

# Blog about the GLTC group and the published data base in *Scientific Data*,

written by John Lenters, Sapna Sharma, Catherine O'Reilly and other

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LimnoTech scientists are part of the Global Lake Temperature Collaboration (GLTC), an international group assembled to provide increased access to global lake temperature records. The GLTC group recently published an article summarizing a new lake temperature database in the journal *Scientific Data*, which is published by *Nature* (<http://www.nature.com/sdata/>). The GLTC project has recognized that a new global database of lake surface temperatures was needed, including not only satellite data, but also “on the ground” measurements from in situ data collection programs. Since its inception in 2010, the GLTC initiative has grown to a database of 291 lakes and reservoirs worldwide, providing summer-mean lake surface temperatures from 1985-2009, and roughly doubling the amount of data previously available from satellites alone. This new dataset represents the first publicly available global compilation of in situ and satellite-based lake surface temperature data. The GLTC database also provides information on climatic drivers (air temperature, solar radiation, cloud cover), as well as geomorphometric characteristics that may affect lake temperature (latitude, longitude, elevation, lake surface area, maximum depth, mean depth, volume). This unique, global dataset will offer an invaluable baseline perspective on lake thermal conditions for ongoing and future studies of environmental change.

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Three examples of lakes, which are included in the large global data set of GLTC:



Mondsee (Austria),  
photo taken in 2006



Neusiedlersee (Austria),  
photo taken in 2014



Taihu (China),  
photo taken in 1995

Photos by Katrin Teubner