

## A Pacific Wilderness Preserved

BY RICK GAFFNEY

he main Hawaiian Islands are visited by millions of tourists every year, the "other" Hawaiian Islands are visited by millions of birds and no tourists, any year.

The main Hawaiian Islands are spread out over 300 miles of ocean and include eight major land masses. The "other" Hawaiian Islands spread out over 1100 miles of ocean and include no landmasses larger than 1000 acres.

The main Hawaiian Islands include one island with an active volcano that is still growing. The "other" Hawaiian islands include islands that have lived a full life and have begun to die and recede into the depths of the Pacific.

The "other" Hawaiian Islands are known as the Northwestern Hawaiian Islands because of their proximity to the better known main Hawaiian Islands. They are often called the "leeward islands" and for the most part they make up the Hawaiian Islands National Wildlife refuge.



Whale-Skate Islet in French Frigate Shoals is but one of the islands amid 106,000 acres of reef.

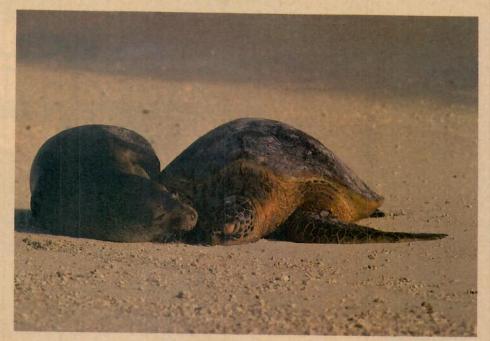
Perhaps the only island in this long, low chain of windswept atolls and reef and shoal areas that is well known is Midway, site of a decisive World War II battle. The other islands in the group are visited on occasion by scientists, fishermen and a few military men who man the remote loran stations and military way stations located in the area.

Probably the most important service of these islands is support for the great bird rookeries and the plethora of exotic and endangered species. The islands are critical nesting sites of a number of species of sea birds that range the length and breadth of the Pacific. They also are the home for one of the two species of warm-water seal left on the planet—the endangered Hawaiian Monk seal. (The other species is the Mediterranean Monk Seal.)

The Northwestern Hawaiian Islands were the first of the Hawaiian Islands to be spewed forth in a violently molten tongue of lava from the deep ocean floor. The oldest of the Hawaiian Islands are Kure and Midway atolls which are the farthest to the northwest and which display the classic characteristics of atolls.

As virtually the only landmass in the center of the North Pacific ocean, these islands became the home of numerous ocean-ranging plants, fish, birds and mammals. The free-floating larval stages of many Indo-Pacific reef fish, corals and algaes were implanted in this new home and they prospered. Many adapted and in time became endemic, as their forebears disappeared elsewhere on earth. The wideranging Pacific sea birds like the albatross and frigate birds chose these islands as a rookery.

Even man chose the Northwestern Hawaiian Islands prior to settling in the main islands, although it is uncertain as to whether it was really choice or chance. The bulk of the early Hawaiian population

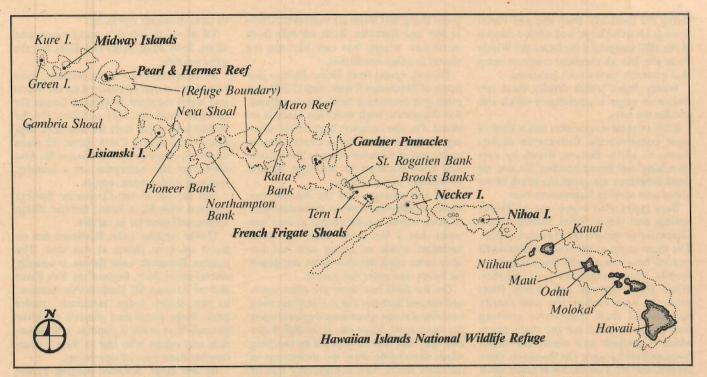






The two most endangered species protected in the refuge are the Hawaiian Monk seal and the green, sea turtle (top). They share their habitat willingly. Lisianski Island is named for the Russian captain who almost lost his ship there in 1805. The red-footed booby is one of the colorful inhabitants of French Frigate Shoals.

George Balazs photos.



#### HAWAIIAN ISLANDS

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United States Coast Guard which operates a loran station there. It has been designated a "wildlife refuge" by the state. Both islands are off-limits to civilians (access is granted to wildlife researchers) but the Navy has signed a cooperative agreement with the state of Hawaii for the use of Midway as a refueling station for long-range fishing vessels.

range fishing vessels.

In 1909, President Theodore Roosevelt was convinced of the value of the Northwestern Hawaiian Islands after a number of highly exploitive practices there resulted in the extinction of at least three

types of birds and their associated habitat. After a number of changes in the designation of the protected areas, the islands became the Northwestern Hawaiian Islands National Wildlife Refuge (the group includes Nihoa, Necker, French Frigate Shoals, Gardner Pinnacles, Maru Reef, Laysan, Lisianski, Pearl and Hermes Reef).

The refuge which presently includes most of the land area in the "leeward islands" is closed to everyone except by permit from the U.S. Fish and Wildlife Service refuge manager. In recent years permits have been granted only to scientists and student researchers. The specter of environmental degradation has kept the area essentially closed to the public since 1909.

The abuses which led to the protection of the area included the gathering of sea bird eggs and feathers, harvesting of vast resources of mother of pearl, gathering of guano for fertilizer and other practices which led to a significant alteration of the fragile ecosystem the tiny islands support. In many cases, overzealous collectors took everything from the area leaving a near barren wasteland in their tracks.

The refuge protects numerous extremely fragile plants and animals, many of them on the thin edge of extinction. Nihoa Island supports four types of plants found nowhere else on earth. The shallow reef flats and sand islands of French Frigate Shoals comprise one of the most important green sea turtle nesting areas in the Pacific. The green sea turtles nest nowhere else in the Hawaiian Islands and declines in the overall population have resulted in full legal protection for this animal.

French Frigate Shoals, Laysan and Lisianski Islands are important to a little known endangered mammal--the Hawaiian Monk seal. At one time the Caribbean and other warm-water areas supported closely related populations of monk seals, but today the Hawaiian Monk seal and the Mediterranean Monk seal are the last known warm-water seals on earth.

The entire chain (particularly Laysan, Lisianski, Pearl and Hermes) is one of the most important sea bird nesting sites in the Pacific. Many of the birds that nest on these tiny islets spend months at sea, returning to land only long enough to breed and hatch their young. The islands support nearly the entire world population of two types of albatross and vast numbers of frigate birds, boobies, terns, petrels noddies and shearwaters.

The Northwestern Hawaiian Islands present a problem to the present users and potential consumers. The conflict revolves



Sea turtles, along with other aquatic life, gather along the shore of French Frigate Shoals Island.

# Dos And Don'ts For Cruising The Northwestern Hawaiian Islands

Basically, the boundaries of the Northwestern Hawaiian Islands Wildlife Refuge are designed to protect land-based plants and animals, although in a number of cases the official boundary line extends offshore and protects a sizable amount of reef flat and shoal area.

Any vessel cruising through the area is assured of one thing, refuge from any storm and the legal right to touch land in any bona fide emergency.

Beyond these extreme circumstances a cruiser should be well aware of the boundaries, as well as a number of other federal laws which apply to the protection of endangered species in the area.

The boundary line at Necker and Nihoa islands, Gardner Pinnacle and Lisianski Island extends to the lower low water mark on the landmass. At French Frigate Shoals, Pearl and Hermes Reef and Laysan islands the refuge boundary extends to the outer edge of the fringing barrier reef, and where gaps occur in the reef, from a line drawn from headland to headland.

It would be well for any "leeward islands" traveler to remember that the reason for the refuge is to protect some extremely fragile ecosystems and a large number of endangered species. Sometimes simple trespass in an area as fragile as the Northwest Hawaiian Islands can deleteriously affect the well being of the animals that exist there.

The fishing around these islands is known to be superb and is only limited within the boundary lines indicated earlier. Fishery resource management will be more firmly applied when the present "tripartite agreement" and resource assessment has been completed.

Any questions regarding the Northwestern Hawaiian Islands, or requests for scientific permits to enter the area, should be directed to Refuge Manager, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, HI 96850.

around the exploitation of the area's vast array of ocean resources.

For years the Northwestern Hawaiian Islands have been exploited by fishermen from Hawaii, the mainland United States and particularly from Japan, Korea, Taiwan and Russia. The deep-water fisheries have attracted long liners, bottom fishermen, draggers and trappers and have produced exceptional catches.

The conflict lies in the delicate balance between what the U.S. Fish and Wildlife Service sees as potential for habitat degradation and what the legislators and fishermen of Hawaii see as potential for commercial exploitation. Economic factors and the need to expand the present Hawaiian fishery enter heavily into the decision making process.

Today the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the state of Hawaii are working under a "tripartite agreement" to gather much of the data necessary for the decision making processes. The vast resources have never been adequately measured, nor have the effects of their exploitation been assessed, especially in light of the fragility of the area's environment.

This year, for the first time, 20 albacore boats will be based at Midway Island to harvest the schools of albacore which range across the Pacific in a broad belt north of the island. At the same time, a number of Hawaiian fishing vessels will begin a methodical evaluation of the potential of the fishery resource around the islands, while the refuge scientists closely monitor the effect of the seafood harvesting operations.

The U.S. Fish and Wildlife service is reluctant to allow unchecked fishing operations because it was the early procedures which led to the protection of the area in 1909. The mother of pearl fishery in the late 1920s virtually wiped out entire concentrations of the shell. Fishermen worked out of Tern Island in the French Frigate Shoals from 1946 until 1959 and an illegal turtle fishery within this refuge unit ground to a halt as early as 1948 due to overexploitation.

Recent discoveries on the extent of the lobster fishery in the Northwestern Hawaiian Islands have led to the construction of at least one new combination fishing/processing vessel. Monk seal specialists are wary of the fishery because the lobster is one of the most important foods for these rare mammals.

The "other" Hawaiian Islands are little known, little visited and little understood, but they have played an important part in the history of the Hawaiian Islands, and as the ocean resources of the area begin to be exploited they will play an important part in the modern history of the islands as well.

The cruising sailor may never get to see this 1000-mile stretch of remote islands, reefs and atolls, but the armchair cruiser and fireside fisherman may appreciate the thousands of acres of reef flats, miles of shallow shoals and millions of nesting sea birds preserved for years of relatively peaceful ecological existence. The Northwestern Hawaiian Islands could well be the least exploited, most environmentally unaffected wilderness in U.S. jurisdiction

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