Keeping track

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A PALM-SIZED computer designed to preserve the ancient tracking skills of the Bushmen of southern Africa could also help to protect some of the world's most endangered species.

To help save endangered animals in the wild, conservationists must first know how many are left and where they are. The current method of counting populations—aerial surveys—is notoriously unreliable. In the case of the endangered roan antelope in South Africa's Kruger National Park, for example, numbers fell for three consecutive years before the park managers noticed. By then, only 28 were left.

The new computer, known as a Cybertracker, was designed to preserve the ancient tracking skills of Bushmen in the Kalahari for posterity. It allows Bushmen to record when and where wildlife is seen by pressing icons on the screen that represent different animal species.

The Bushmen can also record the animal's behaviour, and what the species eats. The date, time and location of each entry is recorded by a built-in Global Positioning System.

By studying the Bushmen's input into the computer, conservationists will learn how the tribesmen stalk animals and use these skills for their own ends.

Conservationists have found that the Cybertracker can also give a far more accurate picture of wild animal populations than aerial surveys. With the roan antelope, for example, the park managers would have seen the danger signs within six months rather than three years, says Louis Liebenberg, a South African anthropologist who developed the device with Edwin Blake, head of computer science at the University of Cape Town.

Liebenberg, who has just won a 1998 Rolex Award for Enterprise for his work, says that an expert tracker using the system each day could log up to 20 000 observations a year.

"To manage a nature reserve or game ranch requires intensive and continuing study of the vegetation and the animal life, including the social behaviour of the animals," he says. Until now there has been no efficient system for taking all these factors into account.

The new system is already being used in the Kruger National Park to determine how many elephants the park can support. By monitoring which plant species the elephants are feeding on, it will be possible to tell when overgrazing occurs and hence predict food shortages.

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