Elephants once roamed throughout West Africa, but only a few isolated populations escaped ivory hunters and other threats. Mali's surviving herd of desert elephants, some 400 strong (migrating north after water holes in Burkina Faso dried up), has been "pushed to the edge of adaptability," says Vance Martin of The WILD Foundation.
J ust south of Tombouctou, where the sand dunes of the Sahara merge with a scattering of trees and shrubs, live the world’s most peculiar elephants. Mali’s desert elephants migrate almost 300 miles in a year, as far as 35 miles in a day, all in pursuit of water. These elephants are “living on the edge, in the most extreme conditions,” says biologist Iain Douglas-Hamilton, founder of Save the Elephants. “Their survival depends on making good decisions.”

Their survival depends on human decisions too. The Tuareg nomads who share the elephants’ territory “have a remarkable culture of tolerance,” Douglas-Hamilton says, and don’t hunt the animals. As recently as 1970, several elephant populations lived in other parts of the Sahel, as the southern border of the Sahara is known. Poachers got most of them, and now only Mali’s remain.

Douglas-Hamilton and other scientists and conservationists are tracking this small herd of nomadic elephants to see where and when they migrate. In 2000, researchers attached GPS collars to nine elephants; they later recovered three working units. The high-tech data from animals dubbed Amani, Elmeigi and Doppi (Gromoppi) confirmed what some elephant-watchers had suspected for decades: the pachyderms follow a vast, counterclockwise route dotted with temporary and permanent watering holes. They linger at a lake on the northern edge of their range until the rains begin in June, then head south, eventually crossing briefly into northern Burkina Faso.

Nomadic animals are hard to protect—you can’t build a fence around them and charge admission. But Vance Martin, president of The Wild Foundation, a nonprofit conservation organization, says there is “great political will” in Mali to protect these animals and perhaps see them as a mobile national park. Malians have already demonstrated their affection: when a massive drought dried up the elephants’ last remaining water source in 1983, the government (a constitutional democracy) trucked in water for the beasts.

The goal of ongoing tracking projects, Martin says, is to identify “choke

A NEW PHOTO LIBRARY OF WEST AFRICA’S DESERT ELEPHANTS IS HELPING RESEARCHERS TRACK THE DWINDLING HERD AND PROTECT THEIR IMPERILED MIGRATION ROUTES

BY LAURA HELMUTH
PHOTOGRAPHS BY CARLTON WARD JR.

SAVING MALI’S RATORY PHANTS
During the heat of the day, West Africa’s desert elephants (lumbering toward a lake through a sandstorm at twilight) tend to avoid the open desert. The animals wallow and drink at night and return to acacia forests before dawn, thus avoiding people.
ELEPHANTS’ BELLOWS INCLUDE FREQUENCIES TOO LOW FOR US TO HEAR; THE SOUND CAN TRAVEL SIX MILES.
er 2,000 useful images. Researchers think there are at least 400 elephants in the group, based on photographs, aerial surveys and studies of dung deposits (the more dung, the logic goes, the more elephants; much of a wildlife biologist's work is somewhat less than glamorous).

Elephants may look alike to you and me, but the shapes of their ear flaps and their tusks set them apart. The heat releasing ear flaps have distinctive folds and, over an elephant's 60-year lifespan, they often accumulate tears.

No one is sure why these desert elephants have such stubby tusks. The animals may suffer from a dietary deficiency, although they seem healthy and are reproducing successfully. More likely, in a not-so-natural version of natural selection, poachers killed more of the animals with large, showy tusks.

Elephant identification projects in other parts of Africa have allowed researchers to observe some fairly sophisticated social interactions. Female and young elephants cluster together in groups dominated by one matriarch; males tend to be loners. The older the matriarch, according to one study, the better a leader she is. She and her followers raise more young and are more likely to bunch up to protect the young when they hear an unfamiliar call.

Researchers are beginning to decipher elephant calls. Their bellows include frequencies well below the range of human hearing and can travel through air up to six miles. Elephants appear to hear even with their feet. Their rumbles create seismic waves in the ground, and elephants have been shown to freeze and look toward the source of a seismic wave 100 feet away.

Somehow elephants communicate with one another quite clearly. Last June, the first rains of the season finally freed Mali's elephants from the overgrazed lake where they had been trapped during the hottest, driest part of the year. Carlton Ward raced to the top of a nearby dune and saw more than 100 muddy elephants trudging south, to the next stop on their route: a single file.

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