

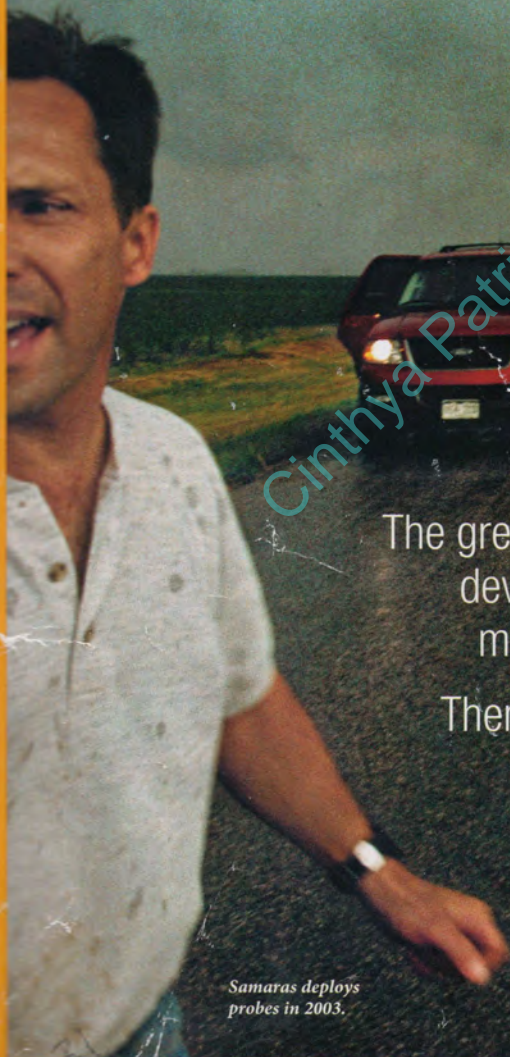
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Seventeen years ago photographer David Doubilet was enchanted by a Pacific reef. He recently returned to see if that magical—and fragile—place has endured.

Paradise Revisited

A threespot damselfish swims near a trio of pink anemonefish in Papua New Guinea's Kimbe Bay.



Cynthia Patricia López Navarro



By Cathy Newman Photographs by David Doubilet

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HERE IS A KINGDOM of coral in the principality of the Pacific Ocean called Kimbe Bay. "It is a world," says photographer David Doubilet, "more alien than the edges of space."

Unlike cold space, it lives and breathes, and in its universe are galaxies of fish and coral formations as spectacular as the burst of a supernova. The bay, shaped like the cup of a chalice, sits on the coast of New Britain, Papua New Guinea. An uneasy geology—the region straddles two colliding plates—has produced a landscape of volcanoes (three of them active); a narrow coastal shelf that falls off, as if at the end of the world, into an abyss a mile and a quarter deep; and underwater mountains crowned, over the course of millennia, by reefs.

Seventeen years ago Doubilet spent eight days at Kimbe for a story, and the experience—though to call it an enchantment would be closer to fact—provoked a longing to return. It was an obsession born of a memory of a submerged

paradise with silver schools of fish, meadows of red sea whips, and water with the clarity of crystal. Was paradise intact? he wondered.

"Some reefs," he says, "are kinetic, like an abstract by Jackson Pollock." Kimbe—Doubilet's memory reef—is languid, "like an Impressionist painting, a Monet." To tally the marine life that sways, swims, or crawls in those currents is to witness diversity in bloom. The accounting includes 536 types of coral (more than half the world's species) and about 900 species of reef fish. Marvels small (the pygmy seahorse, so tiny it can fit on a pinkie fingernail) and large (the sperm whale) share its waters.

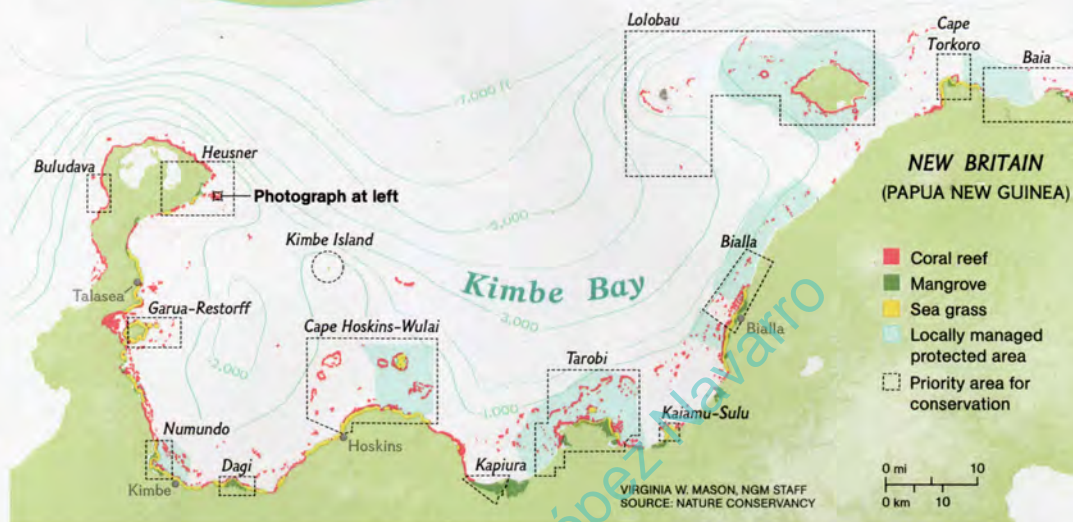
A list is one thing. To explain this diversity is another. There is no simple explanation. It is a congruence of geography, ocean currents, temperature, and the vagaries of evolution.

What can be said simply is that the reef remains as vibrant today as it was 17 years ago, unlike so many others in the world, because it is so remote. It does not contend with the population pressure of, say, reefs off Asia. There is no



Treasured Waters

Embracing some 3,800 square miles along the coast of Papua New Guinea's New Britain Island, Kimbe Bay is part of the Coral Triangle, which is home to 76 percent of the world's coral species. Conservation groups have identified 14 areas with potential for marine sanctuaries.



commercial fishing. It also thrives because it is so well cared for. Among its advocates are the Nature Conservancy, which has designed a plan for 14 marine protected areas in the bay, with support from a locally based conservation and education organization called Mahonia Na Dari (Guardian of the Sea in native parlance), along with the Papua New Guinea Centre for Locally Managed Areas, which helps communities manage and protect their resources.

If one wants to see what a healthy reef looks like, Kimbe is it, says Geoffrey Jones, professor of marine biology at James Cook University in Townsville, Australia, who has studied it for 16 years. Its uniqueness includes an unusual abundance of gobies, small fish that are extreme habitat specialists. Some spend their entire lives in a single type of coral in a single location. "Should that particular coral disappear," he says, "the fish would vanish too."

For now, fish and coral are there. Note the qualifier, "for now." Reefs, it must be said again and again, are perishable. They are vulnerable

to ocean acidification, overfishing, runoff from agriculture, and most of all, global warming, which provokes a biological chain of events that ends in coral bleaching to a skeletal white.

Memory beguiles us; we hope all will be as perfect as imagined. Reality intrudes. "We arrived during one of the worst monsoons in several decades," Doubilet said of his return. Climate change disrupts weather patterns across the globe; at Kimbe Bay the monsoon season intruded into a month that is habitually clear and crisp. Torrential rain brought runoff that clouded the inner waters, forcing him to focus on reefs farther from shore.

Even so, Kimbe Bay endures. The silver fish, the brilliant coral, the crimson sea whips that haunted Doubilet 17 years ago are still there. *For now.* More than half of Papua New Guinea's reefs are threatened. Reefs are fragile—as fragile and haunting as remembered dreams. □

Cathy Newman is an editor at large. David Doubilet saw his first coral reef, in the Bahamas, at age 12.