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DOLPHINS

IN CRISIS



Buckle up — together we can save lives.

DOLPHINS

IN CRISIS

Voyagers in a blue universe, Atlantic spotted dolphins set course in the Bahamas, conversing with whistles that leave bubble trails. Their tight formation may discourage sharks, but the mammals have yet to devise a defense against the predation of man.

By KENNETH S. NORRIS
Photographs by FLIP NICKLIN





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Dolphins in Crisis

By Kenneth S. Norris
Photographs by Flip Nicklin



In the past decade millions of these intelligent marine mammals have been drowned in nets or poisoned by polluted waters. Now the world acts to protect them.

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Pushkin

By Mike Edwards
Photographs by Lynn Johnson



Ushering in a golden age of literature, Russia's beloved Alexander Pushkin has always been more than a poet to his countrymen.

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The Cruellest Commerce

By Colin Palmer
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Three and a half centuries of greed brought 10 to 12 million enslaved Africans to the Americas. Their descendants reach back to touch the horrific past.

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Minnesota Memoir

Article and photographs by
William Albert Allard



A native son returns to the lake country of his youth and finds once sleepy fishing camps yielding to upscale resorts. The walleyes still bite, but solitude is a rare catch.

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Mural Masterpieces of Ancient Cacaxtla

By George E. Stuart
Photographs by Enrico Ferorelli



Vivid wall paintings unearthed in central Mexico depict gruesome sacrifices and mythical creatures—offering a glimpse of a long-lost culture of warrior merchants.

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COVER: Like synchronized swimmers, Atlantic spotted dolphins—an adult and a juvenile—hover for a look at the photographer in the clear waters of the Bahamas. Photograph by Flip Nicklin.

⊕ Cover printed on recycled-content paper.

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Forty miles from the nearest Bahamian island, researcher Denise Herzing follows a pair of Atlantic spotted dolphins with video and sound equipment. Herzing guards

in length, they swim on their sides and sweep their long bony snouts in wide arcs across the river bottom, emitting long trains of echolocation clicks that let them hunt fish in an all-but-opaque world.

The Indus River in Pakistan is subdivided by huge concrete barrages that permanently divide dolphin populations and may have contributed to precipitous declines by stifling breeding. No more than 500 Indus dolphins remain today, mostly in the lower reaches of the river. The government of Pakistan has taken steps to save them, and the population seems to have stabilized. The Ganges dolphin faces the same problems but appears to be a little better off because it was originally spread across more of the subcontinent.

The baiji of China, another freshwater species, has a tooth-lined snout and short,

muscular tail. It is even more endangered than the Indus dolphin. After its original description in 1918 by zoologist Gerrit S. Miller, the baiji disappeared, as far as the West was concerned, into the turmoil of a changing China with successive governments and the communist revolution. Only in the late 1970s, when China became more open to foreigners, did we learn that the species still lived, though reduced to a precarious few. Today there are probably less than 200.

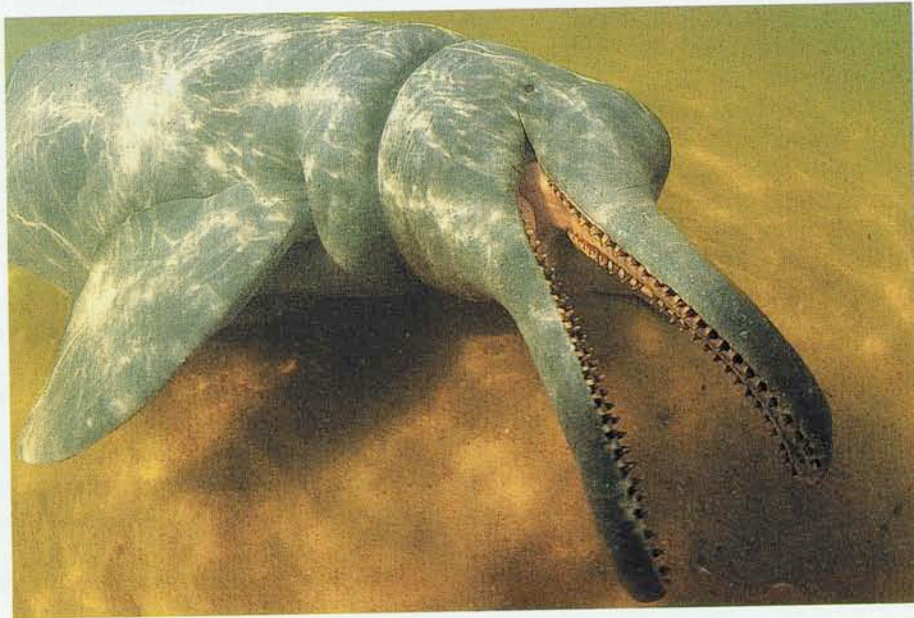
In 1986 Chinese biologists, who had operated for so long by themselves, invited me—as part of a Western delegation to Wuhan, on the Yangtze River—to help devise a strategy for the baiji's protection.

Wuhan lies in one of the most densely populated areas on earth. People and bicycles were everywhere; voices sounding like a flock



BERND WÜRSIG

A world apart, two primitive river dolphins share improbable beaks and tiny eyes. Development along the Yangtze River has all but destroyed the habitat of China's baiji (above, in a Wuhan research aquarium). Its only hope may be reserves being set up by the Chinese government. Rescued from an Amazon tributary being drained for irrigation, a boto (below) was released into a lake in Brazil.





the exact location of their school, which now regularly accepts humans. She fears betrayal of their trust: "The biggest threat to these dolphins is being loved to death."

of birds rang in my ears. At the Institute of Hydrobiology in Wuhan, the only two baiji in captivity had become tame little creatures.

"This one we call Qi Qi," said Chen Peixun, the director of river dolphin research, pointing to a fawn-colored dolphin that was tossing its snout out of the water with every breath. "It was caught on rolling hooks."

Rolling hooks are illegal devices—long, braided lines to which a hundred or more sharp, unbaited hooks are attached. When a fish comes to investigate, it gets snagged and drawn in to be hooked a dozen times more. Baiji, attracted by the thrashing fish, come too close and are also caught. Others succumb to propeller wounds and explosives used for construction along the river. The known dead clearly add up to more than the species can stand. The only hope for the baiji is to establish

reserves where they can be protected and bred.

In a sheltered channel at Tongling on the lower river, one such reserve is being developed by Zhou Kaiya, dean of biology at Nanjing Normal University. One of China's most famous naturalists and an indefatigable worker for the baiji, he has rallied community support for his project. The people have built a statue of the baiji, a local drink called Baijitun Beer advertises the dolphin's plight, and there may be a chance to save the species.

THE LAST OF THE DOLPHINS I consider possibly endangered is an elegant little charcoal-and-white animal of the southern coast of Chile, the black dolphin.

Living among the innumerable islands and fjords of that rainy, windswept coast of rolling breakers, it is harpooned by local

Honorary dolphinhood is bestowed on the fortunate few who swim with researcher Herzing's Bahamian subjects. One dolphin swam in ever tightening circles around photographer Nicklin, coming within two feet of his lens (right). Nor did a pair mind humans observing their mating (below right): "They're pretty active that way," says Herzing.

fishermen in what seems to be unsustainable numbers and then used primarily for crab and fish bait.

The most recent expedition by an American scientist to find the species located only two small groups. My hope is that the remote, forbidding habitat still houses undisturbed pockets of black dolphins.

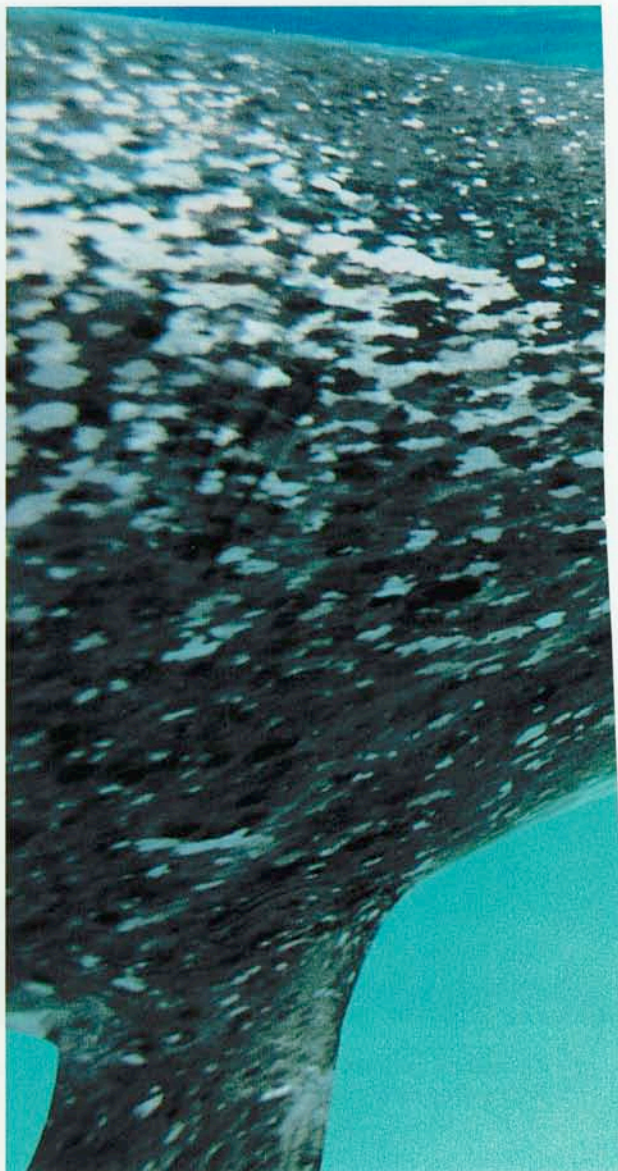
Two dolphins, the boto and the tucuxi, live in the Amazon and Orinoco River systems of South America. They are not yet endangered but are enmeshed in the ongoing environmental cataclysm of deforestation and development in the tropical rain forest.

The boto is a cantankerous pinkish loner of a dolphin, so supple it can grasp its own tail. When the Amazon spills into the forest in the flood season, the boto often swims miles from the main channel to feed among the trees.

The tucuxi, only about five feet long, is a shy animal that travels in schools just like an ocean species, filling the river with the sharp clicks of its echolocation.

I encountered them both two decades ago when I traveled to the Negro River, a northern tributary of the Brazilian Amazon. On a small island in the center of the river, I had found a giant tree. Each day I would climb to a branch suspended 20 feet above the water and wait. When the first boto came by, I saw it puttering in the tea-colored water. Rising to blow, the dolphin poked its lumpy forehead and long, tooth-lined beak above the surface. Through my underwater microphone I could hear its clicks rise and fall as it swung its head back and forth in the murk.

The vastness of these watersheds has kept Amazon dolphins from extinction, but massive dam projects are dividing their once continuous riverine homes into strings of still water lakes, and deforestation and agricultural development are upsetting the nutrient refreshment cycles essential to productivity of both the land and the river. The portents are poor for these creatures and for most other

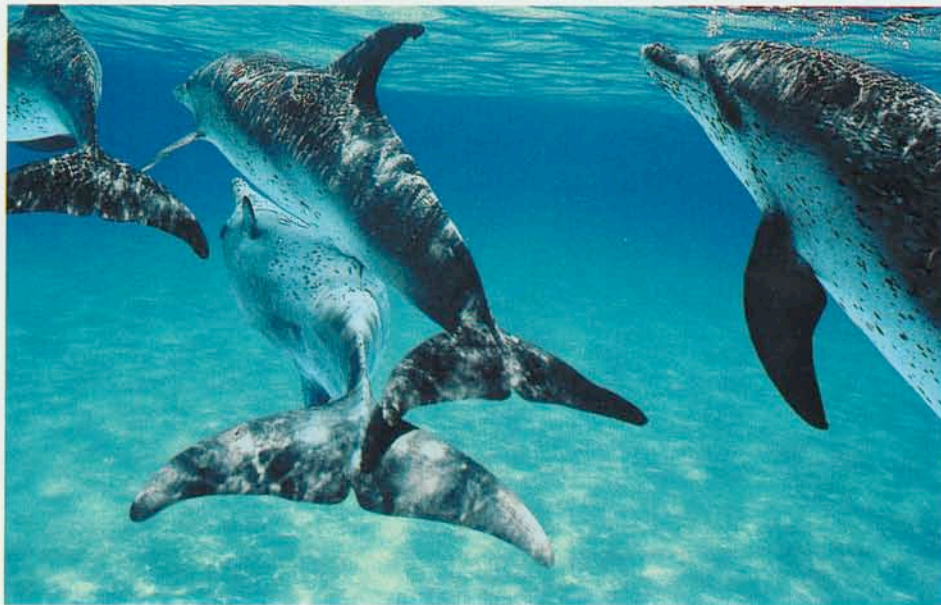


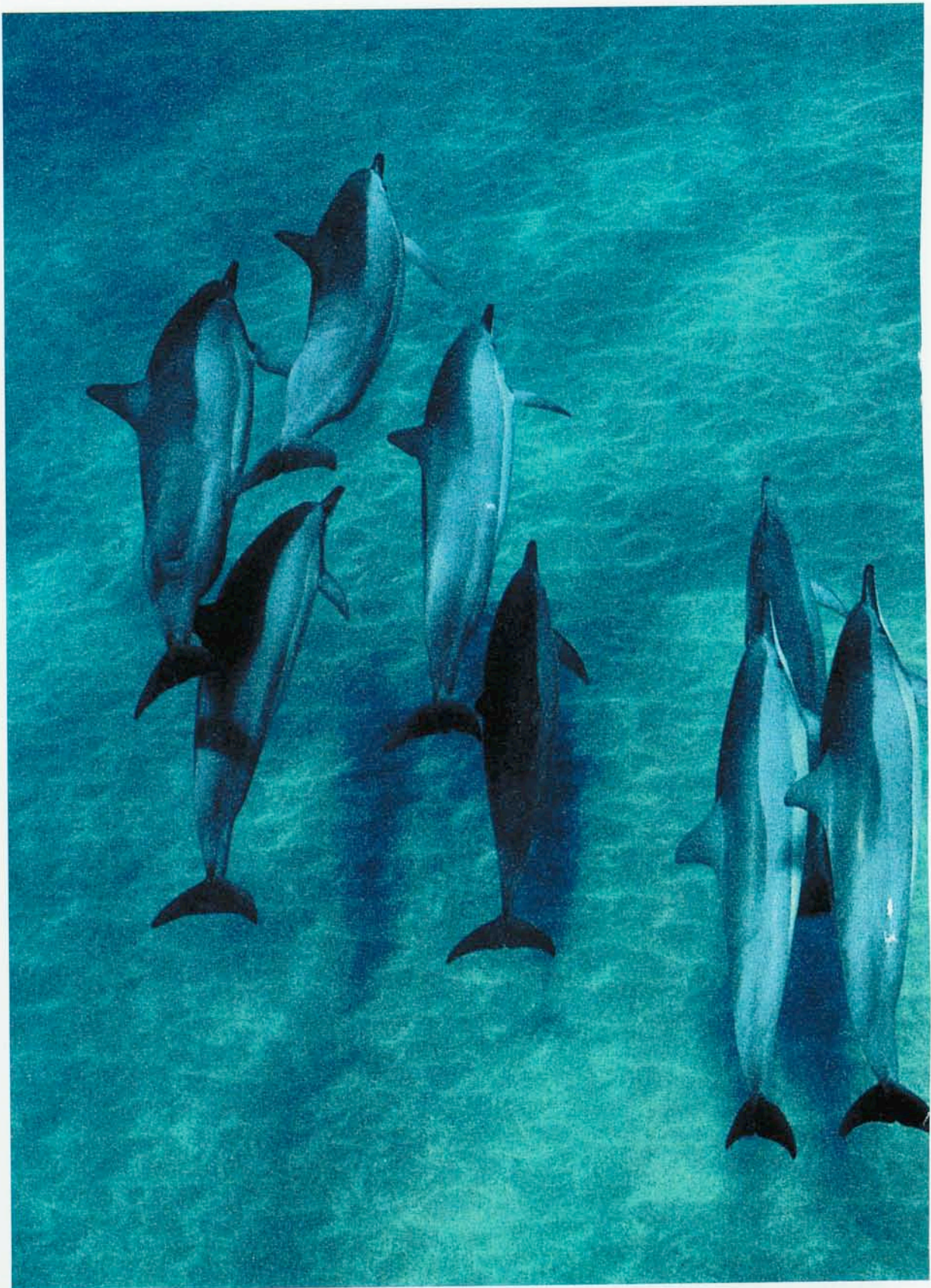
living things in that forest—one of the richest biological troves on earth.

IN SOME CASES scientists have moved effectively and swiftly to protect a population at risk. On the wintry northern end of Honshu, Flip and I visited the Japanese port of Otsuchi, where a local traditional fishery had for a time begun to threaten its stocks of Dall's porpoises.

In the past decade, as supplies of whale meat waned, the market for these porpoises suddenly rose fourfold to an unsustainable 40,000 porpoises in 1988.

Toshio Kasuya, a marine-mammal scientist who had been studying the porpoises, was gravely concerned. To make an estimate of the





Resting spinner dolphins cruise while they snooze near Hawaii. Despite such serene moments, roughhousing dolphins, especially bottlenose, often scrape one another with

ON THE BAHAMIAN BANKS Flip and I made the last leg of our exploration. This is a place where humans leave land altogether to meet the dolphins of the open ocean. Over an immaculate, submerged plain of white sand perched at the edge of the dark abyssal sea, 50 to 100 Atlantic spotted dolphins come daily to flirt and play with swimmers.

I had come to see dolphin behavioral scientist Denise Herzing at work and to hear about her seven years of study with the wild population. Then I wanted to talk to some of the "civilian" visitors whom Denise takes on her trips. What had they come here for, beyond the simple pleasure of swimming with these gentle animals?

Scientists and lay people often have trouble understanding one another, and a wall rises between those who feel committed to learn facts about dolphins and those who are seeking contact on a more spiritual plane.

Next morning we boarded the *Wren of AIn*, Denise's research catamaran, and skipper Dan Sammis navigated us to a special place in the sea where there was no hint of land in any direction.

"It's hurricane season," Denise said, "our best time of year. The water's usually calmer now, and we can often spend hours with the dolphins."

We anchored in 25 feet of water and waited until the schools of spotted dolphins came nosing by. Then, one after another, we

National Geographic, September 1992

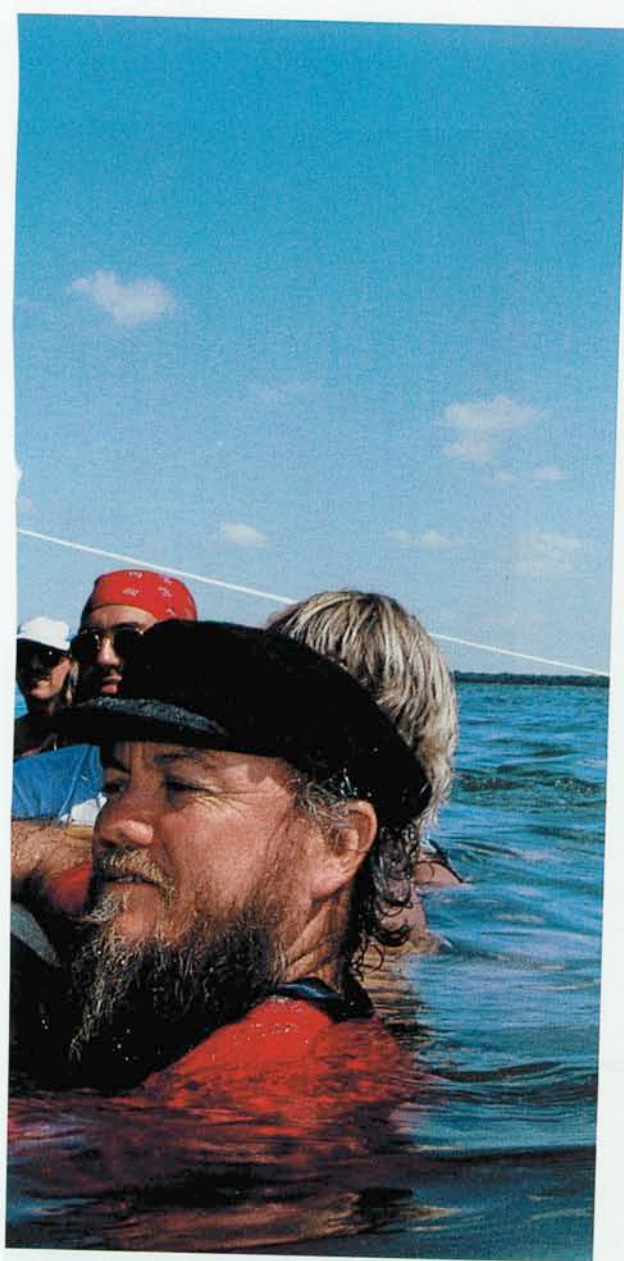
jumped into the tepid, gin-clear water with our snorkel gear.

Denise was attempting to live with the dolphins, much like Jane Goodall had done before her with chimpanzees. "These dolphins are so accepting of us," she told me, "that they may just let us into their lives. We need to nurture this relationship, and from that we can learn so much about them."

Denise laid out the rules: We were to be unobtrusive observers; we could swim with the dolphins, but they would decide how close we would meet. Denise hoped they would come to regard us as harmless, and perhaps a little dull, and go about their normal affairs.

When Flip and I entered the water, about a dozen dolphins swam right over to us. They circled, pirouetting around and under us, gave a pump or two of their flukes, and glided off into the blue like sailplanes, four times as fast as we could hope to go. There was no doubt that the dolphins came in to play. The speckled-bellied juveniles came most often, waiting graciously for us to do something even mildly exciting.

One young female came so close I had to be careful not to elbow her. Her pectoral fin reached out and trailed along my dive skin in a sort of caress. Fairly forward, I thought, when we had just met, but dolphins are noted for



Smiles all around, a dolphin named Misha returns to his Tampa Bay home after two years in California, where the author studied his sonar capabilities. Misha has rejoined the wild community where, says the author, "The others must be asking, 'Where have YOU been?'"

Then, as Denise had hoped, the dolphins went about their normal business in our presence. They searched out little flounders buried in the sugary sand bottom, they nursed their young, had little tiffs with one another, and with considerably less concern than I felt, skirted around a stolid six-foot hammerhead shark that went sculling by.

ON BOARD, AS DARKNESS FELL, I sat on the afterdeck with Denise and her guests and talked in the glow of a light hanging from the boom, grateful that the relentless heat had passed. The sinking sun bathed the cumulus clouds in pastel shades, then dipped below the horizon in a blaze of orange shafts. In the darkening sky appeared the jeweled fishhook of Scorpius, as scintillating and lovely as a necklace.

"Why is there such a strong attraction between people and dolphins?" I pondered aloud. Lynda Green of Key Biscayne, Florida, who had already made five trips to visit these dolphins, summed it up: "Our world is so full of violence and fear. Here, from the sea, comes a wild animal that accepts us. You scientists pick apart and try to explain everything. Why can't we just let things be, just as the dolphins do? We feel so safe in their company."

The questions that night went much further. What else do dolphins know that we do not? What is contained in their caresses? In their sounds? Do they know things we cannot understand? Can they show us? Our guilt about the state of the world is deep, after all.

We must learn what we are destroying, and then it will not be so easy to destroy. Only then can we and the ocean world finally live in something approaching ecological peace. We are in the desperate, painful center of change, but a new generation of earth keepers is taking charge, and with them is coming a whole new concept of the world. Dolphins will be our partners. □

National Geographic EXPLORER will broadcast "The Dolphin Project" on Sunday, October 18, at 9 p.m. ET on TBS SuperStation.

the amount of time they spend each day caressing one another.

There was no trace of dolphin fear in all this, just a reaching across the barrier between our two kinds. I wondered why they persist when we are so clumsy in the water. But they were flexible enough to accept us, warts and all, and to recognize that we were benign. And they were curious enough to initiate balletic games with us, to peer intently into our faces. We, who are so covered with trappings—cameras, dive skins, masks, snorkels, flippers, weight belts—must be objects of some curiosity when they are so sleek and totally unencumbered in their fluid world.

Dolphins in Crisis

*He wrote of passion
and regret; he defied
tsars to champion
individual freedom
and sing of "noble
hearts in a cruel age."
He gave Russians a
romantic image of
themselves, and he is
still their favorite,
the poet*



Push

By MIKE EDWARDS ASSISTANT EDITOR