

# LAKE ALBERT

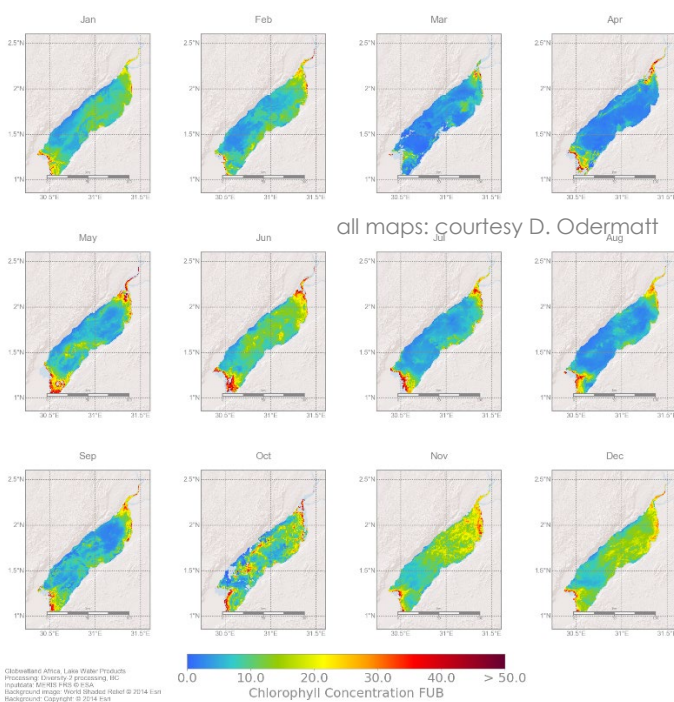
## SPOTLIGHT

**“There are also several issues and challenges surrounding water resources, which are aggravated by climate change and variability and population growth among others. The current water management practices in Uganda may not be robust to cope with these challenges which impact on water resources and increase water use requirements.” | NSUBUGA ET AL., JWRP, 2014 |**

## WATER QUALITY PRODUCTS

### Chlorophyll-a Concentration | MPH

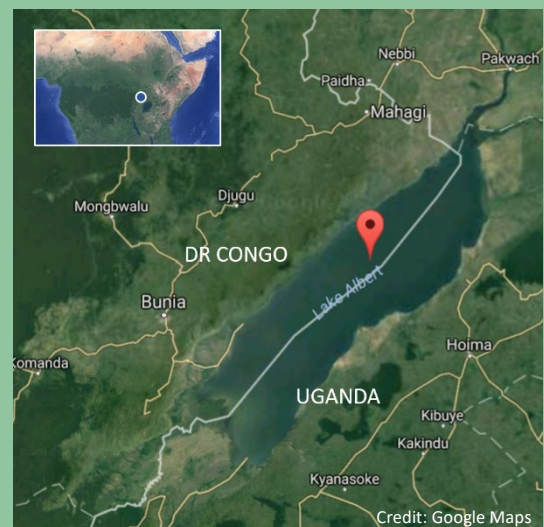
Lake Albert  
Chlorophyll Concentration (2005)



**Description:** The monthly averages of the chlorophyll concentration of Lake Albert is shown for 2007. The main part of the Lake shows low concentrations (between 10 and 20 mg/m<sup>3</sup>), while the northern and southern parts have higher concentrations. It is categorized as mesotrophic to eutrophic (POSTE ET AL. 2015)

## FAST FACTS

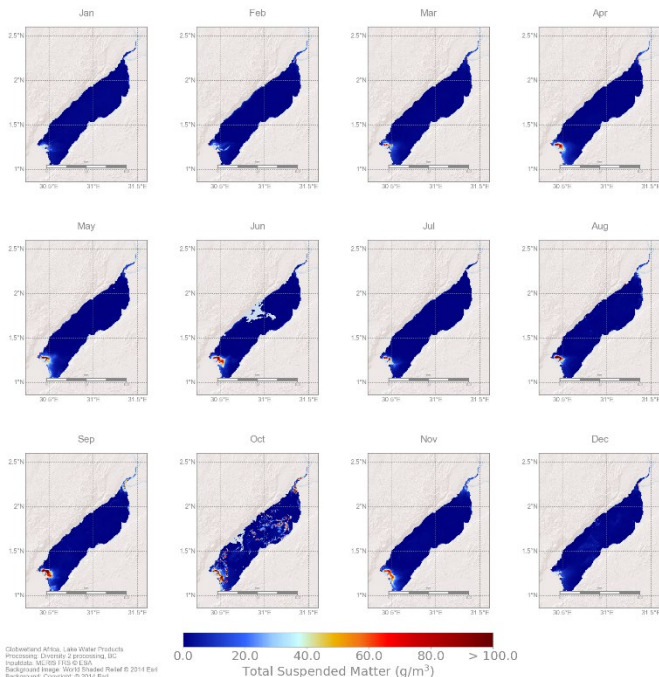
- Lake Albert is a typical Rift Valley lake which is located on the border between Uganda and DR Congo
- Lake Albert is the north most of the chain of lakes in the Albertine Rift, the western branch of the Eastern Afr. Rift
- Africa’s seventh-largest lake
- Altitude: 619 m asl
- Flanked by the escarpment on the east and by steep mountains on the western or Congo side (Blue mountains)
- The lake is about 150 km long, with an average width of about 35 km, and a maximum depth of 56 m
- Surface area: 5,347 km<sup>2</sup>
- Tributary waters: (1) Victoria-Nile at its northernmost end, coming from Victoria Lake; (2) Semliki River (main inflow, coming from Lake Edward), (3) Kyoga Nile (coming from Lake Kyoga)
- Fauna: rich in fish (46 species)



Fishing boats at Lake Albert, Credit: EPA

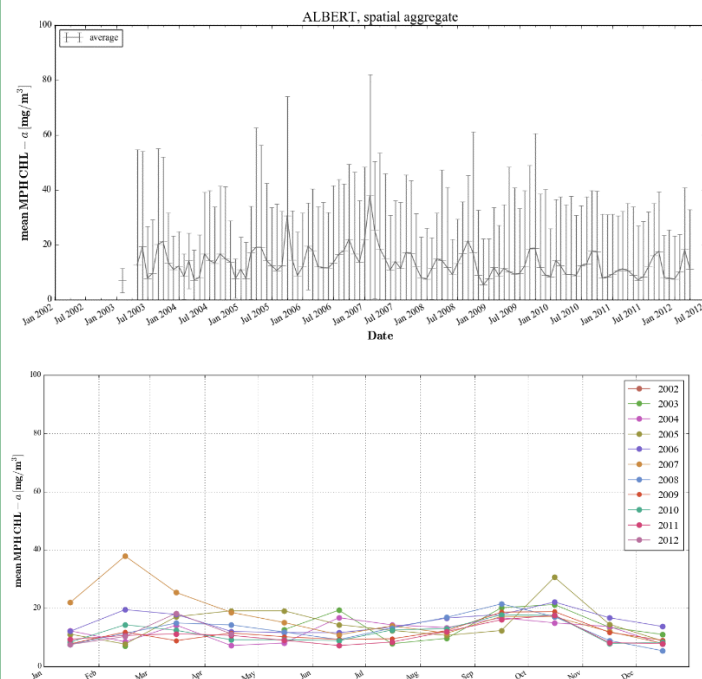
## Total Suspended Matter | TSM

Lake Albert  
Total Suspended Matter (g/m<sup>3</sup>) (2011)

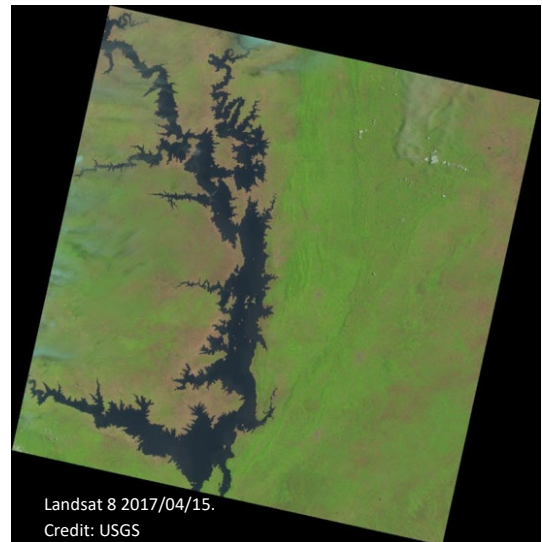


**Description:** Monthly averages of the total suspended matter concentration indicating the sediment distribution within the lake. The low concentration indicate that the main lake is characterized by transparent water.

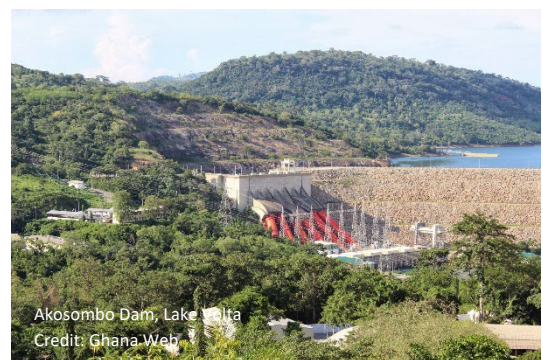
## Time Series of Chlorophyll-a | MPH



**Description:** The time series of the monthly averages of the chlorophyll concentration derived from the whole lake shows concentrations up to 20 mg/m<sup>3</sup> with a slightly different year with higher concentrations in 2007.



Landsat 8 2017/04/15.  
Credit: USGS



Akosombo Dam, Lake Volta  
Credit: Ghana Web

## FURTHER INFORMATION

- There is a considerable lowland area at the northern end of the lake, where the Victoria Nile enters Lake Albert, to leave as the northward-flowing Albert Nile
- The southern end contains an alluvial flat and a papyrus-choked delta formed by the Semliki River
- Wild ravines and fine cascades form a conspicuous feature of these geologically young tectonic (fault-formed) landscapes

## ECOLOGICAL CONCERNS

- High population growth rate is increasing pressure on land and water resources, leading to increased land use and land use change, catchment and habitat degradation through sedimentation, pollution and eutrophication
- Demand of fish has increased leading to increased over exploitation of fishery
- A dam is being constructed at the inflow of the Victoria Nile at Murchison Fall

## REFERENCES

POSTE, A, MUIR, D, GUIDFORD, S, HECKY, R (2015): Bioaccumulation and biomagnification of mercury in African lakes: The importance of trophic status. *Science of the Total Environment* 506-507 (2015) 126-136

All water quality satellite-derived products shown here have been derived from MERIS sensor onboard of ENVISAT. The product development and processing have been performed within the ESA projects Diversity-2 and Globwetland-Africa.

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