to higher.

Under 1886, when the demand for birds for military purposes was ~~reduced~~ accepted. During the years of 1886 and 1887, thousands of these birds were shot during the breeding season, sweeping ~~down~~ ^{most of} the large colonies out of existence.

Notwithstanding a law passed by the Maine Legislature of 1888 for the protection of terns, three years later, a number of the clowmsent for gulls and terns, made pronounced remarks on the smaller colonies, which had survived the first onslaught, as been obliterated by semipalm from _____

This second iteration was met by the organized effort which led to the enactment of our effective campaign of the Audubon Society. But as often happens, when man meddles with the laws of nature, a great misadventure followed. ^{instead} ~~rather than~~ through stupidity, unlimited protection of hermit gulls.

The gulls

When ~~that~~ ^{the} ~~gumbo~~ ^{gumbo}, after ten years of steady increase ~~reached~~
~~that~~ ^{the} ~~interior~~ ^{interior} had reached the limits of their fur colonies and
must seek new territories the two entered upon another period

of decimation, as severe as that of the feather demand.

In 1885 - Terns occupied numerous, long established, often populous colonies on ^{the following} many islands. From west to east,

Bluff Island. Looe Bay - The Center, Inner Green Islands and Junk of Park, Western Brown bear, Western Mark Islands, White Bull, and Eastern Brown bear in Looe Bay. In this Bay even the Upper Green Islands, were occupied for a number of years.

East of Small Point, the Heron Islands, and Egg Rack, off Popham Beach, Black Rack in Shepley Bay, Damarone Island, the adjacent Pumpkin Knob, Thrumbeaf, were regular breeding places.

In Muscogus Bay Shark Rack, Eastern and Western Egg Rocks, and among the George Islands, Chag Ledges and the Sisters, afforded ~~refuge~~ breeding places for colonies of from one to several hundreds of pairs.

Puabscot Bay was the home of numerous colonies, many of them very populous. These included Metim's Green Island Big and Little Green Island, Atig Wooden Ball and Matinicus Seal Island, Matinicus Rack. Big Two Bush, the Glen Ledges, Little Hurricane, Garden Island, Marble Head and Fisher's Islands, Robinson's Rock and Mouse Island several small rocks or islets north and north east of the Fox Island, Roberts Island and Little Armistead southeast of these,

In Blue Hill Bay Linkers, Trumpet, Ship and the two small Barge Islands.

On Jericho Bay, The two Spear Islands, Endethur Mark Islands, ~~Habitat R~~ supported populous colonies, with Habitat Rocks, and Laddsbach Seidge with several smaller ones were large enough to attract the sheeters when the larger were broken up.

Further east, Petit Manan Islands, the Egg Rack, Pat Rack, Crumple Island Egg Rack, Mosau's Seidge, North Libby Island, Halifax and Macias Seal Island.

The feather campaign of the late eighties, exterminated ^{Sites and Egg Rack. Shark Rocks} the colonies at the Green Islands, The Seal Island and Wooden Ball, Robinson Marshall Head and Finkermans Islands, Robinsons Rack, ^{Loose Rack Ice} Mouse, and several smaller colonies, Robert's ^{Is} and Little Brimstone: ^{Lower} Southern Mark, and Big Spear Island, ~~Habitat Rack~~. No data are available from colonies east of Mount Desert.

The second campaign, 1889-90, exterminated the colonies in Casco Bay, Heron Islands and Egg Rack Popham and Pumpkin Knob. ~~Further east~~. Starting late in the season further east this campaign was focussed upon the herring ~~and~~ other gulls, through the breeding season, and in its fall to the migratory gulls. Herring, ring-billed and Bonapartes. Herring gulls were then reduced to ~~very~~ about a dozen colonies with ~~some~~ of mostly limited numbers.

Terns were now confined to Bluff Island, (which had escaped) a two fable colonies in Muscogus Bay. Petrie's Green and Matineus Rock, (both having escaped) a few fable groups around North Haven, a small number in Blue Hill Bay, scattered small groups in Jericho Bay. Colonies from Petit Manan

certain, seemed to have accepted abandonment.

The so called "North Star" was swarmed by the same Myristicivora of 1901, and was effectively captured the next.

Stems, slough at spring, increased and reoccupied some of the old breeding places. The Outer Green Island in 1900 was not one of these, and a small number began breeding on Lower Black Island, and Eastern Oceanic Is.

Pomarine Skuas was not reoccupied by them. Small, unstable colonies sprung up at Mucous Bay. The small scattered colonies north east of North Star, in French and Blue Hill Bays began an increase.

By 1911 stems were again abundant, occupying a few large, and many small colonies. Herring Gulls had also multiplied many fold during the decade, and now began to form new colonies, farther up the great Paradise Bay, and westward along the coast. In a few years the small island westward of North Star, ^{and} the Ocean Islands, were colonized by them and the terns forced seek other places.

In 1911 the first nest of the Herring Gull was found on Middle Green Island, and during the next decade, all of the terns of this large colony were gone. A number of these attempted to colonize in a pasture on Midway, where they perished at least from 1921 to 1931.

By 1921 the gulls had occupied Eastern Egg Rock, where the terns concentrated at the western Egg Rock, where ~~the~~ ^{other} gulls began to breed, at the same time. In a few years the terns and Herring gulls were driven away. Gulls were now on Pomarine Is., in numbers. Terns attempted to colonize New Harbor Dry Ridge, and in the Cheapest Griffiths Head, these proved to be too near shore, and they were no match for rats and crows, while the big gulls settled at the latter, making their attempt a total failure.

Gulls began to breed in Baseo Bay, by 1918, first on the white bluff, and in a few years Anter Green Island, and shortly numerous other islands fell under their invasion.

The colony of terns at Anter Green Island, which had again become sizable, vanished. Terrible colonies attempted to nest at various impossible rocks and islets, only to meet failure. It seems probable that these refugees, joined other colonies, as yet free from invasion, and occasionally their experiment succeeded. 1923, the larger loaves were settled upon, with success.

Terns held full sway at Bluff Island through the season of 1919 (at least) but in 1931 Gulls were there established in a large colony, while the terns were gone, to the adjacent Strattan's Island, and small islets at the mouth of Laco River.

there are few presumed records of a new record of

The status of terns in Maine, ^{sea whale} has ~~little historical~~
~~record~~ prior to 18

1867 Semmels. Birds in ^{of} abundance all along our coast ---
p 547

1834 Nuttall II 272. it breeds along all the coast of ^{the} northern
and middle states - - - In short no bird is more
common along the sea coast of and lakes of the whole northern
hemisphere, within the limits of ~~the~~ cool temperate or moderate
temperatures.

In 1834 Thomas Nuttall seems to have ^{given} ^{stated} the abundance
of the common tern - for the Arctic tern was then believed to be
what its name implies. - in the following statement.
^{of its status in Maine,}
Indeed this describes the view ^{held} commonly by the coast dwellers
of ^{here} Maine, from that time to 1885.

It was breeding in the St. Croix region, 1862. Machias Seal
Island 1873. (Herriek). The Green Islands, Portland, 1874 (Bennet).

run run run

Kachias Seal Island	1873—	
frank of Park	1874 ¹⁸⁸⁴ 1901. 1908. 1912 — 1914 1917	
Pumpkin Rack	1888 "	
Egg Rack Popham	1895— 1897 leave	
Saddlebrook Ledge	1894	
Ship Island	1904 game	
Harper.	" "	
Libby Island	1904—1909	
Ballast Id.	1907	
Bluff Island	1901	1918 1919
Egg Rack Jonesport	1904—1931.	
Harper Id. Popham		1892 leave
Rabineau Rack	1914	
Morse Island	1914	
N. Haven Egg Rack	1914	
Center Brauns Id.	2 1917	
Big Spoon Id.		1918. 1920
Shattuck Id.	1901 ~~1919~~ 1902 — 1919	
Mitnick Green	1883—	
Helman's Rack	1903—	
W2 Mark Id. Casco B	1904—	
Foster's Id.	1909	
Green "	1909	
Summer Green	1878—1880	
Brown Bear Ledge [W7]	1875— 1932	
Seal Id. Martinien	189	
Little Spoon	1904—1905.	
Hallbut Rack	1904	
Sleep Id Ledges	1904	
Big Tur Rack	1879	
Little Hurricane	187	
Wine Ledges	1870	

New Harbor Dry Ledges	1908 - 1909 - 1921
Western Egg Rock	1920 -
Eastern Egg "	1913 1920
Griffiths Reef	1921 1926 name
East Ledge, Cape Newagen	1921
Shark Rock	1921
Melvin's	1921 1931 -
House Rock Saksanau	1923 - 1926 name
Red Ledge	1922
Sugar Loaf Inner 187.	1923
Outer	1925
Inner Inner Id	1928.
Green Id, Petit Manau	1931 -
Garden Island	1931
Marble Head	1886 -
Fiskerman's Id	1886 -
Prince's Point Ledge	1931 - 1932 -
Lunging Id Isles of Shoals	1930
West Brown Cove	1932

1922 Great destruction of young
 1929 mortality, Casco Bay.

1931
 1932
 1930

Herring Gull. (continued)

Lower Mark Island. July 13, 1931. 30 Herring Gulls roosting.

Griffith Head Island. July 13, 1931. 100 Herring Gulls 50 of them breeding. Brown rats according to Norton broke up this colony some years before and apparently this was a freash start

~~W~~ Black Rocks. July 13, 1931. 12 Herring Gulls roosting.

Heron Islands. July 13, 1931. 800 Herring Gulls nesting.

Eastern Brown Cow July 13, 1931. 12 Herring Gulls nesting.

White Bull Island. July 13, 1931. 400 Herring Gulls nesting

There were no gulls breeding on Elm Island, Two Bush, Cedar Ledge, Ram, Pond and Western Brown Cow.

Inner Green Island. July 13, 1931. 100 Herring Gulls nesting.

Outer Green Island. July 13, 1931. 400 Herring Gulls nesting.

Junk of Pork July 13, 1931. 50 Herring Gulls nesting.

Upper Green Islands. July 14, 1931. 300 Herring Gulls nesting.

Bluff Island. July 14, 1931. 1,000 Herring Gulls nesting, amid the thick grass. Most of the young gulls were hatched, many of them learning to fly, and the grass was matted down over most of the island. This Island was once a Tern colony but these were apparently forced by the gulls to leave. The terns are now on nearby Stratton Island.

51,205
51 6513 7/10/31
34 100

Laughing Gull.

Records of Robert P. Allen and Arthur H. Norton June 23- July 14, 1931
from Unpublished report to the Audon Society.

July 3, 1931. Two Laughing Gulls seen a short distance out of
Rockland.

July 5, 1931. One seen off Andrew's Island.

Little Green Island. July 5, 1931. 300 nesting. Did not see many
eggs only one family 3 young. Difficult to
find in the tall grass.
See Norton, Maine Naturalist 4: 65-67.

July 7, 1931 Saw 17 at Rockland Breakwater probably from Little
Green Island 14 miles away.

July 11, 1931. One Laughing Gull found at Broad Cove.

Western Egg Rock. Owned by Cumberland County Audubon Society.
A colony of Laughing Gulls once bred here.
An Arctic Tern banded here that was recovered on
the west coast of Africa.

Terns

Nesting islands and records of Terns along the Maine Coast
by Robert P. Allen and Arthur H. Norton June 23- July 14, 1931
From unpublished report to the National Audubon Societies

<u>Nachias Seal Island</u>	June 24, 1931	Arctic Terns 4,000 nesting Common Terns Some nesting Roseate Tern one seen
<u>North Libby Island</u>	June 26, 1931	A few Common Terns nesting
<u>Foster's Island</u>	June 26, 1931	1,200 Arctic and Common Terns nesting.
<u>Freeman's Rock</u>	June 26, 1931	20 Common Terns
<u>Egg Rock</u>	June 26, 1931	600 Common Terns, many young
<u>Petit Manan Green Island</u>	June 26, 1931	800 Common and Arctic Terns nesting Many young. Birds nested in meadow inside sea wall.
<u>Trap Rock</u>	June 28, 1931	50 Common Terns resting
<u>Trumpet Island</u>	June 29, 1931	1,000 Common Terns nest ing. Young 2-3 days old. Many young had died
<u>Western Barge Island</u>	June 28, 1931.	50 Common Terns nesting
<u>Ship Island</u>	6/29, '43,	600 Common Terns nesting
<u>Brimstone Island</u>	July 1, 1931.	300 Common Terns nesting. Many newly hatched young.
<u>Halibut Rock</u>	July 1, 1931	A few Common Terns nesting
<u>Two Bush Island</u>	July 2, 1931	200 Common Terns nesting. Many young hatched. Found 150 dead yg.
<u>Little Green Island</u>	July 5, 1931	600 Common Terns nesting.
<u>Metinic Rock</u>	July 5, 1931	1,000 Arctic Terns nesting.
<u>Garden Island</u>	July 9, 1931	1,000 Common Terns. Young well grown, some flying, Young all over the island
<u>Metinic Island</u>	July 9, 1931	300 Arctic and Common Terns nesting.
<u>Upper & Lower Sugar Loafs</u>	July 7, 1931,	1,100 Common terns including 150 Roseate Terns. Most young large, some flying. A few eggs 1 nest with 4
<u>Pond Island</u>	July 13, 1931	Terns breeding
<u>Little Mark & Haddock Rock</u>	"	"
<u>Stratton Island</u>	July 14, 1931.	1,600 Common Terns, a few Roseates Driven from Bluff Id. Many yg. Marsh Hawk feeding on

Cormorants.

Records of Robert P. Allen and Arthur H. Norton along the Maine Coast
June 23 - July 14, 1931. From unpublished Report to the Audubon Soc.

Old Man Island. June 24-25, 1931. The cormorants numbered about 1,000 adult birds, and had built from one to seven nests to a tree over the entire surface of the island. Most of the young were in downy plumage, but we found eggs and newly hatched young as well.

Pulpit Rock June 25, 1931. The Cormorants built on the pinnacles of rock, fifty feet above the sea. There were 50 occupied nests and a total of 500 birds. Also observed our first Phalacrocorax Carbo, the Common Cormorant, two individuals mingling with what appeared to be the unmated flock of P. auritus. Gulls nested near to the Cormorants.

Shipstern Island June 27, 1931. It was evident that the Shags had frequently used the island as a roosting place but they saw no cormorants as they passed by.

Round Porcupine Island. June 28, 1931. It is a Cormorant roost.

Trap Rock. June 28, 1931. 6 Shags in the water.

Spoon Ledge. July 2, 1931. 20 nests containing 45 young shags. Some nearly grown, others just hatched, 18 incubating eggs. From 2 to 5 young or eggs were observed in single nests

Mouse Island. July 2, 1931. On the ledges off island a single P. carbo was seen.

Marblehead Island. July 5, 1931. 300 occupied nests Estimated 900 young. Mostly fully grown, a few eggs. A freak "black" egg being a mixed black and dark brown over its entire surface. One young shag with a deformed lower mandible.

Crescent Ledge July 5, 1931. Roosting place

Nedric Rock July 7, 1931 20 shags roosting

Garden Ledge July 9, 1931. 14 shags roosting

Hurricane Island " " Several roosting

Gull Rock July 11, 1931 12 shags roosting

Western Egg Rock. July 12, 1931 30 shags roosting.

Wreck Island. " " " Cormorants roosting

Jone's Garden Id. " " " 40 shags roosting Reported nesting but no nests found.

Long Ledge " " " 60 shags roosting

Old Hump Ledge " " " 150 shags roosting including P. carbo. 4 occupied nests.

Shag Ledges July 12, 1931 A few shags roosting

Shark Rock " " " A few roosting

Eastern Egg Rock " " " A number of shags roosting

Lower Park Island July 13, 1931. Shags reported nesting but found none

Double-crested Cormorant Colonies

	Maine	Number of Nests		
<u>Portsmouth</u>	1943	1944	1945	
Duck Island, Isles of Shoals	18	37		
<u>Biddeford</u>				
Eagle Island	12	--		
<u>Portland</u>				
Bluff Island	62	158		
<u>Casco Bay</u>				
Junk-of-Pork	150	---		
Outer Green Island	231	---	683	b.81
West Brown Cow Island	152	---	224	b.93
<u>Small Point</u>				
White Bull Island	209	482	662	b.111
Heron Islands	244	398	297	p.10.
<u>Boothbay</u>				
Pumpkin Island	873	---		
N. White Island	474	522	384 -	
			2870 288	
<u>Monhegan</u>				
Western Egg Rock	614	746	267 -	
Shark Island	905	932	524 154 not sprayed	
Old Hump Ledge	400	513	434 -	
Little Egg Rock	500	434	209 -	
			371	
<u>Tenant's Harbor</u>				
Hay Ledge	12	220		
Metinic Green Island	932	1014		
Yellow Ridge	150	175		

Double-crested Cormorant Colonies

	Maine	Number of Nests	
<u>Rockland</u>	1943	1944	1945
Crescent Ledge	100	150	
Marblehead Island	793	805 $\frac{1}{3}$ 39- 20995	
Fisherman's Island	265	518 $\frac{1}{3}$ 797- 2992222	
<u>Vinal Haven</u>			
Hay Islands		---	
Nedric Rock		---	
Green Ledge		---	
Robinson Rock		157	
Downfall Island		32	
Spoon Ledge	728	565 $\frac{1}{12}$ 574- 29901071	
<u>Castine</u>			
Colt Head Island	870	825 $\frac{1}{12}$ 372- 2990245	
<u>Deer Isle</u>			
Black Horse Island	75	---	
<u>Great Wass Island</u>			
The Ladle	10	---	
<u>Nachias</u>			
Pulpit Rock	100	155	
Brothers Islands	6	---	
<u>Cutler</u>			
Old Man Island	333	350	

Eider Ducks
Records of nesting places etc. along the Maine Coast.

The following are from the report of Robert P. Allen and Arthur H. Norton submitted to National Audubon Society. Trip taken from Machias Seal Island to Stratton Island south of Portland June 23 to July 14, 1931.

- 7 Old Man Island June 24-25, 4 nests with 3 to 4 eggs. Male in Eclipse plumage seen.
- Sand Island June 26, 6 male eiders in full nuptial plumage seen.
- Little Green Island June 30, 1 male and 2 females seen
- 7 White Ledge July 1, 20 adults seen; 4 nests with eggs.
- Sheep Island July 2, 35 eiders seen many with young in tow.
- 7 West Penobscot Egg Rock July 2, Flock 21 eiders numerous broods
Nine nests all hatched except one with 2 eggs.
- 7 House Island, W. Penobscot Bay July 2 6 nests found, 2 with eggs one with 3 and 1 with 5 eggs.
- 7 Robinson's Rock 14 eiders seen off shore, 4 with broods, 1 empty nest found July 2, 1931.
- No Man's Land July 6, 1931, 5 eiders seen along shore.
- 7 Calderwood July 6, 1931 8 eiders seen 1 with a brood.

See page 9 for general statement.

species?

Records of Robert P. Allen and Arthur H. Norton along the Coast of
Maine, June 23-July 14, 1931. From unpublished Report to Audubon Soc.

Bartlett's Island. June 29, 1931. Colony found.

Little Duck Island. June 30, 1931. One nest found near the Black-
crowned Heron colony of 75 occupied nests.

Pickering Island. July 2, 1931. 23 nests. Young ready to fly.

Puget Harbor July 3, 1931. 5 nests high up in red spruces 75
feet from the ground.

Otter Island. July 10, 1931. 40 nests 75 feet up in spruce.
Heavy mortality of young 18 dead found.

Hog Island. July 11, 1931. 20 nests found. Many dead young.

Mark Island June 14 1943
colony of 17 nests. no census

Black-crowned Night Heron.

Little Duck Island. June 30, 1931. 75 occupied nests located in red
and white spruces at north end of the island.
Nests 15-20 feet from the ground.

Otter Island. Rockland Q June 6, 1935, p. 177
25 nests (see note)

Shabby Island June 4 1943 See notes pp 70-71
colony of 33 nests

Mark Island June 4 1941 68 nests counted 1941 p 13
probably 100
June 14 1943
8 nests of BCNH
incomplete census

Douglas Island. Duxbury 1902 and 1945
large colony of Black-crowned Night Heron protected by
Vern C. Gott of Pond Island Light.

Blue Hill Bay

Trumpet Island

Ship Island

The Barges

Petit Manan to Cutler.

Green Islands

Egg Rock, (Crumple Island)

~~Mason's Lodge~~ Freeman's Rock

North Libby Island

Machias Seal Island.

Gull Rock

presented to Cutler

31

The demand for plumage was revived, and the summer of 1899 saw the colonies at Outer Green Island, the Phippsburg colonies and Pumpkin Knob swept out of existence for a number of years. Pumpkin Knob, and the Phippsburg colonies were permanently destroyed; Outer Green Island was after a few years slowly repopulated, but through several causes led a fluctuating existence until a few years subsequent to 1918, when the Island was taken full possession of by the herring gulls.

The summer of 1900 showed the following colonies of terns on the coast of Maine.

Maine Tern Colonies in 1900.

Saco Bay

Bluff Island

Casco Bay

Lower Mark Island

White Bull

Muscongus Bay

Eastern Egg Rock

Western Egg Rock

Penobscot Bay

Metinic Green Island

Matinicus Rock

Marblehead Island (?)

Fisherman's Island (?)

Fox Islands ,

Egg Rock

Sloop Island Ledges

Jericho Bay

Green Ledge

Popplestone

Saddleback Ledge

Halibut, Rocks

Blue Hill Bay

Ship Island

The Barges

PetitManan to Cutler.

Green Islands

Egg Rock, (Crumple Island)

~~Mason's/Ledge~~ Freeman's Rock

North Libby Island

Machias Seal Island.

Gill Rock

From the year of 1900 terns were little molested by man, having been protected through the Thayer Fund, which shortly gave rise to the National Association of Audubon Societies. This organization through the employment of local guardians attended to the enforcement of the "model Bird Law" enacted by the Maine legislature of 1901.

Gulls shared the benefits of this care, and by 1911 had increased to the extent where beginning of their extension of range was noticed.

Having reached this state of abundance, their extension of colonies was rapid, and their encroachment and replacement of the colonies of terns continual. The expelled terns began to occupy smaller islands and ledges, which were frequently unsuited to their need, for various reasons.

The following islands and ledges were known to be occupied by terns in 1911.

Colonies Occupied in 1911

Saco Bay.

Bluff Island

Casco Bay

Cutler Green Island

Haddock Ledge

(No record in 1911; occupied 1914, unsuccessfully)

Lower Mark Island.

Muscongus Bay.

Eastern Egg Rock

Western Egg Rock

Penobscot Bay and Matinicus.

Metinic Green Island

Matinicus Rock

Marblehead Island (No record)

Fisherman's Island (No record)

Robinson's Rock (No record 1911; occupied 1914).

Goose Island (No record 1911; occupied 1914).

Mouse Island (No record 1911; occupied 1914).

Slopp Island Ledges

Channel Rock

Jericho Bay

Southern Mark Island

Saddleback Ledge

Halibut Rock

Blue Hill Bay

Ship Island

The Barges

Petit Manan to Cutler.

Petit Manan to Cutler.

Egg Rock, Crumple Island

Freeman's Rock

North Libby Island

Machias Seal Island

Gull Rock

Tern Colonies in 1931.

Saco Bay.

Stratton Island

Casco Bay.

Prince's Point Ledge

Stepping Stones (Fishermen reported a colony on Flag Id.).

Haddock Ledge

Lower Mark Island

Pond Island

Phippsburg.

Upper Sugarloaf

Lower Sugarloaf

Penobscot Bay

Metinic Island

Matinicus Rock

Garden Island

Little Green Island

Jericho Bay Region

Halibut Rock

Two Bush

Brimstone

Blue Hill Bay

Trumpet Island

Ship Island

Western Barge

Petit Manan to Cutler

Green Island

Egg Rock, (Crumple Id.) S.E. of Hull was est. in Wash Co.

(Petit Manan-Cutler, Continued)

Freeman's Rock

Foster's Island - *made*

Machias Seal Island

Gull Rock.

21

1885
HAIRY THIN COLONIES IN 1885.

Compiled by Arthur H. Norton

Saco Bay.

Bluff Island.

Casco Bay.

Upper Green Islands, (2).

West Brown Cow

Lower Monk Island

Inner Green Island

Outer Green Island

Junk-of-pork

White Bull .

Eastern Brown Cow.

Phippsburgh.

Heron Islands

— Egg Rock.

Sheepscot Bay and John's Bay.

Black Rock

(Damascove Island)

Dr. T. M. Brewer reported a colony on this island
(1884, Water Birds N. Am II, 302).

Pumpkin Knob

Hypocrites.

Thrumbeap

Muscoongus Bay.

Shark Rock

Eastern Egg Rock

Western Egg Rock

Little Egg Rock

Georges Islands.

Shag Ledges

Sisters.

5
7
Nightingale in 1901

12

where bygone.

East Penobscot Bay

Matinlo Green Island

Little Green Island

Big Green Island

Big Two Bush (Ceased about 1834)

Clam Ledges

Garden Island

Warblehead Island

Fisherman's Island

Little Hurricane.

Fox Islands;

Medrick Rock

Green Ledges

Green Island

Egg Rock

Compass Island

Grass Ledge

Sloop Island Ledges

Spoon Ledge

May Island

Robert's Island

Little Brimstones, (3)

Robinson's Rock

Goose Island

Mouse Island

Hardhead

Matinicus Islands

Matinicus Rock

Wooden Ball

Seal Island

Jericho Bay.

Little Spoon Island
Big Spoon Island
Green Ledge
North Popplestone
Southern Mark Island
Halibut Rocks
Saddleback Ledge

Bluehill Bay

Tinker's Island
Trumpet Island
Skip Island
The Barges (2).

Petit Manan Region

Green Islands.
Egg Rock

Jonesport Region

Hot Rock
Ladle
Egg Rock (Crumple Is.)

~~Freeman's Rock~~

Englishman's Bay, (or "Machias Bay")

North Libby Island

Cutler.

Machias Seal Island.
Gull Rock

During the years of 1886 and 1887 a wholesale slaughter of terns was carried on in Muscongus Bay, Penobscot Bay, Matinicus Seal Island and the Wooden Ball, Blue Hill and Jericho Bays. Several of the most populous colonies were annihilated.

A change in "fashion" in millinery, and the passage of a law for the protection of terns in Maine passed by the legislature of 1889 caused a pause in the destruction of these birds.

Survivors from the persecuted colonies joined other established colonies and some of these became populous again. In 1890 colonies were known at the following places.

Maine Tern Colonies in 1890.

Saco Bay

Bluff Island

Casco Bay

Junk-of-pork
Outer Green Island

Lower Mark Island

White Bull.

Phippsburg.

Heron Islands

Egg Rock

Sheepscot and John's Bays.

Black Rock

Pumpkin Knob

Thumb Cap (?)

Muscongus Bay

Eastern Egg Rock

Western Egg Rock

Penobscot Bay

Metinic Green Island

Matinicus Rock

Marblehead Island

Fishermen's Island

Fox Islands.

Egg Rock

Sloop Island Ledges.

Jericho Bay.

Big Ogeeon Island

Saddleback Ledge
Green Ledge

Halibut Rocks

Green Islands.

Blue Hill Bay

Trumpet Island

Ship Island

The Ranges

Petit Manan to Cutler.

Green Islands

Big Rock, (Crumple Island)

~~XXXXXXXXXX~~ Freeman's Rock

North Libby Island

Machias Seal Island.

Gull Rock

The demand for plumage was revived, and the summer of 1899 saw the colonies at Outer Green Island, the Phippsburg colonies and Pumpkin Knob swept out of existence for a number of years. Pumpkin Knob, and the Phippsburg colonies were permanently destroyed; Outer Green Island was after a few years slowly repopulated, but through several causes led a fluctuating existence until a few years subsequent to 1913, when the Island was taken full possession of by the herring gulls.

The summer of 1900 showed the following colonies of terns on the coast of Maine.

Maine Tern Colonies in 1900.

Saco Bay

Bluff Island

Casco Bay

Lower Mark Island

White Bull

Muscongus Bay

Eastern Egg Rock

Western Egg Rock

Penobscot Bay

Metinic Green Island

Matinicus Rock

Marblehead Island (?)

Fisherman's Island (?)

Fox Islands ,

Egg Rock

Sloop Island Ledges

Jericho Bay

Green Ledge

Popplestone

Saddleback Ledge

Halibut Rocks

Blue Hill Bay

Ship Island

The Barges

PetitManan to Cutler.

Green Islands

Egg Rock, (Crumple Island)

~~Freeman's Rock~~ *Freeman's Rock*
Freeman's Rock

North Libby Island

Michias Seal Island.

Skull Rock

From the year of 1900 terns were little molested by man, having been protected through the Thayer Fund, which shortly gave rise to the National Association of Audubon Societies. This organization through the employment of local guardians attended to the enforcement of the "model Bird Law" enacted by the Maine legislature of 1901.

Gulls shared the benefits of this care, and by 1911 had increased to the extent where beginning of their extension of range was noticed.

Having reached this state of abundance, their extension of colonies was rapid, and their encroachment and replacement of the colonies of terns continual. The expelled terns began to occupy smaller islands and ledges, which were frequently unsuited to their need, for various reasons.

The following islands and ledges were known to be occupied by terns in 1911.

Colonies Occupied in 1911

Saco Bay.

Bluff Island

Casco Bay

Outer Green Island

Doddock Ledge

(No record in 1911; occupied 1914, unsuccessfully)

Lower Mark Island.

Muscongus Bay.

Eastern Egg Rock

Western Egg Rock

Penobscot Bay and Matinicus.

Matinic Green Island

Matinicus Rock

Marblehead Island

(No record)

Fisherman's Island

(No record)

Robinson's Rock

(No record 1911; occupied 1914).

Goose Island

(No record 1911; occupied 1914).

House Island

(No record 1911; occupied 1914).

Sloop Island Ledges

Channel Rock

Jericho Bay

Southern Mark Island

Saddleback Ledge

Halibut Rock

Blue Hill Bay

Ship Island

The Barges

Petit Manan to Cutler.

Petit Manan to Cutler.

Big Rock, Crumple Island

Freeman's Rock

North Libby Island

Mocking Seal Island

Gull Rock

Term Colonies in 1931.

Saco Bay.

Stratton Island

Casco Bay.

Prince's Point Ledge

Stopping Stones

(Fishermen reported a colony on Flag Id.).

Haddock Ledge

Lower Mark Island — by Cuckholds

Pond Island

Phippsburg.

Upper Sugarloaf

Lower Sugarloaf

Penobscot Bay

Matinic Island

Matinicus Rock

Garden Island

Little Green Island

Jericho Bay Region

Halibut Rock

Two Bush

Brimstone

Blue Hill Bay

Trumpet Island

Ship Island

Western Barge

Petit Manan to Cutler

Green Island

Egg Rock, (Crumple Id.)

(Petit Manan-Cutler, Continued)

Freeman's Rock

Peeter's Island

Machias Seal Island

Gull Rock.