

**Isle au Haut:
Ecology, History, Threats, and Solutions
By**

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Use and Abuse of Public Lands**

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Some factual
errors. See
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I. Introduction

Isle au Haut is located 15 miles southwest of Mt. Desert Island. The 6700 acre island is hilly, rising to 543 feet at Mt. Champlain and is approximately six miles long and three miles wide (Fig. 1).¹ In 1603, Champlain named the island; he described it as thickly wooded with scattered areas of grass and striking cliffs.²

The Isle au Haut section of Acadia National Park is 2,728 acres or approximately half the island.³ The other half of the island is owned privately by residents or by the town of Isle au Haut.⁴ Visitor use of Isle au Haut is markedly different from visitor use of the rest of Acadia National Park. Isle au Haut had an estimated 8,940 visitors in 1999 compared with about three million for Acadia National Park.⁵ However, Isle au Haut faces some very similar problems. Presently, there is no enforced visitor carrying capacity to the Isle au Haut portion of the park. The residents of Isle au Haut do not want to see numbers of visitors increase, yet every year more and more people venture out to this small pristine island with its quaint fishing village. In 1976, there were only 1,419 day visitors to Isle au Haut (Fig. 2) compared with 1999's count of almost 9,000 which is a five fold increase.⁶ More people want the pristine wilderness experience; yet they threaten to destroy the thing they seek.⁷

The number of people that can board the Mail Boat, the number of moorings in Duck Harbor, and at the Town Dock currently limit the number of people visiting the island. However, Mail Boat often carries more than its "maximum capacity" of passengers in the summer.⁸ Private boats can use the permanent steel pier and six moorings near the Duck Harbor campground. Visitors also frequently kayak to Isle au

¹ Stark, J.E. Assessment of Management Alternatives, Isle au Haut, Acadia National Park, North Atlantic Region, National Park Service, Department of the Interior, July, 1977 p. 7

² Eustis E. 1952. Acadia's Isle au Haut Area. National Parks Magazine. Jan-March p.14

³ Website-fastfacts-Acadia NP

⁴ Stark, J.E. Assessment of Management Alternatives

⁵ Acadia National Park Service. Pers. Com.

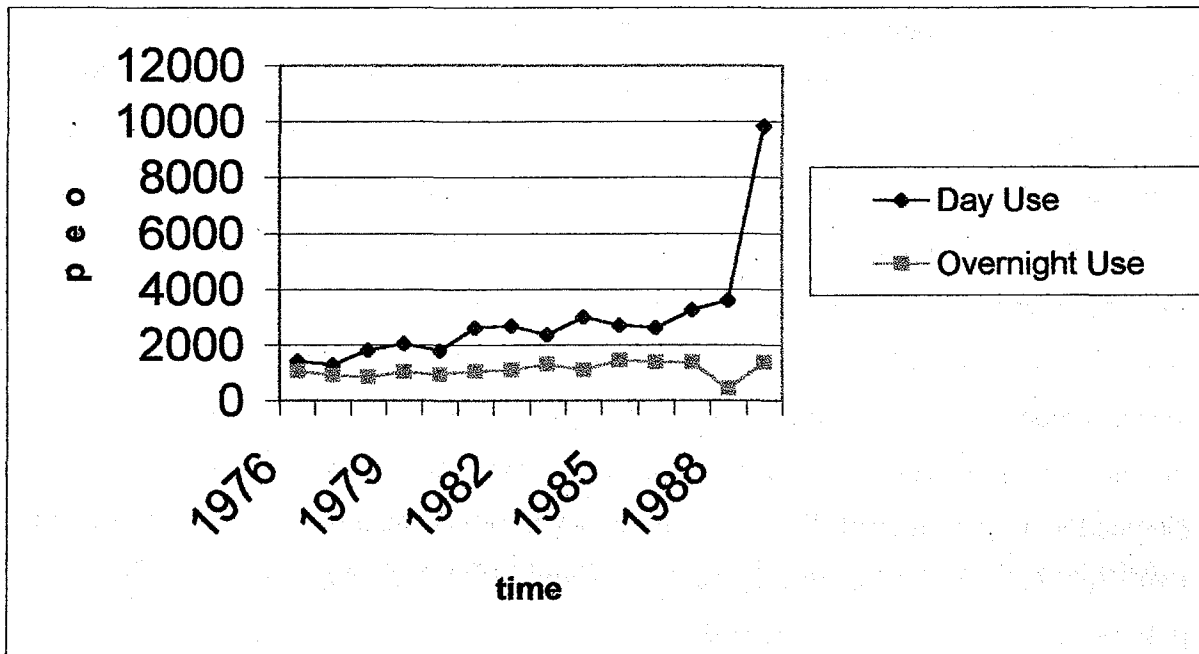
⁶ Visitor Carrying Capacities for Isle au Haut, Acadia National Park Archives

⁷ Jacobi, C. Acadia National Park. Pers. Com.

⁸ Jacobi, C. Acadia National Park Pers. Com.

Haut. The campground contains five lean-tos that hold a maximum of six people per lean-to for 30 available overnight camping spots. The figures the Park has for visitor numbers is estimated from all of these factors.⁹

Figure 2. The Change in visitor use of Isle au Haut section of Acadia National Park from 1976 through 1988 and 1999.



Community members, park officials, and visitors are concerned about the possible over-use of Isle au Haut. People are concerned that too many visitors will negatively affect the quality of the park experience and the ecology of the island. In the past, the community has also been concerned about having more and more strangers milling around town and wandering through their yards.¹⁰

⁹ Cousins, J. Pers Com. 3/00.

¹⁰ Eustis E. 1952.

II. Ecological Summary and Report

There are ten natural areas on Isle au Haut that the National Park Service has identified as significant natural areas that deserve permanent protection (Figure1). The park service chose these areas because of unique or exemplary features they contained. These are: Duck Harbor, Duck Mountain, Western Head and Western Ear, Cliffs and Coves, Merchants Cove, Eastern Head and Eastern Ear, Long Pond, Great Meadow, Boom Beach and Median Ridge.

Duck Harbor is a long narrow harbor on the southern end of the island. It provides safe mooring for boats. Duck Mountain is completely federally owned and affords magnificent views of the town of Isleboro and of surrounding islands. Western Head is federally owned and Western Ear is privately owned but undeveloped. A small land bridge connects these two pieces when the tide is exceptionally low. Cliffs and Coves refer to the shoreline from Western Head eastward to Merchants Cove and contain several cliffs as tall as 100 feet and coves including "thunder gulch," all of which are federally owned. Merchant's Cove is the largest cove on the southern shore of the island and contains a sandbar and freshwater bog. It is surrounded by private land. Long Pond is the only body of fresh water of the island and residents use this for their water supply. About half of the western shore is Park owned and the rest is undeveloped private land. Great Meadow is the best bog example on Isle au Haut. The southern half is Park land and the northern half is both private and town owned undeveloped property. Boom Beach is entirely undeveloped private land and gets its name from its large boulders that roll in strong surf. Median Ridge is the noticeable feature as you approach Isle au Haut; it contains the highest peaks. The northern part of Median Ridge is divided between private and federal ownership while the southern portion is all federally owned.¹¹

Although in the mid 1800's the island was almost devoid of trees due to farming and grazing practices, the island is now 70 percent spruce forest, 5 percent hardwood forest, and 15 percent mixed northern hardwood – spruce forest. The undergrowth

¹¹ Stark, J.E. Assessment of Management Alternatives, 1977

associated with spruce stands consists of blueberry, bunchberry, starflower, goldthread, and Canada mayflower.¹² In hardwood stands many different shrubs and herbs make up the associated undergrowth here and it is more luxuriant than the spruce undergrowth.¹³

Several bogs occurring on the island support cold freshwater bog communities. Typical trees in these bogs are larch, northern white cedar, and black spruce. The lesser vegetation consists of Cranberry, leatherleaf, Labrador tea, pitcher plant, sundew, and sphagnum moss.¹⁴

The fauna of Isle au Haut, typical for islands, is sparser than its inland neighbors. Land mammals found on Isle au Haut include: white tailed deer, hares, red squirrels, otter, mink, muskrat, weasels, bats, mice, shrew, moles, and meadow voles. The deer herd is protected on the entire island; hunting is not allowed in the park and the town passed legislation to prohibit hunting on private property. Waterfowl are abundant on the shores of Isle au Haut. Large numbers of gulls, terns, and eider ducks nest on smaller islands near Isle au Haut in the summer.¹⁵ In the winter Isle au Haut's shores play host to many ducks including the harlequin duck,¹⁶ old squaws, goldeneye, buffle head, mergansers, black ducks, and eiders. Many other migratory shore birds, perching birds, and, land birds utilize the area as well. There are no known federally endangered or threatened species of plant or animal on Isle au Haut although; the community of inkberry is the only one in the state.

¹² Stark, J.E. Assessment of Management Alternatives, 1977

¹³ Stark, J.E. Assessment of Management Alternatives, 1977

¹⁴ Stark, J.E. Assessment of Management Alternatives, 1977

¹⁵ Stark, J.E. Assessment of Management Alternatives, 1977

¹⁶ Mittelhauser, G. Pers. Com. 1999.

III. Early History

Isle au Haut has had a long human history. Before British and French colonialists settled Isle au Haut, Native Americans used the island as a summer camp to hunt and fish. Their presence was evident by large shell middens and burials. One such burial was discovered when the foundation for the new town hall was dug in 1906 -- they uncovered a Native American body in a traditional sitting position.¹⁷

Isle au Haut was first settled by Europeans in 1792 by Peletiah Barter and his brothers. The island was especially important for fishing communities. Before the internal combustion engine, fishermen were only able to reach their fishing grounds by rowing or sailing power. Use of the island by fishermen pushed its population to 300 in the mid-1800s, the highest it has ever been.¹⁸ In 1995, there were only 52 people living through the winter with most people moving to the mainland during January and February.¹⁹

Four activities sustained the settlers: fishing, sheep raising, logging and to a lesser extent farming. Of these activities, fishing was especially important because Isle au Haut, unlike most other offshore islands, was large and offered significant protection for moored boats. Lobstering was, and still is, the island's primary fishing activity; in the 1860s the island supported several lobster canneries. People raised sheep on a small scale, while lumber was cut and shipped off island. Farming was done only for subsistence due to poor soil quality, which could not sustain many crops.²⁰ During the winter, when all other activities were nearly impossible, boat building was the primary source of jobs.²¹

After Earnest W. Bowditch, a descendant of the famous naval navigator Nathaniel Bowditch, visited Isle au Haut in 1878 the word got out about the beautiful island. In

¹⁷ Eustis. E. 1952. P.15

¹⁸ Eustis. E. 1952. P.15

¹⁹ www.Com/memon/2335135.html

²⁰ Eustis. E. 1952. P.14

²¹ Stark, J.E Assessment of Management Alternatives, 1977 p..7

1900, the Isle au Haut Company was formed and bought land, forming the men's Point Lookout Club. The club had three strict rules: no women, no children, and no dogs. The formation of the club brought a new type of summer resident to the island, the wealthy summer vacationers. These early visitors became involved in the town and helped with community projects including building roads, developing running water, and buying an electric generator. Over time the club members purchased a large holding of land, eventually donating it to Acadia National Park in 1943.

At the Parks inception, islanders and Park officials had a good relationship. Eustis explains that military families donated the land during World War II, a time when patriotism was strong in the US. Consequently, islanders supported the government presence on their small island. After the war, the Park/islander relationship strengthened when the Park assisted in extinguishing a fire that broke out on private lands.

Residents of Isle au Haut lived in a small community with a church, Town Hall, library, and a general store. Most people reached the island, as they still do, by the Mail Boat, making trips from Stonington. From 1930 - 60' the Mail Boat was a series of small lobsterboats with a maximum capacity of 28 people, which dropped people off at the town dock—built in 1950. Since telephones are relatively new phenomena, the Mail Boat and the post office served a central role in the community. The community was like an extended family, with year round residents and many summer people having lived on the island for many generations. Because of this atmosphere the town only had two Constables who attended town events, but their presence was unnecessary in a place where doors were never locked, walkers always offered a ride, and car keys always left in the ignition.

During the late 50's the winter populations decreased and the Point Lookout Club closed, causing trouble for the Mail Boat. Eventually the boat shifted its base of operation from the Isle au Haut Thoroughfare to Stonington. Here the owner of the Mail Boat, married to a hotel owner, promoted tourism on the island. The promotion and an increase in national prosperity brought many people to the remote island. Eustis describes the tourists as "an alien invasion from outer space -- an outer space which some people of Isle au Haut did not know at all and from which other people of Isle au Haut

were trying to escape.²² This invasion, coupled with a growing feeling that the Park was an "absentee landlord whose interests lay elsewhere," deteriorated the Park/islander relationship. The Parks negligence was demonstrated by the lack of funding to complete a survey of the park boundaries and poor maintenance of Park roads.²³

The increased number of tourists exacerbated the Park/islander problem. Tourists walked around on private land, took photographs of the locals and, as Eustis describes, washed their clothes in people wells. He says the locals "found that they were being reduced to the status of exhibits in a public zoo."²⁴ The problem lay with the location of the dock. Visitors disembarked from the Mail Boat in town, found no Park rangers, and would have to hike four miles to the Park—because of the daunting hike many would stay in town. With the docking arrangement it was difficult for day-trippers to actually make it into the park and back to the dock before the evening Mail Boat left. By the late 60's, the increased tourism taxed the capacity of the Mail Boat and, at times, locals had difficulty finding a spot.²⁵

The Park reacted to the insurgence of visitors by stationing a ranger on the island and building three shelters for campers. Although the park made some effort, by the beginning of the 1970's: "The summer tourist situation was a mess. Increased numbers of casual day sightseers were being attracted in part by the existence of the Park and dumped into a community that didn't want them."²⁶

²² Eustis, F.A. *Tourism and Isle au Haut - A historical perspective*. Acadia National Park Archives. P.94

²³ Eustis, F.A. P.94

²⁴ Eustis, F.A. P. 96

²⁵ Eustis, F.A. P. 96

²⁶ Eustis, F.A. P. 97

IV. Island Planning

The growing number of visitors and lack of planning forced both the Park and the Town to conduct formal planning on Isle au Haut. Throughout the planning process the Park has tried to be sensitive to the community needs. The chronology of planning is as follows:

- Comprehensive Plan (Town),
- 1977 Assessment of Management Alternatives (Park),
- Record of Decision (Park),
- 1982 Public Law 97-335,
- 1984 Visitor Carrying Capacity report (Park),
- 1989 Visitor Use and Impact Patterns report (Park),
- Planning Committee Report (Town and Park), and
- 1990 Development Concept Plan (Park).

Comprehensive Plan

The threat of the tourists brought the winter and summer residents together and they established a Town Planning Board. This new board developed a Comprehensive Plan for the island. The Plan attempted to preserve the island in its natural state and encouraged moderate growth of the year round population, who depended on a traditional economy. The Plan also protected significant natural features such as wetlands and lakes. To prevent the tourists from taking over the island, the Plan banned large hotels, motels, and commercial campgrounds. The Mail Boat stopped advertising and focused instead on serving the community.²⁷

↑
banned campgrounds!

²⁷ Eustis, F.A. P.98

Assessment of Management Alternatives

In 1972, Acadia National Park proposed a master plan for the Park, including Isle au Haut. This plan recommended consolidating the Park's holdings and purchasing more land through eminent domain. The local residents were strongly opposed to this plan; consequently, Isle au Haut had a separate planning process. In July of 1977, the Park developed an Assessment of Management Alternatives for the island. The document noted that local residents were concerned by the increase in visitors during August and that some park visitors were having a less-than-optimum experience on the island. At the time the park said that "The prime management objective of the National Park Service on Isle au Haut is to conserve the natural qualities of this remote island unit, while at the same time providing present and future park visitors an opportunity to experience this remote island environment."²⁸ This document outlined four alternatives for managing the island. Each plan aimed to:

- Preserve the natural and remote island environment;
- Provide visitors a remote island environment;
- Reduce adverse effects of Park visitors on island residents; and
- Cooperate with the town to maintain a viable local community.

Record of Decision

After public hearings, written comments, and town meetings, the Park settled upon alternative four as outlined in the Record of Decision. This decision focused on consolidating the day and night use in the southern half of the island by increasing overnight visitation capacity from 18 to 30; limiting day use with the Mail Boat; shifting the point of entry from the town to Duck Harbor; and moving the park boundaries. Since eminent domain was a concern in the community the decision stipulated that new land could only be acquired with a willing buyer and willing seller. The Park could not have

²⁸ Stark, J.E Assessment of Management Alternatives 1977 p. 3

eminent domain unless the Isle au Haut Selectmen approved the action. In addition, the plan stated that easements would be acquired on non-parkland above 300 feet.²⁹

The plan allowed the Park to continue an interpretive hiking system in Duck Harbor and each visitor would be supplied with an orientation brochure. Development on the Park's land would be limited to maintenance of the current roads and trails, maintenance of backcountry campsites, and building of a dock in Duck Harbor.³⁰

→ The plan hoped to control visitor access by limiting entry to parklands by using one tour boat company "... operating on schedules designed to maintain the sense of a remote island ...". The Park would limit the number of visitors by creating a schedule with consultation with Park Service and Town Officials. To manage these visitors the plan stipulated that the Park needed a ranger station and seasonal employees.³¹

Public Law 97-335

In addition to the Record of Decision, the Park's General Management Plan recognized Isle au Haut as a separate planning entity: specified in the 1982 Public Law 97-335. The law defined the boundaries of the park and specified that land could only be acquired through donation or exchange. It also required the Park to establish a carrying capacity for Isle au Haut. The findings of the law define the purpose of the park:

- (1) there are significant scenic, educational, natural, and cultural resources in the town of Isle au Haut Maine;
- (2) due to the isolated location and traditional resource-based economy of the town's island community, these resources are fragile and deserving of conservation and protection through both public and private efforts; and

²⁹ Record of Decision, General Management, Isle au Haut, Acadia National Park Archives.

³⁰ Record of Decision

³¹ Record of Decision

- (3) both residents of the town and visitors to the Acadia National Park will benefit from the establishment of a permanent boundary for the park and the management of parklands on a limited entry, low intensity basis.³²

The law goes on to state in Section (4) that the management of the park “shall not interfere with the maintenance of a viable local community.”³³ The strong mandate continues beyond the community to include the “preservation” of the flora and fauna in the Park. To achieve these goals the law states “visitation shall be strictly limited . . .” To ensure that visitation will be in fact limited Subsection (b) requires that a carrying capacity be determined within six months of the passing of the Act. The carrying capacity must be reviewed every five years. The Act concludes by stating that before such a determination is made that visitation in the Park can not exceed the average annual visitation from 1979 to 1981.³⁴

Visitor Carrying Capacity Report

In 1984 the Park came out with a report on the carrying capacity. The report defined carrying capacity as the level of use at which:

- no unacceptable degradation of natural resources occurs;
- a high-quality, back-country experience is provided for the individual visitors;
- and
- the residents of Isle au Haut and Stonington are not unduly affected.³⁵

The first category was further defined as:

- significant damage to plants and animals;
- damage irreparable through natural processes;

³² Public Law 97-335, 96 Stat. 1627, 1982

³³ Public Law 97-335, 96 Stat. 1627, 1982

³⁴ Public Law 97-335, 96 Stat. 1627, 1982

³⁵ Visitor Carrying Capacities for Isle au Haut, Acadia National Park Archives 1984 p.1

- damage interfering with natural processes; and
- damage causing physical degradation.

The second category is defined as:

- hiking along remote trails with limited contact with other hikers.³⁶

To tackle the difficult subject of carrying capacity the Park wanted to maintain "visitation to the point at which the ecosystem could return to a condition within their natural range of variation during the next visitor season . . ."³⁷

The authors of the report felt current uses of the island were acceptable, but that the number of visitors should not increase. In 1983 the Park set a interim maximum day use level to 50 people per day during July and August and 25 people per day during May, June, September, and October. In addition, 30 campers were allowed per night.³⁸ The Park attempted to hold visitation to these numbers by asking the Isle au Haut Company (Mail Boat) to discourage tourist who exceeded the recommended daily number. In addition, the Park intended to post signs on the Stonington docks stating the visitation numbers and encouraged people to contact the park for boat reservations.³⁹

During the first year of this program the 25 person limits was violated seven times while the 50 person limit was violated nine times. The average number of people exceeding the limit was 12.⁴⁰ After the trial year the visitation number was set to 50 persons from July 1 - September 1, and 25 persons during the rest of year.⁴¹

³⁶ Visitor Carrying Capacities for Isle au Haut, 1984 p.1

³⁷ Visitor Carrying Capacities for Isle au Haut, 1984 p. 9

³⁸ Martin, B. H., Kimball, K.D. Final Report Visitor use and impact patterns on the Isle au Haut Acadia National Park, Maine. Contract CX1600-4-00531989 1989 Acadia National Park Library P. 40

³⁹ Visitor Carrying Capacities for Isle au Haut, 1984 p.10

⁴⁰ Visitor Carrying Capacities for Isle au Haut, 1984 p.10

⁴¹ Visitor Carrying Capacities for Isle au Haut, 1984 p.10

Visitor Use and Impact Patterns Report

In 1984, the Park contracted the Appalachian Mountain Club (AMC) to conduct a three year survey on the "Visitor use and impact patterns on the Isle au Haut," which was completed in August of 1989. The study developed a carrying capacity for the island as mandated by PL 97-335. AMC conducted their research by surveying visitors, residents, and landowners; determining trail use patterns; and measuring trail transects for erosion. In addition, pressure plates were used on the trail to assess the number of people that used the trail.

The AMC study found that "visitors are highly satisfied with their experience" on the island and that they visited the island for its remote quality.⁴² The town residents were "generally satisfied" with the Park management and felt the rangers effectively directed visitors into the park. Although AMC found the island environment was not being degraded by the current level of visitation, they did feel that trails and camping areas needed to be better maintained. They felt that deer, not humans, were "the most dominant influence on the island environment."⁴³

Based upon their study the AMC determined that 90 visitors per day plus 30 campers was the maximum number of people that should be allowed in the park. This number was "based on opportunities for solitude along the coast."⁴⁴ The AMC questionnaires indicated that people visited the island "to find a private place to relax and enjoy the view of the sea . . ."⁴⁵ The 120 person carrying capacity was reached by taking the average number of visitors in a group, three, and multiplying it by the current number of private ocean vistas, 40. The report openly admits that this number was reached solely by assessing visitor experience and that the environment and the town were not incorporated in their calculation. But they did state: "It is likely that visitation to the town will increase in coming years due to increased short term rentals and

⁴² Martin, B. H., Kimball, K.D. 1989 P.40

⁴³ Martin, B. H., Kimball, K.D. 1989 P.43

⁴⁴ Martin, B. H., Kimball, K.D. 1989 P.4

⁴⁵ Martin, B. H., Kimball, K.D. 1989 P.42

increased private boat traffic. However, this traffic is not generated by the Park nor is it within the power of the Park Service to control it."⁴⁶

From their findings AMC recommended:

- The Park should avoid actions that would increase visitation such as new literature or interpretive programs.
- Visitors should continue to be sent to Duck Harbor.
- Specific monitoring of the trails should occur.
- Commercial use permits should be granted to groups using the park.
- Visitor registration cards, including questions about satisfaction should continue.
- Visitor impacts on the town should be monitored through a yearly town meeting.
- Trails should be maintained and more loop trails developed.
- Motor vehicles should be phased out of the park.

Defining a carrying capacity was the first step, but enforcing the number is a more difficult task. AMC suggested a non-regulatory mechanism through:

- Enforcing the private status of the Park dock;
- Encouraging the voluntary reduction of motor vehicles;
- Limiting the number of moorings in the town harbor; and
- Asking organized groups to reduce their group size and limit use during peak season.

→ If these "soft" approaches failed, the AMC recommended the use of a regulatory mechanism such as day use permits. These permits would be offered on a reservation basis, although some would remain available on a first come first serve basis. To enforce permit use rangers would make spot checks around the Park and those failing to have

⁴⁶ Martin, B. H., Kimball, K.D. 1989 P.43

permits would be fined. The AMC realizes this method of limiting use would be costly but they stress "it is absolutely essential for a real attempt to limit use."⁴⁷

AMC decided that a Limits of Acceptable Change (LAC)⁴⁸ method of managing the Park would be inappropriate for two reasons: the Park would be unable to accurately monitor the island because of current budgetary restraints and their study was not conducted in a manner compatible with LAC management.

Planning Committee Report

The AMC report cites the objectives developed by the Isle au Haut planning committee. These objectives were:

Environmental conditions

- Preserving the environment takes priority over visitor experience.
- The environment should be shaped by natural forces rather than human activities; exceptions being signs, trails, roads, campgrounds, docks, motorboats, ranger quarters, fire breaks, archeological sites, and debris washed ashore.
- Endangered species and their habitat should be protected.
- Trail and campground maintenance should protect the environment and use mostly native materials.
- Trails should not be widened by visitor use.

Impacts on the town

- Recognizing the town is uninterested in a tourist based economy, visitors will be directed to the park and away from the town.

⁴⁷ Martin, B. H., Kimball, K.D. 1989 P.46

⁴⁸ LAC is a method developed by the US Forest Service to quantify use of wilderness areas. The section on management alternatives in this paper discusses this method in depth.

Visitor Experience

- Natural appearing shoreline vistas should be maintained.
- Campgrounds should provide privacy.
- Automobile hiker interaction should be minimized.
- Trail system planning should attempt to disperse visitors as much as possible.⁴⁹

Development Concept Plan

In 1990, the Park completed their Development Concept Plan which built upon the Assessment of Management Alternatives and "specifies the concepts which direct the siting and design of facilities . . ."⁵⁰ This plan addressed the need for park housing, a ranger office, maintenance building, and a primitive shelter for seasonal staff. The first three building projects occurred on the northern Park boundary. The Park and Town developed this location, so Rangers could continue to have close contact with town's people and be available to meet Park visitors arriving in town.⁵¹

The report discussed other activities. In addition to building new facilities, the Park rebuilt the floating dock in Duck Harbor as a permanent pier in 1988. The report also concludes that volunteer efforts organized by the AMC in 1986 and 1987 to improve trails should continue until the trails are maintainable by the Park staff. The report discussed the need for continued maintenance of the road, but acknowledge that there are currently no funds available.⁵²

Summary

Non-Native Americans have inhabited Isle au Haut for over 200 years. In the past, people who have lived on this island survived through natural resource based activities such as fishing, farming, logging and sheep grazing. The people that continue

⁴⁹ Martin, B. H., Kimball, K.D. 1989.

⁵⁰ Development Concept Plan, Isle au Haut Acadia National Park, Acadia National Park Archives. p.1

⁵¹ Development Concept Plan, Summary

⁵² Development Concept Plan, p. 20-21

to live on this island have chosen to live on Isle au Haut because of its remote natural environment.

This life style was challenged when Acadia National Park was given half the island, but the park has tried to be sensitive to the needs of the island residents through their planning processes. This is evident in excluding Isle au Haut from the Acadia National Park General Management Plan and developing a separate planning process on the island. Through the Assessment of Management Alternatives, Record of Decisions, AMC report, and Isle au Haut Planning committee, the goals of the Park have been established, the needs of the local people determined, and the visitor experience assessed. These reports have identified an increase in visitation as being the greatest threat to all aspects of the island. Two separate carrying capacities have been determined—first by the Carrying Capacity report and then by the AMC. But there has been little to no action to enforce these limits of visitor use.

Charley Jacobi, a Park manager, acknowledges that the AMC recommendations have not been followed. The Park's lack of action is probably because currently there are few problems on the island, but the increase in visitor use is undeniable. The increase in visitors to Isle au Haut is enough that problems with visitor experience, environment, and integrity of the town are possible within the next ten years. The Park should review the past research and take action to contain the number of visitors. Arriving at a maximum visitor number will not be a new concept for the Park, but strong enforcement will. If enforcement is phased in over the next couple years, few people will be able to contest the Park's actions, because the desire to keep the park "a remote island environment" is clearly stated in the law and the town's people have affirmed again and again that this is their desire.

The next sections define the current threats to Isle au Haut and offer methods the Park is considering in order to both monitor the current visitor impact and to control the number of visitors. Other visitor management strategies are also presented. We strongly recommend that the Park continue this process and begin to diligently enforce a carrying capacity on Isle au Haut.

V. Current Threats

Currently, the Park and the town on Isle au Haut are fairly stable, the community is strong, and the Park has not experienced much ecological degradation. But, the island faces two threats which may jeopardize the integrity of the Park and the town community. Overuse of island resources and the risk of fire are potential problems on the island.

A. Overuse of Isle au Haut

Issues involving overuse occur on two levels on Isle au Haut, within the Park and within the community. Both types of overuse are inherently connected, but each involve very different issues. It is important to acknowledge that the National Park Service has jurisdiction over the Park, while the residents have control over the town segment of the island.

Overuse within the Park

As mentioned previously, the number of people visiting the Park on Isle au Haut has been steadily increasing over the years. Despite the limit of 50 visitors per day in the Park during the summer season, the numbers regularly surpass the quota and exceed 150 visitors on a peak day.⁵³ The boundaries of the Park have been permanently established, and though the Park can accept land in the form of donations or exchanges, the Park cannot readily expand to accommodate the growing numbers of visitors to the area.⁵⁴ Due to increased visitation, the Park is facing three, connected problems:

- Difficulty of evaluating or limiting visitor numbers;
- Decreased quality of visitor experience;
- Ecological degradation.

⁵³ Cousins, John., Law Enforcement Ranger on Isle au Haut, Pers. Com., 2/00- 3/00.

⁵⁴ Public Law 97-335, 96 Stat. 1627, 1982.

Each of these concerns are closely related to one another and must be addressed to ensure the stability of the Park.

1. Visitor numbers

There are many entry points to the island and to the Park itself. These multiple entry points make it difficult to attain an accurate number of Park. The recorded visitation number during 1999 is 8,938, but even though rangers on the island do a good job of trying to keep track of visitors, they estimated that the visitation numbers are closer to 10,000 people.⁵⁵ Visitors can arrive on the island by the Mail Boat, owned by Isle au Haut Company, or by private boats, such as yachts or kayaks. In addition to boats, people enter the park from the town center, the small bed and breakfast on the island, and scattered resident areas elsewhere on the island. Because of the Park's open access, rangers have difficulty determining the number of Park visitors.

a. Mail Boat

During the summer the Mail Boat makes four trips from Stonington per day. Three morning trips bring day visitors to the island, the seven o'clock trip and eleven-thirty trip dock at the town pier, while the ten o'clock boat docks at Duck Harbor, inside the Park. The company has two boats, one with a 72 person capacity, the second boat with a 60 person capacity.⁵⁶ The larger boat is used during the summer months. In the evening the boat docks both in town and at Duck Harbor, dropping off and picking up people in both places. The only overnight visitor accommodations on the island are the Park campground and a small bed and breakfast, so most visitors must depart on the evening ferry. Because of the large amount of visitors using the Mail Boat, the evening trip often exceeds its passenger capacity.⁵⁷

Rangers try to meet all the boats to give visitors an introduction to the Park. Park visitors arriving on the town dock are usually escorted away from the town and towards

⁵⁵ Cousins, Pers.Com.

⁵⁶ Isle au Haut Company, Pers. Com., Feb. 2000.

⁵⁷ Cousins, Pers. Com.

the Park by the rangers.⁵⁸ Despite the multiple Mail Boats trips, fairly accurate numbers of visitors using the boat service can often be calculated.

One difficulty with enforcing the carrying capacity is that the Mail Boats' capacities are much higher than the visitation limit of the Park. In 1999, the Park asked the Mail Boat to limit the number of Park visitors ferried per day to fifty. This applied only to the boat docking at Duck Harbor and not to the other morning boats.⁵⁹ But, it is unclear whether this request had any affect on the number of people using the ferry to access the Park.⁶⁰ It is clear, however, that visitor numbers still greatly exceeded the fifty person limit.

b. Private Boats

Both yachts and kayaks can access the Park through a number of entry points. Yachts can moor at Duck Harbor and passengers can enter the Park. On a busy summer day there may be as many as 14 yachts in the harbor.⁶¹ Visitor numbers from yachts can generally be accurately counted.

The number of kayaks visiting the island varies greatly throughout the summer, at times there are as many as twelve kayaks coming into Duck Harbor, while other days there are none. There are no businesses in Stonington which lead trips onto the island, though there are a few places which rent kayaks. Kayaks can land anywhere and this can make it difficult to determine if these visitors are entering the Park.⁶²

2. Visitor Experience

One of the management goals as stated in the Assessment of Management Alternatives and in the Development Concept Plan is to "provide the park visitor an opportunity to experience this remote island environment."⁶³ This experience may be

⁵⁸ Cousins, Pers. Com.

⁵⁹ Cousins, Pers. Com.

⁶⁰ Isle au Haut Company, Pers. Com.

⁶¹ Cousins, Pers. Com.

⁶² Cousins, Pers. Com.

⁶³ Stark, J.E. Assessment of Management Alternatives, 1977 p. 33.

threatened by the growing numbers of visitors coming to Isle au Haut. With crowded trails, qualities such as aesthetics, freedom of choice, self reliance, and solitude can be compromised.⁶⁴ Overcrowding or degradation of the Park is not currently a problem, but the Park should be aware of the potential for problems in the future.

3. Ecological Concerns

At present use levels environmental degradation is not a serious threat. If visitor levels continue to increase this could become a problem. Community and visitor experiences appear to be the main issues.

Overuse outside the Park

The residents of Isle au Haut have become wary of the Park system since a large part of the island became part of Acadia National Park.⁶⁵ The people of the town have been concerned that their small, island community remains intact. Visitor use of the Park could transform an isolated fishing village into a large tourist attraction. The residents of the island are not interested in their home developing into a tourist town. There are several key issues which contribute to this threat of overuse and development. Mistrust of the Park, visitor and community conflicts, and development within the community all contribute to real and perceived threats to the town residents.

1. Mistrust of the Park

The community of Isle au Haut has not always been convinced that the Park is concerned with the conservation of the island and the community. A major concern was that the Park would be granted eminent domain over Isle au Haut and gradually the remaining half of the island would be absorbed into the Park.⁶⁶ In 1982, public law established the permanent boundaries of the Park and allowed expansion only through

⁶⁴ Giongo, Francesca and Bosco-Nizeye, Jean. A Study of Visitor Management in the World's National Parks and Protected Areas. Department of Recreational Resources, Colorado State University, from website: www.ecotourism.org/textfiles/wallace.text

⁶⁵ Eustis, F.A.; Tully, Arlene, Code Enforcement Officer/Chairperson of the Planning Board, Pers. Com.; and Skolnikoff, Matthew, Third Selectman, Pers.Com. Feb and Mar. 2000.

⁶⁶ Tully and Skolnikoff, Pers.Com.

donation or exchange of land. The denial of eminent domain to the Park alleviated many residents' fears, but mistrust of the Park still exists among some community members. This mistrust continues to create fears that the Park will allow island resources to be overused and allow the community to be exploited.

2. Visitor and community conflicts

The presence of the Park and visitors changed the isolation and privacy of Isle au Haut. This alteration in community life angered and frustrated many residents, who were eager to retain the quiet closeness of their community. The instillation of a dock at Duck Harbor and the creation of permanent boundaries to the Park have eased tensions. These, and other, Park management decisions, as discussed earlier, have begun to address community and park conflicts.

3. Development of Isle au Haut

The residents of the town are not interested in increasing the amount of development on the island. The community of both year round and summer visitors are interested in maintaining the small town atmosphere on the island. Some fear that the increased visitation will alter the character of Isle au Haut, though as previously mentioned, the dock at Duck Harbor has significantly decreased the amount of tourists which enter the town itself. There is a threat that as visitor numbers increase, so could commercial and private development of the island. Two factors seem to be important in limiting development on the island, appropriate zoning and keeping property taxes reasonable.

a. Zoning

Zoning can help limit development within the town of Isle au Haut. Current zoning prohibits hotels, motels, restaurants, and entertainment facilities serving more than 50 people. Commercial boats are also limited as to the number of people they can accommodate; they cannot bring ashore more than 50. Commercial campgrounds are not allowed anywhere on Isle au Haut or the small surrounding islands included in the town boundaries. In addition to these provisions, all structural development on the island must

be approved by the planning board or by the Code Enforcement Officer. Subdivision of land must also receive the approval of the planning board.⁶⁷

These zoning requirements can limit major development on Isle au Haut, but many of the decisions surrounding development are left to choices made within the community.⁶⁸ For example, the community has agreed not to allow the Mail Boat to transport cars to and from the island, so as to limit the accessibility of Isle au Haut. Residents trust that other community members will make responsible decisions as to what developments they undertake and who they allow to purchase property on the island. Ultimately, all development has to be approved by the planning board, but this does not ensure that any irresponsible development could be stopped. Though maintaining a small community through trust may have certain risks, it seems to have been an effective approach so far.

b. Taxes

It is important to the conservation of Isle au Haut and the community to keep taxes low. Property taxes must be affordable for the residents, especially at a time when fishing has become less profitable. If taxes exceed an amount that residents can afford, people may be forced to bend to development pressures in order to survive. This is especially important for Isle au Haut since only a small portion of the land is privately owned.

Close to half of the island is owned by Acadia National Park and around 20 percent is owned by the town of Isle au Haut. This leaves little land available for development, but it increases the difficulty of keeping taxes low. Acadia National Park pays the town \$2,000 a year in lieu of taxes and the town owned land does not generate any tax money. This leaves only a small portion of the island to generate the taxes needed by the town for education and other services. The concern is that with increased taxes, development pressures may increase, due to the expense.

⁶⁷ Stark, J.E. Assessment of Management Alternatives, 1977 p.55-69

⁶⁸ Tully, Pers.Com.

Some residents have lowered their tax burdens by enrolling in the Maine tree growth and open space tax reduction programs. Usually land is taxed at fair market value, but under the Maine Tree Growth Tax Law or the Maine Open Space Tax Law, land enrolled in the program is taxed only for its current use. Tree growth programs require the landowner to have a state approved management plan for harvesting timber and other tree products on their lands. There is a penalty for withdrawing land out of the program, so the idea behind program is that harvest should occur in a sustainable manner. Tax reductions can range from 50 to 70 percent.⁶⁹ This large reduction is attractive to people and therefore this program has tended to be abused in the past. The regulations of the programs were lax as well. Recently, though, the government has begun to enforce the regulations of this program and land enrolled must have an approved management plan or the owners must pay back taxes for the land. This change may lead to more timber harvesting on Isle au Haut in the future.⁷⁰

Open space programs function similarly. In order to receive tax benefits, land must be left in an open, undeveloped state, must have scenic qualities, provide wildlife habitat, or be open to recreation by the public. The requirements are less stringent in the open space program and so the tax benefits are lower, with a reduction around 20 percent.⁷¹ The penalties for removing land from this program are also lower, thus there is a lesser incentive to leave the land undeveloped.

Conservation easements are another way to lower taxes, as well as restrict development. A conservation easement permanently limits development rights of the property. The limited development ability lowers the worth of the property and therefore the property taxes. There are a few conservation easements on Isle au Haut and the surrounding islands, though this does not appear to be a well used technique.

B. Fire Concerns

The spruce forests that cover most of Isle au Haut create fire danger for the residents and visitors to the Park. The spruce forests are predominately even-aged stands.

⁶⁹ www.ume.maine.edu/~woodlot/treegrowth.htm

⁷⁰ Cousins, Pers.Com.

⁷¹ www.ume.maine.edu/~woodlot/farntax.htm

Spruce have shallower roots than hardwoods, making them more vulnerable to natural and man-made disturbance such as storms and fire. Fire has been a concern for the past two decades for the community and the Park. The danger becomes more significant as the spruce age past maturity and blow down into large fuel loaded piles. The fuel loading of spruce blowdowns takes up to 25 years to diminish through natural processes of decay.⁷² These stands are vulnerable for several reasons. Spruce develop roots that stay close to the surface of the soil, making them vulnerable to wind. The stands are all the same age and have passed maturity; the trees are old and some are dying in their natural cycle.⁷³ Also, the spruce budworm has infected many of these trees, significantly weakening them. These factors combine to create a serious problem.⁷⁴

There are a couple of options to deal with this issue. Controlled burns are one way and selective thinning of the spruce is another. Controlled burns at this point would be risky due to the accumulation of fuel; consequently benefits from a controlled burn do not warrant the risk.⁷⁵ However, selective thinning would reduce the risk of fire and increase the likelihood of uneven aged stands in the spruce dominant areas.⁷⁶

The wood from the thinning could go to the community for firewood, to overnight campers, or could be chipped for mulch. Another idea is to ban fires in the Park especially in the dry months of July and August when the park is heavily used. Many western parks ban campfires when the threat of fire is high.

Forest thinning is a complex issue. To help this planning the Maine Forest Service has created a stewardship program. They outlined mandatory components for management plans according to their Stewardship Assistance Program. These include assessing landowner goals and objectives for park service land, as well as surrounding lands, general property history and description, condition of boundary lines, information

⁷² Mancinelli, Isabel. Pers. Com

⁷³ Stark, J.E. Assessment of Management Alternatives, 1977

⁷⁴ Mancinelli, Isabel. Pers. Com.

⁷⁵ Greene, Craig. Pers. Com.

⁷⁶ Taylor, Davis. Pers. Com

about the soils, and threatened and endangered species. The program also involves the creation of a forest map covering acreage, cover type, and dominant vegetation.⁷⁷

The hardwood and mixed hardwood-spruce forest are hardier than spruce forest. They are of mixed age, deeper rooted and have thicker bark which allows them to handle both storms and fire better.

⁷⁷ SWOAM. 1998. Guide to stewardship practices. Dept. of Conservation Maine, Forest Service.

VI. Alternatives for Visitor Management

Alternatives for reducing visitor impact can be direct or indirect techniques. The Park is considering several visitor management strategies, such as enforcing a visitor limit through the Mail Boat or by day permits. Following is a discussion of these and other direct and indirect management strategies used by other parks and protected areas to limit visitor impacts. It is important to realize that often the most effective management approach will use a combination of strategies.⁷⁸

A. Direct Management Alternatives

Direct management practices affect the visitors' behavior directly, leaving little freedom of choice for the visitor. Generally, these practices limit the way in which a park is used through visitor quotas, zoning, dispersal or concentration of use, campsite reservations, required uses of guides, or fixed itineraries.⁷⁹ The Park already uses campsite reservation and concentrates visitor use simply through accessibility to the Duck Harbor areas.

Recently, the Park has begun to address the issues of carrying capacity and visitor impact. According to the Development Concept Plan the Park must keep four management goals in mind when determining carrying capacity and other management strategies for the island. To address these goals the Park must first evaluate the current carrying capacity of the Park and determine whether it is appropriate. The second, and perhaps more difficult problem, as noted by the AMC, is deciding how to regulate the visitation numbers once a limit has been determined. The Park is currently reviewing a number of options to accomplish these goals.⁸⁰

⁷⁸ Giongo and Bosco-Nizeye, 14.

⁷⁹ Giongo and Bosco-Nizeye, 15-16, 35-36.

⁸⁰ Buchelo, Dave; Cousins, John; Jacobi, Charlie; Olson, Fred; Rangers for Acadia National Park Pers.Com., 2/00- 3/00.

1. Current Methods of Visitor Management

Several management concepts have been proposed to deal with the issue of carrying capacity. One of the early-integrated approaches to recreational resource management was Visitor Activity Management Process (VAMP) which was used in the 1960's and 1970's by the Canadian National Parks. In the early 1990's the Bureau of Land Management (BLM), United States Forest Service (USFS), and National Park Service (NPS) developed Recreation Opportunity Spectrum (ROS) to promote recreational diversity. ROS looked at the interactions between experience and setting.⁸¹ Stankey et al, in 1985, developed the Limit of Acceptable Change (LAC) concept to provide an informed, defensible basis for dealing with resource carrying capacity issues. The USFS, some NPS units, as well as the BLM have used (LAC) to address the overuse of natural recreational resources.⁸² The NPS also uses Visitor Experience Resource Protection (VERP) concept, similar to LAC and is used in similar circumstances.⁸³ The LAC as well as the VERP focus more on "how much environmental change is too much?" instead of the old question of "how many people can use this area?" This is an important difference for two reasons. The first is that we lack the ability to understand and predict exactly how we impact the environment. Secondly, assigning a maximum number of people for a given area gives a false sense of security to managers and concerned citizens. The belief is, that as long as the numbers are under the prescribed amount that environmental degradation will be minimal. The LAC and VERP frameworks acknowledge that when there are people using a wilderness there is change. The question becomes "what is acceptable?"⁸⁴ Both procedures involve citizens in the community as well as visitors, which in turn increases the acceptability of the outcome. LAC and VERP use a similar nine-step process (Table 1). Long term monitoring of the quality standards is vital to the viability of this type of management plan.⁸⁵

⁸¹ snr.arizona.edu/2gimblett/ROS.html

⁸² srur.arizona.edu/2gimblett/ROS.html

⁸³ srur.arizona.edu/2gimblett/ROS.html

⁸⁴ Stankey, G.H., McCool, S.F., Stokes, G.L. Limits of Acceptable Change: A new framework for managing the Bob Marshal Wilderness Complex. 1984

⁸⁵ Stankey, et al. 1984

Table 1 Steps of LAC versus VERP

LAC	VERP
Step 1 – Identify area concerns & issues	Step 1 – Assemble interdisciplinary team
Step 2 – Define and describe opportunity classes.	Step 2 – Define purpose and significance of area
Step 3 – Select indicators of resource & social conditions	Step 3 – Inventory of resource & social conditions
Step 4 – Inventory resource & social conditions	Step 4 – Identify potential management zones
Step 5 – Specify standards for resource and social indicators	Step 5 – Creation of zones within the areas ⁸⁶
Step 6 – Identify alternative opportunity class allocations	Step 6 – Formulate standards and indicators for each zone
Step 7 – Identify management actions for each alternative	Step 7 – Monitor the quality indicators system wide
Step 8 – Evaluation & selection of an alternative	Step 8 – If standards are violated, analysis of the cause of violation.
Step 9 – Implement actions & monitor conditions ⁸⁷	Step 9 – Implement action ⁸⁸

The process involves zoning the park by uses, then developing indicators and standards for each zone. When the standards are reached management actions must be implemented. Another vital aspect of the VERP process is regular monitoring.

⁸⁶ snr.arizona.edu/2gimblett/ROS.html

⁸⁷ Stankey, et al. 1984.

⁸⁸ Jacobi, C., R. Manning. Crowding and conflict on the carriage roads of Acadia National Park: An application of the visitor Experience Resource Protection Framework. Park Science. 1999 Vol. 19(2).

On Mount Desert Island, Acadia National Park used VERP to assess crowding on carriage roads that threaten the quality of visitor experience. Visitors and residents complained that increased use of the carriage roads was causing people to feel unsatisfied with their experience. VERP can include natural or cultural resources but on Acadia's carriage roads and indeed on Isle au Haut, social issues are at the heart of the problem, not natural resources. Several Park staff were trained in a three-day workshop on VERP. Using that knowledge they returned and implemented a research program to successfully employ the VERP concept.⁸⁹ Arches and Zion National Parks had problems similar to Acadia's - increased visitation caused complaints about the quality of visitor experience.⁹⁰ These parks in turn also used the VERP framework to develop rational management plans including carrying capacity guidelines.

Officials in Acadia National Park have already been trained to follow the VERP framework and they have implemented it for carriage roads on Mount Desert Island, Maine. Although the AMC did not recommend LAC in 1989 because they felt that funding and personnel were lacking to initiate and maintain the program.⁹¹ Now, this may be a viable plan. The Park Service is getting more funds directly back from the Park through the fee demonstration program, so funding pressures have eased.⁹² Since the issue of over-use is intricately connected to how Isle au Haut residents feel about the Park and how it impacts them, a process that involves the citizens in such a direct way would be a means to insure community satisfaction with the threshold levels set. "Visitor use management begins with a plan, but this is only a starting point; it continues as an iterative process of monitoring, evaluation, and adjustment."⁹³

⁸⁹ Jacobi, C., R. Manning. 1999

⁹⁰ Arches National Park - Utah. Visitor Experience and Resource Protection Implementation Plan. US Department of the Interior, NPS, Denver Service Center 1995

⁹¹ Martin, B. H., Kimball, K.D. 1989.

⁹² Jacobi, C. 2/27/00. Pers.Com.

⁹³ Arches National Park - Utah. Visitor Experience and Resource Protection Implementation Plan. 1995

Using this framework a VERP of Isle au Haut might be:

- Step 1 – the interdisciplinary team would be composed of Park Rangers, year-round and seasonal citizens, and concerned individuals from off island such as Friends of Acadia.
- Step 2 – the purpose of this Park is to manage for a remote wilderness island experience.⁹⁴
- Step 3 – the inventory of resources includes its remote location, sense of wilderness and small-town local population. It is also unique in that it offers the visitor, quiet and uncrowded shoreline on an island in the beautiful state of Maine.
- Step 4 – The Park could use high, moderate, and low use zones. High use zones would be subject to heavier foot traffic, picnics, and general use, while moderate and low use zones would have fewer numbers of visitors. Due to the layout of Isle au Haut, some areas are inherently used more frequently than others because of proximity to the landing or to the campground. These areas have little elevation change and may be satisfactory for high use.
- Step 5- AMC points out in their study of Isle au Haut that zones of opportunity would be advantageous in this circumstance and that evenly dispersed visitation would be unfortunate. High use zone may be in the vicinity of the campground and the Duck Harbor Boat Dock, to include the Duck Harbor Trail, Duck Harbor Mt, Western Head, Cliff trail, and possibly Seal Trap. These trails currently have high use and easy accessibility. Moderate use zones may include the areas of the southern portion of Duck Harbor trail, Barred Harbor, Goat trail, and Bowditch trail. Low use zones

⁹⁴ Public Law 97-335, 96 Stat. 1627, 1982

could be Median ridge trail, Nat Merchant, Long Pond trails.⁹⁵ These are hypothetical assignments based on AMC's use study; more research should be done before these areas could realistically be assigned.

- Step 6 – Standards and indicators may include trail erosion, vegetation degradation near trails, stream bank health, flattening and widening of the trails.
- Step 7 – Monitoring could be done by rangers, summer interns and volunteers.
- Step 8 – If the standards are violated then the rangers or other qualified personnel need to analyze if the cause is due to too many people, natural environmental change, or some other cause.
- Step 9 – Once the cause is discovered a plan must be implemented to mitigate the problem if possible. The interdisciplinary team would need to develop several plans in anticipation of potential problems.

2. Enforcing a carrying capacity

VERP creates a framework to address carrying capacity but enforcing these set limits can be difficult. The island has a number of entry points both by the Mail Boat and by private boaters. This makes the limiting of visitors on Isle au Haut challenging.

a. Limiting the use of the Mail Boat

One solution for this problem is to formalize the Parks relationship with the Mail Boat. Because the Mail Boat is the only boat that can dock at Duck Harbor, it is necessary for the Park to establish a formalized concessions permit with Isle au Haut Company.⁹⁶ This will legally allow the Mail Boat to function without competition within

⁹⁵ Martin, B. H., Kimball, K.D. 1989

⁹⁶ Jacobi and Buchelo, Pers.Com.

the Park. This agreement will also provide a partial solution to limiting visitors within the Park, because the Park can limit the number of passengers that the boat brings into the Park.

b. Day Permits

The Park is also considering a day permit system for the island. This would allow only people with permits into the Park. Under a system such as this, the Mail Boat would be allowed a certain number of permits per day and the remaining permits would go to private groups or individuals. This system could be effective at regulating visitor numbers, but would require rangers to patrol the Park and ensure all visitors were permitted.⁹⁷

Visitor quotas, such as day permits, could also be used for specific areas in order to disperse visitors and their impacts throughout the Park, or in order to keep numbers of visitors low in sensitive areas. This is would most likely go hand in hand with zoning. The Park could formally create zones within the Park, as is done in the VERP process. Zones would range from high intensity use areas, such as the beach in Duck Harbor to low intensity or protected areas, such Great Meadow, a bog which has been identified by the Park as a significant natural area. As mentioned previously, zones can be used to concentrate visitor use to hardy or "sacrifice" areas, while keeping visitation low in more fragile areas, or the Park could use zones and quotas to disperse visitors throughout nonsensitive areas, so as to lower impact over all.

The use of required guides or fixed itineraries which the visitor could not deviate from do not seem applicable to Isle au Haut. There is no need for guides for safety reasons, as in some safari parks, and their presence could greatly interfere with visitor experience. The Park on Isle au Haut is not large enough to accommodate fixed itineraries, since much of the park can be seen in a few days. Likewise, those types of restrictions do not seem conducive with the type of remote island experience the Park is attempting to create.

⁹⁷ Cousins and Buchelo, Pers.Com.

B. Indirect Management Alternatives

Indirect management practices tend to influence the behavior of the visitor through allowing the visitor to make educated choices.⁹⁸ Information given to the visitor can emphasize the importance of staying on trails, not feeding animals, packing out trash, as well as alerting visitors to sensitive areas. In this way the visitors are educated as to why certain behaviors or rules are important and can make the decision to limit their own impact.

Information can be given in several different ways. Pre-trip information can be helpful to prepare the user for the trip and keep in mind the appropriate behavior.⁹⁹ This can help to create a mindset of conservation and respect before entering the park. In the case of Isle au Haut, information could be available on the Mail Boat or at the Stonington dock. Information could be given in the form of pamphlets, displays, or even an educational talk. If day permits were implemented, information could also be distributed with the permits.

Information can also be given upon the visitors' arrival. This already occurs on Isle au Haut, since rangers meet the Mail Boat at the dock and are present at Duck Harbor. This type of education can also occur throughout the Park. Patrolling rangers can be helpful in enforcing respectful behavior, but can also be important in educating visitors about specific areas and teaching visitors about decreasing their impact on the environment. If ranger presence is not possible, signs can also increase awareness. In sensitive areas signs can educate visitors about ecological issues and the importance of being gentle with the environment. This could be applicable within the Park, though the current management alternative states, "Except for limited signing, interpretation would continue on a personal contact basis."¹⁰⁰ The Park would have to determine carefully what signage would be appropriate and what signage would draw away from the natural environment.

⁹⁸ Giongo and Bosco-Nizye, 14.

⁹⁹ Giongo and Bosco-Nizye, 37.

¹⁰⁰ Record of Decision, p. 5.

1. MITA

The Maine Island Trail Association (MITA) is currently in the process of developing carrying capacities for their islands. They determined carrying capacities were necessary because overcrowded campsites were causing physical fights. In addition, they have found that the first five percent of an areas use causes the majority of soil damage to the island—a process that may take 20 years to reverse. Therefore, limiting island use is extremely important.

Since, as MITA and Charley Jacobi put it, carrying capacities are decided not determined, MITA first defined the goals of their islands. Their goal was for people to feel as if they had “discovered” a remote island on which they could have a peaceful wilderness experience. From these goals they decided how many groups of campers an island could support and put up signs designating campsites and the number of people that could stay at that site.

As with Isle au Haut, deciding on goals and carrying capacity is the easy part; the real difficulty comes in trying enforce a visitor limit in an open system. MITA is attempting the do this through education and coordination of groups. They are working closely with local kayaking companies and outfitters, hoping to keep the large groups of campers off the smaller islands. MITA explained that larger groups are directed to islands that have higher use and on the ground infrastructure such as tent platforms. Education and coordination could be helpful for controlling use on Isle au Haut.

VII Conclusion

The five-fold increase in visitors to Isle au Haut may threaten the island ecology, island community, and visitor experience. The threats to the Park, and island as a whole, range from fire to trail erosion to degrading the islanders' traditional way of life. The integrity of the island community and the remote island nature of Isle au Haut are most threatened by the tourists. To prevent negative changes to the island the Park service must take a strong leadership role in deciding upon a carrying capacity and an effective enforcement mechanism. The Park, Town, and AMC have already conducted much of the on the ground research of island threats. The Park and the Town should review this past research, should use existing methods of determining carrying capacity such as VERP, and secure the necessary funds to implement enforcement. All past management reports and the Public Law state the Park's purpose on Isle au Haut is to preserve its remote islands nature. The numbers of visitors to Isle au Haut are only going to increase. If a carrying capacity is not determined and enforced soon, the unique quality of Isle au Haut will be lost and a legal mandate will continue be violated.

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