Project Update: October 2013

- Following the identification of research sites, sampling has started in August, a month in which the migration of the *Labeobarbus* spp. is intensified.

    - With the help of an MSc student from Bahir Dar University, Gizachew Teshome, four field trips were conducted to sample fishes from river bodies where there is sand mining and relatively no or little sand mining activities. The trips were made to five localities:

        - Arno River (Sand mining site)
        - Qimon River (No sand mining site)
        - Shini River (Sand mining site)
        - Chibirna River (No sand mining site)
        - Guanta River (Unexplored tributary river of Lake Tana)

- A total of over 700 specimens were collected so far that belong to 9 species. Of these the following species were prominent in the above studied sites:

    Labeobarbus brevicephalus
    Laeobarbus intermedius
    Labeobarbus nedgia
    Labeobarbus truttiformis
    In some of the rivers *Clarias gariepinus*, *Varicorhinus beso, Garra dembecha* and *Barbus humilis* were also collected.
    All the specimens were examined for gonad maturity, length-weight relationship and their specific habitats were also documented.

- Questionnaire was developed for interviewing fishermen, development workers, experts and administrators about the potential effects of sand mining on the spawning migration of *Labeobarbus* spp.
- Some pictures of the activities are presented with this report.

Remaining activities:

- Continued sampling of the above sites for migratory fishes in order to identify the effects sand mining and canalization on migratory fishes.
- Sampling of juveniles during the months of November to March to identify the extent of damage caused by canalization on juveniles on their way back to the lake.
- Collecting data using the questionnaire developed.
- Collecting secondary data on the quantity of sand produced from the tributary rivers of Lake Tana.
- Analysis of the data collected.

- Preparation and publication of leaflets for distribution to fishermen and development workers.
- Mass media works on the popularization of the effects of sand mining and canalization on the spawning behaviour of *Labeobarbus* spp.
- Workshop for stakeholders on the findings and future prospects of the *Labeobarbus* species flock that is due to take place in March or April 2014.

Pictures of some activities so far:

The principal investigator and a graduate student, Gizachew Teshome, at a newly constructed small dam and diversion canal on Shini River, one of the tributary rivers of Lake Tana being affected by sand mining and diversion (*Labeobarbus* specimens observed struggling to jump over the fall for upstream migration).

Sand mining around the small dam and diversion canal on Shini River

Diversion canal from Arno River

Sand mining at Arno River (Picture from Gizachew Teshome)

Collecting fish using gill net from Guanta River (Picture from Gizachew Teshome)

Recording data of the fish specimens collected (Pictures from Gizachew Teshome)