

U N E S C O

Convention concerning the Protection of the World Cultural and Natural Heritage
NOMINATION TO THE WORLD HERITAGE LIST

Name: LAKE MALAWI NATIONAL PARK

Identification No: 289

Date received by WH Secretariat: 12.10.83

Contracting State Party having submitted the nomination of the property in accordance with the Convention: MALAWI

Summary prepared by IUCN (March 1984) based on the original nomination submitted by Malawi. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION: On and around the Cape Maclear Peninsula at the southern end of Lake Malawi.

2. JURIDICAL DATA:

Owned by the Malawi Government, and managed by the Department of National Parks and Wildlife. Gazetted as a national park in 1980 under the National Parks Act, much of the area has had Bird Sanctuary and Forest Reserve status since 1934.

3. IDENTIFICATION:

The park, which covers some 94 sq km, is composed of the Cape Maclear peninsula, 3 other disjunct mainland areas, 12 islands and lake waters that lie within 100 m of the park's terrestrial components. Total water area is estimated as 7 sq km. Habitat types vary from rocky shorelines to sandy beaches and from wooded hillsides to swamps and lagoons. Granitic hills rise steeply from the lakeshore and there are a number of sandy bays including a fine beach in the Chembe-Otter Point area. Lake surface elevation is near 475 m while the highest point on the peninsula is 1140 m.

The area has a sub-tropical climate with a 7-8 month dry season and a 4-5 month rainy season. Average annual precipitation in the park is 766 mm and average mean temperature is 22.7°C.

The lake water is remarkably clear. The level fluctuates according to season with a long-term cycle of fluctuation. Recent years have seen increases to the highest levels since recording began (probably due to increased rainfall and clearing of forests on the high plateau). Lake Malawi itself is the third deepest in the world and occupies an elongated crack of the Rift Valley.

The land areas excluding the smallest islands are (or were once) heavily wooded. Originally this was a characteristic community containing baobab and several species of Ticus, Sterculia, Khaya and Albizia with a groundcover of grasses and wild flowers. Due to clearing of the forest, some woodland areas have been altered to Brachystegia and shrubby vegetation. Soils are stony and of poor nutrient status.

Lake Malawi contains the largest number of fish species of any lake in the world. There are between 500-1000 fish species with perhaps half occurring in the park area. Endemism is high (thought to exceed 90%) and particularly noteworthy are the Cichlidae of which all but 5 of an estimated 350 species are endemic to Malawi. The lake contains 30% of all known cichlid species. Of particular interest are the 'mbuna' rock fish. Other fish species include 28 endemic to the lake. The flora of the Lake has not been studied in detail.

Mammals include hippo (particularly in the Monkey Bay area) duiker, baboon, vervet monkey, bushpig, warthog and occasional elephant (reported as coming down to the lake between Mwenya and Nkhudzi Hills). Leopard, kudu, bushbuck and impala have been reduced or extirpated from the area. The park is rich in birdlife including fish eagle along the shoreline. The islands, especially Mumbo and Boadzulu, are important nesting areas for white-throated cormorant which number several thousand. Reptiles include crocodiles and abundant monitor lizards on Boadzulu Island.

Archeological evidence points to a long period of human occupation with sites dating back to the Iron Age in the 4th Century. The Cape Maclear area was one focal point in the ivory and slave trade era. In more recent times a Livingstone Mission was established there and the area was a stopover on the Cape to London flying boat service.

4. STATE OF PRESERVATION/CONSERVATION:

The management plan details 4 zones within the park: Special zone, Wilderness zone, Natural zone and General zone. Most of the terrestrial park area is in the natural or wilderness zones. Islands and the lacustrine area are designated wilderness where no fishing is permitted. A managed fishing zone is to be established for 2 km off the mainland section of the park and some islands but trawling will be prohibited. An earlier draft of a master plan also proposed a set of conservation zones around the park.

Of particular concern is the possible impacts of introduced fish species on the displacement of endemics in the vicinity of Thumbi West Island.

It is proposed to plant 1,200ha in the south of the peninsula (outside the park) to supply fuelwood and poles to local people.

Although there are no human settlements within the park boundaries, much of the shoreline of the lake is heavily populated. Villages on the peninsula (with a population of about 7,000 in 1977) are cut off between the park and the lake and local people are dependent on fishing for a livelihood as the soil is poor and crop failure frequency is about 50%. The brightly coloured 'Mbuna' provide a substantial export trade to collectors. Clearing of timber for building, firewood and cultivation has increased on the peninsula and islands. Cormorant nestlings are also reported to be collected by villagers. The lake is sensitive to pollution from the boats and to siltation from the denuded hills.

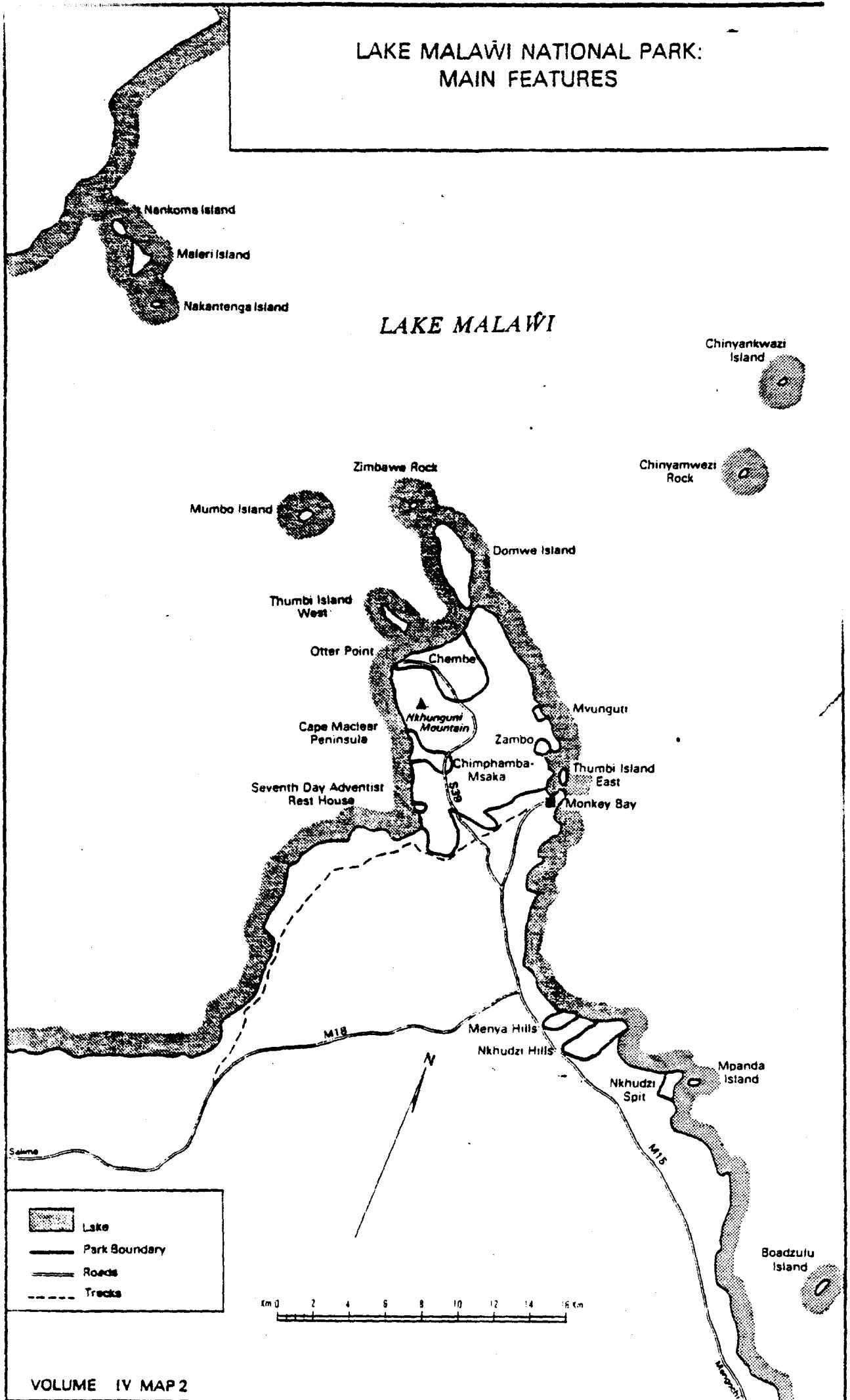
The recreation site at Cape Maclear is heavily used and includes a rest house, bar, camping and caravanning site and a number of power boats. A number of small hotels are planned which will be sympathetically designed to fit in with the environment.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Lake Malawi National Park nomination, as presented by the Government of Malawi, provides the following justification for designation as a World Heritage property:

- a) Cultural property -- not applicable
- b) Natural property
 - (iii) Exceptional natural beauty. Lake Malawi National Park as a Rift Valley lake, has a backdrop of mountains which fall directly into the deep, clear waters of the lake.
 - (iv) Habitats of rare and endangered species. The great diversity of fish and the pronounced endemism are unmatched. Lake Malawi contains over 500 species of fish, and endemism is thought to exceed 90% and may be as high as 98%. An estimated 350 species of cichlid occur in the lake (around 30% of all those known), and all but of these are endemic. Around half of all these fish species reportedly occur within the park boundaries.

LAKE MALAWI NATIONAL PARK: MAIN FEATURES



VOLUME IV MAP 2

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1. DOCUMENTATION

- i) Nomination form and map
- ii) IUCN Data Sheets, Project files
- iii) Consultations: D. Anstey, H. Lamprey, J. Sayer, A. Ribbink
- iv) Literature Consulted: Data sheet references plus Ribbink, A.J., et al., 1983. A Preliminary Survey of Cichlid Fishes of Rocky Habitats of Lake Malawi. S. African J. of Zoology 18(3) August p. 149-310.

2. COMPARISON WITH OTHER AREAS

Lake Malawi with its great volume of water and depth resembles Lake Tanganyika, also a Rift Valley Lake. Lake Malawi, by contrast, has a greater variety of fish species and a different shoreline configuration. There is no similar protected area in the other two great freshwater lakes of Africa although a very significant one for the Mahale area of Lake Tanganyika is proposed. In the region of the Lake itself, the southern end where the park is situated is the most ecologically diverse and productive section of the lake. The park itself contains about half of the 500+ fish species found in the Lake. The lake itself is without a doubt unique. It is a separate Biogeographical Province -- Lake Malawi -- and nowhere else in the world is found the diversity of fishes that exists in its waters.

3. INTEGRITY

The park was recently established (1980) and funds and staff were made available in 1982. Depletion of fish stocks, removal of trees, and poaching of wildlife that affected the area before park establishment will hopefully now be reduced. It is too early, however, to gauge the benefits of protective status and research to monitor recovery patterns is necessary. A management plan is available which outlines many of the necessary strategies.

The park is under pressure from the actions of the human population on its boundaries. Heavy demands on woodlands and fishing within the park are being brought under partial control. The collection of fish for the aquarium trade is extensive but impacts within the park will now be limited. The size of the water area of the park is only 7 sq km and water boundaries are difficult to mark. Lake Malawi itself is very susceptible to pollution and because of the limnological aspects of the lake, should it become contaminated, renewal time would be in the order of 1700 years.

The park as a whole does not have an ecological boundary as it represents only a portion of a larger system. However, the highly sedentary nature of most of the fishes, particularly the Mbuna, restricts them to specific islands and shoreline locations. To these fish the habitat boundaries are explicit and ecologically finite.

while the establishment of a relatively small area of the lake (0.04%) as a national park is an important conservation measure, it is recognized that the integrity of the park can only be ensured by the proper management of the whole lake. The establishment of the Lake Malawi National Park has done much to promote official and public interest in the management of the total aquatic resources of the lake.

Due to the limited size of the Park, many other fish species of Lake Malawi are unprotected. Possibilities for extension of park boundaries to include an even wider representation of species is a suggested future planning project. IUCN/WWF are currently supporting a project in the park that addresses this concern.

4. ADDITIONAL COMMENTS

As several reviewers noted, the Lake Malawi nomination as submitted provided insufficient documentation on the values of the area. IUCN has attempted to provide supplemental information to strengthen the submission and as further research is conducted a strengthened case for justification can be expected.

5. EVALUATION

Lake Malawi National Park qualifies under several criteria for designation as a World Heritage Site. With over 500 species of fish and with the pronounced endemism which exceeds 90%, the fauna of Lake Malawi is unmatched in the world (criteria iv). The site also qualifies under criteria ii as an significant example of biological evolution. Adaptive radiation and speciation within the lake is so impressive that, from an evolutionary point of view, Lake Malawi's fish are of equivalent or greater value to science as the Darwin finches of the Galapagos Islands or the Honeycreepers of Hawaii. The park, as well, is an area of exceptional natural beauty set in the background of the Rift Valley escarpment, with its islands and clear, deep waters (criteria iii).

There is some concern for the long term integrity of the area as it is very small and is totally dependent on the overall conservation management of Lake Malawi. World Heritage status for the Lake Malawi National Park will assist in demonstrating the need for action on this broader issue.

6. RECOMMENDATIONS

Lake Malawi National Park qualifies under criteria ii, iii, and iv and should be added to the World Heritage List. The Committee may wish to recommend the following measures to encourage enhancement of the integrity of the site: (1) official adoption of the management plan; (2) encouragement for continuing research on park resources, and (3) immediate and serious consideration of extension of the park and other protected areas in the lake.