

Project Update: July 2014

Monitoring and assessment of fish stocks

The main objectives of this monitoring are:

1. Help with the design and field test of questionnaire modules that can be later included in future nationally representative statistical surveys in the region and hopefully nationally.
2. Build the capacity of the local community to design fishery surveys and collect adequate data on households and communities involved in the fishery sector.
3. Help in developing guidelines on designing fishery modules that can be used by local agencies, research agencies and other organisations to collect policy relevant data on the fishery sector.
4. The assessment of the ecology included a biodiversity monitoring of the larger Yala swamp. Lake Kanyaboli is the largest and most economically water body within the entire swamp. There is a thick fringe of papyrus (*Cyperus papyrus*) that completely surrounds the lake.

Materials and methods

Fish samples were collected using bottom trawls and fish nets in all the established stations in the lake. At the river mouths multifilament nets of varying mesh sizes (from 1" to 4 ½ ") were set overnight. The multifilament gillnets were cast in the open waters free from macrophytes colonization whereas in shallow areas colonized by emergent and submerged aquatic macrophytes minnows' traps were set overnight. The fish samples were sorted out according to families and species where possible.

The fish species composition, distribution and abundance in Lake Kanyaboli, was monitored and studied. The monitoring revealed that the lake had numerous fish species representing many families. *Lates niloticus* dominated the catches in terms of ichthyomass in the lake while haplochromine cichlids are still the richest species diversity followed by *Barbus*.

It was also found that the endemic *Oreochromis esculantes* was the dominant species among the tilapiines.



Figure 1 - Monitoring fish stocks at Lake Kanyaboli Figure 2 - Taking measurements of fish species.

Below is a list of the species identified during our monitoring in Kanyaboli.

TAXA

Anabatidae

Ctenopoma murei

Cyprinidae

Barbus apleurogramma

Barbus paludinosus

Barbus karstenii

Barbus neumayeri

Cichlidae

Oreochromis esculantes

Haplochromine spp.

Astatotilapia nubilus

Xystichromis phytophagous

Xystichromis sp.

Lipochromis maxillaris

Pseudocrenilabrus multicolor

Clariidae

Clarias alluadi

Protopteridae

Protopterus aethiopicus