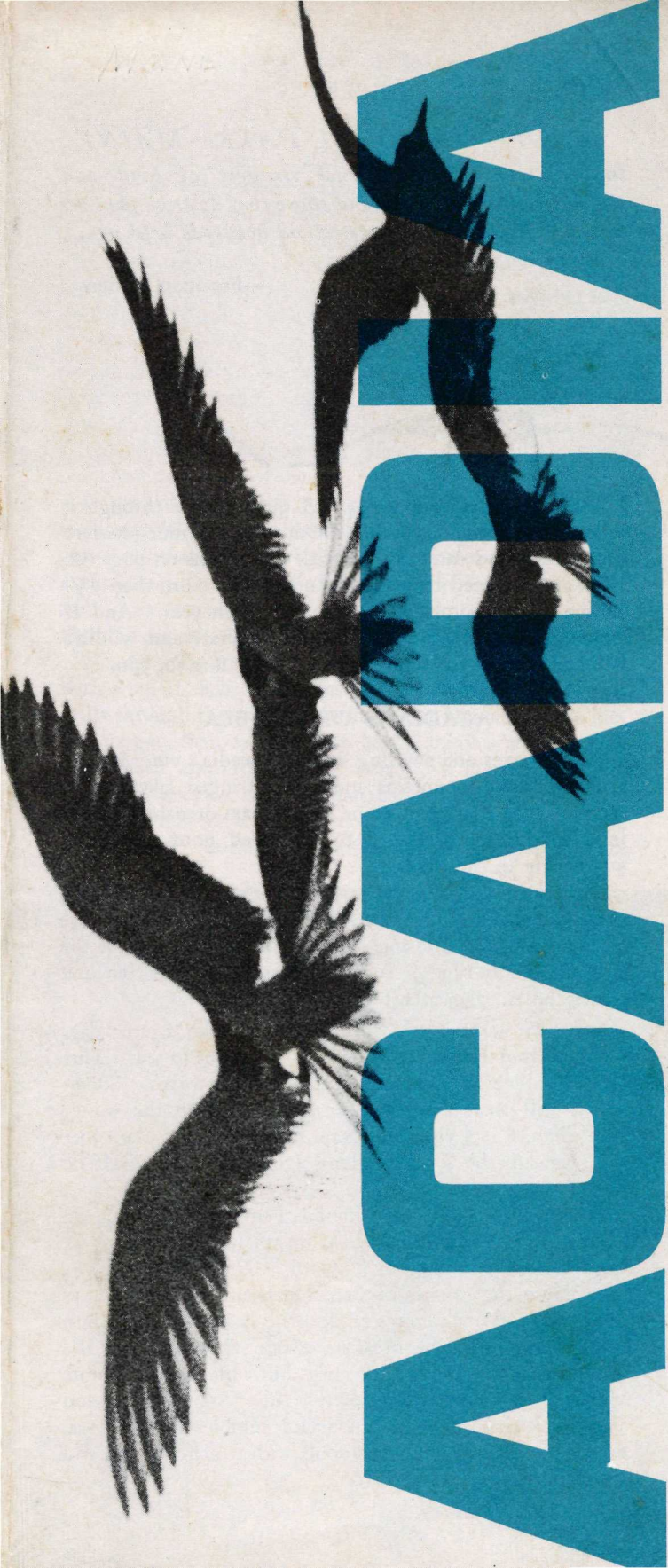


Albatross



## ACADIA NATIONAL PARK—MAINE

*In Acadia \* \* \* the eternal struggle of land and sea—of forces that build and those that destroy—has resulted in a coast line where inland beauty is held in the grasp of wild ocean power.*

—Freeman Tilden



This booklet is your guide. A quick glance through it will introduce you to Acadia. One hint for your pleasure and safety: read carefully the park regulations on page 32. They are designed to protect you and the more than 1½ million other visitors who come here each year. And if they are heeded by all, this haven of scenery and wildlife will be as lovely for future generations as it is for you.

### ACADIA IS OF THE SEA

Green waves and swirling kelp are Acadia's outer boundaries. Granite mountains and spruce-fringed lakes are its center. It is a place of many moods: sun-drenched islands in a sparkling sea . . . a fog-shrouded fiord . . . wind whispering in the trees.

Teeming tide pools and a startled fawn hint of Acadia's animal life. Plants from the Arctic mingle here with those of sunny clime. And the soaring bald eagle is lord of the sky—a friendly blue or forbidding gray realm that encompasses the Acadian archipelago.

From the summit of Cadillac Mountain on a clear day, Mount Desert Rock can be seen 27 miles out to sea. This surf-lashed reef is losing its fight against the waves. Someday it will wear away and disappear beneath the water. Until then, it is a visible remnant of the forested plain that sank beneath the sea long, long ago to form the Gulf of Maine.

Mount Desert Island, Schoodic Peninsula, and Isle au Haut were once the highlands of this plain. They were far from the sea, secure from its wrath. Now they are in its grip. Into the reaches of Frenchman and Blue Hill Bays come the tides. Foaming around the islands, surging into numberless coves, the breakers roar. They gnaw at the headlands. In storm fury they hurl blocks of granite weighing tons against the slowly yielding shore. Now and again a section of undermined cliff tumbles into the sea, giving the restless water new tools with which to grind and gouge the land.

Thus is this archipelago a plaything of mighty forces. Here they have converged to create landscapes and seascapes of stirring beauty—not once, but many times . . .

As the waves now rise and fall along the shore in broken rhythm, as the tide ebbs and flows across the strand, so the seas of other times have risen and fallen and ebbed and flowed in uneven measure on the uneasy land; the rocks have grown and wasted; the ice of the North has crept down and has melted away—all these and still other scenes have been shifted slowly back and forth in a great drama of unending change. What lies before us here today is only one scene of the many that have been unfolded through the immeasurable past.

—Adapted from William Morris Davis

### ON GETTING ACQUAINTED

There is much to see here. Whether you have hours, a week, or a summer, you cannot see it all. Each season has its own charm. No matter what your schedule, there is a way to sense the essence of Acadia in a few hours—that way is the Park Loop. A glance at the map shows that Mount Desert Island is divided by Somes Sound into an East Side and a West Side. The Park Loop passes through developed sections of the park on East Side. A clockwise tour of the loop starts at . . .

#### *Sieur de Monts Spring*

This place of quiet beauty was named for the soldier of France who in 1604 unfurled the French flag on Acadian shores. Near the spring is the Nature Center (open about May 10 to October 20) where exhibits describe the natural and historical themes of Acadia. Nearby is the Abbe Museum of Stone Age Antiquities (open May 30 to about September 20) where you can learn about Indians who first dwelt here before Egypt's pyramids were built.

#### *Champlain Mountain Overlook*

Back on the loop, follow the Ocean Drive signs to Champlain Mountain Overlook. A pause here is rewarding, for

with this view begins a series of magnificent seascapes.

A sample of Maine's jagged coastline with its island-studded bays and cliffbound coves is spread before you. This is the down-east coast of sea stories, so called because sailing ships from Boston ran downwind on an easterly course to come here. Even now, oldtime down-Easters speak of going "up" to Boston.

Looming in the distance across Frenchman Bay is Schoodic Peninsula, an outpost of Acadia National Park.

Perhaps you see a lobsterman in his small boat, hauling traps in the very shadow of sea cliffs. He is an Acadian type, inheritor of a rockbound coast and way of life. Two centuries ago his ancestors came here, probably from Massachusetts. They settled on the islands and along the mainland bays. They farmed and fished and built their own boats. They feared God but were beholden to no man. Even yet, in the age of the jet and the computer, these down-Easters retain this independent spirit. Take a boat trip to Isle au Haut or the Cranberry Islands, and you will see.

#### *Precipice Parking Area*

Next on your route are the 800-foot cliffs of Champlain Mountain. It was September 1604 when the explorer Samuel de Champlain sailed southwest from Sieur de Monts' colony on the St. Croix River. As his tiny ship rounded Schoodic Point, he saw this island of bare-topped granite mountains. He named it *l'Isle des Monts-deserts*, Isle of the Solitary Mountains.

From the parking area at the foot of Champlain Mountain, Precipice Trail ascends a dizzying succession of cliffs. For the experienced hiker with a half day to spare, the climb

is a challenge with rewards: unexcelled views of Frenchman Bay; a windswept summit where ravens play.

#### *Anemone Cave*

Now comes Anemone Cave, where waves at work have tunneled 82 feet into the hardrock of the shore. When the tide ebbs, it leaves pools in this cavern that glisten with rainbow colors from a profusion of living things. Sea-anemones—small, flower-like animals—are here. Primitive plants called algae encrust the cave floor, or hang as rockweed from its walls, or sway as kelp in nearby waves.

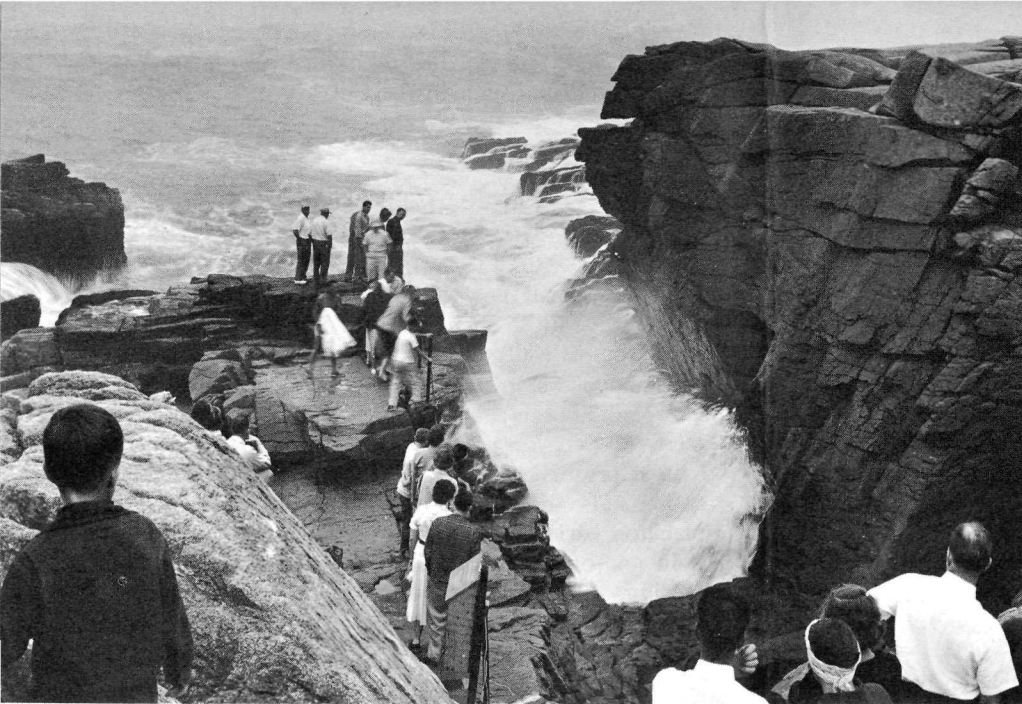
Tide-pool waters are so clear that under intense gaze the surface disappears; then a finger-made ripple restores perspective. Yet, surging through this transparent world is a host of organisms unseen by the human eye. Numberless as the stars, these microscopic plants and animals are the plankton, basic food of the sea.

In one of the higher tide pools you may see barnacles feeding. Within its hard shell, the barnacle is a shrimp-like crustacean that stands on its head. Its feet are modified into a plume-like net. It feeds by opening the doors of its shell, casting its net, retracting it, then closing the doors—all in rhythmic repetition. The barnacle is catching plankton.

Nearby you might see a dog whelk, a kind of sea snail with a spiral shell, sometimes brightly colored. The whelk drills through the shells of barnacles or mussels with a file-like tongue, then eats the flesh of the animals inside. The whelk itself may fall prey to a seagull. Thus the food cycle of the sea goes on, and it all begins with plankton.

Within this crystal world, then, there is continual struggle for survival. Lurking in the anemone's lovely petals are





**BOOM!**

death-laden stingers. Under the waving kelp lie hidden hunters. Secreted in the felt-like algae covering the rocks are galaxies of microscopic life in each drop of water.

Many of these plants and animals are fragile as glass. They seem at home here when the pools rest motionless. But they are at home, too, when giant storm breakers crash into the cave to drag away the rocks themselves.

Don't leave this spot without consciously savoring the smell of the sea. And listen for a moment to the sounds: the drip of water from recesses in the cave, the click and clack of busy crustaceans, the laving of waves, and the swish of incoming tide.

#### *Thunder Hole*

Passing by Sand Beach, where swimmers undaunted by 50° water frolic in summer, you will come soon to Thunder Hole. Here, as at Anemone Cave, the sea is digging its way into the island wall. When waves and tide are right, the sea rushes into this narrow slot, displacing compressed air with a resounding boom. At low tide you can see and hear rounded boulders grumbling on the floor of the chasm. These the sea uses as grindstones in its battle with the granite.

#### *Otter Point*

The swing around Otter Point reveals some of Acadia's most breathtaking scenery. Otter Cliffs plunge 107 feet into deep water. A bell buoy tolls its warning here. Cormorants and gulls congregate on the reefs close offshore. In migrating seasons great flocks of sea ducks float raft-like on the waves.

Seen here is the black guillemot, a small black-and-white

Along this road, northern hardwoods—birch, maple, beech, and ash—mingle with spruce and fir. The hardwoods for the most part are temporary visitors here. At one time almost all of Mount Desert Island was covered with a virgin spruce-fir forest. But lumbering and fires in the past swept much of this forest away. (The greatest of the fires was the 17,000-acre blaze of 1947. Stands of ghost trees and bare mountainsides are its testaments.) The broadleaf trees pioneered into the burned-over areas, thus gaining a new foothold for a forest mantle.

But climate favors the conifers. Even now they are reconquering the island. Eventually they will again cover it with what is called a climax forest.

#### *Jordan Pond*

From the clearing near the Jordan Pond House, at the lower end of Jordan Pond, you can look north into a natural amphitheater. It was carved by the mile-thick glacial ice sheet that overwhelmed Mount Desert Island less than 20,000 years ago.

To the left is the cliffed east face of Penobscot Mountain. Directly ahead are two peaks called The Bubbles. Their profile shows the direction taken by the glacial ice: moving from the northwest, the ice wore smooth that side of the mountains; then, overtopping their summits, it continued its advance; exerting gigantic force, it plucked away the southeast slopes to form steps and cliffs.

*Otter Cliffs.*

bird of the auk family. In diving for fish the guillemot uses its wings, "flying" under water. When it is close to your viewpoint on the cliffs, you can see the black-and-white flash as it disappears into green depths.

From the Otter Point parking area, a trail winds through a spruce and fir forest to the shore. The forest floor is springy from the deep duff overgrown with mosses and lichens.

Many arctic plants grow here on the cool ocean fringe. Among them is the ground-hugging black crowberry, no stranger to Greenland's frozen coast. Golden plovers fatten on the dull black berries of this plant before making their non-stop flight to South America each autumn.

On the shore itself you can see exposed tide pools where seaweed has been shaved short by pounding waves. Limpets and barnacles, with their streamlined shells, cling securely here—even on naked rock where tons of water have torn all else away.

In chaotic mixture on this shore, the pink granite of Mount Desert Island is jumbled against older, weaker rocks. Of darker hue, these latter are clues to the island's geologic history.

#### *Black Woods*

The loop continues around the rim of Black Woods. This is the mature spruce-fir forest typical of northern lands. In its dim recesses, only the wind makes sound. It is a mysterious sound, and the scene is the kind that inspired the witches and goblins of Teutonic mythology.

Beyond Hunters Head, where the Cranberry Islands beckon you and spruces overhang the sea itself, the loop winds on to Jordan Pond.



Silhouetted against the sky near the top of South Bubble is a huge boulder. Termed a glacial erratic, it is a calling card left by the retreating ice. Somewhere to the north, the ice picked up this boulder and carried it along to the mountaintop. Then the ice melted, stranding the great rock over a precipice.

Pemetic Mountain forms the right side of the U-shaped valley whose floor is occupied by Jordan Pond, a true glacial lake. Before the ice came, this valley was a narrow stream course. It dropped southward from an unbroken east-west granite ridge. Moving generally southward along such stream courses, the glacial ice scooped out the north-south valleys of this island, cutting the granite ridge into separate mountains. In its passage through mountain narrows and stream courses, the ice excavated the troughs now occupied by glacial lakes and the fiord named Somes Sound. The map shows this pattern clearly.

### Cadillac Mountain

The loop continues north from Jordan Pond to the Cadillac Mountain Summit Road. Along the way you can see jumbled fans of rock called talus slopes, which obscure the foot of The Bubbles. These rocks broke away from the cliffs when water, entering clefts in the granite, expanded upon freezing.

Fine stands of mature northern hardwoods flank the road. Notable is the paper birch with its peeling sheets of bark. This is the material used by Indians in these parts to make canoes, wigwams, and even cooking vessels.

Along the road here, wildlife is frequently seen—a red squirrel, a raccoon, perhaps a whitetail deer.

Then the climb up Cadillac Mountain begins, and Mount Desert Island—second largest on our eastern seaboard—opens up like a giant map. Almost every curve offers some new scenic wonder. Overlooks are spotted along the way.

From Eagle Lake overlook the view is southward toward mountain and lake country. You could be a thousand miles from the sea. But suddenly your eyes seek out a break in the mountain wall. Beyond, bathed in sunlight or lurking in fog, is a cluster of islands. It sometimes happens, too, that in the midst of overhanging trees the resinous smell of the evergreens is displaced momentarily by a tangy breath of sea wind.

At the summit of Cadillac Mountain, a panorama is revealed. Until now you have seen only fragments of Acadia. Here, at the highest point on our Atlantic Coast, Acadia is all at once a unity.

Not least appealing is the island-studded horizon. The Cranberries, the Porcupines, and numberless minor rocks break the sea in every direction. Off to the southwest, on the very rim of the world, looms Isle au Haut, another outpost of the park.

Water is everywhere. Over the horizon to the east lies Nova Scotia. To the southeast, the Atlantic continues unbroken to the continent of Africa.

Now it is apparent how Maine's broken coast meanders 3,478 miles over an airline distance of 228. Embayments reach far into the mainland. They are flanked and interrupted by fingerlike peninsulas jutting into the sea. Water and land meet at the contour line separating the sunken coastal plain from its former highlands.

\* \* \* \* \*

From Cadillac Mountain, the Park Loop continues north toward the park entrance, or east toward Bar Harbor. If you must leave now, remember this: you have seen only the highlights of Acadia. It is the leisurely hike, or the boat cruise among the islands, that gives time to ponder and discover.

For those who have more time, the Park Loop has been an introduction. Now your mood may call for less-frequented places.

### YOU WILL ALSO WANT TO SEE . . .

#### Somes Sound

*Sargent Drive* skirts the east shore of Somes Sound. This fiord extends far into the heart of Mount Desert Island. At one point it is constricted between the steep sides of Acadia and Norumbega Mountains, providing a touch of Norway on our own shores. At the head of the sound is the village of *Somesville*, site of the island's first permanent settlement in 1761.

#### West Side

*Beech Cliff* can be reached by a 5-minute walk from the Beech Cliff parking area. The trail winds through mature spruce-fir forest growth to a panoramic viewpoint high above Echo Lake. Another trail from the parking area leads to the park's Beech Mountain fire lookout.

*Echo Lake Beach*, at the southern tip of the lake, is fine for family use. Its sandy bottom slopes gradually to waist depth at a hundred yards.

*Seawall Picnic Area* is a pleasant place to relax. But when the sea runs high, things happen here. Storm waves have swept great numbers of rocks from the shallow bottom of the sea and piled them up on the shore. In places this wall of rocks is three times the height of a man. It is this natural seawall that gives the spot its name.

*Ship Harbor* is typical of the tiny coves indenting the island coast. Its name comes from an incident during the Revolutionary War when a local ship, fleeing from a British man-of-war, ran hard aground here at high tide and was stranded in the shallows. A nature trail along the cove's east shore leads to interesting tide pools.

*Pretty Marsh Picnic Area* fronts the islands of Blue Hill Bay.

#### Schoodic Peninsula

Fifty miles from Bar Harbor by way of U.S. 1 and State Route 186, but only about 5 miles, as the gull flies, across

Frenchman Bay from Mount Desert Island, is Schoodic Peninsula. This, the only mainland section of Acadia National Park, is most noted for the magnificent surf produced by storm waves lashing its rocky tip. The peninsula is an ideal objective for a day-long side trip; its shore is rimmed by an excellent park road.

At low tide you can skip across exposed rocks near Schoodic Point to Little Moose Island to explore its Labrador-like plantlife.

Back of the point, a dirt road climbs almost to the summit of 440-foot Schoodic Head. Sweeping views of land and sea are the reward here.

#### Island Outposts

Looking out to sea is one thing. Looking in from the sea is another. Until you take a cruise to one of the islands, you have seen but one side of Acadia's golden coin. From down on the water, the Mount Desert Range looms massively, belying the mere 1,530 feet of its highest elevation.

*Baker Island*. On this easternmost of the Cranberries, the open Atlantic surrounds you. Here, an ocean storm means isolation, lashing down all that's movable, preparing for a siege. Heavy weather becomes more than a thrilling experience—it may be a matter of survival.

Once occupied year-round by 100 sturdy souls, Baker Island now has only a few summer residents. A Coast Guard lighthouse plays an automatic beam these days, but once a lighthouse tender climbed spiral stairs to light its lifesaving lamp.

A trail leads from the park area in the central part of the island to a great boulder seawall on the south shore. Here giant blocks of pink granite—10, 15, 20 feet long—lie jumbled in fantastic pattern, hurled upon the shore by storm waves.

*Islesford Historical Museum*, on Little Cranberry Island, is a treasure trove of local history. Here are memorabilia of early island settlers, of days of sail, of yachting. Ship anchors and wooden rakes and lobster pots, newspaper clippings and old manuscripts recall two centuries of living hereabouts. Be sure to check with park headquarters before going to the museum; its summer schedule is irregular.

*Isle au Haut*, the high island, is Acadia's wilderness. For the adventurer who wants solitude, this is the place. You can hire a local boat or drive to Stonington via State Route 172 and hire a boat there. A narrow dirt road and primitive trails are the only evidence of man in the park section of the 5-mile-long island. Rugged hills, and the cliffs and hidden coves typical of Maine's superlative shoreline, abound in this remote part of Acadia.

There are no public campsites, overnight accommodations, or transportation facilities on the island. And, please, no fires in the park area!

### WHEN TO VISIT ACADIA

The park "season" is pretty much a matter of your own

choice, except for winter (December through April) when snow and ice close the park road system. Most people come in the summer when the naturalist program and other services are in full operation. But spring and autumn are very pleasant, too, especially if you want less-crowded conditions. Park campgrounds, picnic areas, and other facilities are open from about May 10 to October 15.

Whatever season you choose, be sure to bring warm clothes and a raincoat, for nights are cool and rainy days occur in every season.

### GETTING TO THE PARK

By car, turn off U.S. 1 at Ellsworth onto State Route 3 to Bar Harbor and other Mount Desert Island towns near the park.

Greyhound buses serve Bar Harbor daily all year. Northeast Airlines provides daily service to Bar Harbor in summer, and to Bangor throughout the year. The Canadian National Railways' Bar Harbor-Yarmouth (Nova Scotia) ferry carries cars and passengers daily in summer and thrice weekly the rest of the year.

### WHERE TO STAY

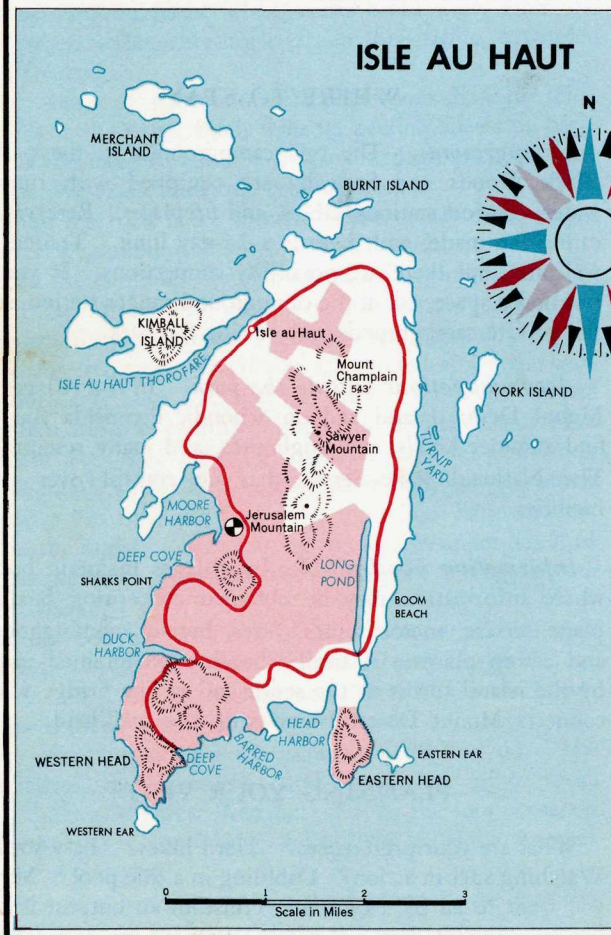
*Campgrounds*. The two campgrounds in the park—Black Woods and Seawall—are equipped with running water, comfort stations, tables, and fireplaces. Reservations cannot be made, and there is a 14-day limit. Trailers are welcome, but there are no utility connections. If you do not find a space, ask at the campground ranger station about the private campgrounds just outside the park.

*Accommodations outside the park*. In the villages on Mount Desert Island and on Schoodic Peninsula you can find summer hotels, roominghouses, and many restaurants. The National Park Service has no control over these facilities.

*Information booths*. Nearby villages maintain booths where information may be obtained concerning bus and plane service, motor routes, fares, hotels, roominghouses, and eating places. A similar booth is maintained jointly by the island towns at the south end of the bridge which connects Mount Desert Island with the mainland.

### PLANNING YOUR VISIT

What are your preferences? Hard hikes? Easy strolls? Watching surf in action? Dabbling in a tide pool? Maybe you want to sit by a campfire, cruise to an outpost island, or cast a line in deep salt water. Perhaps you seek knowledge of history, biology, or geology.



- Campground
  - Picnic Area
  - Ranger Station
  - Fire Lookout
  - Overlook, Parking Area
  - Primary Park Road
  - Numbered Route
  - Other Road
  - Park Area (Approx.)
- Note: Respect private property. There are many small private tracts within park boundaries.

Acadia National Park and the nearby towns offer facilities for all of these tastes and many more. At park headquarters you can talk it over with a park ranger. He has maps, books, programs, and off-the-cuff information to help you. Some of the things he will mention include:

- **Naturalist program.** Each summer day, except Sundays, park ranger-naturalists conduct activities for your enjoyment. These include seashore, woodland, and mountaintop nature walks and hikes; boat cruises; and evening campfire programs. These activities are free except for boat fare on the cruises.

Evening campfire programs are held in spacious amphitheaters several nights each week at both the Black Woods and Seawall Campgrounds. All are welcome to these programs, which include talks illustrated with color slides, and group singing.

Copies of the naturalist program schedule are available at park headquarters and at the two park campgrounds.

- **Motor roads.** In addition to the park road system, more than 200 miles of State and town roads encircle and traverse Mount Desert Island, offering a wide variety of inland and coastal scenery.

Visitors without cars can take bus or taxi tours from Bar Harbor and other nearby towns.

- **Trails and carriage roads.** Acadia's network of trails reaches nearly every summit and valley in the park. Ranging from easy lowland paths to rugged mountain trails, they offer many opportunities for stimulating walks and hikes.

Supplementing the trail system are some 50 miles of carriage roads. Closed to cars, these easily graded roads wind through spectacular mountain-and-lake scenery. They provide a perfect setting for leisurely hikes and horseback trips. You can rent saddle horses at Wildwood Stable.

- **Fishing.** Fishing is permitted in the park in accordance with State laws. A State license is needed for freshwater fishing, none for salt-water angling. In fresh-water lakes, there are trout, salmon, bass, and other fish; and brook trout are found in the streams. Salt-water fishing is excellent and local boating operators conduct fishing trips.

- **Swimming.** Park swimming areas with lifeguard protection are at Sand Beach and Echo Lake. Other beaches are at Bar Harbor and Seal Harbor.

- **Boat cruises.** At all coast towns you can take scheduled sightseeing trips or hire boats for private cruises to the islands.

- **Visits to nearby villages.** Much has been written describing the charm of Maine's down-east fishing and boating villages. An interesting day can be spent around their docks, boats, and wholesale fish markets, watching the many activities, and listening to the salty tales of the fishermen.

## OF ROCKS AND ICE AND THE SEA

Lashing waves—sudden in their violence, relentless in their persistence—are only the most obvious of the forces



Tide pool safari.

that have created and shaped this land. Other seas built it up . . . then tore it down. Forces within the earth's crust raised and compressed the land. Molten rock from deep below the surface penetrated it and cooled and hardened and became a part of it. Ice—thousands of feet thick and laden with rock debris—moved over Acadia, pressing it downward and sculpturing it to the shapes you see today. Even now the land offers but temporary resistance to rain, wind, frost action, chemical reaction, and the pounding waves of a tireless sea.

**The everlasting hills.** Out of Acadia's dim past, traced back by geologists some 400 million years, comes a story of forces that alternately built up and tore down the landscape. Ancient streams and seas eroded highlands and deposited sediments, which later became layers of rock. Igneous (molten) rock was forced to the surface, to flow out as lava; pushed up the crust to form granite domes; or spread through fractures in the older rocks to form "dikes." Millions of years passed. Deposition, erosion, uplift, depression, invasions of molten rock followed one another. Mountains sank beneath the sea only to be replaced by new land forms heaved upward by the unstable earth.

All this was but prologue to the great remodeling of Acadia's geologic architecture which occurred about 275 million years ago.

**Formation of Mount Desert Range.** Miles beneath the earth's surface a great pool of molten rock began to undermine the crustal roof above it. In time the crustal roof collapsed, and the molten rock rushed upward to fill the space. This intrusive rock cooled slowly, to become the coarse-grained pink granite that forms the core of what is now Mount Desert Island.

Eons passed. Erosion gnawed away much of the surviving sedimentary rock and laid bare the thick masses of intrusive pink granite. Thus did Mount Desert Range emerge as a nearly continuous ridge running east and west.

**The land is sculptured.** About 1 million years ago, a thick layer of ice formed over eastern Canada. As the weight of ice increased at the center, the edges of the layer flowed outward, molasses-like.

When the ice front finally reached Mount Desert Island, the solid east-west barrier of Mount Desert Range lay directly across its course. As pressure from the north mounted, the ice sheet heaved itself up and finally over the crest of the ridge. In doing so it sought out stream courses, widened them, and carved the U-shaped valleys you see today.

Rock debris in the grip of the ice sheet worked like a giant sheet of sandpaper and rounded off the north slopes.

Once the ice overtopped the ridge, it moved onward, tugging at the south face of the mountains. This enormous quarrying action, aided by cracks and faults in the rock, created the steep cliffs and giant steps on the southerly faces of the mountains.

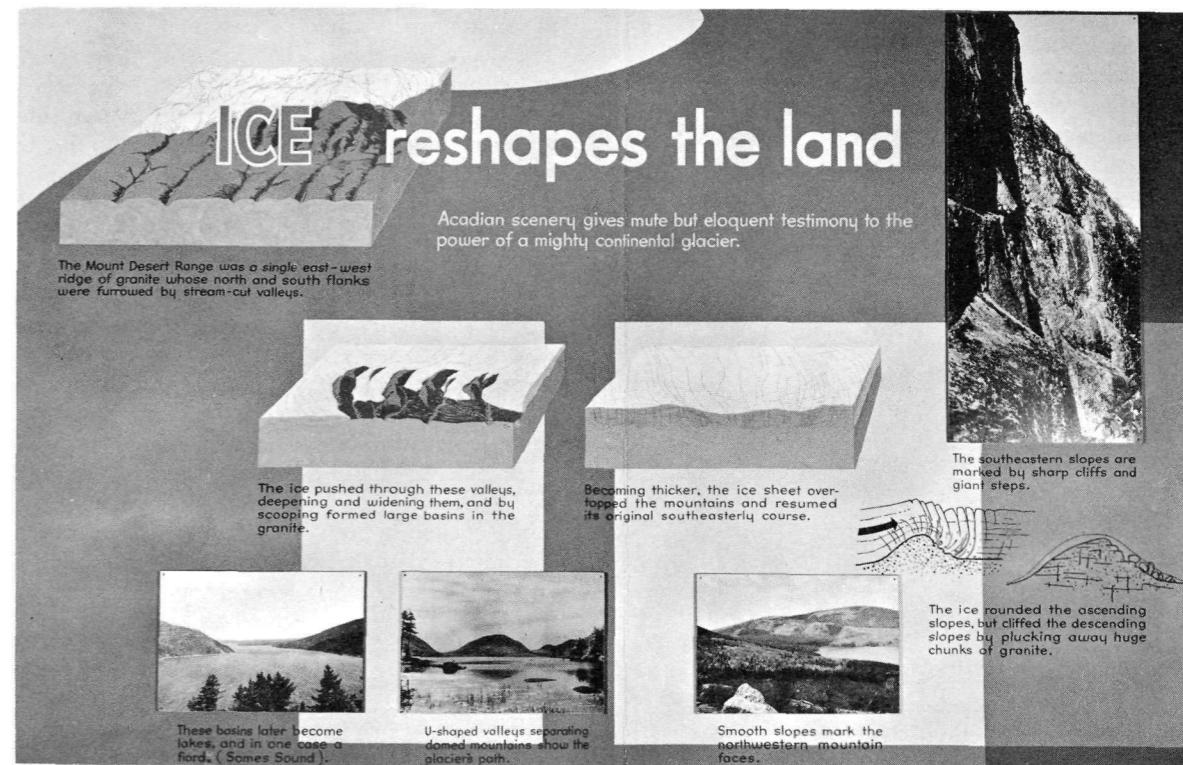
Mount Desert Range was buried to a depth of perhaps 5,000 feet. Under this gigantic glacial load the land yielded. It is no wonder, then, that when the ice finally retreated, the once unbroken ridge emerged as a line of individual peaks separated by the deep valleys now occupied by lakes and a fiord. It is understandable that Maine's ancient coastal plain was depressed beneath the sea; that what were once its heights and ridges are the islands and peninsulas we see today.

**Tracing geologic history.** Don't just take the geologist's word for all this. Look around you in the park.

In places you will see "dikes" of dark rock intermingled with pink granite. These are the places where intrusive rock invaded overlying rock. The road to Cadillac Summit is a good place to look for this.

Along the shore—at Anemone Cave, at Otter Point—are exposures of dark ancient rock. In places it lies jumbled and fused with the pink granite.

Evidences of glaciation are all around. Glacial erratics abound here; the one on South Bubble is only the most obvious. Your hiking pace is determined by the sloping north or steep south face of the mountain, a profile determined by the direction of the ice flow. On the trails you will see glacial polish—the surface rock ground to a mirror-like finish. Striae and glacial grooves are scratch marks and gouges on rock made by other rocks embedded in the moving ice. Chattermarks are a series of crescent-shaped notches. Usually occurring on gradual slopes, they show



where a rock in the glacial grasp "stuttered" against the bedrock in its movement.

**Current geologic activity.** Even today, Acadia is being shaped by geologic forces. Most easily observed of these forces is the sea.

Each wave sets in motion a new sequence of events. Nature's grindstones—the sand and rocks of the shoreline—swirl and rub against the land. Caves and chasms along the shore are cut a little deeper. Cliffs are undermined; and because the rocks in these cliffs are riven by joints, the undermined sections collapse into the water.

What it erodes from one shore, the sea may deposit on another. Sand Beach is actually a sandbar built by the waves across a once longer cove. The section of the cove closed off by the sandbar is now a lagoon. One day piled high and steep by the waves, the next washed broad and flat, Sand Beach is an excellent place to observe short-term geologic change.

Back from the sea other kinds of erosion take place. Streams cut into the rocks. Frost cracks them. Chemicals dissolve them.

Pounded by the sea, eroded from within, Acadia is slowly wearing away. Ironically, the very forces that would destroy this beautiful land and bring it down to the level of the sea are the ones that have created its beauty.

## OF LIVING THINGS

Each living thing seeks a favorable environment—a place where temperature is right, where food is abundant, where shelter or freedom from competitors can be found.

Acadia is a crossroads of land and sea, of northern and temperate zones, of mountain and valley, of lake and forest. Each of these distinct environments, and also the places where they blend together, is a different kind of home for living things.

Thus, Acadia is biologically a very rich place. Approximately 50 species of mammals and 275 species of birds inhabit the park during the course of the year. More than 500 kinds of flowering plants and many types of mosses, lichens, and lesser plants adorn its hills and valleys. Its waters, both marine and fresh, swarm with billions of organisms from microscopic algae to whales.

Merely to list and describe these animals and plants would be to miss the biological point. To choose a few of the major environments, however, and show how selected plants and animals have adapted to them, is to introduce you to ecology. This science, which describes the *relationships* between living things and their environments, is the new approach to biology. The sea, the tide zone, and the Acadian forest will be our pathways to understanding.

**The sea.** Life patterns in the sea are determined primarily by temperature and depth. The Gulf of Maine—which is the marine environment of Acadia—is cold and quite shallow. These two conditions make for abundance of marine life.

The basic plants of the sea are the algae. They appear in many varieties, from free-floating microscopic cells to anchored fronds more than 100 feet long. Only chlorophyll-bearing plants can change inorganic matter into organic food. They do this by using the energy of sunlight in a process called photosynthesis. Because algae are the only abundant chlorophyll-bearing plants of the sea, all marine animals are ultimately dependent on them for food.

A marine animal familiar here—one noted for its voracious appetite—is the lobster. The American lobster occurs only along the Atlantic coast of North America. It lives on the ocean bottom, inshore in summer, but seeking deeper, warmer water in winter. Well armed for attack or defense, the pugnacious lobster eats other animals, either living or dead. It hunts by stealth or speed, depending much more on chemical senses and touch than on sight. Living fish—flounders and other bottom feeders—are its principal prey. But crabs, other lobsters, and clams, which it digs efficiently, are also part of its diet. In turn, cod, sharks, and other bottom-feeding fish prey on the lobster. Man, with his baited traps, is the lobster's greatest enemy.

Fishes are the dominant animals of the sea. In size, swiftness, coordination, and keenness of sense, they are perfectly suited to aquatic life.

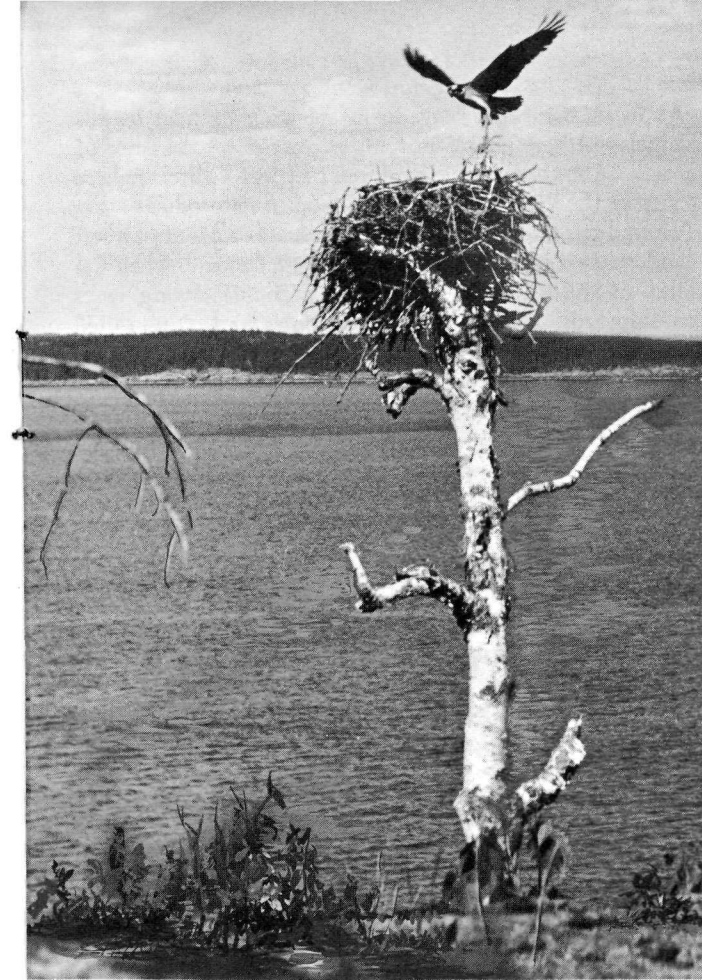
Adaptation of shape to habits is one of their most interesting traits. Active swimmers are streamlined. Fishes that lurk in ambush are often lumpy and camouflaged. Many bottom-feeders are greatly flattened. The best example of this is the flounder. During its life history, the flounder turns from active swimming to bottom dwelling. The change in habit is accompanied by a remarkable change in orientation. The fish lies on one side and the other side becomes its top. The eye on the bottom side migrates to the top side. The body color changes so that the bottom side becomes belly-white and the top side a darker hue.

These random sketches can throw only a dim beam into the green depths that surround Acadia. Now we must follow the course of life from the place of its origin to the transition zone between sea and land.

**The tide zone.** This zone is located between the tide lines. Twice daily it is alternately exposed to air and covered by water. Strong wave action brings much food and oxygen. Because of this, the living population is more dense here than in any other zone of the sea.

Abundance of life does not mean that life is easy in the tide zone. It is a rigorous environment. Living things must function in both air and water. They must withstand the full force of the waves. And because of its great profusion, life is fiercely competitive. Consequently, shore organisms are finely adjusted to the conditions they must face, and offer nearly endless examples of adaptation.

A major problem for these animals and plants is exposure to the air. They die if they dry out. The barnacle has solved this problem by developing a tight-closing shell. Within this bastion it is bathed in a few drops of captive



Osprey.

sea water. So well adapted is the barnacle that it can remain out of water 95 percent of the time. Thus you will find barnacles at the higher levels of the tide zone.

Other living things less resistant to drying remain at lower levels. This is why you see definite life strata in the tide zone: barnacles in one band, rockweed in another, and so on.

A secure foothold is essential when waves pound and when thousands of competitors are waiting to squeeze onto a rock already blanketed with living things. Some organisms encrust the rocks, others cement themselves, and still others are anchored by threads of great strength. Mobile animals, such as crabs and snails, have powerful grasping legs or attach their shells by suction.

Sea snails are among the most common tide-zone animals. They are instructive, too, of the way marine organisms have made the transition to life on land. Did you know that the ancestors of your garden snails lived in the sea? They made the transition long ago, moving slowly across the tide zone until emancipated from the sea. Other snails

are doing this now. Three species of periwinkles found at Acadia illustrates this beautifully. The smooth periwinkle keeps close to the low tide line and is submerged most of the time; the common periwinkle lives where high tides come only a brief period each day, but it must still deposit its eggs in the sea; the rough periwinkle bears its young alive and can remain out of water for weeks at a time. It is almost ready to leave the shore. Its next stop, and ours. . . .

**The Acadian forest.** Many types and stages of forest growth exist at Acadia. Situated at the meeting place of boreal and temperate zone vegetation, there are places in the park that could be a Labrador shore, a pine barren in New Jersey, or a mountain summit in Tennessee.

Three mature forest types—spruce-fir, northern hardwood, and a mixture of the two—make up most of the forest growth within the park. Another major (but here transitory) type is the shrub and sapling growth which has pioneered into the 10,000 acres of parkland burned in 1947.

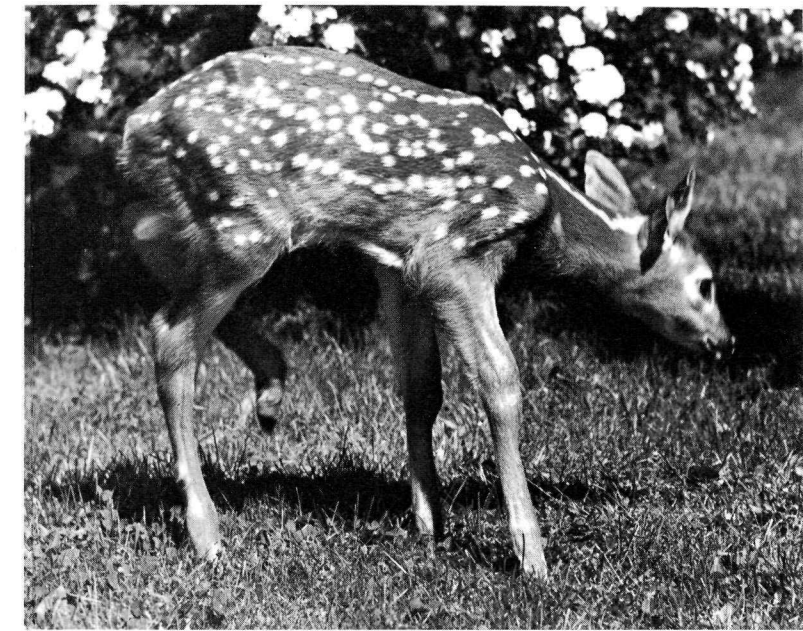
Wildflowers are plentiful beginning in early spring, when the trailing-arbutus, or mayflower, puts forth its blossoms. The procession of flowers continues until autumn, when the witchhazel scatters its seeds from the bloom.

The spring display of rhodora in the park's open wetlands is matched only by the autumn colors that inflame Acadia's deciduous plants.

A profusion of wildlife inhabits the Acadian forest—mammals, birds, amphibians, reptiles—none of them poisonous or harmful. The variety of birdlife in particular is one of the park's outstanding natural attributes.

Most likely you will see some whitetail deer during your stay in the park. These graceful creatures will serve as our illustration of forest ecology.

Man's occupation of Mount Desert Island has greatly affected its animal and plant life. Large predators have



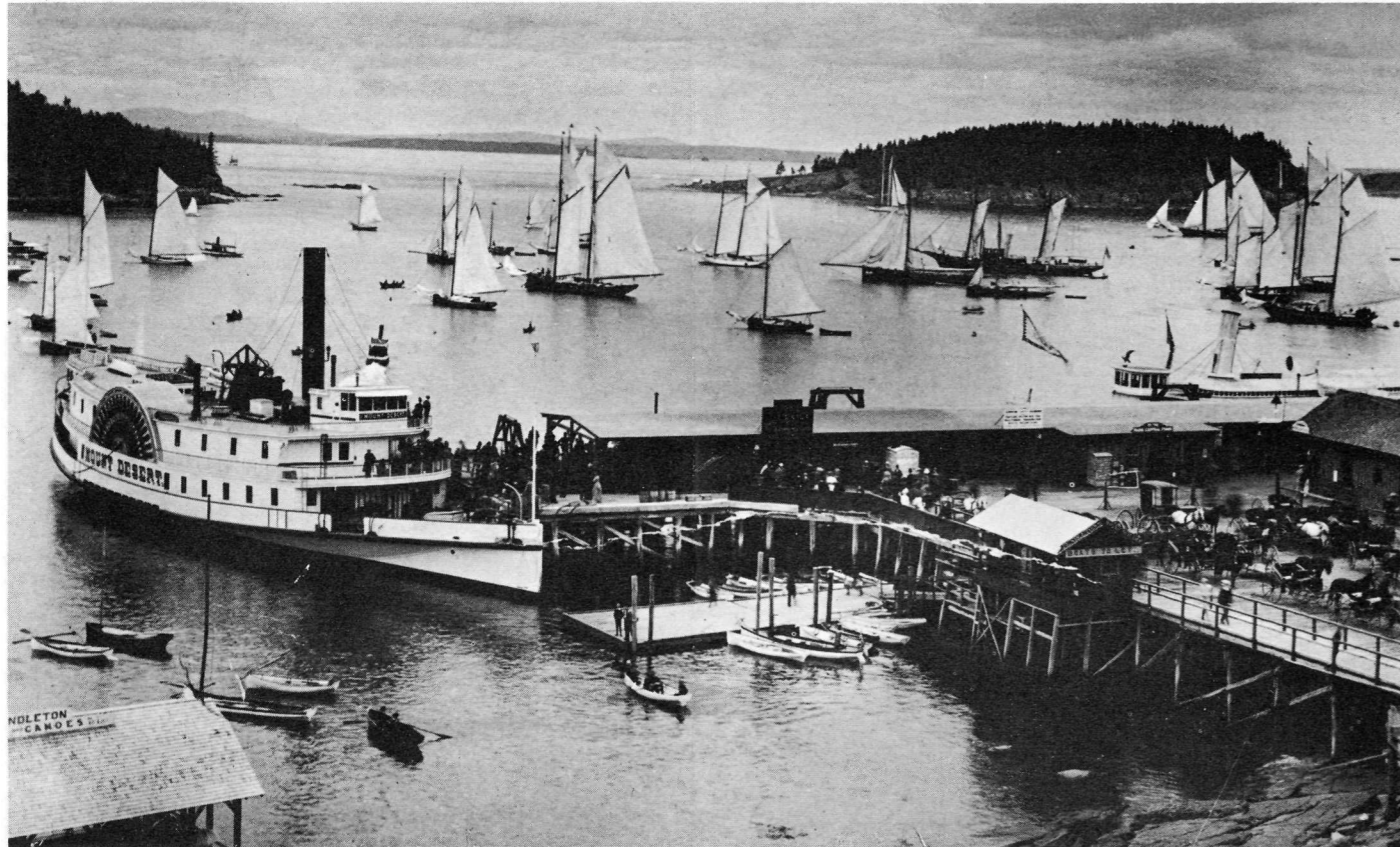
been driven off or reduced in number; much of the forest-land has been cut over or burned. When the face of the earth is changed this way, the environments of living things are altered.

When the great fire of 1947 destroyed 10,000 acres of mature park forest on Mount Desert Island, the way was opened for a dense growth of sun-loving shrubs and saplings. This new growth provided an abundance of food for deer, particularly during the critical winter season. With abundant food supply and few predators, the deer population shot up.

For a few years, the winter food provided by the new growth was adequate for the increasing herd. But as the deer population overtook the natural food supply, eating more than the browse plants could produce by new growth, the harsh winter season brought near-famine conditions. This ecological imbalance had no natural solution, except the cruel one of starvation. To avoid this, the National Park Service is removing deer from the over-populated parklands at a rate which will soon restore the balance.

This illustration suggests how complex and fragile are the strands that make up the web of life. It shows why man must use care in his dealings with nature.

Bar Harbor, 1886.



## OF MEN

As in its natural history, so in the story of man in this archipelago, there is one unifying theme: the dominance of the sea. Ancient Indians, explorers, settlers—all came here by way of the sea and found livelihood in its products.

Viewed from this perspective the history of Mount Desert Island reached its climax in the mid-19th century, when the shores of these islands were lined with fish-drying racks and shipyards, and when Acadia's boats and ships sailed the fishing banks, the coastal routes, and even distant oceans.

You who come here today do so because the juncture of land and sea holds a fascination for all men. Lighthouse beams, tolling bell buoys, lobster boats, white sails of skimming yachts, the smell and sound and spray of curling waves—all these bespeak the romance of the sea.

But let us go back in time . . .

**Indians of Acadia.** In Abbe Museum, at Sieur de Monts Spring, are artifacts and exhibits relating to three Indian peoples who successively occupied these islands and the nearby mainland.

The oldest group left relics and tools that were made some 6,000 years ago. We know they were enterprising

fishermen, for in their refuse heaps the bones of tuna have been found. Tuna are fish of open seas. Thus the Indians must have pursued them in sea-going canoes.

Another group, the Red Paint People, lived here as long as 3,000 years ago. They made pottery and slate tools, and they sprinkled their dead with red and yellow ochre, traces of which have been found in ancient graves.

At the time Europeans arrived here, the Abnaki Indians occupied the Maine coast. They were forest Indians, skilled in the use of birchbark. It was they and their kin who taught Europeans to build that graceful craft, the canoe.

In summer, the Abnaki left their permanent mainland villages and came to Pemetec, their name for Mount Desert Island. They fished and gathered shellfish and ventured to the cranberry bogs on the outlying islands. Life must have been pleasant in this fruitful place in the summer.

For hundreds of years this summer idyll went on, as deep shell heaps near the island's tide flats testify. Then the Europeans came. By the 1840's Indian wigwams had vanished from Acadia.

**European discovery and exploration.** It is probable that Mount Desert Island was known to Spanish and Portuguese explorers early in the 1500's. Its distinctive outline, rising high above the Maine shore, made it a landmark for these early navigators.

When Henry IV of France decided that Spain and Portugal should be challenged in their design to divide the world between them, he staked a claim to Acadia. Historically *La Cadie*—a name derived from an Indian word meaning "the place"—included the coast of North America from present Nova Scotia to New Jersey.

The Sieur de Monts, a Huguenot gentleman and soldier, was commissioned to establish this New World dominion for France. In 1604 he sailed for Acadia, with Samuel de Champlain as his navigator.

As soon as De Monts' colony was established on the St. Croix River (the present coastal boundary between Maine and New Brunswick), Champlain embarked on the exploring and mapmaking voyage which resulted in his discovering and naming Mount Desert Island on September 5, 1604.

Nine years later the island became the site of the first French mission in America. Jesuit missionaries—bound for the mythical city of Norumbega at the present site of Bangor—were blown and befogged off course. Landing on Mount Desert Island, they were welcomed by friendly Indians, and they decided to stay. On what is now Fernald Point in Somes Sound, they established Saint Sauveur. The mission was a success, but only for a few weeks.

The end came when Capt. Samuel Argall of Virginia, a watchdog over England's claim to these shores, sailed into Somes Sound and destroyed the mission. Thus began here in 1613 the active struggle between France and England for control of North America; this struggle continued until the French surrendered Canada in 1760 at the end of the French and Indian War.

During this period of nearly 150 years, the Maine coast became a sort of "no man's land" separating major French settlements to the north and English ones to the south. As a result, only temporary settlements were made on Mount Desert Island.

In 1688, Louis XIV gave the island to the Sieur de la Mothe Cadillac—later founder of Detroit and Governor of Louisiana. It is believed that Cadillac lived for a time with his wife on the island's east shore.

**Settlement from New England.** After the British victory in 1760, that part of Maine east of the Penobscot River joined western Maine as part of Massachusetts. With the threat of continual warfare gone, New Englanders now founded permanent settlements on Mount Desert Island and in its vicinity.

Ownership of the island was to pass through many hands in ensuing years. At one time or another it belonged in whole or in part to the Province of Massachusetts; to Sir Francis Bernard, English Governor of the Province; to Sir Francis' son; and to Cadillac's granddaughter. But these transfers of title had little effect on the sturdy New England settlers who made homes for themselves in Acadia. As if in recognition of this, the land was eventually sold to them.

In this remote, inaccessible place of islands and sea, self-sufficiency was the rule. Farming and lumbering were soon challenged by fishing and shipbuilding as the major occupations. Town governments became models of pure democracy. Schools and churches were established, roads were built, and a causeway and bridge connected Mount Desert Island with the mainland.

A way of life and breed of people evolved that were intimately associated with the sea. Fishermen and deep-sea sailors crowded ports in these islands. Men were lost in storms, and their women—helped by the community—carried on and watched their sons go to sea.

At times, great fishing fleets would rendezvous here, and the horizon would be whitened by hundreds of sails.

**The summer colony.** The coming of steam transformed Mount Desert Island. Regular steamboat runs beginning in the 1850's heralded the new era of summer visitors.

Word of Acadia's beauty spread. Artists, philosophers, and scientists came here to work and study in an atmosphere of repose. Within a few years after the Civil War, Bar Harbor became synonymous with summertime among America's wealthier citizens.

Soon the villager's cottages and the fishermen's huts were filled to overflowing. It was the time of the "rusticators"—people who found in Acadia's scenery and unsophisticated accommodations a new joy in life. The cottages expanded and became hotels—simple and rather bare, but always full. The life was gay and free and wholly out of doors—boating, climbing, picnicking, buckboarding, and just sitting on the rocks.

In the beginning, all the island was open to wander over and picnic on. Then lands were bought, summer homes





*The mountain massif of Mount Desert Island, from Baker Island.*

and large hotels were built. Life of a new kind began, one patterned after that of city society. The informality of the early days had passed.

**A National Park is born.** It was from the impulse of that early summer life that the movement for public reservations and a National Park arose. It sprang from pleasant memories and the desire to preserve the beauty and freedom of the island for the people's need in years to come.

In the summer of 1901, a small group of long-time summer residents on Mount Desert Island met to form a corporation to "acquire and hold for public use lands in Hancock County, Maine, which by reason of scenic beauty, historical interest or other like reasons may become available for such purpose." The corporation received its charter from the Maine Legislature in 1903; it received its first gift of land, one square rod in area, soon after.

By 1913, the corporation had acquired about 6,000 acres of land. That year a local political attack threatened the park movement. The pro-park group withstood the attack, but the threat of future trouble remained. It was then that the corporation conceived the idea of offering its land as a gift to the Federal Government for a National Park. The offer was made in 1914; on July 8, 1916, President Wilson signed a proclamation creating Sieur de Monts National Monument.

On February 26, 1919, President Wilson signed an act of Congress by which the National Monument became Lafayette National Park, the first National Park east of the Mississippi River and the first to be donated to the Government. In 1929, the name of the park was changed from Lafayette to Acadia to preserve the name given to the region in the De Monts commission of 1604.

Acadia National Park well illustrates the adage "mighty oaks from little acorns grow." From an idea in 1901 and

a donation of one square rod of land in 1903 has grown a great National Park, now covering more than 32,000 acres—a gift to the Nation and to its people.

#### BOOKS ABOUT ACADIA

*A Guide to the Geology of Mount Desert Island, Maine,* Carleton A. Chapman.

*Acadia National Park—George B. Dorr's Triumph,* Sargent F. Collier.

*101 Wild Flowers of Acadia National Park,* Grant and Winonah Sharpe.

*Seashores; Fishes; Birds; Mammals; Rocks and Minerals; Trees,* Golden Nature Guides.

*The Edge of the Sea and The Sea Around Us,* Rachel Carson.

*The Story of Mount Desert Island,* Samuel Eliot Morison.

#### MAPS

*Acadia National Park and Vicinity* (topographic), U.S. Geological Survey.

*Mount Desert Island* (trail map), Appalachian Trail Club.

*Mount Desert Island* (trail map), Mount Desert Chamber of Commerce.



#### ADMINISTRATION

This park is administered by the National Park Service, U.S. Department of the Interior. The superintendent, whose address is Acadia National Park, Bar Harbor, Maine, 04609, is in immediate charge.

Park headquarters are at Main and Park Streets, Bar Harbor. The business office is open daily, except Saturdays, Sundays, and holidays, from 8 a.m. to 5 p.m. The information office is open daily, June 10 to September 10 from 8 a.m. to 6 p.m.; for the remainder of the year, it is open to 5 p.m.

**Park rangers**, the protection organization for the park, are responsible for law enforcement, traffic control, and forest fire detection and suppression. They handle lost and found property and visitor suggestions and complaints; and they provide many other services to the public.

**Park naturalists**, the interpretive staff, are here to help you understand the park.

The National Park System, of which this park is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of the people.

THE DEPARTMENT OF THE INTERIOR—the Nation's principal natural resource agency—bears a special obligation to assure that our expendable resources are conserved, that our renewable resources are managed to produce optimum benefits, and that all resources contribute their full measure to the progress and prosperity of the United States—now and in the future.

#### PARK REGULATIONS

**Fires** may be kindled only at established picnic areas and campgrounds, and then only in fireplaces. All fires must be completely extinguished before leaving. Fireworks must not be set off in the park.

**Natural features.** Do not destroy, injure, or disturb trees, shrubs, flowers, birds or other animals, or any other natural feature.

**Pets** are allowed if under physical restraint at all times.

**Camping** is permitted only in campgrounds.

**Firewood** may not be cut or gathered in the park.

**Refuse.** Deposit all refuse in receptacles provided.

**Automobiles.** Drive carefully and obey posted speed limits.

**Accidents** should be reported as soon as possible to the superintendent or a park ranger.

**Advertisements or private notices** shall not be displayed in the park unless authorized by the superintendent.

**Sale of articles.** No unauthorized person shall offer for sale any commodities. Soliciting of contributions is not permitted.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE



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