

Elephants tread lightly in old minefields of Angola

Research is showing that the displaced pachyderms of Africa's war-torn areas are beginning to return to their former grazing grounds, writes **Leon Marshall**

Elephants moving into war-ravaged southern Angola from Botswana and the Caprivi appear to have developed the ability to step around the landmines that litter the region. Before that, many had their trunks and legs blown off, condemning them to an agonising death. It might be that they have since started to associate the smell of mines with danger and so avoid them.

The animals are returning in ever-growing numbers to the vast south-east Angolan landscape in which thousands were massacred during the country's protracted conflict and only some were able to escape into Botswana and Namibia – where Jonas Savimbi's rebel Unita movement said to have used ivory and rhino horn to pay for weaponry, was based.

Since the end of the war, it seems that the elephants have begun to sense that it is safe enough to go back to the Lubiana Partial Reserve that takes up a major portion of Angola's sparsely populated 199,049 square-kilometre Cuando Cubango province that borders south-west Zambia and Namibia's Caprivi.

The elephants' apparent ability to avoid the mines has been picked up from satellite collar tracking images by Michael Chase, who has been doing research on the region's elephants for the past seven years. But, as a scientist, he is careful not to be too arbitrary about his conclusions. This is how he puts it: "I don't know if elephants have 'learned' to avoid land mines, but my limited observations suggest that they might have."

"The extent and location of land mines has not been mapped and is not known in Lubiana. I do have the GPS locations of approximately 45 minefields near Jamba Camp and along the Cuando River."

"Once I overlay the movements of our five satellite-collared elephants

with the location of these minefields, it would appear that they are avoiding these areas."

"This is further supported by our observations on the ground. We have not seen any evidence of elephants being blown up or injured by land mine explosions in the three years we have been working in this area. Incidents of elephants being injured or killed by land mines used to happen often..."

Tragically, the elephants' problems do not seem to be over. Chase says villagers in the Lubiana Park are using the elephant paths to get safely to the river and to each other's villages, and this is leading to conflict between them and the animals. But all in all, he says, he is led to "believe that either there are not as many landmines in Lubiana as we thought, or that the elephants are, indeed, avoiding these areas."

"It may be that, as they came to understand during the war that southeast Angola was a no-go area for them, they are now realising they can return without threat of persecution. It may be that they have learned to associate mined areas with danger and that, like dogs, rats and other species used for de-mining activities, they are able to detect where the mines are."

On whether Angola offers a haven for elephants to an extent that it will relieve pressure on Botswana and Namibia's Caprivi, he says: "This is the question everyone is asking, and to which no one wants to reply, or has the answer."

While estimates of Botswana's elephant numbers ranging between 120,000 and 150,000, he notes that there isn't even agreement on how many of the animals there are.

Chase had done the research under the auspices of Conservation International, the now heads a non-governmental organisation named Elephants Without Borders that strives to improve understanding of

elephant ecology as a way of helping to deal with the burgeoning issue of northern Botswana's overweight of elephants as against the practically deserted area of Angola and the comparatively small population of Zambia and the rest of Namibia.

The organisation's study area takes in most of the proposed Kaza (Kavango/Zambezi) Transfrontier Conservation Area that includes the Victoria Falls region of Zimbabwe as well and which is intended eventually to constitute a mammoth 287,132 square kilometre area.

Chase says there are claims that Botswana's elephant population has started to stabilise, but this is not borne out by Elephants Without Borders' data, which shows that, if current growth rates continue at about 4 percent, the population may double in 15 years. Dispersal into Angola may relieve pressure in future, but is not doing so yet.

There are encouraging signs, though, that the vacuum created by Angola's decades-long war could siphon off a good many elephants from across the border. Already, by the 1980s, it was feared that something like 100,000 elephants had been killed in southeastern Angola.

The Kunene Commission, appointed by the South African government in 1995, confirmed that the South African military was in on the act. A cursory aerial survey done in 1989 still produced a count of 4,894 elephants, but it is suspected that most of those might also have been killed by 2002.

But subsequent satellite telemetry studies indicate that elephants are re-colonising the area from the Caprivi and Botswana. A survey done in 2004 produced a count of 339 elephants, while the next count, in 2005, came to 1,513. Contrary to expectations, there were even more elephants during the dry season at the end of 2005, indicating that, rather than migrating seasonally



Keeping tabs: Michael Chase fits a satellite-tracking collar to an elephant. Chase has been doing research on the elephants for the past seven years and he has observed that the elephants appear to be avoiding mined areas

across the border to the well-trodden south, the elephants are, indeed, becoming resident in southern Angola and expanding their turf.

Chase says that, apart from a cursory survey of land mines done in 2003, little remains known of the extent of the problem. But their presence will keep rendering large portions of the region uninhabitable. Earlier reports were of elephants found killed with their tusks missing. One report claimed that villagers from Malondo in southern Angola were recovering anti-tank mines from a nearby minefield and placing them on old elephant paths in Mupa National Park.

He says that, to re-establish and sustain wildlife communities in Lubiana Partial Reserve, it is critical that the area first formally be declared a national park and that the land mines be cleared while an effective land-use management plan is implemented and ecotourism and community conservation programmes are developed.

Sedra Mordse, the regional coordinator of the Kaza Transfrontier Conservation Area project, was unable to give details of progress with negotiations among the five countries whose ministers in charge of environmental affairs last year signed a memorandum of understand-

ing. The indications are that a meeting is being planned between the government and donors.

A proposal prepared three years ago by conservationist Dr John Hanlon, when he was still with Conservation International, noted that the area of southeast Angola had limited potential for agriculture. It was, instead, a prime site for ecotourism, although the land mines remained a great obstacle.

He noted that the proponents of the transfrontier conservation area wanted to use the elephants as a flagship species to promote co-ordinated land use for conservation across national boundaries.

Allowing elephants into Zambia and back into Angola would enable them to follow ancient migration routes that were currently barred by the land mines.

He proposed that de-mining be done in sections and that a simultaneous programme be run to protect wildlife entering the de-mined areas. The programme should include the establishment of an effective anti-poaching unit, an integrated resettlement plan for war refugees and displaced people, training for traditional leaders and communities in ecotourism initiatives, and a provincial programme for the development of tourism.