

The rehabilitated chimpanzees of Rubondo Island

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Between 1966 and 1969 17 chimpanzees, which had all been captured in the wild and had spent various amounts of time in European zoos, were released in Rubondo Island National Park in Lake Victoria, Tanzania. Now there is a healthy population of at least 20 chimpanzees, and it is likely that there is now a second generation of Rubondo-born animals. The author, who has been recording sightings of the chimpanzees since 1978, discusses this early rehabilitation experiment, sets it in the context of others and examines the problems of how best to cope with those animals that are confiscated while enforcing the laws prohibiting the capture of wild chimpanzees.

Rubondo, an island in Lake Victoria, was decreed the tenth national park of Tanzania in 1977. It lies at an altitude of 1100–1300 m above sea-level and is about 240 sq km in area; the 12 smaller islets that surround it also belong to the park. Dense deciduous forest covers more than 90 per cent of the island. Table 1 lists both the larger indigenous mammals and those introduced between 1964 and 1974. The only potential predators of larger mammals occurring on Rubondo are Nile crocodile *Crocodylus niloticus*, python *Python sebae*, martial eagle *Polemaetus bellicosus* and crowned eagle *Stephanoaetus coronatus*.

The chimpanzee releases

Between 1966 and 1969 the Frankfurt Zoological Society (FZS) released 17 chimpanzees in four groups with the following male to female ratios: 4.7, 1.0, 1.0, 2.2. All the chimpanzees, whose ages ranged from four to 12 years, originally

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came from Africa, but they had spent between three-and-a-half months and nine years in captivity, under circumstances varying from good zoo conditions in the company of other chimpanzees to inadequate cages or solitary confinement. Their health ranged from good to poor and their behaviour from normal to abnormal. A few of the animals knew one or more of the other rehabilitants; some had not seen another chimpanzee for a long time. It was obvious, therefore, that each animal would adjust differently to a free life in the forest.

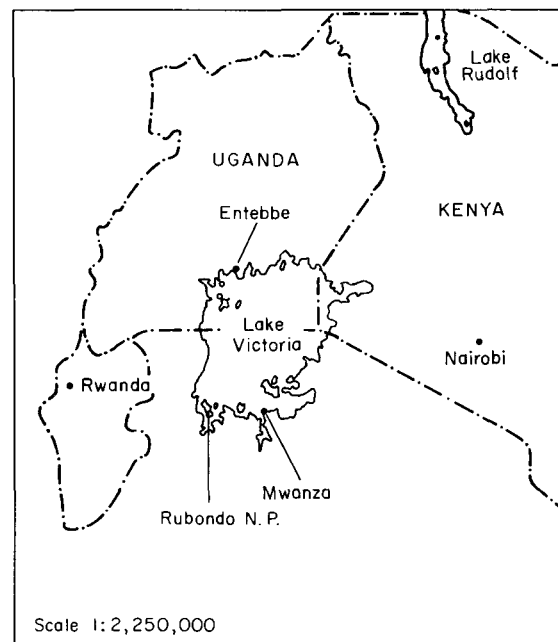


Table 1. The larger mammals* of Rubondo Island

<i>Indigenous species</i>	
Hippopotamus	<i>Hippopotamus amphibius</i>
Sitatunga	<i>Tragelaphus spekei</i>
Bushbuck	<i>T. scriptus</i>
Vervet or green monkey	<i>Cercopithecus aethiops</i>
Spotted-necked otter	<i>Lutra maculicollis</i>
Marsh mongoose	<i>Atilax paludinosus</i>
Large-spotted genet	<i>Genetta tigrina</i>
Cane rat	<i>Thryonomys swinderianus</i>
<i>Introduced species</i>	
Black rhinoceros	<i>Diceros bicornis</i>
Giraffe	<i>Giraffa camelopardalis</i>
Roan antelope	<i>Hippotragus equinus</i>
Suni	<i>Nesotragus moschatus</i>
Elephant	<i>Loxodonta africana</i>
Abyssinian colobus monkey	<i>Colobus abyssinicus</i>
Chimpanzee	<i>Pan troglodytes</i>

*Nomenclature after Dorst, J. and Dandelot, P. 1976. *A Field Guide to the Larger Mammals of Africa*. Collins, London.

Four German forester volunteers who stayed on Rubondo between 1966 and 1974 recorded chimpanzee sightings. Since 1978, I and my husband, Dr Markus Borner, have been employed by FZS on the Tanzania Wildlife Conservation Project, and during our frequent stays on Rubondo we have recorded all traces of chimpanzees.

The releases: evaluating their success

The release of the chimpanzees on Rubondo Island was one of the earliest attempts at rehabilitation. It is unfortunate that during the first critical months after release the apes were not monitored closely enough. It is impossible therefore to know today which animals survived, which died, and why.

There were certain aspects of the release which were unsatisfactory. Firstly, some of the animals were obviously unfit for rehabilitation, physically or psychologically. One male, who was eventually shot in 1968 after severely biting a game scout, had already caused problems while in captivity by attacking his keeper, and continued on Rubondo to harass and attack the game scouts and their families. According to rumours, at least one other adult male was shot because of similar behaviour. Secondly, instead of the apes being released in a balanced or integrated group,

considered by Brewer (1977/79, 1979) a prerequisite for successful rehabilitation, they were released in four lots with considerable time intervals and only a few had met before. However, in other respects, conditions for a successful release were favourable. All except two rehabilitants were at least adolescents when released and were therefore more able to cope with a new life-style than juveniles would have been. All had been born in the wild in Africa and might therefore have retained some knowledge of wild-chimpanzee behaviour; this assumption is supported by the occurrence of nest-building and their ability to live on wild foods. Although the apes slept in the forks of large trees, they began to build nests after the first year. The adoption of wild foods occurred even earlier, and supplementary feeding was stopped two months after the first release when chimpanzees were seen to feed on banana sprouts, leaves, wild fruit and seeds. Rubondo seems to be a very suitable habitat for chimpanzees. Although the forests are deciduous, there are green trees throughout the year because the trees reach subsoil water from the lake. Flowering and fruiting trees can be found at almost any time of the year, and therefore food is always available. In addition, no wild chimpanzees occurred on the island to compete with the introduced animals.

Although the loss of released chimpanzees may have been heavy, those animals that survived, and their offspring, are thriving. The first two Rubondo-born chimpanzees were seen in February 1968 and, of the 17 released, at least two females survive today. There are at least 20 chimpanzees on Rubondo now, most of them born there in the past 16 years. A second generation of Rubondo apes probably exists now.

When encountered accidentally, the Rubondo-born chimpanzees are very shy. The only apes still molesting people or invading houses are former rehabilitants. According to the records of chimpanzee sightings, these instances have become more and more rare over the years. It is hoped, therefore, that once the released animals have died (they must be in their mid-twenties by now), the chimpanzee population of Rubondo will have completely reverted to a wild state.

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We do not know whether the chimpanzees have formed more than one main group. It is possible, though, that the two male and two female chimpanzees released in 1969, three years after the first group, have stayed together and apart from the rest. The group known to us tends to split up into family units, a behaviour also described by van Lawick-Goodall (1971) from Gombe Stream chimpanzees. According to Brewer (1977, 1977/79) and Carter (1981), chimpanzees are very difficult to rehabilitate into the wild. They need to live in more or less balanced groups, and their successful education seems to take much longer than with orang-utans, at least up to the age of late adolescence. These reports contrast with the findings on Rubondo, although the rate of survival may be higher at the River Gambia Projects (where Brewer and Carter worked). In contrast to Brewer's experiences at Mount Asserik (1977, 1977/79), the chimpanzees released on Rubondo did not have to be taught either to build nests or to find new food. Although most of them had been caught in the wild when still infants or juveniles and had spent years in captivity afterwards, they did not touch food resembling their former zoo diets, for example green bananas, but instead adapted quickly to feeding on wild plants of the forest (Kade, 1967). Since no potential chimpanzee predators occur on Rubondo, nest-building developed without outside pressure. We do not know, of course, whether some of the chimpanzees might have learnt these behaviour patterns from others in their company, but it may be assumed, also from our experiences with orang-utans (Borner with Stonehouse, 1979), that it is not necessary for humans to teach ape behaviour to an ape. It is likely, though, that an adolescent or young adult would respond more easily to new surroundings than a juvenile, which needs more support and attention. This was a great advantage the Rubondo chimpanzees had over most of Brewer's and Carter's charges.

On chimpanzee rehabilitation

The topic of ape rehabilitation has for years been controversial. Without doubt, there are as many points in favour of rehabilitation schemes as against them; in particular cases, much depends on the situation and ape species concerned.

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There are, however, some arguments to support rehabilitation schemes in general. Firstly, in order to enforce animal protection laws, it is important that illegally kept animals can be confiscated and disposed of. Secondly, rehabilitation stations provide a perfect opportunity for conservation education, since animals on their way to rehabilitation attract visitors and can be used as an introduction to demonstrate conservation needs and aims (compare Aveling and Mitchell, 1980; Borner with Stonehouse, 1979).

Arguments against rehabilitation concentrate, in the case of orang-utans, on the danger of introducing disease into wild populations and of over-crowding suitable areas inhabited by wild orang-utans. But there are additional problems involved in the rehabilitation of chimpanzees: in contrast to the more placid orang-utans, half-wild chimpanzees passing into adulthood are not suitable to be shown to visitors; they become aggressive even towards the people they know (Brewer and Carter, 1983). Therefore, such stations cannot be used easily as education centres.

The greatest problem, however, and the one most difficult to overcome, is that resident wild chimpanzees will not tolerate the introduction of unfamiliar apes into their home range. Inevitably, introduced chimpanzees have to fight for their lives against established wild groups. The obvious solution would be to release rehabilitants into areas uninhabited by chimpanzees, but suitable and well-protected habitats without a wild population are practically non-existent. Brewer and Carter are, to date, still looking for an area in which to release their 26 rehabilitants (1983).

Chimpanzees are listed in the *IUCN Red Data Book* as 'vulnerable' but not 'endangered'. As far as the survival of the species is concerned, it would seem sensible to concentrate all efforts and funds into protecting the habitat of wild chimpanzees rather than trying to save a few individuals through rehabilitation projects with doubtful futures. However, stating this as a priority does not contribute to the solution of the problem of how to stop the illegal trade in chimpanzees. Confiscated they must be, to enforce the law. In addition, law-breakers should also be prosecuted, an action that is unfortunately

only rarely carried out. Once the chimpanzees, mostly infants and juveniles, have been confiscated, there are several possibilities.

(1) Rehabilitation involves many long-term problems as we have discussed, with very limited opportunities for the apes ever to become truly wild. However, its potential for publicity to promote the protection of both the chimpanzees and their habitat remains its great attraction.

(2) Captivity in zoos is not feasible since most zoos are well supplied with, and are breeding, chimpanzees.

(3) Supplying captured chimpanzees for biomedical research is not an acceptable solution, either for publicity purposes or to satisfy conservationist principles. The latter demand that no species listed in the *IUCN Red Data Book* should be taken from the wild for use in biomedical research, but that such research subjects should be bred in captivity (this criterion was enforced by World Health Organisation (WHO) regulations).

(4) Euthanasia has to be considered. It helps enforce the laws, but would create adverse publicity, although an easy death must be considered much more humane than long-term confinement in bad conditions.

(5) A proposal worth consideration might be captivity in large enclosures similar to the one in Arnhem, in the Netherlands, but in the countries of origin of the apes. Such an enterprise would need expert advice at the beginning, but apart from the construction of an enclosure, no great costs would be involved, as the climate of the chimpanzee countries would not necessitate indoor facilities other than rain shelters. Chimpanzees thus kept in captive groups, resembling wild ones in size and composition, would fulfil the points raised in favour of rehabilitation: they would attract visitors and could be used for education purposes as well as for behaviour studies.

In conclusion

Chimpanzee rehabilitation seems to have a very uncertain future, mainly because suitable habitats without a wild population are difficult to find. Rubondo was obviously an exceptional situation, and the release experiment has proved, after 17 years, to be a success.

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