

The Treasured

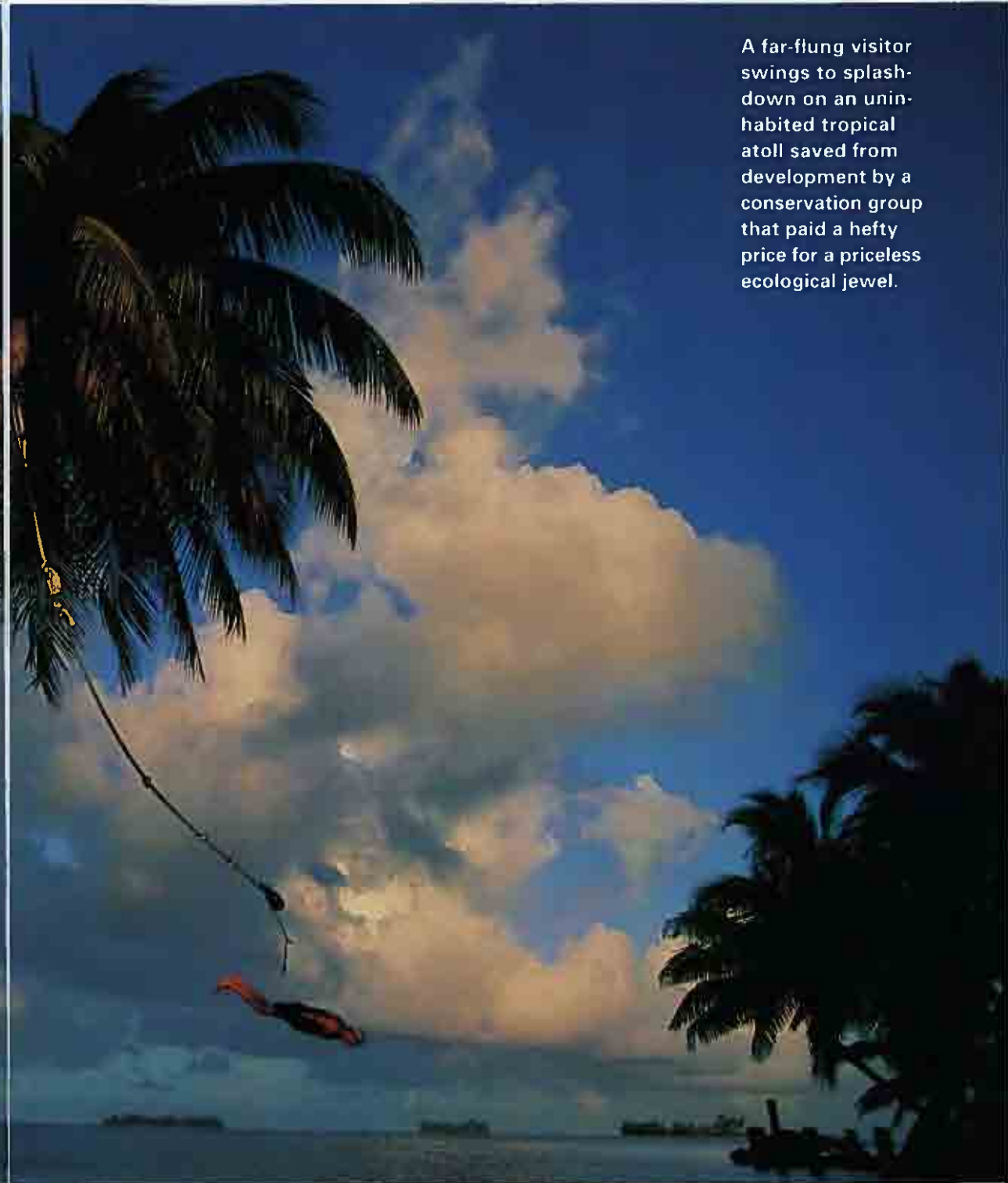
*Nature's
Stronghold
in the Pacific*

*By Alex
Chadwick*

*Photographs by
Randy Olson*

Islands of Palmyra

A far-flung visitor swings to splash-down on an uninhabited tropical atoll saved from development by a conservation group that paid a hefty price for a priceless ecological jewel.



In theory, a Pacific paradise doesn't exist anymore.

All those places that used to live in dreams are now so altered by reality that we can never get back what was once there: deserted islands with long, unspoiled beaches and warm afternoon rain, turquoise lagoons shaded by coconut palms, fish and wildlife living without fear in Eden—in theory, all gone.

But in the central Pacific Ocean one tiny atoll has somehow slipped through a hole in the side of theory and let the roar of modern history pass by.


Through the quirk of its remote geography, through the sheer determination of the people who have loved it, Palmyra Atoll does exist.

And thanks to its recently completed purchase by one of the world's leading conservation groups, the Nature Conservancy, it should continue as something close to many people's vision of paradise, albeit a very small one.

Counting just what's above high water, the entire atoll is hardly bigger than a single section of midwestern farmland—less than 700 acres of terrain, with no point on it more

than six or seven feet above sea level. For a few hours each day Palmyra aspires to grander proportions; at low tide an enormous plain of calcium carbonate lies exposed—thousands of acres of coral reef flats. The next high water claims them back, and Palmyra shrinks to its true measure.

For decades Palmyra has lingered in quiet isolation as an uninhabited, privately owned



Convict surgeonfish slice through the water above a tossed salad of coral. Some 130 stony coral species grow on Palmyra's 50 scattered islets, remnants of an extinct volcano.

Scars of World War II, a ship channel (right, at upper left) and a rusty gun mount (bottom right) mark this link in the Line Islands chain. Family owned until late last year, Palmyra was eyed as a nuclear dump and as a tourist resort before the Nature Conservancy acquired it for 30 million dollars.

United States territory. There was a moment of notoriety back in the '70s when a fugitive drug dealer sailed here from Hawaii. Worried that his own boat was barely seaworthy, he murdered an island-hopping couple that had stopped at the atoll and stole theirs before he was caught, a story that was turned into a best-selling book, *And the Sea Will Tell*, by Vince Bugliosi, and a TV movie.

Passing yachts or fishing boats aside, Palmyra's main visitors have always been seabirds—some of the largest and most colorful gatherings of them anywhere in the world: red-footed boobies with electric blue beaks, elegant white-tailed tropicbirds, great frigatebirds whose cunning bones, like an old carpenter's pocket rule, can unfold from resting position into wings of imposing length. The atoll has more red-footed boobies than anywhere but the Galápagos Islands. Palmyra is their only breeding site in 450,000 square miles of ocean.

Many of the birds come because of the weather. Palmyra is soggy by human standards, with 175 inches of rain a year. But that rainfall provides for lush, old forests of a tropical tree called



Pisonia, whose fiber is soft like balsa wood. On many islands people have used up all the *Pisonia* for fire or shelter or cleared it away for farming. But Palmyra, despite its small size, has great stands of *Pisonia* up to a hundred feet tall, with buttress trunks and tangled branches. Each spring Palmyra transforms itself into a spectacular forest nursery for tens of thousands of nesting seabirds and their young.

A wildlife biologist with the National Wildlife Refuge System, Elizabeth Flint lists Palmyra among seabird breeding sites of world importance. It's especially important, she says, because there's nothing else remotely similar in the U.S. Pacific islands. In fact, "there probably isn't anything left in all the Pacific like Palmyra, because most of the 'wet' atolls that can sustain

human life have been colonized. And a lot of the organisms in this ecosystem don't coexist with human population."

One afternoon at the eastern end of Palmyra I beached a kayak on the shore of a small barrier island and snorkeled out into the quiet shallows protected by its lee. The water was brilliantly clear, the light shaded only by tidal ripples at the surface. Small patches of coral heads clustered on the sand bottom, then merged to form a reef face and an enchanted garden. Crystalline violet-purple coral grew across the floor like jeweled moss; other corals formed stalks that flattened and spread into broad mushroom heads; still others waved delicate branches, each tip formed like baby ears of corn, each a roasted yellow-brown color,



every kernel a shield for the tiny creature inside.

Jim Maragos, a coral biologist with the U.S. Fish and Wildlife Service, told me that in 30 years of research he's dived thousands of Pacific reefs. "These are the most spectacular that I have ever seen," he said. "There are just magnificent schools of sharks, humphead wrasses, bumphead parrotfish, large groupers—fish that are basically being wiped out elsewhere in the world, especially in the Pacific."

By itself, Palmyra supports at least 130 species of stony coral, several times more than in the Florida Keys. Indeed this single atoll has three times more coral species than all the Hawaiian Islands combined—probably because Palmyra is a thousand miles south of the 50th state, in the warmer waters of the tropics where corals flourish. The atoll is almost dead center in the Pacific Ocean, nearly six degrees or 400 miles north of the Equator, in an expanse of ocean that makes up what's called the intertropical convergence zone. Everything that belongs to the ocean



Crystalline violet-purple coral grew across the floor like jeweled moss.

converges here: flora and fauna, fish and fowl, climates and currents—especially currents.

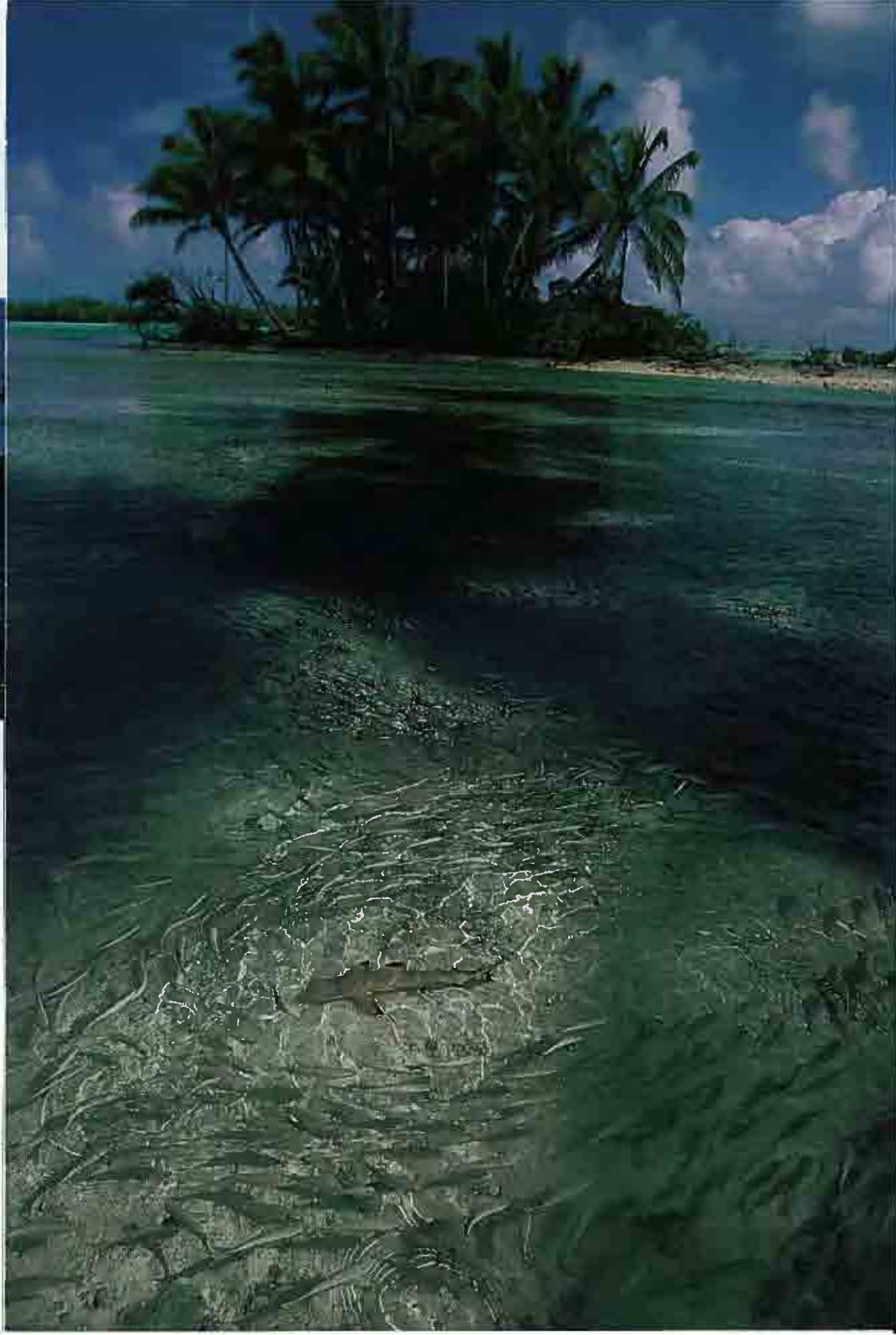
In the flux of sea forces, Palmyra is positioned like a Balkan border town. Sometimes it's overrun by the sweep of the North Equatorial Current coming from the east. Sometimes the South Equatorial Current shifts north, also pushing past the atoll from the east. More often, though, Palmyra is washed by a narrow water raceway that flows from the west—the Equatorial Countercurrent, which runs in the opposite direction between the two giant, slow-spinning Pacific currents to the north and south. That's why the atoll is such a coral hothouse; it's seeded by larvae carried to it from every direction, and a part of its own rich coral spawn is dispersed to other sites.

It's something of a mystery that people never colonized Palmyra. For 20,000 years, since the peak of the last ice age, its coral base has gradually followed the rising sea level and slowly developed into the splendid, living atoll it is today. Many scholars believe that Polynesian navigators would have found this high coral nub, a peak on the Line Islands underwater mountain chain that runs on a northwest-southeast diagonal across the

tropics of the central Pacific. But for whatever reason—its small size, its remote location—the Polynesians didn't stay.

The first man to note a sighting of Palmyra in a ship's log nearly died from the experience. In 1798 an American sea captain, Edmund Fanning, awoke in his cabin one night on a cross-Pacific voyage. He later wrote that he'd felt a sense of foreboding so strong that he

Multitudes of birds and swarming sea life make this U.S. territory a biological treasure. A masked booby attends a nestling (above). Mullet fry prudently detour around a blacktip reef shark in the shallows just off Home Island (right), where pirate treasure is rumored to be buried.



went on deck and ordered the ship to heave to until dawn. In the morning Fanning discovered a series of dangerous uncharted reefs and a few spits of land dead ahead.

It was several years later that another American ship, the *Palmyra*, made the first official reports of the atoll and fixed its position. Then, sometime after the War of 1812, an American whaler in the central Pacific picked up a dying Spanish seaman floating on a makeshift raft.

He claimed to have been a crewman on the pirate ship *Esperanza*, with a cargo of stolen Inca gold. She'd gone aground on Palmyra, he said, where he and his shipmates managed to salvage the booty and bury it beneath a palm grove. Then they'd pieced rafts from the ship's wreckage and set off in hope of rescue. The Spaniard thought he was the only survivor, and he soon died. What became of the treasure—or whether it ever really existed—is unknown, but the story endured.

Perhaps that's why Hawaii's King Kamehameha IV sent a ship to claim the atoll in

return until the U.S. Supreme Court finally ruled in 1947 that they had title.

Three Fullard-Leo brothers kept that title until a few months ago. The youngest, Ainsley, is 69, a retired air traffic controller from Honolulu who was on the island last May when I visited. His family had gotten all kinds of proposals to buy the atoll, he said. People wanted to turn Palmyra into something



It's something of a mystery that people never colonized Palmyra.

1862, even though it was so far away it took a month to sail there. When Congress annexed the Hawaiian Islands in 1898, it specifically included Palmyra, which eventually wound up as a U.S. territory, almost all of it privately owned by a Honolulu family, the Fullard-Leos.

They almost lost the atoll during World War II—not through any enemy action but rather because the U.S. Navy took over Palmyra during the war. Seabees dredged a channel so ships could enter the protected lagoons and bulldozed coral rubble into a long, unpaved landing strip for refueling transpacific supply planes. By the time the war ended, the military was reluctant to lose its mid-ocean depot. The Fullard-Leos spent years fighting for Palmyra's

useful: a big resort, an offshore bank, a manufacturing outpost to hire cheap labor and avoid American import duties, a commercial fish-processing plant, an equatorial launch site for missiles and satellites. Twenty years ago there was a flurry of excitement—and howls of outrage—when the U.S. government sent a team of inspectors to scout the atoll as a possible site to store nuclear waste. All were rejected, and for the same reason—the Fullard-Leos thought the best use for Palmyra was to leave it as it is.

"I'd hate to see it developed to an extent where it changes the wildlife situation," Ainsley told me. "I think it's a great opportunity to preserve the wildlife in this part of the Pacific."

We were standing near the shore of the eastern lagoons. Blacktip reef shark pups played



in the shallows at our feet, first running at our ankles, then realizing the size of the fearsome creatures attached to them and scooting away. There were giant clams in the sand and a beach nearby where green sea turtles dug nests for their eggs. Seabirds glided low overhead.

In places the reef flats around us showed jagged, rusted stubs where wartime stanchions had ringed the islet behind us with barbed wire. Somewhere in the forest interior an old concrete gun emplacement sagged in defeat. Built to withstand machine-gun and mortar attacks, it is beaten down now by more determined foes: age and weather. Together they are slowly erasing most signs of the human presence that was here during the war.

When I asked Ainsley what he would most want to tell outsiders about the place, he spoke of solitude and peace. "It's a great place to come and contemplate."

Now Palmyra should retain its peaceful qualities for generations to come. In November the Nature Conservancy concluded years of negotiations and took title to Palmyra for 30 million dollars. "It's a marine wilderness—the last of its kind in the Pacific," says Nancy Mackinnon, who, along with Chuck Cook, coordinated the effort.

Shark-hunting dogs, placed here by the island's previous owners to help control the local shark populations, will be given new off-island homes by the Nature Conservancy. A coconut sign marks a building erected as a mess hall for a failed copra plantation; it now serves as Conservancy headquarters.

Because no settlers ever colonized it, no one's survival has ever depended on cutting the forest, or culling the lagoons, or killing off the bird life. That's why the atoll still has large, healthy, mature fish, forests, and birds you imagine you'd find on any tropical island but that in reality barely survive, if at all, in most other places.

And because Palmyra falls under U.S. law, some of the world's toughest environmental standards apply here. The Nature Conservancy, and the private donors it relies on, knows that restrictions can be enforced and this atoll truly protected.

The Conservancy plans to keep Palmyra in its natural state, perhaps restoring some parts that were altered by the Navy. Coral and wildlife biologists, botanists, and other researchers will be invited to use the atoll for study, and a small ecotourism operation could allow other visitors to see some of Palmyra's glories.

Indeed, some already have seen them. Since last spring when it first announced plans to purchase Palmyra, the Conservancy has been flying potential donors out to inspect the atoll and putting them up in an island camp that is both spartan and ecofriendly.

A dozen tent structures sit like mini-Quonset huts on wood platforms. The shelter fabric is a drab beige vinyl, and the sides of the tents roll up to let in a night breeze. The

Conservancy calls it one of the most important conservation projects in the world. The U.S. Department of Interior wants to buy part of the atoll to help manage and protect it. And marine biologist Jim Maragos talks about Palmyra as a kind of biodiversity storehouse, especially for fish and coral. He's thinking about all the other Pacific islands he knows—fished out, and with little chance of recovering on their own.



mosquito netting works perfectly. There is power from two big generators, with efficient mufflers to handle the noise. A desalination processor makes fresh water for drinking, showers, and laundry. Several fire-breathing toilets reduce what you leave in them to a mound of ash. The mess tent features a professional gas range, full refrigeration, and an ice machine.

You can explore very comfortably on Palmyra and in the evening settle back to watch a Technicolor sunset.

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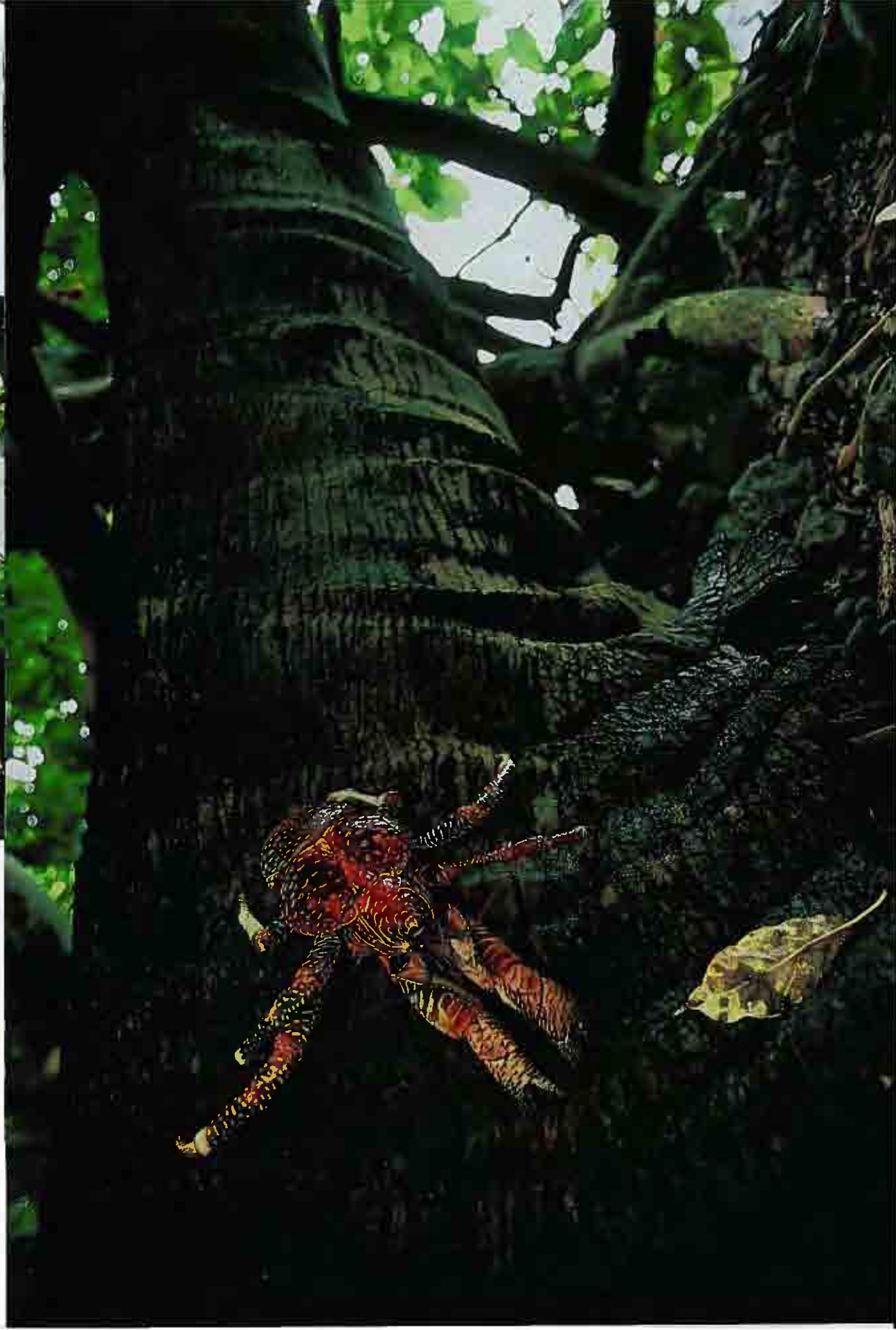
Author and radio reporter Alex Chadwick talks about his experiences covering paradise on Earth at nationalgeographic.com/ngm/0103.

As Ainsley Fullard-Leo said, Palmyra is a good place to sit and contemplate—and with a future worth thinking about. The Nature

Balsa-like *Pisonia* trees, logged heavily on other islands, grow unmolested. So does a coconut crab (right), the largest land crustacean. Its sweet flesh makes it a favorite throughout the tropical Pacific. On Palmyra the crab and its fellow creatures will continue to have the run of land and sea.

“I think we need to save places like Palmyra, particularly Palmyra, which has these magnificent fish.” That way, he says, we can try to replenish some of those depleted areas.

Indeed conservationists would tell you this remote atoll's real treasure wasn't buried here by pirates 200 years ago. It's open and apparent for anyone to see—Palmyra holds the seeds of paradise. □





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