

SIEUR DE MONTS PUBLICATIONS

III

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The Sieur de Monts  
National Monument

AS

A Bird Sanctuary

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Mount Desert Island  
Maine











Young Bald-headed Eagle  
at  
"The Bowl," on Newport Mountain

Photographed by Marion Rich

SIEUR DE MONTS PUBLICATIONS ✓

III

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# The Seacoast National Park

in

## Maine

Viewed in the light of its relation

to

## Bird Life and Bird Study

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By

Henry Lane Eno  
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Ornithologist Sieur de Monts National Monument

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## The Sieur de Monts National Monument as a Bird Sanctuary

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With the opening of the Sieur de Monts National Monument upon Mount Desert Island—the first National Park east of the Mississippi—a large and important area has been set aside as a bird reserve.

The significance of this new creation, moreover, can scarcely be overestimated; for, the lover of wild life, the scientist, and the farmer alike possess interests in the conservation of our birds.

The principal causes for these several interests are three: Aesthetic, Scientific, and Economic; the first of which, in its broad appeal, is the Aesthetic.

### THE AESTHETIC REASON

Our wild birds constitute one of the most beautiful and essential elements in nature. Without their abundant presence, the streams, the forests and the flowers—even the sky and the ocean—would lose their chief living charm.

The imagination shrinks before the picture of a spring, no matter how lovely, deprived of the sweet voices and flashing forms of our early migrants; of a birdless summer forest, or of an autumn without its cheerful bands of roving feathered hunters.

Yet with the rapidly increasing occupation of all available lands—especially along our crowded eastern seaboard—for the purposes of industry, agriculture, and residence, all the wilder and more picturesque regions will soon be greatly diminished in extent, eventually to disappear almost completely, together with the wild and interesting forms of life which they at present shelter, unless considerable tracts are set apart, before it is too late, in order to conserve them.

For it is well-known that whenever the numbers of any

species, through persecution or lack of suitable environment, become reduced beyond a certain point, the whole species quickly comes to an end. Already the splendid Pileated Woodpecker and the Woodcock, once so plentiful, have grown alarmingly scarce; while the Passenger Pigeon and the Great Auk are extinct. Moreover, needless to say, any form of bird or animal that is once gone can never be brought back.

It is clearly, then, our task and duty, while yet in time, to take the necessary measures to preserve, by every means within our power, the rich fullness of our wild-life, with its congenial haunts, for the profit and joy of future generations.

Neither economic prosperity nor social advantage comprise the whole value of experience. To the tired dweller in our great cities, to the overworked toiler under the growing nervous tension of modern artificial conditions, the peaceful healing of natural things—their quiet beauty and their soothing charm—are becoming constantly more indispensable.

“These enchantments,” said Emerson in his famous “Nature”, “are medicinal, they sober and heal us. These are plain pleasures, kindly and native to us.” It is not alone the body that finds rest and recuperation among our secluded lakes and forests, but most of all the mind, which, turning its stream into new and more healthful channels, gains a great invigoration, establishing fresh thought-centers which will act, through memory and association, as life-giving stimuli for weeks and months to come.

But none of these beneficent conditions would be complete without the birds. For whether we study their enticing ways with scientific interest, or idly follow their flight and song as simple nature lovers, they remain, always, the supreme, delicate touch in the picture, without which the forests would seem desolate, the meadows lifeless and cold.

## THE SCIENTIFIC REASON

The interest of Science in the conservation of our native

fauna is quite as great as the Aesthetic interest, and much more specific.

The wild life of any region constitutes almost the entire material with which Natural History and Biology must work; without this material in abundance and wide variety they can not pursue at all their valuable researches. Plenitude of living organisms is as important to them as seed to the farmer or stone to the mason.

We are performing, therefore, a most useful service in the cause of Science in helping to preserve and multiply those forms which are the subjects of her study.

As a basis, too, for special research particular species may become essential. We all know of Darwin's wonderful experiments with pigeons, and the importance of the results obtained. How much might he not have been handicapped, if all the pigeons had been ruthlessly slaughtered and exterminated—as our own wild pigeons were—before their domestication had become established?

Similarly, the researches of modern Biology into the nature of the life process itself—researches which promise so much in the interest of science and for the benefit of the race—are dependent largely upon the presence of certain specific organisms as subjects of investigation, and, at any moment, some fresh variety of bird or animal may prove of paramount importance for the successful prosecution of this great work.

For Animal Psychology, again, which is now casting illumination upon such vexed questions as the migrating and homing instincts of birds—with the fascinating suggestion of a sixth sense, the mysterious sense of direction—as well as upon other problems of research which have an even more intimate connection with human behavior, all the higher forms of life, in widest possible variety, are essential as subjects for investigation.

There remains, in addition still, the more exclusive biologic interest in the protection of our birds as objects in themselves of study. Here, again, abundance and variety of forms are essential for the investigation of such questions

as the range and migration of species, their most favorable habitat and environment, their breeding and feeding habits, the merging of varieties, or the possible development of varieties into distinct species under changing conditions.

Nature, moreover, is not an unrelated patchwork but a complex in which no constituent part can be destroyed without affecting to some degree the whole, and disturbing the well-regulated balance. Nor, with our limited knowledge, are we ever aware how essential any particular species of animal or plant may be in nature's economy, nor how important to ourselves, until, perhaps, realization of its usefulness comes all too late.

A striking instance in point occurred within the last few years.

A large sheep owner on one of the grassy islands off the Massachusetts coast had reason to believe that the crows, which flocked to his meadows in great numbers, were in the habit of feeding occasionally upon his young lambs. He accordingly prosecuted a relentless warfare on these feathered enemies of his flock.

The next year his fields were yellow and barren; the grass had all been killed by the larvae of the Junebug. Instructed by a friendly ornithologist, he discovered, to his chagrin, that the crows had been feeding almost exclusively upon these destructive grubs and that as the result of his campaign he had lost many more lambs from starvation than the light toll he had accused the crows of taking.

This is but one example of the immense value of certain birds—and, in this case, of birds popularly considered among the most harmful and useless—as our defenders against fatally destructive foes.

The exact role played by the different species, however, can be fully discovered only after many more years of accurate research. If, in the meantime, useful species are largely diminished, or perhaps totally destroyed, through lack of proper protection, the special benefits they bring are lost forever.

## THE ECONOMIC REASON

The considerations which have led to an appreciation of the economic importance of our wild birds have been one of the immediate results of scientific ornithology, and make, perhaps, its most direct appeal. It should not be forgotten, however, that here, as elsewhere, the more purely scientific research—the pursuit of special knowledge for its own sake alone—has been the necessary and inevitable forerunner of the practical application which has followed, and that it was the interest of the professional ornithologist in the food supply of particular species that opened the way to a correct estimation of the astonishing part played by birds as destroyers of the various insect pests.

It has been stated, indeed, and not without good reason, that were it not for their feathered enemies, the voracious and rapidly multiplying insect hosts would occasion such havoc among our trees and crops that the green earth would quickly become a desert incapable of supporting any form of life whatever. For nearly all birds are insect destroyers, while many species feed exclusively upon these devastating creatures.

Woodpeckers, chickadees, nuthatches, and other smaller tree-creepers cleanse the various layers of bark from the grubs, eggs, and larvae which infest them. Warblers similarly act as scavengers among the leaves. Swallows and flycatchers pursue their quarry among the tiny winged denizens of the air. Thrushes, sparrows, and the ground feeders hunt through the herbage and undergrowth; while even the smaller hawks and other birds of prey subsist largely upon grasshoppers and such vermin.

The number of insects devoured, in these various ways, is almost incredible.

“It will be found stated,” says Dr. Chapman, Curator of Ornithology in the American Museum of Natural History, “that the stomach of a single Cedar Waxwing contained one hundred canker worms, that one Cuckoo had eaten two hundred and fifty caterpillars, that four hundred and fifty

plantlice were found in the stomach of one Chicadee, that a Nighthawk had made a meal on sixty grasshoppers, that a Flicker had devoured one thousand chinch bugs, that a Scarlet Tanager was seen to eat six hundred and thirty gypsy moth caterpillars in eighteen minutes, or at the rate of two thousand one hundred an hour; while a Maryland Yellowthroat ate three thousand five hundred plantlice in forty minutes, or at the rate of five thousand two hundred seventy an hour!"

If we add that the United States Department of Agriculture has estimated the loss to agricultural interests occasioned by insects at about Eight Hundred Million Dollars a year, and the loss to the interests of forestry at One Hundred Million Dollars, we can form some rough estimate of the services of our wild birds!

As devourers of the seeds of noxious weeds, also, the birds are of inestimable value to the agriculturist.

Dr. Chapman states "that seven hundred seeds of the pigeon grass were taken from the stomach of a Tree Sparrow by Professor Beal, who estimates that this species destroys no less than eight hundred and seventy-five tons of weed seed annually in the single state of Iowa; that one thousand pigweed seeds were found in the stomach of a Snow Bunting; that a Bob-white contained five thousand seeds of pigeon grass; while a Mourning Dove had eaten the enormous number of seven thousand five hundred seeds of the yellow-wood sorrel."

It should be mentioned, further, that the hawks and owls yearly destroy an enormous quantity of noxious rodents; while the crows and gulls of the North, and the vultures in the South, perform a most necessary duty as scavengers.

Nor, finally, let us be ungrateful to the wing-feeding and marsh-inhabiting birds who are responsible for the destruction of innumerable hosts of mosquitos and other disease-conveying insects.\* How important this last function of our avifauna may be, Science has not as yet determined;

\*Birds of Eastern North America, by Frank M. Chapman, pp. 99-103.

but it is highly probable that further research will show that it is far from being the least among their many valuable services.

## HOW BIRDS ARE PROTECTED

We have seen, in brief outline, how important is the problem of bird-conservation for economic, as well as scientific, and aesthetic reasons.

How, then, is their conservation to be insured?

For this purpose there are three principal agencies: Legislation, Education, and Sequestration.

## PROTECTIVE LEGISLATION

Almost every State has enacted more or less stringent laws for the protection of its birds; and recently the Federal Government, in the Migratory Bird Act, has taken a much needed step in the cause of inter-state protective legislation.

In general the statutes provide for a limited open season for most game birds, both of sea and land; and, in many states, a prohibition against shooting for the market at any season, as well as against the killing of songbirds at all times. In this way a great deal, undoubtedly, has been accomplished; and if the laws were indeed strictly observed, there would be much less left for private endeavor to achieve. It is to be regretted, however, that they are honored more largely in the breach than in the observance.

For this reason the campaign of education, waged now for some years, has proved of the greatest significance in the cause of bird protection.

## EDUCATION

It is, in fact, due principally to the growing efficiency of this instructive campaign that the laws which are already upon the various statute books have been obtained; and it will, without doubt, be by reason of a still more wide-spread appreciation of the value of our birds that these laws will in

time become universally observed, and yet greater private and public efforts directed towards bird conservation.

In this important work the well-known Audubon Society, with its various branches in the different States, was a pioneer; and it was largely because of its intelligent exertions that not only protective legislation, but the splendidly effective methods of Public School instruction and wide circulation of ornithological literature have, together, succeeded in drawing the public attention.

"It is the diffusion of this wide-spread knowledge of the economic, as well as the aesthetic importance of birds," says Dr. Chapman, "which has made it possible to secure the passage and enforcement of effective laws for their protection; and it is in this continued and increasing interest in birds, not alone as our efficient co-workers in garden, field, orchard, and forest, but as the most eloquent expression of nature's joy and freedom, that we shall doubtless find a true measure of their greatest value to man."

### SEQUESTRATION

It is, however, in the recent movement for the creation of special reservations, absolute sanctuaries for the protection of bird life, that the awakening of public interest has shown its culminating effect; for these reservations "combine all the measures serving for the protection of birds."\*

Such sanctuaries may be of vast extent, as our great National Parks in the West; or they may comprise but the tiniest garden plot in the outskirts of one of our great eastern cities. In either case they are of almost inestimable value, and afford, within their limits, satisfactory solutions for almost every problem—food, shelter, protection from marauding creatures, and nesting facilities.

\*How to Attract and Protect Wild Birds, by Martin Hieseman. Translated by Emma S. Buchheim, London. Witherly & Co., London, 316 High Holborn

This little book is most valuable, and a classic upon the subject.



One has only to note the surprising number of species which congregate at certain times of the year in such places as the church-yard of Trinity Church, in New York City, at the very heart of the Western World's greatest financial center, to see how the birds will flock even to the smallest area, in an apparently most unfavorable environment, where adequate protection is insured.

Bradford Torrey, again, has counted half a hundred different species of birds in one day in the Boston Common and Public Gardens—a much larger but nonetheless unlikely spot for the observation of wild life; while Central Park in New York City constitutes a still wider and more fertile field for the urban ornithologist.

If these astounding results have been accidentally obtained under such adverse conditions, what may we not reasonably expect where the protected areas are of wide extent and suitable environment?

A striking example of actual accomplishment is the wonderfully successful experiment conducted by Edward A. McIlhenny at Avery Island, Louisiana.

Starting with eight young snowy herons which he transplanted to the borders of a pond upon his own estate, at the end of seventeen years he had no less than twenty thousand pair of herons of various species nesting there.

“Now let it be impressed upon the reader,” he says, “that this great bird city, where the inhabitants are free to come and go as they choose, is not in the heart of some dense swamp, miles away from human habitation, but in a little valley between the hills, and fully fifty feet above the sea level. The land on the south and southwest is cultivated, and the home of the writer is within two hundred yards of the northwest end. A railroad, wagon road, and telephone line bound the eastern side. A busy factory, a railroad station, and a dozen dwelling houses are within two hundred yards of its eastern and southern border, and yet these birds live here in perfect contentment, without fear of their greatest enemy, man. Many nests are within ten feet of the wagon road and within thirty feet of the railroad; so near, in fact, that

the people on the train daily see the herons on their nests. The nesting water and marsh birds now include snowy heron, yellow crowned night heron, purple gallinule, Louisiana heron, American egret, little blue heron, green heron, Florida gallinule, American bittern, least bittern, king rail, anhinga, wood duck, blue wing teal, gadwall, and mallard, besides a number of species of land birds which make their homes in the small twigs where the larger birds cannot go.”\*

Such obvious appreciation of safe dwelling places, and the manner in which they are frequented by constantly increasing multitudes, would seem to indicate some method of communication between our winged neighbors. Of all this, however, as well as of bird psychology in general, we know as yet but little. It is, nevertheless, a fully demonstrated fact that, in some unknown way, the birds soon become aware of the benefits of protected places and are quick to take advantage of them. While if, in addition to freedom from disturbing enemies, they are furnished with attractive and convenient nesting facilities, with an artificially increased food supply during the bitter winter months when natural food is scarce and difficult to obtain, especially for the ground feeding species; and with occasional shelters from severe storms and driving snow, they will flock to any well-placed sanctuary in constantly increasing numbers and variety. Species which once were rare in the neighborhood will then be found in relative abundance, the common kinds in augmented numbers; while opportunities for observation and study can be created to so favorable an extent in such a sanctuary as to make of it practically a vast ornithological laboratory.

The importance of sanctuaries, therefore, both for conserving and increasing the birds of the adjacent regions, and for the scientific study of their habits and economic value can hardly be over-emphasized. And this is especially true when they are placed under the Federal Authorities, for this ensures their good administration and the enforcement of

\*How I Made a Bird City, by Edward A. McIlhenny, 1912.

stringent laws against all forms of devastation, while the effective co-operation of the various bureaus at Washington may be then enlisted for the purposes of investigation.

Fortunately, there are now in existence, principally under the control of the Department of Agriculture, over seventy of these National Bird Reserves, comprising many hundreds of square miles.

It is to be noted, however, that with the exception of certain tracts upon the Florida coast and its outlying Keys, and an island in Alabama, not one of these existed in the whole great eastern area of our country upon this side of the Mississippi until the creation, in the present year of 1916, of the Sieur de Monts National Monument in Maine.

### **The especial importance of the Sieur de Monts Park as a Bird Sanctuary**

The new Sieur de Monts National Park is of especial interest as a Bird Reserve for three important reasons—Geographical Position; Coastal Situation upon a great route of Bird Migration; and Physical Character.

#### **GEOGRAPHICAL POSITION**

As the first National Bird Reserve east of the Mississippi drainage basin, and the first upon the Atlantic seaboard north of Florida, the setting aside of this area assumes a paramount importance. Indeed, the significance of its creation, will, in all probability, not be fully realized until, in future years, the compelling force of an awakened public opinion shall have largely multiplied, along the coast and among the woods, the lakes, the marshes and the mountains of our whole Eastern Section, similar beneficent foundations in imitation of this prototype.

Yet even when that time shall have come, the Sieur de Monts Reserve must still rank first among its peers, since its position is unique. It stands, in the first place, at the junction and overlapping of two great faunal areas—the

Canadian and Alleghanian—drawing from each many species which scarcely surpass this limit north or south; while some even of the Hudsonian birds from remote sub-arctic regions frequent its rocky shores and mountain tops.

Technically the Island of Mount Desert comes within the boundaries of the Canadian faunal area, but lying so near its southern limit, many of the typical Alleghanian species are frequently found upon it. For, as Knight says, in his excellent work on the Birds of Maine,\* “The change from one area to another is not at all abrupt; but instead, as we near their common boundary we find species common to both occurring on the same grounds.” For example, the northern-ranging Bicknell’s Thrush and the Canadian subspecies of the Hudsonian Chickadee, as well as such southern species as the White-eyed Vireo, Wood Thrush, and Blue-gray Gnatcatcher have been observed.

For while the Canadian zone is distinguished by the high development of its coniferous forests, and while these are typical of this Island, imparting to it their distinctive Canadian quality, its position, jutting far out to sea, so tempers the climate in relation to the neighboring interior as to make it the frequent resort of many birds which would not otherwise be tempted so far North.

#### SITUATION ON A GREAT MIGRATORY ROUTE

It is well-known that the migration routes of most birds follow the lines of important natural features, such as great mountain chains, river valleys, and especially the sea coast. The border of the Atlantic Ocean, constitutes accordingly, the principal highway for the majority of all the eastern land species, while for most aquatic birds this route is almost exclusively the main thoroughfare. Along these migratory routes, again, unusual landmarks, and particularly prominent elevations, serve as guides and rallying points for the travellers on their long journeys.

\*“The Birds of Maine” by Ora Willis Knight, Bangor, Maine, 1908.

Mount Desert Island, remarkable for the contour, height, and ocean-girdled situation of its rock-built hills, constitutes the most conspicuous coastal feature between the St. Lawrence and the Gulf of Mexico, and as the human traveller, approaching by either sea or land, sights with a thrill of pleasure, from many miles away, its striking peaks, so doubtless our winged wanderers are affected in a manner little different.

"The tendency," says Forbush, the Massachusetts ornithologist, "of most migratory birds nesting on the eastern third of the continent is to fly southeastward from their nesting grounds until they reach the coast and then to follow it southward, guided apparently by prominent landmarks spread along the coast, or to strike out presently across the sea to the Antilles.

"When the autumn frosts come, migratory birds from Greenland, from all the shores of Baffins Bay, from Labrador and Newfoundland, from the cultivated lands of eastern Canada and all the wild interior beyond, pour their diminished legions down toward the Maine coast; in the spring-time they return and spread out northward from it.

"Thus Mount Desert Island, unique in being the only mountainous tract thrust prominently out into the sea, offers an important landmark and admirable resting place for migratory birds of every kind—birds of sea and shore, the useful insect-eating birds of cultivated lands, of woods and gardens, the birds of marsh and meadow lands and inland waters."\*

### PHYSICAL CHARACTER

It is not alone, however, from its favorable geographical situation, or its pre-eminence as a coastal landmark, that Mt. Desert Island possesses the necessary elements for a successful bird sanctuary. The remarkable and varied physical character of the Island constitutes, of itself, a

\*The Unique Island of Mount Desert. National Geographic Magazine 1914.

feature which peculiarly fits it to be the habitat of an astonishing diversity of life forms, both plant and animal.

Facing the ocean, there stretches a precipitous mountain range nearly twelve miles in length, containing seven peaks of over a thousand feet, the highest, Green Mountain, rising to above fifteen hundred. These hills are heavily wooded with coniferous trees, although their summits are crowned with bare and ice-scarred granite, from whence was derived the picturesque name given to the island by its first discoverer, Champlain—"L'isle des Monts Deserts"—The Isle of Desert Mountains.

Under the various hills, in deep glacier-furrowed ravines, lie numerous beautiful lakes and ponds, while between two of the steep mountain-sides the narrow fjord of Some Sound draws in the ocean for seven miles, to the island's center. To the north of this wilderness of lake and mountain lies a more gently rolling country of forest, field, and little streams; broken, here and there, by great heaths and marshes, and surrounded by a shore full of striking cliffs and deeply recessed coves.

With such a notable diversity of natural scenery, of land and ocean climate, within so small an area, it is scarcely necessary to point out to any naturalist the inevitable presence of a corresponding variety of organic life; while, for the bird lover, the Island can be no less than a veritable garden of delight.

From the surrounding ocean, with its numerous bays; come numberless sea birds, Gulls, Ducks, Petrels, Cormorants, Crebes, Loons, and Mergansers. Many more water-fowl inhabit the wild forest-bordered lakes among the hills. Snipe, Sandpiper, and Plover gather on the beaches and pebbly shores. Herons fish in the salt marshes and the shallow waters of inlets at ebb tide. The sunny meadows are peopled with the different Blackbirds and Sparrows. The open woods and glades throng with Robins, Vireos, Fly catchers and the more southern Warblers.

The densely forested hillsides shelter the north-ranging Warblers, Purple Finches, White-throated Sparrows, Her-

mit and Olive-backed Thrushes. Upon the colder mountain summits may be found Canadian Chickadees and the rare Bicknell's Thrush; along their precipices flap a not infrequent pair of Northern Ravens; above them soar the Ospreys and Bald-headed Eagles which nest among their inaccessible crags; while overhead countless Swallows sail and flutter against the blue vault of heaven.

Within this small compass, accordingly, of less than fifteen miles square, may be found varieties of natural environment suitable as habitat for every species of wild bird which frequent the surrounding regions. Nor does so felicitous and close an association of mountain, lake, forest, upland, meadow, and ocean exist elsewhere on all our eastern slope.

This splendid Island, therefore, with its native bird-life saved from the predatory hunter, with its natural attractiveness for birds enhanced by increased supplies of food in time of need and adequate shelter from exceptional storm and cold, should soon become a sanctuary whose like it would be hard to find, for rich variety of life, for conservational usefulness, and for the purposes of scientific study.









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