



Gabon's Loango National Park

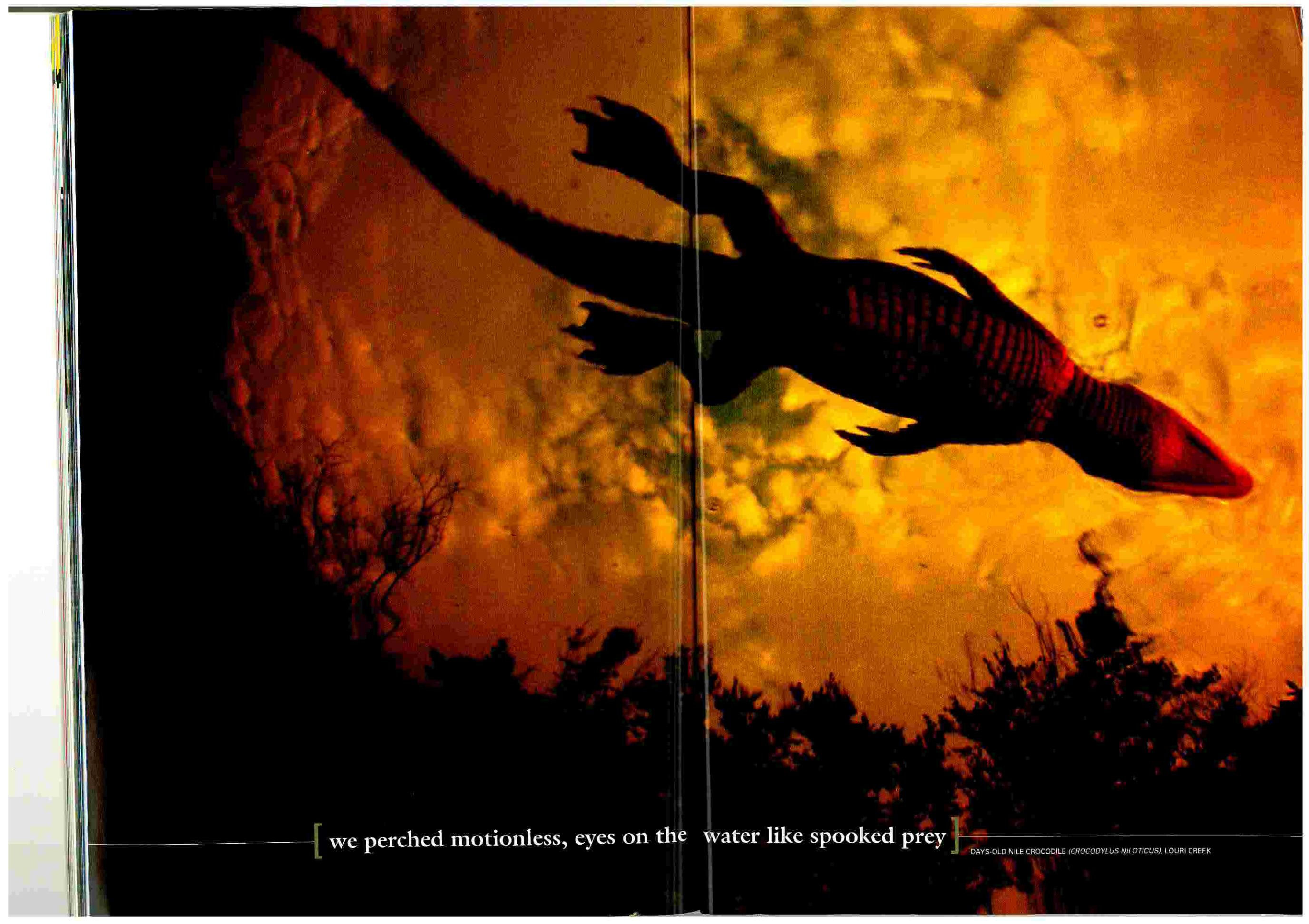
[in the land of the

surfing hippos]

By J. Michael Fay

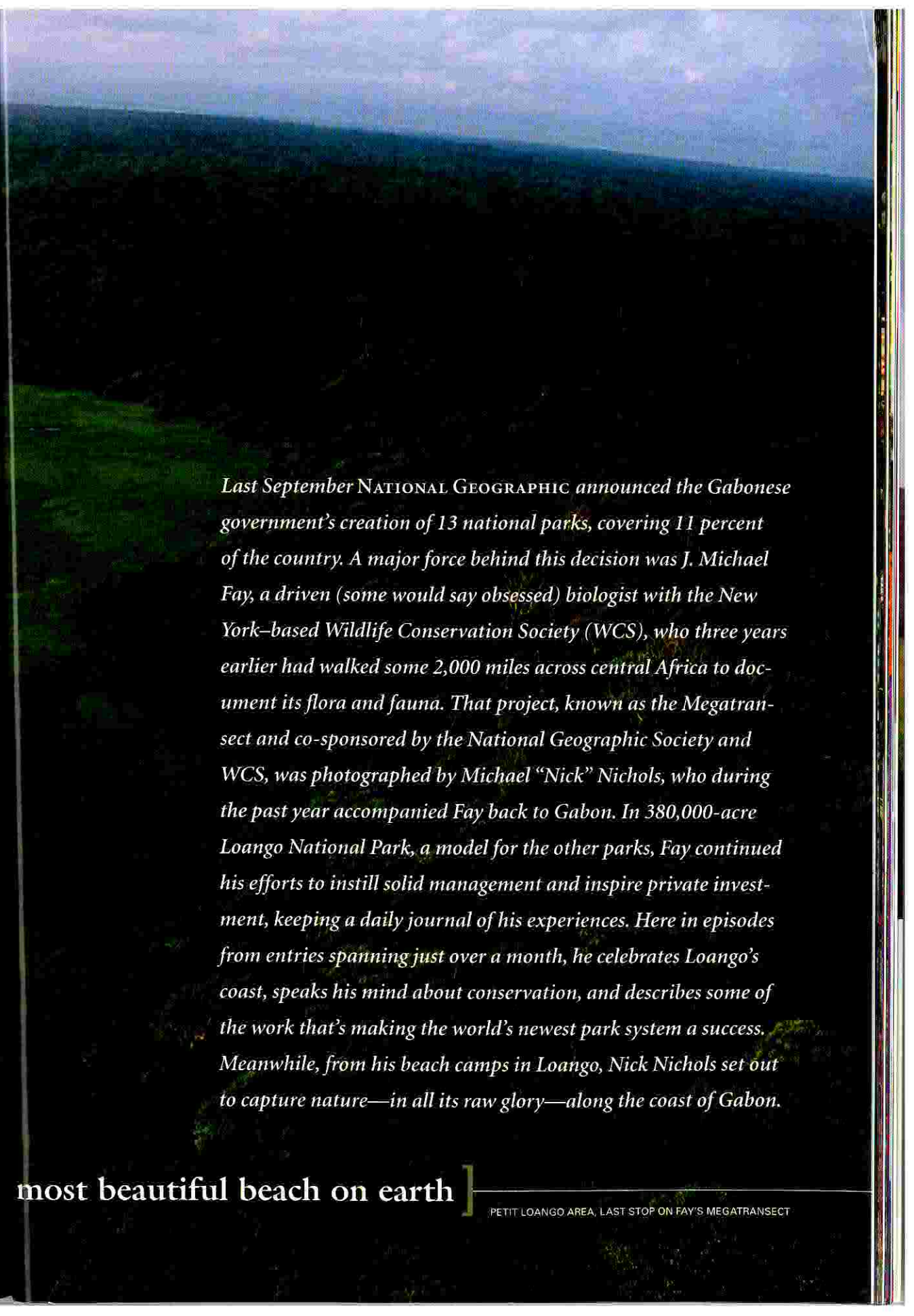
Photographs by Michael Nichols

NATIONAL GEOGRAPHIC PHOTOGRAPHER



[we perched motionless, eyes on the water like spooked prey]

DAYS-OLD NILE CROCODILE (*CROCODYLUS NILOTICUS*), LOURI CREEK



Last September NATIONAL GEOGRAPHIC announced the Gabonese government's creation of 13 national parks, covering 11 percent of the country. A major force behind this decision was J. Michael Fay, a driven (some would say obsessed) biologist with the New York-based Wildlife Conservation Society (WCS), who three years earlier had walked some 2,000 miles across central Africa to document its flora and fauna. That project, known as the Megatransect and co-sponsored by the National Geographic Society and WCS, was photographed by Michael "Nick" Nichols, who during the past year accompanied Fay back to Gabon. In 380,000-acre Loango National Park, a model for the other parks, Fay continued his efforts to instill solid management and inspire private investment, keeping a daily journal of his experiences. Here in episodes from entries spanning just over a month, he celebrates Loango's coast, speaks his mind about conservation, and describes some of the work that's making the world's newest park system a success. Meanwhile, from his beach camps in Loango, Nick Nichols set out to capture nature—in all its raw glory—along the coast of Gabon.

hanging out on the most beautiful beach on earth

PETIT LOANGO AREA, LAST STOP ON FAY'S MEGATRANSECT

christmas hippo

When I first stood on the beach in Gabon, I took off my clothes and contemplated writing home to say: "Don't worry, Ma, I'm OK. Just don't come looking for me—you'll never see me again, ever." Christmas morning a decade later, and here I was back on that same beach, where hippos surf and buffalo sunbathe. Lounging half naked in front of my little tent as deep as you can get on the shores of what is now Loango National Park, gazing out on the vast, empty Atlantic, I thought: "You dog, Fay, how is it possible that you're the chosen one who gets to hang out here?"

This was a reunion. Nick Nichols, his wife, Reba Peck, and two sons, Ian (22) and Eli (14), were here, along with our old friend Jane Sievert and her seven-year-old daughter, Malia. Our campsite was a closely grazed patch of grasses and sedges amid a grove of manilkara trees and hyphaene palms. When we humans sleep, elephants and buffalo come to the clearing to feed. Olive ridley turtles bob their heads in the sea, munching on the algae growing on the coastal reefs, and tarpon roll in the surf, while humpback dolphins and bull sharks patrol the edge of the shore. This spot at the Moubani Creek Inlet is just up the beach from where, three years earlier, we'd popped out of the forest at the end of my long walk from the interior. (See the "Megatransect" series: October 2000, March and August 2001.) Today Jane, Malia, and I had a more modest plan. We'd decided to make a kayak trip up the Moubani, which winds about three miles inland through the mangroves. Yes-

30 miles north of here, providing income that's being pumped into jobs for local Gabonese youth, equipping them to be everything from game wardens and ecoguides to auto mechanics. Our conservation projects ("operations," as we call them) include satellite tracking of elephants, whale research, prevention of poaching and illegal fishing, turtle monitoring, beach cleanup, and the day-to-day running of the park.

As Jane, Malia, and I shoved the kayak off, the resident goliath heron was knee-deep in the inlet, where he stands for hours, perfectly still, waiting for a mullet or baby tarpon. When we passed, he opened his enormous wings (seven feet from tip to tip) and took off like a jumbo jet, slow and steady.

We cruised along the narrow spit that separates the Atlantic from the hidden lagoon world and entered the dark, mangrove-lined creek beyond. The water was a mix of turquoise and

terday we'd seen a hippo's tracks emerging from the sea, heading for the upper reaches of the creek, and we thought we might find him up there in some backwater.

It was a year since I had taken on Operation Loango, a partnership between the Society for Conservation and Development, an ecotourism company formed by the visionary Dutch entrepreneur Rombout Swanborn, and my employer, the Wildlife Conservation Society (WCS). The aim is to develop an economic base for Loango National Park (lodges, safaris, sport-fishing, whale and turtle watching) and to assist the government in managing the park. In June 2003 we finished building Loango Lodge about

black. At high tide the ocean spills over the spit into the lagoon, creeping up the inlet as the pressure from the sea builds, pushing the black, tannic water back upstream.

The mangroves here are big trees, their stilt roots forming an impenetrable tangle like some kind of hideous—or maybe wondrous—jungle gym. We passed a little grassy patch neatly mowed by the hippo the night before. It was now occupied by egrets, greenshanks (a long-legged sandpiper), and thick knees (a strange nocturnal shorebird somewhere between a coot and a plover), either stalking insects or just dozing upright.

We hugged the banks to watch the mangrove



crabs that inhabit the stilt roots. Exquisite little creatures, they look like tiny carved ebony boxes with inlays of yellow and purple. Just below the tide line were masses of white shells—luscious oysters packed thick on every mangrove root. I thought about the village that had existed at the inlet until maybe a century ago. It was the northern outpost of the Loango kingdom, whose throne was near the Congo River some 250 miles to the south. The people of Loango came here for padauk wood (prized for its hardness and bright

Heads shaved as a sign of solidarity, local villagers learn to become park rangers under the tutelage of Fay. One of his most promising recruits is a convicted elephant poacher.

We got into position for a look, and my eyes met with what looked like an overdressed clown with a sharp beak. Its breast was a rich rusty brown, the throat a bright white, the back and wings a crisp blackish brown. But the eyes: Wow, what eyes! In a bird the size of a raven they were about as big as a human's and lined with

before the colonial powers intruded, this must have been a true eden

red color), for elephant ivory, and to acquire slaves from the neighboring tribes. It's clear from the abundant shell middens that oysters supplied the villagers with a steady source of food over many generations. I imagined the naked kids paddling up the Moubani in their dugouts, collecting oysters and catching fish and land crabs.

As likely as not, paddling conditions were as perfect then as now—slight breeze coming off the ocean, cumulus clouds shading the sun (no more than 80°F), and not a tsetse fly to be seen. As we rounded the sharp bend leading us inland, the kayak leaving a silvery wake on the dark surface, some fruit bats scared up a biggish bird.

a thick white ring. This thing was the most wonderful avian delight I'd ever seen. A look in *A Guide to the Birds of Western Africa*, by Nik Borrow and Ron Demey, revealed the bird to be the white-backed night heron (*Gorsachius leuconotus*). "Largely nocturnal; secretive and very shy by day," the book said. Hardly an adequate description of such a gem. The authors might have added: "Yet another little known and unbelievably beautiful product of nature that can be seen on any day in Loango National Park."

Pushing on, we came to a spot devoid of mangroves—an elephant trail that crossed the creek—like a gateway leading directly into the heart

of darkness. I noticed a patch of blue in the shallows and on closer examination realized it was the dorsal fin, in full regalia, of a lunker male mudskipper. He must have weighed half a pound. Just like elephant seals, these amazing amphibious fish have gruesome fights for territory. When the battles get heated, they present their almost sailfish-like dorsal fin, with its daunting show of iridescent blue spots.

This guy, however, wasn't in a tangled fight with a competitor but in the clutches of a predatory blue swimming crab. These eight-legged killers dig themselves into the sand and wait for a fish to pass above. When the moment is right, *whap!*—like a mousetrap going off—the prey is gripped in needle-sharp pincers. I'd watched crabs catching tiny fish fry before, but nothing as big as this mudskipper. He was still alive but nearly inert, writhing halfheartedly. I leaned over to take a picture, which must have distracted the crab. It relaxed for a split second, and with a flip of the tail the mudskipper was out of there. Empty pincer, the crab dug itself into the sand and vanished.

We landed on a bed of round volcanic rocks: geodes. How different this place must have looked hundreds of millions of years ago when there were active volcanoes, and dinosaurs roamed amid giant ferns. Today's megafauna are forest elephants, but as the now vague trail leading into the dark forest showed, their fortunes have risen and fallen with human activity. Several hundred years ago, when slavery and European diseases decimated people in the area, thus leaving the elephants largely to themselves, the

the surface began to surge...so did my heart

trail would have been a well-trodden pachyderm highway. But in the 1900s when the French began a century of exploiting timber, ivory, crocodiles, and other wildlife, elephant numbers ebbed, and nature began reclaiming the trail. Still, I estimate there are a few thousand elephants in and around Loango today.

Our next excitement came from above—a movement in the trees followed by repeated kissing sounds. We spied a mustached guenon, a monkey about the size of a large tomcat with a bright white bar across his upper lip, staring at us, raising his head as he chirped an alert to others. The chirps intensified, and some bigger

gray-cheeked mangabeys started barking—*ah! ah! ah!*—on the opposite side of the stream. Then red-capped mangabeys joined the primate orchestra: *kako! kako!* In the distance the boom of a greater white-nosed monkey sounded through the forest: *niao! niao!*

As we advanced upstream, the river narrowed, and snags began to block our progress. My eyes scanned the muddy bank, which suddenly began to surge. So did my heart, as the form of a massive hippo materialized no more than 25 feet in front of the boat. Face-on to us, he plunged into the water like a battleship released from dry dock full-speed ahead. He'd been sleeping under a tree, and we'd scared the bejeezus out of him in what he may have judged a surprise attack. We paddled frantically for the mangroves on the opposite bank, which seemed a mile away.

"Go, go, go," shouted Jane, "he's coming. He's right behind the boat." The theme music of *Jaws* popped into my head, along with visions of this behemoth chomping our chunk of plastic kayak right in half.

When we reached a tangle of mangrove roots—slippery like spaghetti and virtually ungrippable—I tossed the paddle aside and catapulted Malia up into the tree. Jane and I followed, clambering and slithering over the spaghetti branches until we had about ten feet of jungle gym between us and the water's edge. We looked back only to see a boil of water erupting just behind the bobbing, now empty, kayak. The hippo had plunged into the black depths.

We perched motionless for the better part of an hour, eyes fixed on the water like spooked

prey. Because passage on foot through the mangrove maze wasn't an option, we'd have to hop back in that boat and get ourselves downstream without stirring the now invisible beast. All was quiet. Would it stay that way?

Jane and Malia struggled through the mangrove roots until they were about a hundred feet downstream. I jumped on the bow of the kayak, tipping it hard from side to side to call the hippo's bluff. The water stayed calm. No bubbles, no movement. That was good. I recovered the paddle and lost no time in zipping downstream to fetch the ladies, slipping as quietly as possible past every swirl and bubble.

It was midafternoon when we finally heard the crash of surf again. Otherwise all was calm, with the goliath heron back at his post, master of all he surveyed. Feeling a bit guilty about our close call, but giggling to myself, I thought: "Heck of a Christmas for a seven-year-old."

fish pirates

It was 6:15 a.m. at the Iguéla Inlet on Loango's northern boundary. Water flowing into this mile-wide estuary from the interior travels about 75 miles down the Nioungou River, through an enormous unpeopled basin of papyrus swamps, flooded forests, and raffia palms. As it crosses this plain, the water picks up nutrients, which are released into the sea, attracting concentrations of fish as thick as bouillabaisse.

I'd been based at the inlet for weeks, building our trawler surveillance camp and overseeing other operations. Gil Domb, who was filming our work for National Geographic Television, and I were drinking our morning coffee when he blurted out, "Wow, that's a big boat." I looked up, and damned if there wasn't a trawler just north of the inlet, so close in as to be, as we say, "zero meters from the beach." Checking it out with my binoculars, I saw an all-too-familiar shark-fin stripe on the bow. That would make her either *Le Pêcheur I* or *Le Pêcheur II*—the same lot who were here a couple of weeks ago, fishing inside the three-nautical-mile legal limit. Over the past ten months we'd become familiar with most of the rogue fishing trawlers off this stretch of the Gabon coast, and there was no mistaking the Pêcheur clan.

Our spotter team of three Gabonese included a new recruit, Basil Maganga, who was on duty that morning. His job was to watch for vessels fishing in restricted zones and, the moment he saw one, to alert the national authorities.

Scanning the beach, I saw no sign of Basil. Maybe he was still in bed. Maybe he was making breakfast. But wherever he was, I feared he was oblivious to the presence of the trawler right in front of his nose. Gil and I jumped in the skiff and sped off to "crab island," where I left him to film the daily fiddler crab migration. I then made tracks along the shore to find Basil. Instead of wearing his standard-issue ecoguide uniform, he was sporting Hawaiian-style trunks with a



white T-shirt and was inspecting the blank horizon with his binoculars, the trawler having disappeared beyond the point to the north.

I greeted Basil lightly and asked about boats. The coast was clear, he replied proudly. Stifling my feelings (I felt like strangling him), I calmly but firmly informed him that less than an hour earlier there was a trawler right in front of the camp. How could he miss it? What was he doing? It would, I said, be like missing an elephant in your living room.

Without saying another word, I sprinted north up the beach to record the trawler on video. Basil followed close behind. I stopped and scolded him again: Where were his spotting scope, tripod, GPS, notebook, pencil, video camera, and range finder—all of which should have been in his backpack?

As Basil ran back for his equipment, I approached the rocky point a few hundred yards up the beach and rounded the bend. There she was, with the shark fin and a hideous Spiderman painting on her bow: *Le Pêcheur I*, not even half a mile offshore in 30 feet of water, now cruising

south toward the inlet, scraping the bottom with her trawl nets. I got video of the trawler with the surf in the foreground; she looked as if she was going to plow right onto the beach. The video images are crucial evidence, which we send in an e-mail report to the authorities, with the time, date, GPS location, and name of the boat.

But this was the weekend, and I was on a desolate beach in Gabon. How could I get this mechanical monster clear of the inlet before it scooped up the fish soup?

I reached for my secret weapon—the satellite phone in my sack. About 20 seconds later Jean Ampari, my collaborator in Libreville, answered his cell phone. Jean works for the Forestry Ministry, which is also responsible for the environment, water, and fisheries. He's in charge of controlling all trawlers—and with a green light from President Bongo, we're helping him clean up industrial fishing in Gabon.

"Bonjour, Mike." Jean knew my voice.

"We have *Le Pêcheur I*, serial number 010311601, fishing illegally again in the same spot where we busted her two weeks ago, 500 meters off the coast, two kilometers north of the Iguéla Inlet, first noted at 6:30 in the morning and still fishing."

Jean said he'd call *Le Pêcheur's* parent company, APG, right away. I repeated the details, excused myself for calling on the weekend, and thanked him for his action. I went back to filming the trawler, while Basil, who had caught up with me, was making observations through his spotting scope and furiously writing down the details.

As my camera rolled, *Le Pêcheur's* twin nets came up, and the crew came alive. The catch spilled onto the deck, and the men immediately started sorting the fish into baskets. The prize fish here are snapper, jack, barracuda, threadfin, and drum—Gabonese favorites that fetch ever higher prices as supplies dwindle.

We couldn't see much behind the high steel gunwales except for arms flailing, the occasional fish flying through the air into a sorting basket or overboard, and countless dead fish being swept back into the sea through exit holes. The sanitized term for these rejected fish—young ones too small to sell for a profit—is bycatch. What happens to bycatch fish is akin to taking a herd of beef cattle, killing them all at once, and throwing away the calves. This bycatch represents the next generation of the very fish *Le Pêcheur's*

crewmembers will need to live on, and here they were converting them into tern snacks.

When Basil saw this carnage, he flipped. He couldn't believe they'd just throw fish away like that—enough to feed a large village, he said. This was the moment he became a militant; I could see it in his eyes. He was so angry I thought he was going to swim out and turn the fishermen themselves into bycatch. Most of our ecoguides experience such an epiphany. When we hired Loic Mackaga, for instance, he was a convicted elephant poacher. His conversion came from working with Gil Domb, filming elephants and hippos on the beach. Seeing these animals through a long lens rather than the sights of a gun—mothers caring for their young, infants crying for milk and playing with their siblings—gave him a whole new appreciation of them. (Of course, Loic also recognized that the benefits of a steady job outweigh the stigma of being a convicted felon.)

About half an hour after my call to Jean, *Le Pêcheur I* turned offshore and stopped about two miles out. Better, but not good enough. I called Jean again; an hour later the trawler was gone.

Walking back down the beach, I thought about the owner of the *Pêcheurs*, among the most flagrant poachers off Loango. When I see his boats stealing fish day after day, I wonder if he believes he has the right to plunder the natural resources of a country that can ill afford to lose them. In the past year we've recorded dozens of instances of trawlers poaching fish inside the legal limit, mostly at inlets. These boats, though registered in Gabon and flying the Gabonese flag, are run almost exclusively by foreigners, predominantly Asians, Europeans, and West Africans. I also thought about all the other resource extractors I've met in central Africa over the years—loggers, hunters, miners—all taking, taking, taking.

European nations have a long tradition of pillaging Africa, with no responsible limits. Now the European Union has a fishing deal, last renewed in 2001, with Gabon—one of 15 such agreements the EU has with African nations. At least another 11 are being negotiated. The treaty with Gabon includes provision for 64 tuna seiners and surface long-liners belonging to private companies (primarily French and Spanish), which can take 10,500 tons of tuna a year. Add to that another flotilla of European freezer trawlers, which have (Continued on page 122)

seeing the unseen

Most of the animals in Loango haven't had threatening encounters with humans, making them more curious than wary. To find the still unhabituated creatures, photographer Nick Nichols camped in the wilds for five months, adapting to the daily rhythms of his subjects.



RED-CAPPED MANGABEY (*CEROCEBUS TORQUATUS*), NEAR "LIGHTHOUSE CAMP"

Flares of white cheeks and a blaze of red on its head gave away the lookout of a spying mangabey. "Animals like sunset on the beach just as we do, and I often waited to see who would come out then," Nichols says. "One day this young mangabey came up to the mangroves and watched me for five minutes. Then he was gone." Luck put Nichols in a canoe when days-old Nile crocodiles made their first swims in a tannin-stained creek (pages 102-103). Days of planning and the placement of an infrared camera trap produced a rare image of an adult male elephant in the deep forest (following pages), the shot triggered as the bull rose from swimming in a river.

AFRICAN FOREST ELEPHANT
(*LOXODONTA AFRICANA*
CYCLOTIS), ECHIRA RIVER





CLOCKWISE FROM TOP LEFT: FLAP-NECKED CHAMELEON (*CHAMAELEO DILEPIS*), NIOUNGOU RIVER; CINNAMON-BELLIED REED FROG (*HYPEROLIUS CINNAMOMEOVENTRIS*), AKAKA CAMP; ARMORED GROUND CRICKET (TETTIGONIIDAE), PETIT LOANGO CAMP; LAGOON, PETIT LOANGO CAMP



Game trails, splashes, and snapping branches reveal the presence of Loango's large mammals, but for bugs, amphibians, and lizards, it's often a flash of color or movement, a mating call, or chance that exposes them. The nightly din outside his tent inspired Nichols to find a frog at its post. A stealthy chameleon stopped mid-stride on a limb. Near a lagoon, where watermarks on mangrove roots inscribe a history of depth changes, an armored cricket heavy with eggs stood its ground. Nichols needed caution above all else to photograph a deadly Gaboon viper (following pages), its head nearly lost in the leaves.

the biodiversity here is amazing.

this is life at its fullest

—Nick Nichols



GABOON VIPER (*BITIS GABONICA*)
NEAR IGUÉLA INLET





CLOCKWISE FROM TOP LEFT: AFRICAN FISH EAGLE (*HALIAETUS VOCIFER*), SOUTH OF TASSI CAMP; AFRICAN FOREST ELEPHANT, ECHIRA RIVER; HUMPBACK WHALES (*MEGAPTERA NOVAEANGLIAE*), ONE MILE OFFSHORE; ROSY BEE-EATERS (*MEROPS MALIMBICUS*), TASSI CAMP



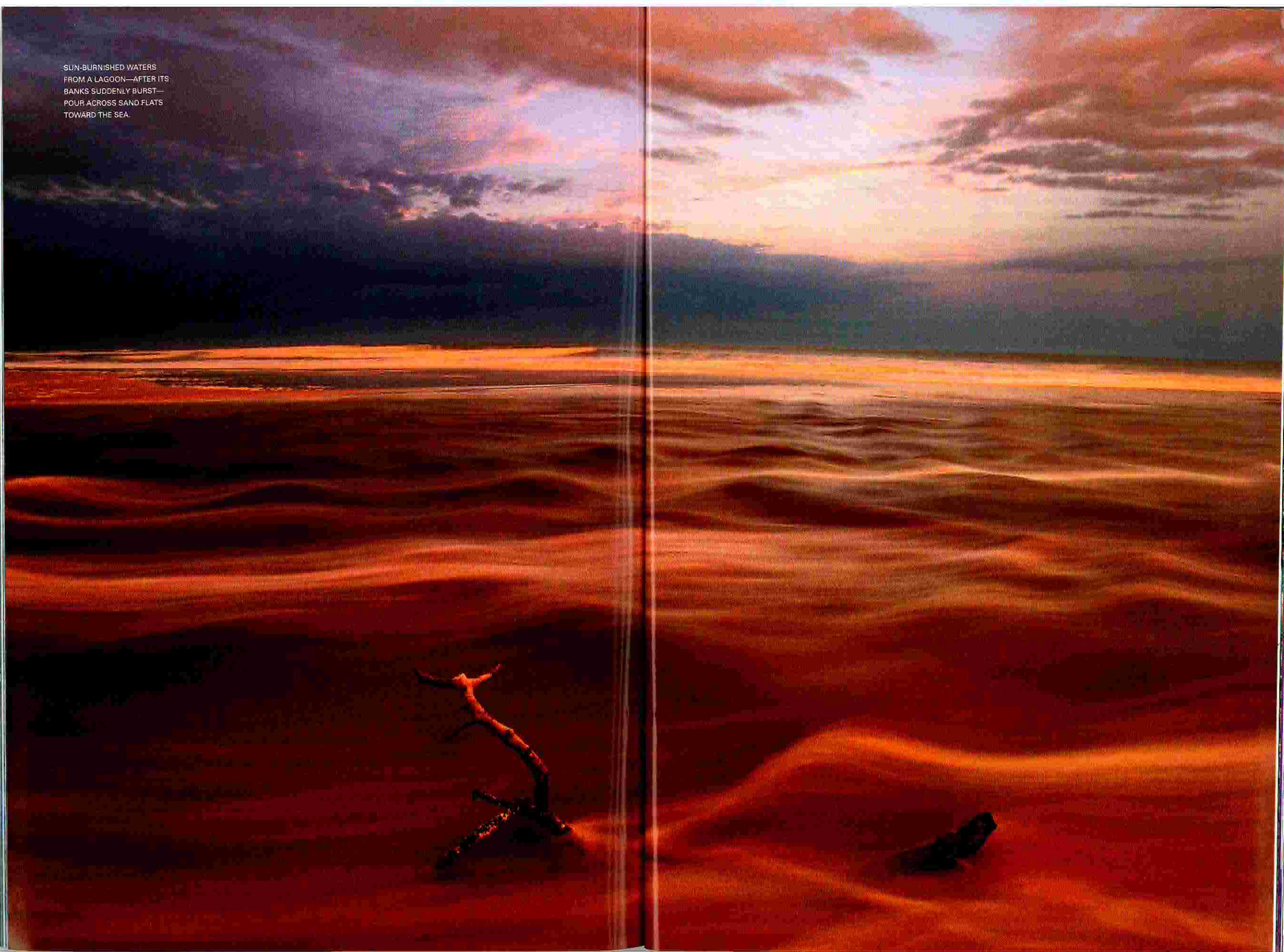
Within a modest radius of ten miles, Nichols found a dramatic sampling of creatures that pass through the Loango area. Canoeing on the Echira River, he surprised an elephant swimming in the murky waters. One day, flying a paraglider above a lagoon, Nichols gazed down on the impressive wingspan of a fish eagle. Mating rituals of rosy bee-eaters entranced him near the coast. The birds had gathered by the thousands, and with their nest digging “turned the savanna into a sandbox.” And in a boat on the open ocean, Nichols rode the waves made by male humpback whales vying for a female.

[working in central africa has made me patient. everything is on nature's terms]

—Nick Nichols



SUN-BURNISHED WATERS
FROM A LAGOON—AFTER ITS
BANKS SUDDENLY BURST—
POUR ACROSS SAND FLATS
TOWARD THE SEA.



(Continued from page 110) the rights to 14,400 tons of crustaceans and cephalopods, and you have a yearly grand total of 24,900 tons of seafood the EU can extract legally from Gabonese waters. For this haul Gabon receives a minimal payment. (In practice there are no limits: The fine print permits catches in excess of quotas at the same price.)

Critics say these agreements are market driven rather than based on scientific studies of sustainable fishing. They're designed only to supply European markets and to secure employment for EU fishery workers. And they fail to meet the objectives of international treaties under which EU members (and other First World nations) have committed to help develop, and reduce poverty in, poor countries like Gabon.

It makes me angry. The EU boats never put in at Gabonese ports, don't employ a single Gabonese (although Spain is now considering building a tuna-processing plant in Gabon), and never sell a single fish on the local market. No wonder Gabon, a country that eats less fish than it produces, still needs to import more than 10,000 tons of fish annually to meet its own domestic consumption. You'd think that in 2004, in a globalizing world with diminishing natural resources, wealthy nations like those in the EU would be more responsible. You'd think that by now prudent management and sustainable fishing would be more of a reality.

My hope is that the EU will soon become a strong force for fisheries in Gabon and that we'll succeed in getting a marine extension to Loango National Park. For now I was just very happy we'd cleared the coast of *Le Pêcheur I*

is a nocturnal creature. His job is to count, observe, tag, and otherwise gather up all the information he can about the sea turtles that come ashore at night to lay their eggs. I'd joined him and two others, Serge "Feree" Ogoula and Jean-François Babicka, to survey a three-mile stretch along the northern limit of the park, just beyond the St. Catherine ecoguide camp. Our coastal patrols actually extend about eight miles up the beach in an effort not only to stop human predators from pilfering turtle eggs but also to allow mammals to return to Loango's shore. It seemed miraculous, but in the past six months turtle-nest pillaging had dropped to virtually zero (although turtle numbers overall were mysteriously down), and we now had elephants and sitatungas (large striped antelope) strolling the beach.

Mature female leatherbacks come ashore every three or four years but lay several clutches of eggs in that one season. This was the peak of the egg-laying season, and although I'd been out with the team on four consecutive nights, I still hadn't seen a turtle. I told Clement, who was poker-faced as usual, that if we didn't succeed tonight, he and the others would all be fired. That got a smile out of him.

We followed normal operating procedure: headlamps out, walking just above the tide line in a close search for fresh turtle tracks, a search facilitated by the glow from the flare of an enormous offshore oil platform. I go into a trance-like state on these walks, but Clement, who has done turtle counts all over Gabon for years, never stops making notes. He was obsessed with figuring out why turtle numbers were suddenly so

it seemed miraculous; turtle nest pillaging had dropped to virtually zero

—and that the incident had woken the sleeping giant in Basil Maganga. Gabon needs all the foot soldiers it can get.

turtle quest

Through the sea mist I was drawn by the refracted light of three headlamps. Then Clement Moukoula, the head of our sea turtle team, materialized. I couldn't make out exactly what he said over the crash of the high-tide breakers, but it was something like, "It's 21:07, and you, sir, are seven minutes late. Let's go!"

Every year from October to March, Clement

low. He wondered if accelerated beach erosion had something to do with it. Or was it the new oil flare, or perhaps trawler fishing? I suggested global warming, the catchall excuse for collapsing ecosystems everywhere. Or could it be another frequently cited phenomenon, El Niño?

By rights this should have been a good night for leatherbacks, with a waning moon and the tide incoming, but by the time we reached the stick marking the three-mile limit of the study beach, we hadn't found a single one. So we had a bit of a snooze on the moist sand, then headed back down the beach. By now I'd gone from my trance to doing incantations to see a turtle.

When we were about half a mile from our starting point, an ominous black thing loomed ahead of us like an apparition in a horror movie. A leatherback! She was head-to-land about 20 feet above the tide line on a nice wide patch of beach. Clement instructed us to stand back while he checked how far along she was in the nesting process. "She's dug the egg chamber," he whispered. Just behind her was a perfectly cylindrical hole about six inches in diameter and a foot deep. "Sit quiet for a minute until she lays, then we can approach, no problem."

I heard the turtle make what sounded like a gasp, and Clement was up in a flash. Huddling up behind her, the low beam from his headlamp defining the chamber, we could see that she'd dropped several eggs. Clement looked distressed. "The hole isn't nearly deep enough," he said, pointing to the turtle's back right flipper, most of which was missing. The loss must have handicapped her ability to excavate, a task that calls for all her strength and dexterity.

I watched spellbound. This old girl was pushing hard, and she already looked exhausted. *Bloop*—more eggs fell. They were the size of billiard balls, round and white. Every time mom pushed, out came eggs, up to four at once, covered with a gooey mucus. As the hole filled, we counted: 30, 50, 80, and, finally, 84 eggs. Clement was right—the egg mass overflowed the hole.

As soon as she'd finished, the turtle team hopped into action to record her vital statistics. Her carapace was measured: 143 centimeters (56 inches) long and 105 centimeters (41 inches) wide. Clement estimated her weight at 300 kilo-

tamping it down with the top side of the other.

I glanced at Clement questioningly. He nodded. I touched her flipper, and my heart stopped when she almost grabbed my wrist with it—that flipper seemed prehensile! I'd expected the limb to be hard and scaly, but it was fleshy and supple as a seal's. The baby-soft skin was slate gray, with what looked like sponged-on blotches of white latex. Diligently, she continued sweeping and tamping, working with such eerie dexterity that she struck me not as a turtle at all but as a person dressed up in turtle costume. Any second now she would start talking: "Hey Mike, can you push that egg into the hole for me?"

I thought about all the things ASF2637 must have seen in her decades at sea: giant passenger ships, trawler nets, sharks, manta rays, humpback whales, oil spills, and tons of garbage. Where had she been, and what had injured her flipper?

She finished tamping, but two eggs remained exposed. Clement grabbed them and removed them far from the nest, lest they alert predators like civets, ghost crabs, or monitor lizards to the nest's location. The covered eggs would incubate, unattended, for 60 to 70 days. The hatchlings would break through the nest chamber at night and head for the water. Crabs would be lurking on the beach, and for the tiny turtles that made it to the sea, jacks and mackerel, not to mention trawler nets, would be waiting.

Now the turtle's front flippers—paddles nearly as long as her body—went back into action, throwing bucketloads of concealing sand all over the egg chamber and surrounding area. With each throw she pushed slightly forward and to

the side, cutting a deep

swath in the sand. After a bout of scooping she rested her head, closed her teary eyes, and gasped for more air, her carapace glistening in the moonlight. As I slid my fingers along it, it felt like the curve of a finely polished marble sculpture. Indifferent to our presence, the turtle was following an innate program encoded millions of years ago. If anything, I felt she somehow knew we were on her side.

After 45 minutes of huffing and puffing and chucking sand, she was 15 feet from the nest and 40 or so from the surf. A ghost crab would be hard pressed to find turtle eggs around here: The sand was so churned up, it looked as if someone had Rototilled the beach. Clement and crew

measured the exact distance between the nest, the high-tide line, and the surf and drew a map of the tracks to and from the nest site. A GPS position was taken, so they'd be able to visit the nest in a few months to see if the eggs had hatched.

Her work done, ASF2637 lumbered toward the water, as we silently urged her on. At last she made it to the pounding surf, and—now you see her, now you don't—disappeared home into what seemed a lonely and foreboding sea.

trash dudes

The sun was already showing signs of being evil as the trash crew readied for action. An early riser, Serge Nkala Y'Eteno, the trash chief, was way down the beach at the work site, having some quiet time to himself. The other five were busy making a thick slurry of instant mashed potatoes mixed with Nestlé's cocoa powder and heaps of sugar. I opted for coffee and a bowl of oats.

By seven o'clock we were all walking toward the site about 15 miles south of Iguéla Inlet, where the cleanup operation had begun about a month before. Roughly 30 more miles to go (five months of work) before all of Loango's waterfront is junk free. Today's section was in a strong tidal zone, and the shape of the beach made for a good (or rather, bad) concentration of trash. I was hanging out with Serge Gnogomie, whom I call "Nogomi" to avoid confusion with Serge Y'Eteno. Nogomi described the work. Every night, he said, Chief Serge assigns each team member a 100-meter stretch of shoreline from the water's edge to the high beach.

blackened remains into the ocean. We find a lot of oil industry trash on Loango's beaches.

I walked down the beach to join Chief Serge and the others. The accumulated trash covered the sand as far as the eye could see. This stuff has been washing ashore for decades, and cleaning it up is just one piece of the conservation puzzle we're attempting to solve with Operation Loango. You can't expect to have vibrant ecotourism here with dirty beaches, can you?

The most widespread eyesore was a relatively recent product: the plastic water bottle. In just the past decade billions of these things have invaded the Earth. Most countries now produce bottled water, and hundreds of millions of people drink only that. Seeing all the bottles on this remote beach, I thought: This can't go on. The world just can't afford to burn this much energy to make bottles from fossil carbon that we fill with spring water, ship halfway round the world, sell for more than the price of gasoline, and then chuck out. It's nuts.

Chief Serge was busy banging the top out of a 55-gallon steel drum. This one had had some kind of corrosive material in it, a chemical soup long since leaked from the rusty shell into the ocean. We dispose of these by removing the top and bottom so they don't float, then throwing the hulk into the sea. The salt water does the rest. To document items like this, every 50 meters Serge takes two GPS readings to demarcate an area where the density of trash will be calculated. Then he sits down at each pile and makes a note of every intact object.

What's to be done with mountains of trash

Next day the team scours 500 meters of beach, making trash piles at 5-meter intervals—a hundred separate heaps of garbage to be cataloged and disposed of. The pay is nominal, about six dollars a day plus all the rice, corned beef, and breakfast mush they can eat.

It wasn't long before we came across an amorphous blob of plastic the size of a large beach ball. It looked like a meteorite from space, black and hard. Turning it over, I noted a protruding label that included the words "well number." That told me exactly what our object was: a large bundle of the bags used by oil companies to hold mud or rock samples. Someone should have incinerated it but had only done half the job, dumping the

turned into mountains of data? We'll use the statistics as weapons of mass awareness to convince oil companies, cities, and other offenders we identify that they're part of the problem and need to become part of the solution. We'll show the mayor of Pointe-Noire, the main port of neighboring Congo, all the Congolese trash we've found. We'll talk to oil company executives, encouraging them to be more careful about incinerating waste. We'll urge the general public to demand locally produced drinking water. Who knows, we might even persuade water-bottling companies to use more eco-friendly containers.

It was now about 10:30 in the morning.

seeing all the bottles on this remote beach, i thought: this can't go on

Sweltering. Already, the hundred trash piles had been amassed, and Chief Serge was sitting in front of pile three. Dimitri Mouvougou had begun marking off tomorrow's beach assignment, and Nogomi had gone back to camp to fetch drinking water fresh out of the local creek. I watched Serge as he meticulously cataloged the pile, which included a 1.5-liter plastic soda bottle, three nicely stacked foam cups, a fishing float made from three motor-oil containers bundled in a piece of trawling net, five intact flip-flops (three right and two left), an unopened Sprite can labeled in a language he (and I) didn't understand but which he copied down faithfully, a 500-gram Olma margarine tub, the top to a can of Quaker Oats, a little white doll's shoe, a dozen 1.5-liter water bottles, a syringe, a Johnnie Walker Red Label bottle, a plastic shopping bag. . . .

The sun was burning me up, and I decided to take a dip in the ocean. When I caught up with Serge again, he was at pile ten, assiduous as ever with his logbook but now getting help from Gisele Mabiala, the only female in the crew. Around 11:30 the youngsters Karl Remanda and Youri Rognoundou passed by, doing a sweep of the lower beach and making sure they hadn't missed a single item in their 200 meters. These two always work together ("We do a more thorough job that way"), and for them to be satisfied, the eye has to be able to scan a completed section of beach and not be distracted by a man-made *anything*.

Tagging along with Karl and Youri, I asked what was the most striking thing they'd found. A few weeks ago, they said, they'd come across a brick-shaped object wrapped in many layers

see, and the magnitude of what these six people were accomplishing with just their bare hands struck me. I ran through some quick calculations. With a thousand such volunteers we could clean the beach all the way to Cape Town, 2,500 miles to the south, in 48 days, for about \$385,000.

By the afternoon the crew (except for Chief Serge, who was still hostage to his data collection) had begun digging incineration holes at roughly ten-meter intervals. At 1:22 the first disposal fire was lit. The mix of a stiff onshore breeze and the flammable trash made for a serious blaze, which soon sounded like a big pot of popcorn, crackling and exploding and releasing little whistles of gas. I watched as the Olma margarine tub slipped into the flames and a pressurized soda bottle jumped as if in a death throes. Black smoke billowed into the air, and soon all that was left was a cauldron of burning metal and plastic. In these infernos the volume of the trash is reduced by more than 99 percent; glass bottles crack and melt, aluminum fishing floats burn, even entire TVs are reduced to ash, silicon, and copper.

A second hole was now ablaze, primed by lumps of tar from the frequent oil slicks that wash ashore. Burning the trash this way, which causes its own pollution, seems drastic, but our fires are probably equivalent to about two seconds' worth of the gigantic gas flares that burn continuously a few miles off Gabon's coast.

By 6 p.m. Chief Serge, his recordkeeping finished, was helping load stuff into the last burn hole. The sun was setting behind us as we strolled back to the camp for a hearty meal of corned beef and luncheon meat on oily rice. We sat around the campfire, recounting the catch

of what looked like commercial Scotch tape. Peeling it off, layer by layer, they finally came to a thick white paste that "heated" and discolored the tips of their fingers when they touched it. It had a chemical smell, like soap. I wondered: Was it heroin or cocaine? This wasn't the first time the crew had found such objects. I joked with Karl and Youri that if I were they, I'd be looking out for the valise containing the payment for those little packages—we could use it to start up another operation. They had no idea what I was talking about.

I looked down the beach, then up the shore, past a buffalo in the distance, as far as I could

of the day: 535 plastic bottles, 560 intact flip-flops, a 55-gallon drum, 4 refrigerators, 4 hard hats, a 20-liter pressurized freon bottle, and 2,240 other sundry bits and pieces.

About 50,000 water bottles from now, we should be done cleaning Loango National Park. Who knows? Maybe we'll take Operation Loango all the way to Cape Town.

RIDE THE WAVES with hippos in Loango National Park and experience Mike Fay's central African trek in a multimedia special narrated by him and Nick Nichols. Sound off in our Forum on the challenges of Third World development, get the full scoop on ecotourism in Loango, and download free desktop wallpaper at nationalgeographic.com/magazine/0408.

if the park is done right, visitors should feel like the first people to see this place

—Nick Nichols

After a long day's night of feeding on coastal grasses, a sated hippopotamus tromps back to its home lagoon to sleep. Known to Fay and Nichols as one of the "surfing hippos," this solitary male swims out near the breakers, the salt water keeping him buoyant as he bodysurfs to and from feeding grounds. Such sights make Loango one of the world's most arresting wildernesses. The park is dealing with birthing pains—from poaching, lack of trained staff, illegal fishing, and tons of washed-up trash on the continent's finest stretch of beach. But the park's advocates, Fay and Nichols, are optimistic. With no permanent structures allowed on the shoreline, visitors will be encouraged to act as unobtrusively as the wildlife, packing up camps and disappearing, the coast left to nature until the next lucky witnesses arrive. □



HIPPOPOTAMUS. "SURFING HIPPO" LAGOON