

Unsubdued by Humans, U.S. Island Is Biological Motherlode

NAVASSA

By JOBY WARRICK
Washington Post Staff Writer

It's no accident that Navassa Island is one of America's most isolated places. Few spots on Earth could be more hostile to human habitation than this slab of jagged, broiling-hot limestone off the coast of Haiti.

Christopher Columbus's shipmates declared the island worthless when they visited briefly in 1504. The first explorers found no food or water but an abundance of scorpions, poisonous plants and razor-sharp rocks that sliced through boots and demolished boats.

For the next five centuries, Navassa remained almost completely deserted, except for a stint in the 1800s, when it was mined for guano, or bird manure. Until last week, not even the U.S. government, the titular owner, knew the island harbored extraordinary riches—an astonishing wealth of biologically unique creatures and plants that have managed to thrive here, virtually free of human interference.

The scale of Navassa's riches came to light last week when a team of researchers announced the results of the first scientific expedition there in more than a century. Combing every inch of the tiny dot of an island, the scientists counted more than 800 species, many of which are believed to exist nowhere else in the world.

As many as 250 species are believed to be entirely new to science, expedition leaders said. They reported being equally astonished by the condition of the island's coral reefs, which are so pristine they offer a glimpse of what the Caribbean may have looked like before Columbus.

"It was like looking into an aquarium," said Nina Young, a scientist with the Washington-based Center for Marine Conservation who co-led the expedition. "Navassa may possess some of the most pristine and healthy coral reefs in the U.S.—and perhaps in the whole Caribbean."

The excitement centers on a

desert island that is barely two square miles, or about nine times the size of the National Mall in Washington. The tip of a submerged mountain, Navassa is 40 miles west of Haiti and 200 miles from the mainland of the United States, which claimed Navassa in 1857 under a law that asserted U.S. sovereignty over any uninhabited island that contained guano, a valuable fertilizer.

Although it was "discovered" by Europeans before the North American mainland, Navassa was bypassed by colonists because of its lack of fresh water and its exceptionally harsh terrain. Steep rocky cliffs on all sides make Navassa a natural fortress, unassailable by wooden landing craft. The Interior Department, which is responsible for administering the island, forbids unauthorized visits because of the dangers posed by the rock-studded surf.

Navassa's inland areas are only slightly less treacherous. The 14 government, university and private scientists who conducted the two-week expedition had to slowly pick their way across a landscape of jagged, cratered limestone made blisteringly hot by the Caribbean sun.

"It was like Swiss cheese or a honeycomb, but more irregular," said Michael Smith, a senior scientist with the Center for Marine Conservation and the other expedition co-leader. "When you're walking, you're jumping rim to rim over the holes."

Besides cuts and scrapes from sharp rocks, the researchers had to watch for poisonous critters—"The island is very rich in scorpions," Smith noted dryly—and poisonous ivy-like plants, including the ubiquitous "poison wood" tree that soon had most expedition members scratching.

But the island's many crevices and terraces also contained a diversity of life that scientists say is extraordinary for such a small and dry place. The 800 terrestrial plants and animals the researchers documented on Navassa exceeds by four times the number previously believed to be on the island.

Resides feral dogs and goats left behind by miners and fishermen, scientists found unique species of lizards, wingless crickets and other creatures that had evolved during eons of isolation. "We've barely begun to sort through the scientific specimens," Smith said.

But there were also prominent absences. The rock iguana, an endemic species described by 19th-century visitors, appears to have vanished, possibly eaten into extinction by the 200 guano miners who stripped most of the phosphorus-rich topsoil off the island's lower terraces a century ago.

Divers who surveyed the island's reefs found a "spectacular" richness of creatures and hues, said the Center for Marine Conservation's Young. Elkhorn corals and spiny urchins that have been wiped out by disease elsewhere in the Caribbean were healthy and thriving.

"You're struck by the vibrant colors," including the deep lavenders and reds of sea sponges and fans in what is perhaps "the best diving ... in U.S. waters," Young said.

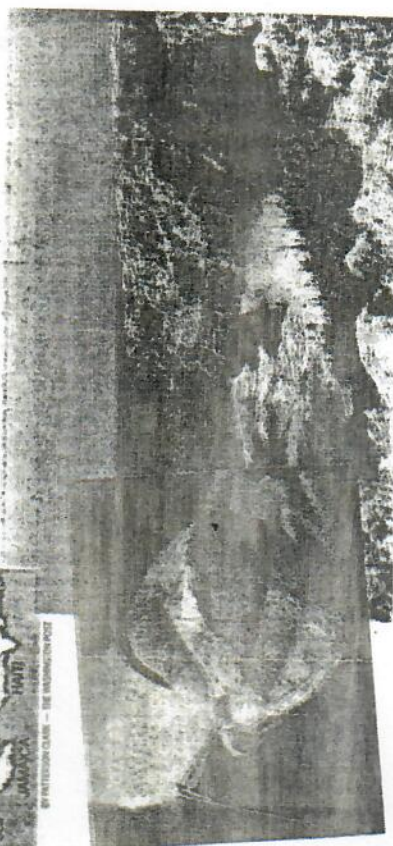
But the scientists' enthusiasm was tempered by concerns about what may happen after word spreads of Navassa's pristine riches. Elsewhere in the Caribbean, conservationists are trying to prevent further destruction of reefs that have been blighted by pollution and disease or damaged by careless divers and boaters.

The Interior Department, which co-sponsored the scientific expedition, must now decide how best to protect the island against the inevitable assault. Possible options include turning Navassa into a wildlife refuge or "special management zone," said Interior Secretary Bruce Babbitt, who vowed there would be no repeat here of the "melancholy record of the coral reef."

"I can tell you this doesn't seem to be the place for a Hilton Hotel or a resort," Babbitt said. "But we also don't want to say, 'Here's a fabulous asset—but you, the owners, aren't allowed to see it.'"



Pristine coral reefs like this one, above, greeted the first scientific expedition to tiny Navassa Island in more than a century. Fourteen researchers who combed the U.S.-owned Caribbean island found hundreds of rare and unique species, such as the Navassa anole, below left, a lizard found nowhere else in the world. Navassa's forbidding coastline and harsh terrain may help protect the island's wildlife from human interference.



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