

Project Update: August 2015

First results show that the closed Mdloti estuary was fresh (salinity: 0.31 to 0.98) and mostly anoxic [dissolved oxygen, DO (0.42 to 12.3 mg/L)] and total chl *a* (0.94 to 11.6 µg/L) increasing from the head to the mouth of the estuary. Physico-chemical variables varied along the estuarine length hence the expected difference in microplankton community structure with cryptophytes *Cryptomonas* and *Rhodomonas* dominating at the mouth and the cyanobacteria *Anabaena* associated with anoxic conditions dominating in the head.

The Mdloti opened up 2 days (28th July 2015) ago and sampling after a mouth opening event will commence.

The open Mlalazi had salinities 18.9 to 35.5. DO (4.43 to 9.05 mg/L) increased from the head to the mouth while total chl *a* (1.22 to 16.4 µg/L) reduced seawards. Microplankton analyses on Mlalazi samples are still to be carried out.

Overall, the Mlalazi has a higher phytoplankton biomass (Chl *a*) than the Mdloti.



Left: Cryptophytes (black arrow) and cyanobacteria (red arrow) dominating in the Mdloti Estuary. Right: Sampling at the Mdloti Estuary.