

# Rumble in the jungle

**FOCUS** After years of fighting to control poachers, foreign wildlife groups are pulling out of Africa's game reserves to let local governments take charge. Critics think the move could spell disaster

THE white man in shorts, enduring symbol of conservation in Africa, is making his final retreat. The largest environmental group working in the continent, the World Wide Fund for Nature, is pulling out of the region's game reserves and national parks.

Senior WWF officials have admitted to *New Scientist* that the organisation's traditional role in wildlife preservation is no longer tenable. They say that in order to achieve sustainable conservation, more responsibility will have to be placed with local populations, even though this will mean "taking risks".

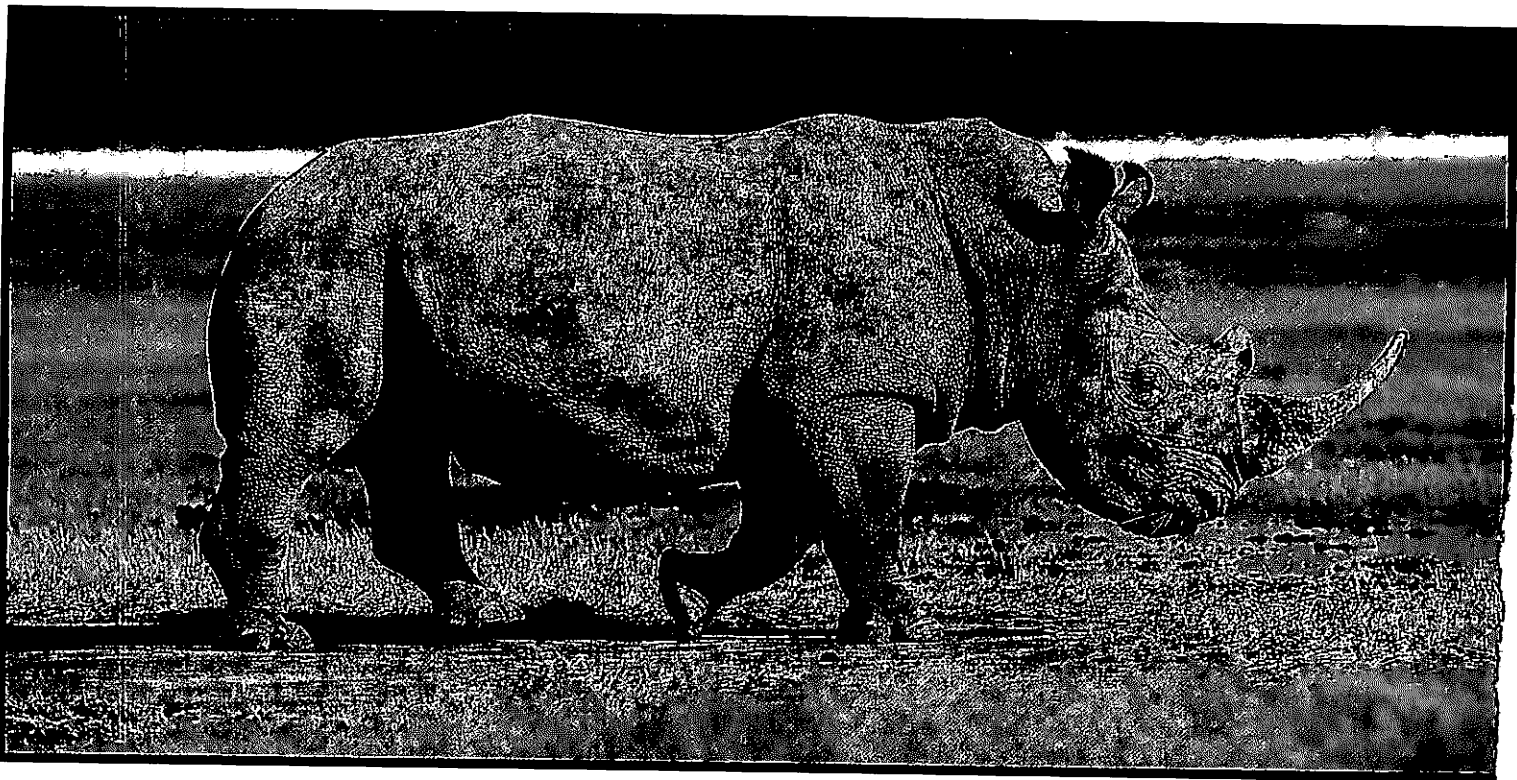
Without such changes the WWF fears it will antagonise locals, undermine national governments and threaten the long-term

Fraser Smith, who this summer were forced out from their 14-year tenure in charge of the Garamba National Park. The remote and lawless rainforest park, covering 500 000 hectares of northeast Congo, is the last wild refuge of the northern white rhino. Until recently, the WWF portrayed Kes Smith, an English zoologist, and her Zimbabwean game-warden husband as conservation heroes: a doughty defence against armed gangs of poachers.

But the wind of change in African conservation has swept them from their posts. WWF International's director-general Claude Martin told *New Scientist*: "The survival of a species cannot simply hinge on the presence of two individuals." He

scientists and works to tear down the fences between people and animals. In Zambia, for instance, it aims to "help communities make informed decisions about the sustainable use of wildlife". In Kenya, it is switching its attention to easing conflicts between farmers and animals outside its parks, where the country's herds of elephants, zebras, giraffes and the rest spend most of their time.

Adopting a pragmatic approach that involves the local population in wildlife conservation won't necessarily deter poachers—particularly those from outside the area—from seeking lucrative skins or rhino horns. But the WWF hopes it will encourage locals to take advantage of



survival of the continent's rhino, elephant, lion and buffalo.

When WWF International holds its annual meeting in Switzerland next week, its officers will report that the withdrawal is gathering pace. But the new strategy is leaving some of the WWF's most respected scientists and conservationists out in the cold, and opening the organisation to the charge of abandoning endangered species to likely extinction.

The latest human victims are Kes and

admitted that in the past the WWF and others have "created the unfortunate impression that an organisation or, worse even, an individual, could be a sole guarantor...of a species".

The WWF's idea, shared by many other conservation groups, is to integrate wildlife management back into the community and stop it being seen as the sole preserve of white men. The New York-based Wildlife Conservation Society now lists its prime activity as supporting Africa-based field

government initiatives such as free fencing to protect their crops from marauding animals. In this way the animals are less likely to be shot. A good relationship with conservationists may also encourage locals to report poachers.

However, John Watkin of the Africa Conservation Centre in Nairobi says that throwing out the Smiths in the name of people-centred conservation may spell the end for the northern white rhino.

He says: "The achievements of the

# A plague on you

## America is dragging its feet on new pesticide controls

ENVIRONMENTAL groups are losing patience with the US government over its failure to introduce tough controls on human exposure to pesticides. One group has already withdrawn from an environmental Protection Agency (EPA) committee supposed to be implementing the rules. Others may follow suit.

"We felt we were lending our good name to a stalling process," says Kenneth Cook, president of the Environmental Working Group in Washington DC, which has walked out of the EPA's Tolerance Review Assessment Committee (TRAC).

The TRAC's job is to implement the 1996 Food Quality Protection Act. This requires the EPA to reassess limits for human exposure to pesticides. Under the 1996 act, it must consider exposure to pesticides with a similar mechanism of action together, rather than separately.

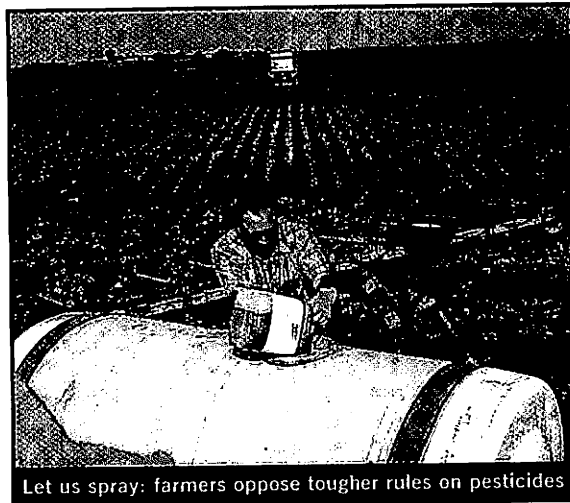
The act also imposes an additional 10-fold safety factor for children. Under existing rules, tolerance for humans is set by determining the highest safe dose from animal tests, and dividing it by 10. Unless there is solid evidence that children are not affected more strongly than adults, this dose must now be reduced by a further factor of 10.

These measures should greatly reduce the amounts of pesticide residues allowed on food, and they raised an outcry from farmers and

pesticide manufacturers. The administration responded by setting up the TRAC, which includes representatives from industry and environmental groups.

The committee is supposed to be resolving issues such as how to determine which pesticides work by similar mechanisms. But Cook claims that it holds numerous meetings without moving closer to its goal. Other groups agree. "We've been seriously considering resigning ourselves," says Erik Olson of the Natural Resources Defense Council in Washington DC. "It seems like it has been set up as a cover for inaction."

But Jay Vroom, a TRAC member representing the American Crop Protection Association, an industry organisation, says the committee is making decisions. "It's not all going in a way that is satisfactory to industry," he says. Kurt Kleiner, Washington DC



Let us spray: farmers oppose tougher rules on pesticides

Tony Stone

## Green light for breast cancer drug

FOR the first time, American women in danger of developing breast cancer can take a licensed drug in the hope of warding off the disease. The drug tamoxifen has been approved by the Food and Drug Administration (FDA) as a preventive measure in women at high risk of the disease.

The FDA's decision rests on the American Breast Cancer Prevention Trial, involving more than 13 000 women, which found those on tamoxifen were half as likely to get breast cancer as those on placebo. However, trials in Europe have failed to demonstrate a similar protective effect (This Week, 18 July, p 5).

Researchers involved in the European trials are highly critical of the FDA's move. "I think this is premature" says Ian Fentiman, head of surgical oncology at Guy's Hospital, London.

Fentiman notes that women given tamoxifen are more likely to develop endometrial cancer and deep vein thrombosis. He adds that there is some evidence that tamoxifen is less effective in preventing breast cancers due to inherited mutations—one type of the disease US authorities hope to prevent—than in women with other risk factors, such as having had a series of biopsies for breast lumps.

Michael Day

## Bright hope

A carbon crystal that might eventually be used to make circuits which use light beams instead of electric currents has been developed by electronics company AlliedSignal. Researchers took a synthetic version of the gemstone opal and filled the spaces in its lattice with carbon. They then chemically removed the gemstone, leaving the carbon in a form they dub "inverse opal". The resulting crystal, described in *Science* (vol 282, p 897), can strongly diffract visible light, a quality the researchers have exploited to build an optical switch. The researchers are hopeful that their switch might operate well with infrared radiation—but they stress that much more work is needed to make a viable alternative to the transistor.

## Remote care

Paramedics can now be alerted instantly if a patient has a heart attack or a stroke at home. A sensor developed at the University of Tokyo has electrodes to monitor the heart, accelerometers to monitor movement and inclinometers that indicate posture. Weighing 100 grams, the device is the size of a pack of cards and is worn externally. The sensor relays information to a nearby computer, which analyses the signals. If it detects a sudden movement such as a fall, the computer sends an alarm signal by modem to a nearby hospital.

## Copy cats

Dutch consumer electronics firm Philips is about to upset record companies by launching the first consumer CD player with a built-in CD recorder. The Philips CDR765, which costs about \$600, has two decks: one for playing a CD and another for recording sound from any source onto a blank disc that can be played on any ordinary CD player. Both decks can spin at double speed, so copying a 60-minute disc would take only half an hour. Like all digital recorders, the system uses the Serial Copy Management System to stop copied discs being copied again—but any number of copies can be made from an original CD.

[Garamba] project are enormous and due solely to these two individuals." The surviving wild population of the subspecies has risen from 13 to 30 during their tenure. Watkin puts this down to the Smiths' skilled management and uncompromising policing of the park.

He is well aware of the trend towards involving local communities in preserving wildlife. But in some areas he thinks this "politically correct" approach is simply not appropriate. "Garamba sticks out as a situation where an iron-fist protectionist approach is still required," he says. He would like to see a "military-style force" impose order and eliminate poaching in this lawless region.

But earlier this year WWF conservation director Chris Hails ruled that for ethical reasons its funds could no longer buy arms or recruit security firms.

The new approach to conservation in Congo was agreed between Martin and the new Congolese President Laurent Kabila in Kinshasa last February. "The idea is now that the Congolese run things in Garamba and elsewhere," says Sheila O'Connor, the head of WWF's Africa programme. "We provide them with policy and technical expertise—for instance on how to draw up biodiversity action plans. We are spending more on policy as opposed to isolated field activity."

The bottom line is that WWF leaders think that more diplomacy and less direct intervention is the conservationists' only hope of keeping the countries they work

**'More diplomacy and less direct intervention is needed. The WWF is moving out of the wild and into the office'**

with on board in the long term. In effect, the WWF is moving out of the jungle and into offices in the capital. Not just in Congo, but across the continent. Newer projects in Rwanda, the Central African Republic and southern Africa also reflect the change.

It is a strategy that Martin has pursued since taking over in 1994 as director-general from the more traditionally minded South African Charles de Haes. The reasons are partly financial: "It is incredibly costly to take the place of

government authority, paying for salaries, equipment and so on," says O'Connor, who has recently completed a major reorganisation of WWF's work in Madagascar. But there are also political and philosophical reasons.

### Taking risks

Madagascar, says O'Connor, illustrates what went wrong. The country has a huge amount of unique wildlife. But massive destruction of its forests by farmers and loggers brought pressure to intervene and save what was left. "We went from two experts there in 1986 to 600 local employees a decade later. We became a replacement for government authority. It wasn't deliberate—it only happened because of the urgency of the conservation issues. But it wasn't good. We should not take over from governments. Now we are handing over."

The policy is so new that the WWF's website currently boasts of the big growth in "field projects and personnel" in Madagascar, and adds that: "To maintain the momentum which has made WWF the driving force for conservation in Madagascar, support for the programme must continue." Inadvertently, this oversight hints at the strong differences in opinion within the WWF itself, which dissenting insiders are not keen to voice.

But some outsiders are more openly sceptical. The rich and influential Washington DC-based Conservation International, which specialises in buying up and preserving rainforest, notes that traditional approaches to conservation are the only ones so far that have been shown to work.

In an exchange of letters in a September issue of *Science* (vol 281, p 1455), Ian Bowles, its vice-president for conservation policy, called for "outright protection" of rainforests. He accused conservationists who backed a more pragmatic approach of being "coopted" by people opposed to conservation. He notes that there is little or no evidence that a form of "sustainable" rainforest logging exists that truly preserves either biodiversity or tree numbers. Conservation International recently spent \$9 million on buying 1.6 million hectares of undisturbed and unpopulated rainforest in central Surinam, an area the size of New Jersey, as a "storehouse of biodiversity" in perpetuity.

That forest, it claims, has no inhabitants. But this is very rare among protected areas in Africa. Hence WWF's view that the fences have to come down and the poachers have to be befriended rather than shot at. "It is an experimental policy," O'Connor admits. "Sometimes it may go wrong. But you have to take risks for sustainable conservation."

Fred Pearce

### Worldwide winds

Fierce weather pounds the planet around this time of year. After the devastation wreaked by Hurricane Georges in the Caribbean come Typhoon Babs in Asia and Hurricane Mitch in Central America. When *Netroopolitan* went to press, Babs had killed 189 people in the Philippines and Mitch was brooding moodily off Belize and Honduras.

☉ The intense storms, properly called tropical cyclones, that threaten the Caribbean and southeastern US are followed by the National Hurricane Center at <http://www.nhc.noaa.gov/>. America has not been as badly affected by hurricanes as have less developed nations in Asia, where a 1970 storm killed an estimated 300 000 in Bangladesh. You can track storms in the Pacific and Indian oceans at <http://www.solar.ifa.hawaii.edu/Tropical/tropical.html>. If you want to help their victims, one place to turn is Disaster Relief, at <http://www.disasterrelief.org/>.

☉ Thanks to satellite images, forecasters can now predict storm paths far enough in advance to evacuate people from the target areas. The deadliest North Atlantic hurricanes listed at <http://www.nhc.noaa.gov/pastdeadly.html> struck without warning. Some 22 000 people perished when "The Great Hurricane" devastated the Lesser Antilles in the Caribbean in mid-October 1780. The deadliest this century was a 1900 storm that killed up to 12 000 people when it swept from the Gulf of Mexico across coastal Galveston, Texas.

☉ Property, of course, cannot flee the weather, so damage costs have soared. Hurricane Andrew caused a record \$30 billion worth of damage in 1992, yet thanks to modern wealth, property values, and population levels, a hurricane that hit Miami and Alabama in 1926 would have caused an incredible \$72 billion in property damage in 1995 dollars. Find the true cost of hurricanes, at least in the US, at [http://www.dir.ucar.edu/esig/HP\\_roger/hurr\\_norm.html](http://www.dir.ucar.edu/esig/HP_roger/hurr_norm.html).