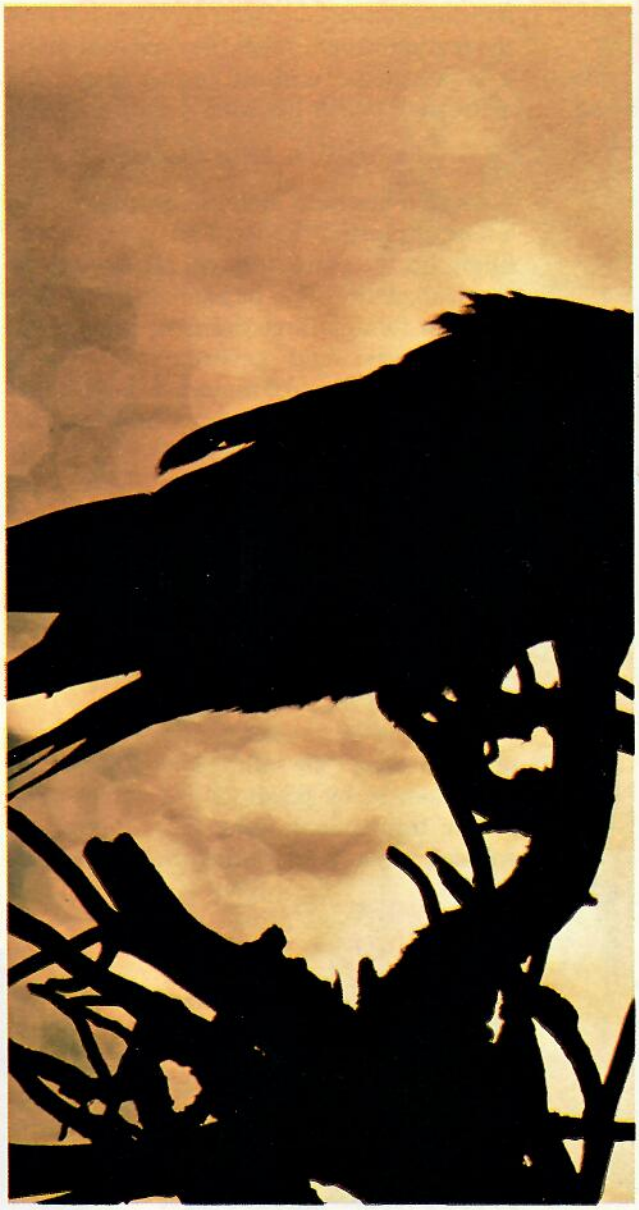
Hawaii's Far-flung Wildlife Paradise

By JOHN L. ELIOT
NATIONAL GEOGRAPHIC STAFF

Photographs by
JONATHAN BLAIR



In a sunset showdown, greater frigatebirds squabble for roosting room on a 17-acre sliver of the Northwestern Hawaiian Islands, or Leewards, as they have been popularly called since sailing days. Here, one of America's most unusual wildlife sanctuaries grants footholds of life to millions of seabirds as well as to a rare collection of indigenous land birds, seals, and turtles.

THE DIN IS INCREDIBLE, the sight unforgettable. Like an inrushing tide, the birds materialize from the horizon and sweep by the tens of thousands over the beach. Headed for nests with food for their young, they darken the dying sun in a shrieking whirlwind. Their numbers seem endless. Their island home is minuscule. Yet somehow, somewhere, they all find a niche.

Again and again I watched such scenes unfold in Hawaii's backyard, still known as the Leeward Islands. Politically part of Honolulu, they are flung like grains of sand across a thousand miles of ocean to the northwest of the main islands. Most of the chain is preserved as a rarely glimpsed treasure: the Hawaiian Islands National Wildlife Refuge. These volcanic fragments and coral atolls total less than three square miles—and wildlife competes for every foot.

The refuge, one of the world's important rookeries, is home to millions of seabirds, including petrels, shearwaters, terns, boobies, frigatebirds, and albatrosses. It also harbors, in much smaller numbers, four

land birds found nowhere else, and guards breeding grounds of the rare Hawaiian monk seal as well as the nation's sole nesting colony of green turtles.

Aside from Coast Guardsmen at a small navigation station, no one may enter the refuge without permission from the U. S. Fish and Wildlife Service. Officials are keenly mindful of the islands' troubled past, highlighted by poachers who invaded in the early 1900's seeking feathers for the millinery trade. In 1909, responding to public outrage over the slaughter of hundreds of thousands of birds, President Theodore Roosevelt declared the islands a federal sanctuary. Yet a year later, 23 Japanese plume hunters were arrested in the islands with the wings of some 200,000 birds.

Today the creatures have little fear of man, I repeatedly and delightedly discovered—as long as I kept a low profile to blend with the flatness of their world. Once, prostrate at the water's edge, I was rewarded with an eye-to-eye inspection by a curious monk seal. Inches away, its eyes brimmed with a liquid innocence that haunts me still.

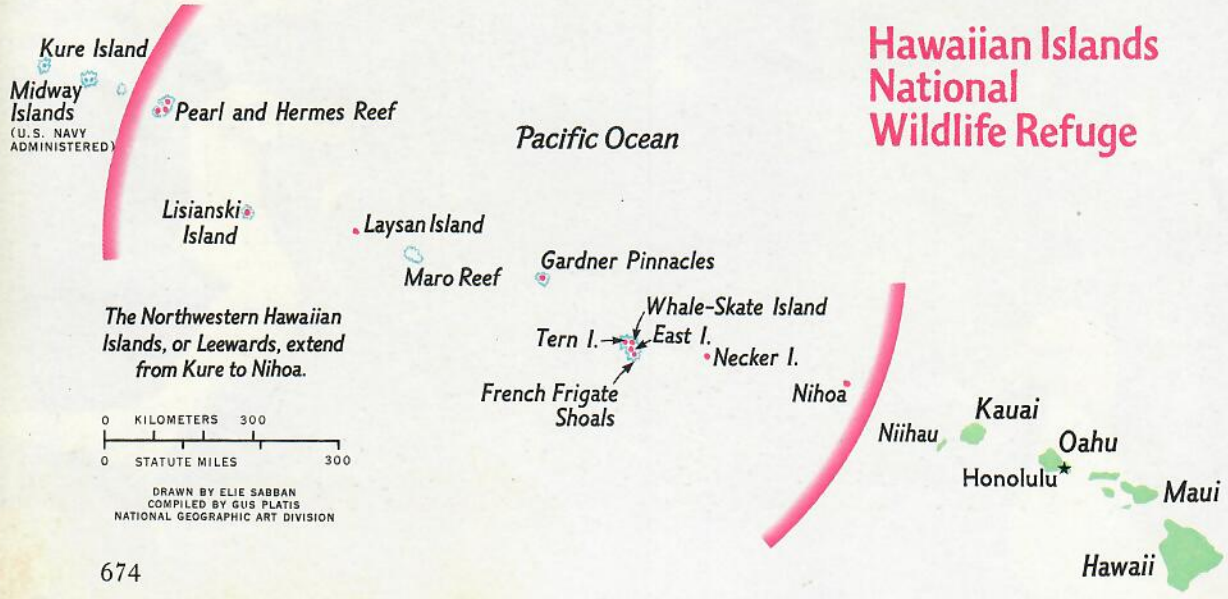
UP TO THEIR EARS in albatross eggs, youngsters and a worker display evidence of Laysan Island's teeming birdlife in 1906 (**below, right**). An entrepreneur who mined the Laysan guano for fertilizer harvested the eggs in the hope of selling them to companies that used albumen in making photographic paper.

One of his five children born on the island was Tillie Laysan Schlemmer, second from left, nicknamed "Birdie." Outside her Honolulu home today (**below**) she recounts a disaster: "I wanted a pet; that was one reason Dad brought the rabbits." The proliferating pests destroyed the birds' habitat, and as a result three endemic varieties—the Laysan millerbird, rail, and honeycreeper—became extinct.

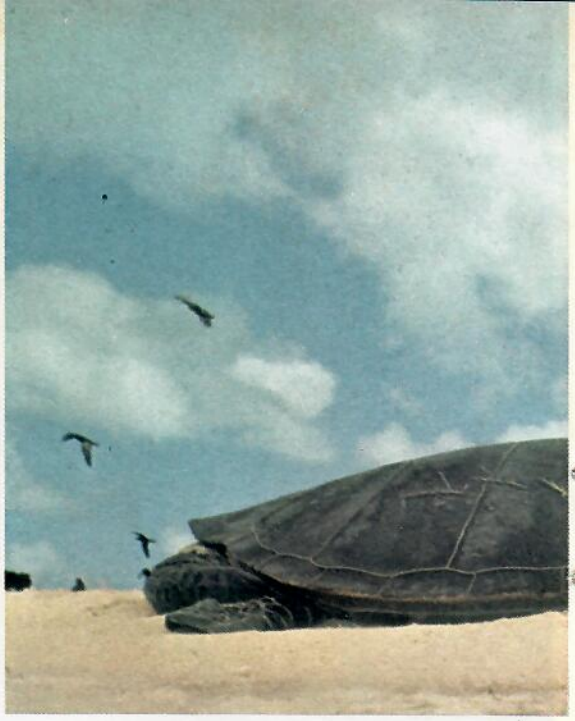
In 1923 an expedition directed by ornithologist Alexander Wetmore, now a Trustee Emeritus of the National Geographic Society, exterminated the rabbits. Vegetation recovered, and the 1.5-square-mile island (**above, far right**) today is home to some six million birds, including an estimated 250 Laysan teals. Perched on a rock, one tucks up a leg as in a ballet (**above, right**).

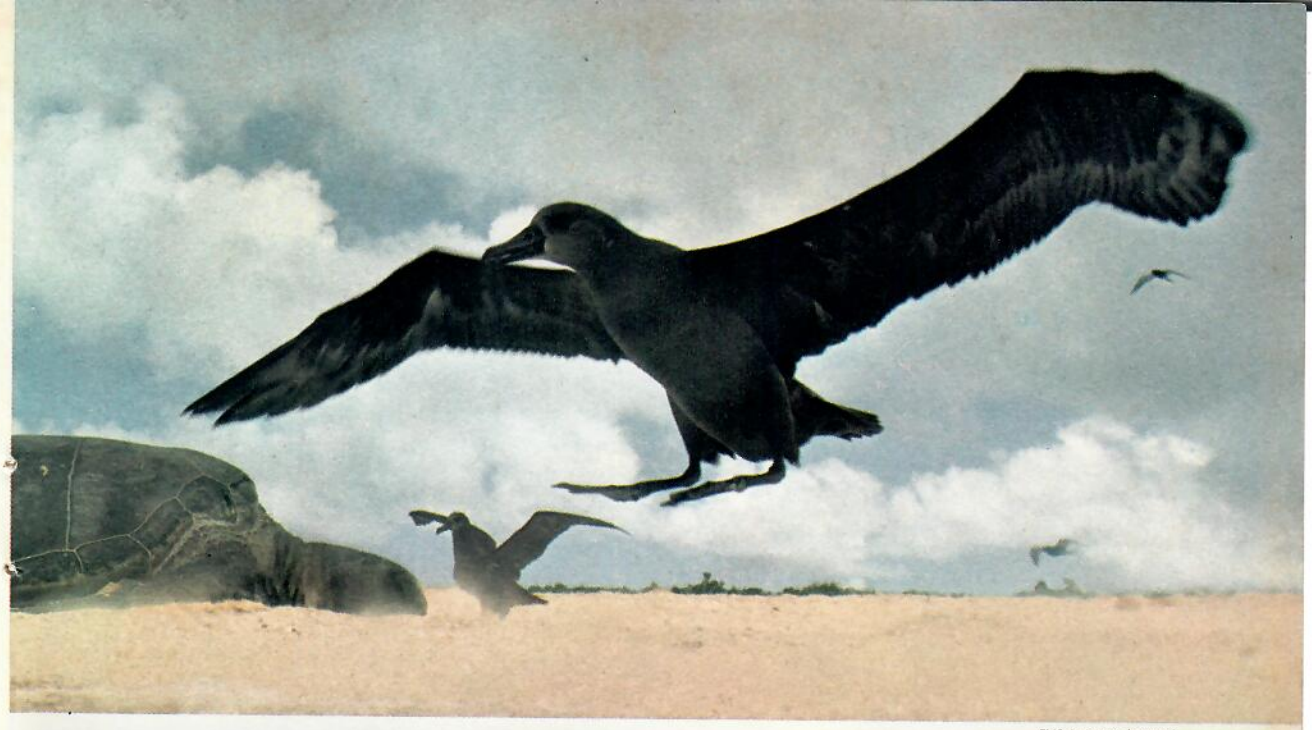
HAWAII STATE ARCHIVES (RIGHT)

EXQUISITE NECKLACE of French Frigate Shoals features Whale-Skate Island (**right**), one of the atoll's 13 islets. The western Leewards, perhaps 25 million years old, were the first Hawaiian islands to rise from the ocean floor. Most of the chain has been whittled flat by the sea, but a few volcanic chips remain, such as Nihoa (**above**), easternmost of the refuge islands (**map**). Its avian life includes Nihoa millerbirds and finches, the latter close relatives of the Laysan finch (**left**), another refuge native.



REVVING UP nearly mature wings, a juvenile black-footed albatross reaches for the sky, while a green turtle soaks up the sun (**right**). A second species, the Laysan albatross, is more abundant in the refuge, perhaps a million strong. Waddlers on land, both species when airborne sweep the miles aside on wings seven feet across. Parents provide squid for their chicks for about six months; then the adults head for the open sea. The offspring must master flight and fishing skills or starve. Another menace: sharks (**below**) that sometimes vacuum the surface for fledglings resting between test flights.





FLIP NICKLIN (ABOVE)

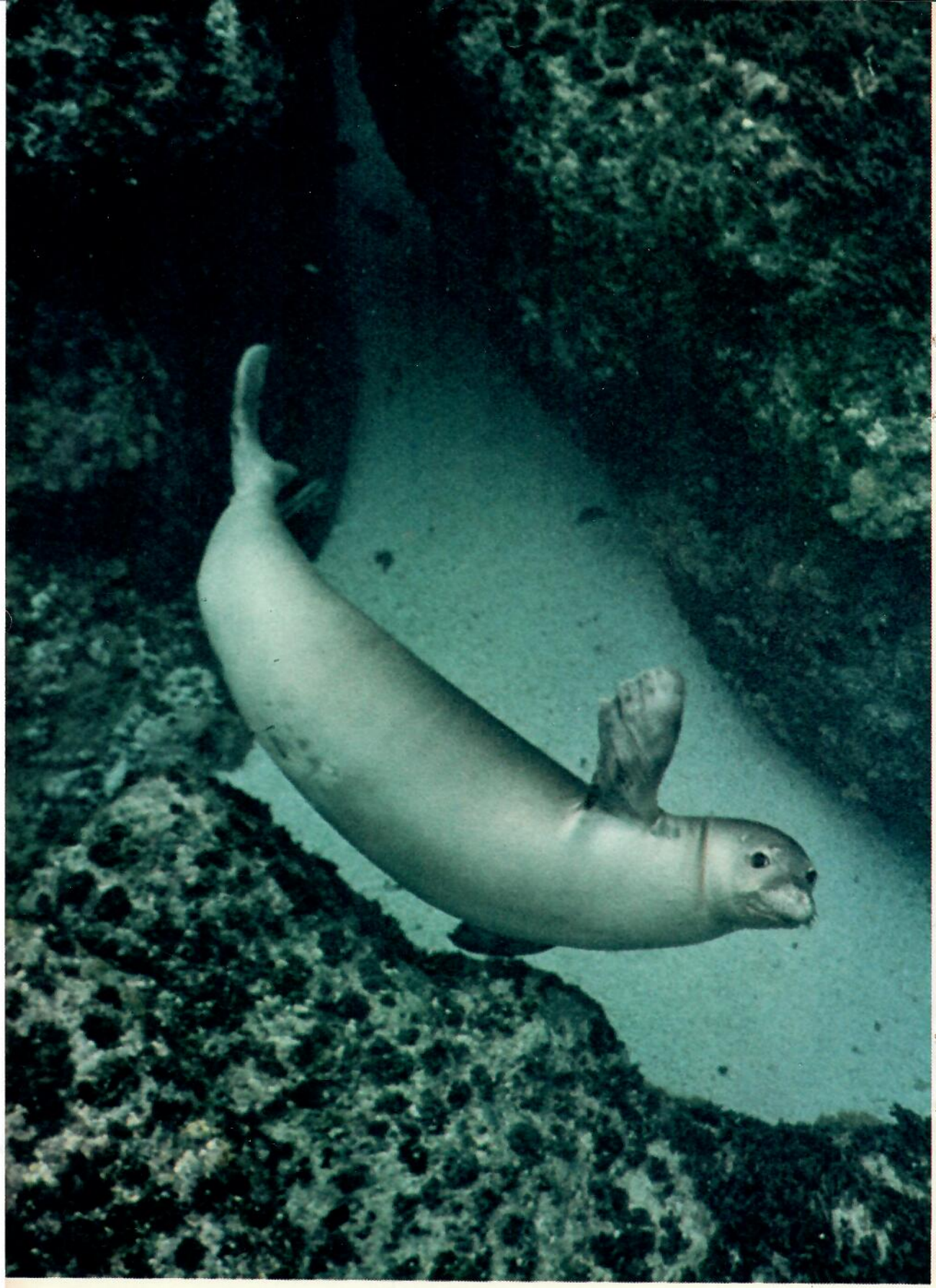
LIKE A LIVING VALENTINE, a male greater frigatebird inflates his gular pouch (**left**). The display attracts females and continues as males share incubation of the single egg with their mates.

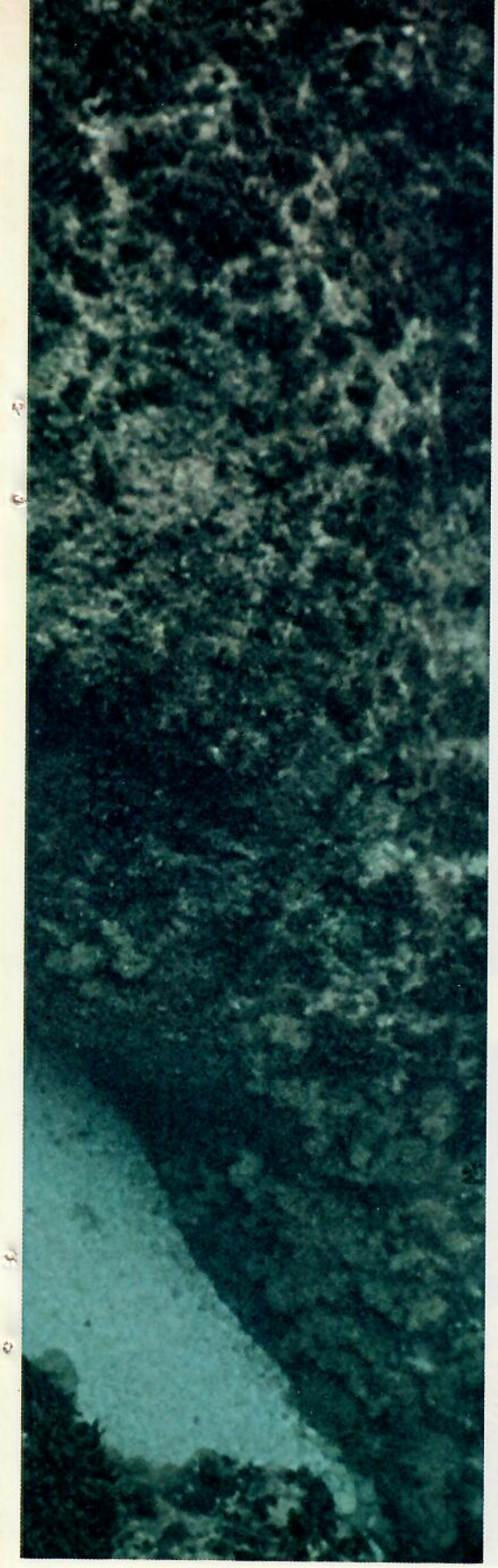
Voracious predator, the frigatebird aggressively lives up to a pair of nicknames: man-o'-war bird and *'iwa,* or thief, in Hawaiian. While they can do their own fishing, frigatebirds prefer to let others do it for them. Late in the day, when seabirds return to the islands laden with food for their chicks, the frigatebirds hang suspended in the wind, waiting. Masters of maneuverability, they waylay the incoming parents and harass them mercilessly until they drop their catch. The pirates often

nab the booty in midair. They also steal feathered meals, as a sooty tern chick learns—too late—after a diving frigatebird has snatched it from its nest (**above**). Even their own nestlings (**left**) can be fair game. Ornithologist John Sincock, a veteran of the Leewards, tells a startling tale: "I've seen a frigatebird leave its nest, make a 180-degree turn, come back, and devour its own chick."

Roar of an impostor raises a blizzard of sooty terns, as a DC-3 takes off after a welcome delivery of mail and supplies to 20 Coast Guardsmen on Tern Island.

Their loran station, built on the site of a Navy landing field used during World War II, broadcasts signals to ships and airplanes to help them plot their positions.





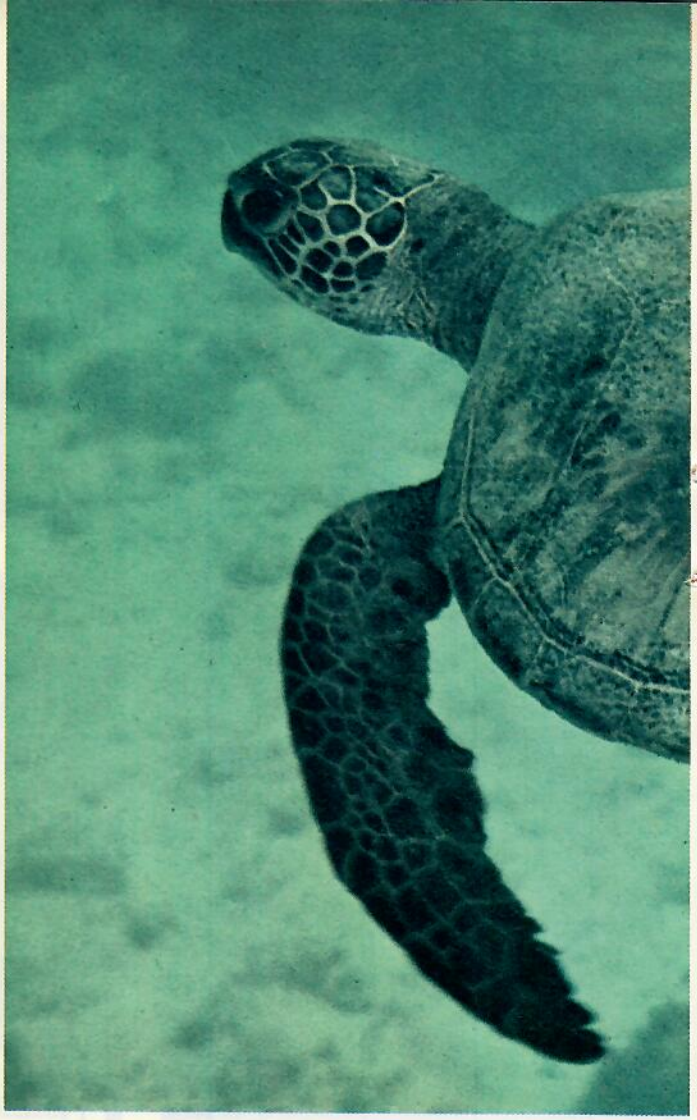
EMERGING from its haven amid submerged coral heads, an adolescent Hawaiian monk seal (**left**) casts a curious glance at photographer Blair. Perhaps maimed by a shark, another young seal (**top**) still has a fair chance to survive, with luck and the use of its uninjured flippers.

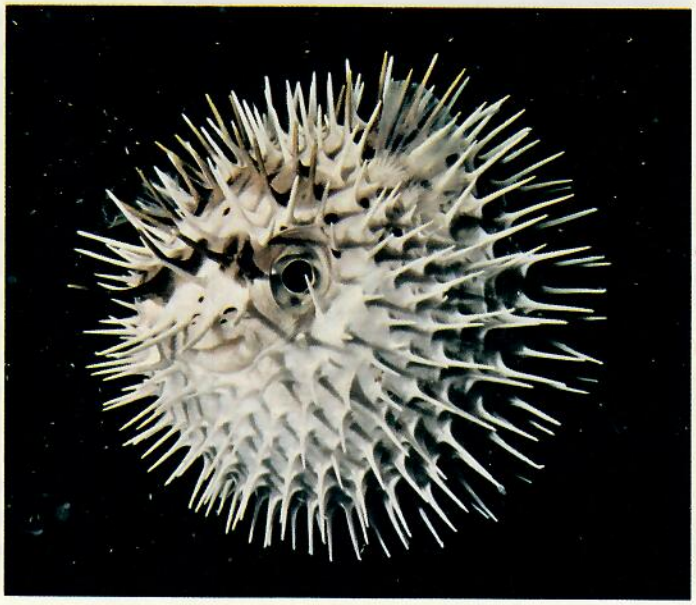
Named for a cowl-like fold of skin in their necks, the world's three varieties of monk seals once were plentiful. All were widely hunted, and ultimately abandoned most of their breeding grounds before man's expanding presence. In the refuge about a thousand Hawaiian monk seals—classed as an endangered species—keep the local population alive. On Laysan Island one dozes on a sandy pillow (**above**) near the remains of a Japanese fishing trawler that ran aground in 1969.

CLEANING SCRAPS from a moving table, a pair of convict tang nibble algae from a green turtle (**right**). Throughout the world, these turtles and their cousins have long been prized for soup, steak, eggs, and leather. While a few green turtles nest along Florida's east coast, the only true colony left in the U. S. finds haven in French Frigate Shoals. There females pit the sand with simple, but carefully constructed, nests. About 1,500 adult turtles roam the Leewards' waters.

Another undersea denizen, a porcupine fish (**below, right**) inflates into a spiky spheroid to thwart predators. A chiffonlike mollusk, *Hydatina physis* (**far right**), fans out from its bubble shell.

Because the state and federal governments both claim jurisdiction over some offshore areas of the refuge, the status of its marine life remains an open question. Hawaii's fishermen want permission to work the islands' surrounding waters. A joint study by the state, U. S. Fish and Wildlife Service, and the National Marine Fisheries Service is under way to determine whether the refuge's fish can support both a commercial venture and the seabirds and seals that feed on them.





NATIONAL GEOGRAPHIC PHOTOGRAPHER BATES LITTLEHALES (ABOVE); FLIP NICKLIN (LOWER LEFT)

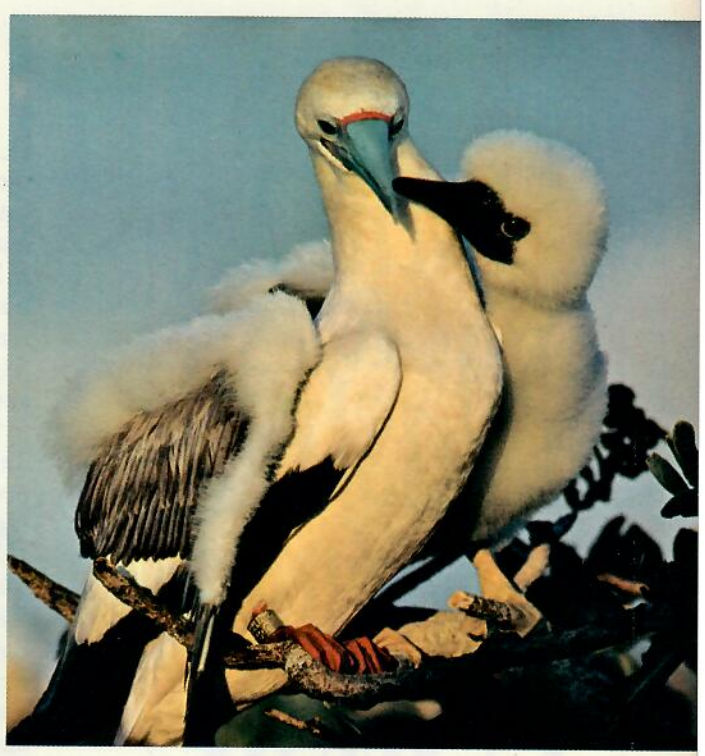
DELICATE AS A DREAM, a fairy tern hovers in flight. For these birds, homemaking is easy: They build no nest. Females often lay their single egg in precarious nurseries. On Tern Island a valve handle at the Coast Guard station is enough for one mother (**top right**). After a month her egg hatches. Oversize feet will help the hours-old chick

JOHN L. ELIOT

(**middle**) cling to its rusty bed. Soon both parents begin combing the sea in a nonstop shuttle for squid and fish (**bottom**). Chicks may gulp nearly half their weight each day.

AFTER A SQUALL deluged its community, a sooty tern stares at a drowned egg (**above**). The terns' choice of nesting sites in low, sandy areas leaves them vulnerable to such floods. But the disasters also serve as a natural form of population control for one of the most abundant birds in the world; some breeding colonies exceed a million members. "Their cries fill the air long before they can be seen . . . all night they circle and scream," wrote one ornithologist.

Another tern, the black noddy, usually chooses sites on higher ground. The elaborate nests of the noddy fill one of the refuge's few large trees, a beach heliotrope (**facing page**).



WHOPPING MOUTHFUL is met head-on by an immature blue-faced booby (**left**). Pleading for a meal, a red-footed booby chick smothers its parent with a hungry hug and clacks its bill against the adult's (**above**).

To ensure protection for the Leeward's wildlife, most of the islands and their surrounding reefs and shoals have been proposed by Congress as part of the National Wilderness Preservation System. Such concern reflects the plea of a Coast Guardsman who worked at a station, abandoned in 1952, on East Island in French Frigate Shoals. A tall wooden pole rises from the site like a lingering salute. On it, inside a white box, he left a message:

"Walk softly. Walk softly, stranger. The land on which you stand is Holy ground . . . a place of unspoiled beauty, colored by The Hand of God. And you who stand upon this land will someday too remember sun-washed sands and quiet days, and moments crystallized in time. Walk softly, stranger, for you stand on Holy ground." □

SOMETIMES A PRODUCT JUST KEEPS GETTING BETTER AND BETTER.

The Kodak Carousel projector is a good example of such a product. Tried, proved, and improved over time.

It uses gravity to gently drop each slide in place. It's whisper-quiet, too.

It features a curved-field projection lens. For sharp edge-to-edge projection.

It uses the Transvue slide tray that lets you see the number of the slide shown, even in the dark.

It comes in many models. So you can choose just those features you want. Such as remote control. Automatic focus. Even automatic slide changing at timed intervals. And there is a wide variety of accessories made for it. Everything from special-purpose lenses, trays, stack loader to special "presentation aids."

See the Kodak Carousel projectors at your photo dealer's. From less than $123. And enjoy the projector that keeps getting better.

Price is subject to change without notice.

KODAK CAROUSEL PROJECTORS Kodak

THE PEACEFUL and open status of our borders with Canada and Mexico is a matter of national pride. Yet both of those borders have been sources of conflict in the past. It was only 62 years ago that a U. S. force under Gen. John J. Pershing pursued Pancho Villa's raiders back into Mexico as that nation groped its way through a confused and bloody revolution.

Last year we published Peter T. White's "One Canada—or Two?" Reader response was pronounced, and a theme that ran through our correspondence was an awakening to events on our doorstep. So occupied has the U. S. been with the unfurling of history in Southeast Asia, Africa, and the Middle East that portentous changes close to home were going relatively unnoticed.

In this issue we present a companion piece, Mike Edwards's article on Mexico. And again, it is with a certain shock of recognition that we remind ourselves of events not 10,000 miles away but next door.

For decades, despite a common border, the national destinies of the United States and Mexico seemed separate. While settlers in the United States were spreading a homogeneous culture across a continent (and overwhelming the native Indians in the process), Mexico was creating an amalgam of peoples of whom some 90 percent today have Indian blood, and who use dozens of languages in addition to Spanish.

Each year Mexico and the United States are drawn closer together. Mexico looks to her northern neighbor for foreign income and industrial technology. Jobs, both from U. S. firms operating within Mexico and for Mexicans employed in the U. S., are a basic Mexican need. The increasing numbers of jobless who try to cross the border illegally give ample proof of that.

A border shared in peace represents a shared opportunity. If it is a barrier that seems to separate cultures and problems, it can also be a tie that binds in the search for hemispheric unity and progress.

Like brothers in a busy household, these two nations have passed through a period of mutual indifference and now begin to look upon each other not only with friendship and support, but also with renewed respect and due regard for the other's rights.

Gilbert M. Grosvenor

NATIONAL GEOGRAPHIC

THE NATIONAL GEOGRAPHIC MAGAZINE VOL. 153, NO. 5

May 1978

COVER: *Affection as well as discipline for her humped pack animals brought Aussie Robyn Davidson safely to journey's end. Photograph by Rick Smolan.*

VOL. 153, NO. 5 MAY 1978

NATIONAL GEOGRAPHIC

OFFICIAL JOURNAL OF THE NATIONAL GEOGRAPHIC SOCIETY WASHINGTON, D.C.