

## CHAPTER 1

### INTRODUCTION

The purpose of the current research project was to undertake a thorough quantitative and qualitative survey of the vegetation on Ngamba Island. Based on the results of this survey suggestions are made for future management of the chimpanzees on the island.

It was assumed that the introduction of chimpanzees onto an island that was previously not inhabited by this species would have an (to be defined) impact on the environment in general, and the vegetation cover, in particular.

The two previous vegetation surveys only provide a very broad overview of the vegetation of the island (Annex - Table 3 + 4). Furthermore, because the plant species identified in the surveys partly do not match and have subsequently been found also to be partly incorrect (Wanyamanganyi, pers. comm.<sup>1</sup>), they cannot be used as reliable baseline data for further vegetation-related studies.

It was considered essential to undertake a thorough survey especially of the woody and herbaceous vegetation of the island. Such a study should make it possible to evaluate and predict the impact of the chimpanzee population on the island vegetation over time. Wherever possible the data of the two former vegetation surveys (Kityo 1998, Zwick & Lloyd 1998b) will be taken into account and compared with the data collected during this study.

Taking into account the data collected during the present vegetation survey as well as the detailed data already available on the fauna and especially the bird population of the island, the ultimate purpose of the research project is to establish a Wildlife Management Plan for Ngamba Island.

Implementing this plan will then allow exact quantification of the impact of the chimpanzees on the environment of the island as a whole over time. Furthermore, following the survey, estimates of maximum chimpanzee stocking density considering the provision of a full food supply will be possible and can be taken into account for the future management of the island.

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<sup>1</sup>Wanyamaganyi, O. 2000. Department of Botany, Makerere University, Kampala, Uganda.

The following objectives have been set for this study:

1. To provide a detailed qualitative and quantitative description of the vegetation of Ngamba Island.
2. To model the impact of the newly introduced group of chimpanzees (*Pan troglodytes schweinfurthii*) on the island vegetation in the long-term, using different scenarios.
3. To provide a Wildlife Management Plan for Ngamba Island.

## CHAPTER 2

### NGAMBA ISLAND CHIMPANZEE SANCTUARY

#### WHY SANCTUARIES?

A sanctuary is defined in the Reader's Digest Oxford Complete Word finder as "a place where birds, wild animals, etc., are bred and protected" and as "a place of refuge..." (Tulloch 1993).

Over the last couple of decades chimpanzee sanctuaries have become more and more numerous all over Africa. Reasons for this steady growth being mainly (1) the rapid expansion of human populations locally, (2) an increase in the ongoing hunting of wild, forest-dwelling mammals, especially caused by the rapid expansion of the bush meat trade, and (3) the expansion of the commercial animal trade (Hladik 1974, Goodall 1994b, Ammann 1997-1998, Cox *et al.* 2000).

Many of the chimpanzees who are brought into the care of sanctuaries have been confiscated by government officials, or were once pets (Goodall 1994b, Cox *et al.* 2000, Rosen *et al.* 2001).

Many of the orphaned chimpanzees that arrive in Uganda have been smuggled out of the Democratic Republic of Congo (DRC) or are brought back from Ugandan soldiers returning home from fighting in the DRC. They are a 'by-product' of the bush meat hunting and consumption which includes primates in the DRC and are sold as pets, since they have no value as a meat source (Goodall 1994b, Ammann 1997-1998, Rosen *et al.* 2001).

Figure 2.1 illustrates the root causes for the need for sanctuaries.

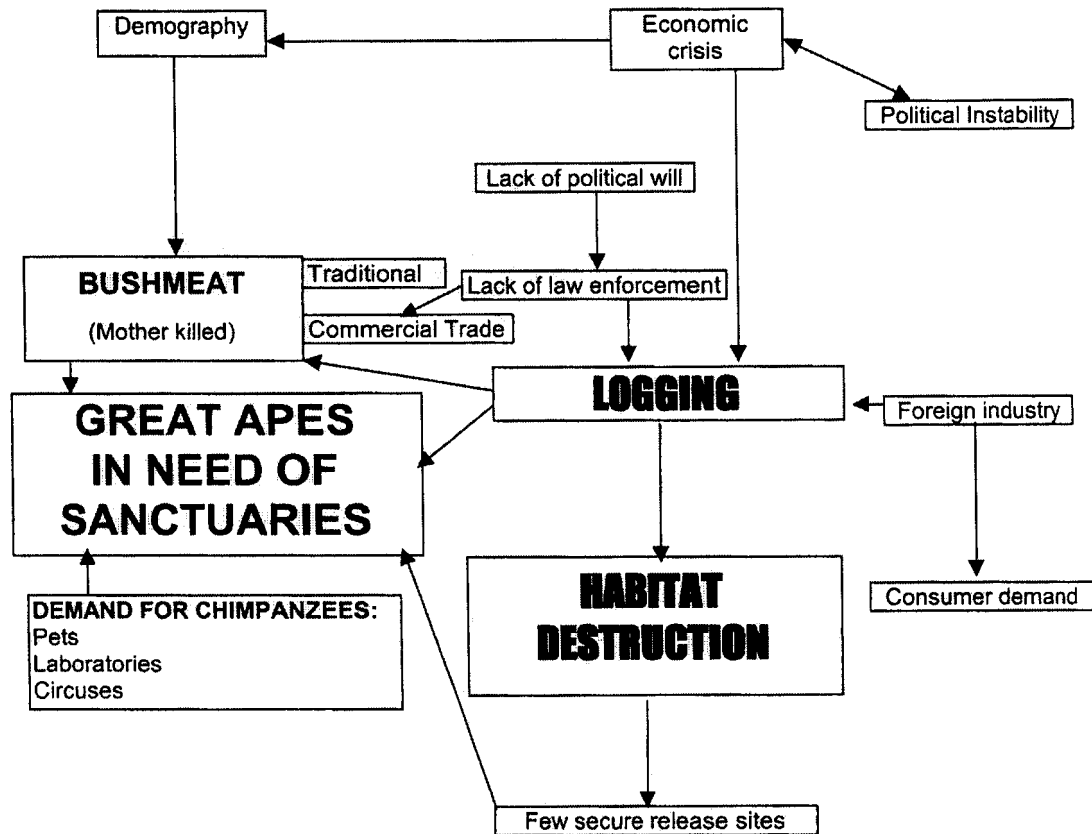


Figure 2.1: Root causes of the need for sanctuaries (redrawn after Cox *et al.* 2000 – with kind permission).

There are three main justifications for establishing and funding sanctuaries (Borner 1985, Goodall 1994b, Cox *et al.* 2000, Rosen *et al.* 2001):

1. *Education*: Local people can be introduced to their natural heritage and often for the first time in their lives have the chance to see chimpanzees and other primates close up and to observe their so 'human-like' behaviour.
2. *Tourism*: Attracting tourists and giving them the chance to observe chimpanzees close up will help sanctuaries to become self-supporting and to boost the economy of local people living around sanctuaries.
3. *Ethics*: Without sanctuaries, confiscated or illegally kept chimpanzees would either have to be euthanised or exposed to further mistreatment. This could surely be seen as contradictory in the effort to conserve the species and its habitat. A single chimpanzee, when given a name and reporting his or her individual history, can become an ambassador for the plight of his whole species if allowed to survive in a sanctuary.

Hannah & McGrew (1991) underline the importance of sanctuaries for the conservation of wild species. They state that "conservation of remaining wild populations and habitats should be the first priority, but rehabilitation projects should not be thought of as competing with the preservation of wild populations ... [T]here is always the possibility that, in the future, reproducing populations of apes maintained on islands could be released into suitable free-ranging sites."

Because of the constant influx of confiscated, mainly orphaned chimpanzees into sanctuaries all over Africa, even in non-range countries such as Kenya, South Africa and Zambia, a 'Pan-African Sanctuaries Alliance (PASA)' was founded in 2000 in Entebbe, Uganda (Cox *et al.* 2000). This alliance focuses on establishing practical recommendations on all aspects of sanctuary management and on enhancing and maintaining communication between the sanctuaries and between PASA and other great ape conservation projects ongoing in Africa (Cox *et al.* 2000, Rosen *et al.* 2001).

The Pan-African Sanctuary Alliance is intended to eventually be inclusive of all primates. It was founded under the facilitation of the Conservation Breeding Specialist Group (CBSG) in collaboration with the Primate Specialist Group of the International Union for Conservation of Nature and Natural Resources (IUCN) (Cox *et al.* 2000).

At the second PASA workshop in Limbe, Cameroon, 17 African primate sanctuaries from the following countries participated: Cameroon, DRC, Gabon, Guinea, Kenya, Nigeria, Republic of Congo, Sierra Leone, South Africa, Uganda and Zambia (Rosen *et al.* 2001).

The workshop proposed the following definitions:

*"PASA sanctuary:* A PASA sanctuary provides a safe and secure home for African apes and other primates in need. The welfare of the individual and the preservation of the species are of prime importance and are considered equally. The sanctuary operates in the context of an integrated approach to conservation, which can include rehabilitation and re-introduction."

*"Mission statement:* To support, assist and encourage member sanctuaries in their efforts to save Africa's great apes and other primates. PASA aims to accomplish this mission by campaigning locally and globally against the threats these species face in the wild, promoting the highest standards of captive animal husbandry, and by acting as a forum where sanctuaries can share information and discuss issues of mutual concern."

## **THE HISTORY OF NGAMBA ISLAND CHIMPANZEE SANCTUARY**

Ngamba Island (S 00°06/E 32°39, 0.46 km<sup>2</sup>, 1 160 m above sea level) in Lake Victoria, Uganda, was purchased by a Board of Trustees in 1998. This Board consists of the following members: Born Free Foundation; International Fund for Animal Welfare (IFAW); the Jane Goodall Institute (JGI); Taronga Zoo, Sydney, Australia, Uganda Wildlife Authority (UWA) and Uganda Wildlife Education Centre (UWEC - the new name and purpose of the former 'Entebbe Zoo'). The island is managed by JGI Uganda under joint directorship of Mrs Debbie Cox and Mrs Cherie (Monti) Montgomery.

Up to the date of purchase Ngamba Island was home to a small fishing community which inhabited a circumscribed area in the northern part of the island (Zwick & Lloyd 1998b, Möller pers. comm.<sup>1</sup>). After the purchase the community received compensation for their lost housing facilities and was translocated to a neighbouring island to join the existing fishing community there (Cox pers. comm.<sup>2</sup>).

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<sup>1</sup> Möller, W. 1999. Uganda Wildlife Education Centre, Entebbe, Uganda.

<sup>2</sup> Cox, D. 2000. Jane Goodall Institute Uganda, Entebbe, Uganda.

Since late 1998 the island has been used solely as a sanctuary for orphaned and confiscated chimpanzees. Only the northern area of the island, including the landing area, can be accessed freely. All the temporary buildings erected there by the fishing community have been demolished (Zwick & Lloyd 1998b, Möller pers. comm.<sup>1</sup>). The area now holds the night enclosure for the chimpanzees as well as some concrete-built houses with corrugated iron roofs for the caretakers of the chimpanzees, volunteers and researchers.

This area also includes a visitors' centre where information on the threats to the survival of chimpanzees in the wild and suggestions for possible solutions are displayed. A touring company transports tourists to and from the island, a maximum of two trips twice daily. The tourists receive an informal talk on the history of the island and its chimpanzees and afterwards have the opportunity to watch the morning (11:00 am) or afternoon (15:00 pm) feeding of the chimpanzees from the visitors' platform.

### **Origin of the Ngamba Island chimpanzees**

The chimpanzees on the island were originally members of two separate groups. One of the groups had previously lived in 'The Isinga Island Chimpanzee Sanctuary' on Lake Edward, which is part of the Queen Elizabeth National Park. The second group had been kept at UWEC (Möller pers. comm.<sup>1</sup>). All chimpanzees of both groups originated from the Democratic Republic of Congo (DRC) and had been confiscated either from illegal traders, private owners or Ugandan soldiers returning from fighting in the war in the DRC and bringing with them a baby chimpanzee as a playmate for their children (Möller pers. comm.<sup>1</sup>, Cox pers. comm.<sup>2</sup>).

Eventually, the group from Isinga Island was transferred to UWEC in 1998 and the two groups introduced to each other. Because of an increasing number of confiscated chimpanzees the capacity at UWEC quickly reached its limit. Thus, when the opportunity arose to purchase Ngamba Island to establish a chimpanzee sanctuary there, a Board of Trustees was formed to acquire the island (Chimpanzee Sanctuary and Wildlife Conservation Trust 1999, Cox pers. comm.<sup>2</sup>).

After the holding facility had been completed the first chimpanzees (juveniles and adult females) were brought to the island in October 1998. After a few days in the holding facility the chimpanzees were released into the fenced-off forest area. Each chimpanzee was followed by a volunteer who observed her behaviour in the new surroundings and collected samples of the vegetation chosen as food items by the chimpanzees (Chimpanzee Sanctuary and Wildlife

Conservation Trust 1999, Marshall pers. comm.<sup>3</sup>).

A fortnight later the adult male chimpanzees followed. The group reintegrated without any problems. Until December 1999 a total of 22 chimpanzees had been brought to the island. The 16 adult chimpanzees go out into the forest every day, while the juveniles are taken for infant walks at several mornings a week. The female chimpanzees receive anti-contraceptive implants every couple of years to prevent them from breeding (Möller pers. comm.<sup>1</sup>, Cox pers. comm.<sup>2</sup>).

### **Future plans**

The rate at which (infant) chimpanzees appear and are confiscated in Uganda has increased dramatically in recent years. While there had been a more or less 'steady influx' of about one chimpanzee every two years (0.5 chimp/year) until the year 1998 this rate has increased to 16 chimps in the two years of 1999 and 2000 (eight chimps/year) (Cox pers. comm.<sup>4</sup>).

Thus, until May 2001 the number of chimpanzees on the island has increased to a total of 33, consisting of 16 adults and 17 juveniles below the age of five years, while the remaining chimpanzees have been kept at UWEC (Cox pers. comm.<sup>4</sup>).

In the meantime, another area on neighbouring Nsadzi Island has been bought to be fenced off and transformed into a chimpanzee sanctuary by mid-2003 (Cox pers. comm.<sup>4</sup>). After completion of this second sanctuary, the number of chimpanzees remaining on Ngamba Island will be permanently reduced to 27, consisting of, in the long run, 12 adult and 15 juvenile chimpanzees under the age of five years. It is planned to transfer the four most dominant males to the new sanctuary, together with some females who promise no potential as surrogate mothers for orphaned juvenile chimpanzees. For every juvenile chimpanzee newly arriving onto Ngamba Island, one of the adult chimpanzees will be transferred to the new sanctuary on Nsadzi Island. At the same time the adult females who have proved themselves to be good surrogate mothers will remain on Ngamba Island (Cox pers. comm.<sup>4</sup>).

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<sup>3</sup> Marshall, S. 2000. Department of Psychology, St Andrews University, Scotland.

<sup>4</sup> Cox, D. 2001. Jane Goodall Institute Uganda, Entebbe, Uganda.

<sup>5</sup> Wanyamaganyi, O. 2000. Department of Botany, Makerere University, Kampala, Uganda.



## PREVIOUS RESEARCH ON FLORA AND FAUNA OF NGAMBA ISLAND

Two Environmental Impact Assessments (EIAs)/Vegetation surveys had been undertaken on Ngamba Island before the release of the chimpanzees, one in August 1997 by Frontier-Uganda and the second by Kityo in the first half of 1998 (Kityo 1998, Zwick & Lloyd 1998b, Chimpanzee Sanctuary and Wildlife Conservation Trust 1999, Cox pers. comm.<sup>2</sup>)

The Frontier report contains quite a detailed list of the fauna of Ngamba Island (Zwick & Lloyd 1998b). However, concerning the flora of the island the reports are incomplete and partially contradictory (Kityo 1998, Zwick & Lloyd 1998b, Chimpanzee Sanctuary and Wildlife Conservation Trust 1999, Cox pers. comm.<sup>2</sup>, Wanyamaganyi pers. comm.<sup>5</sup>). The preliminary species list compiled from both vegetation surveys and the determined faunal species are listed in the Annex (Table 3 -5) (Kityo 1998, Zwick & Lloyd 1998b, Wilson & Schipper 2002).

Research has also been undertaken to determine the plant species used as food items by the chimpanzees. The first of two such surveys was conducted in October 1998 after the release of the adult females into the forest on Ngamba Island (Marshall 2000). The second one was conducted between December 1999 and May 2000. During this study the infant chimpanzees were accompanied on their morning forest walks and samples were collected of the vegetation they chose as food items (Marshall pers. comm.<sup>3</sup>). Lists of these plant species used as food items are provided in the Annex (Table 2) (Marshall 2000).