

Dataset Title

Satellite-based daily inundation extents in Danjiangkou Reservoir region, China, 2000–2011

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Data relevant to:

Wang, J., Sheng, Y., Tong, T.D., 2014. Monitoring decadal lake dynamics across the Yangtze Basin downstream of Three Gorges Dam. *Remote Sensing of Environment*, 152: 251–269. doi:10.1016/j.rse.2014.06.004.

Data Overview

This dataset provides GIS vector layers of daily water extents in the Danjiangkou Reservoir region (about 32.4–33.1°N, 110.7–111.8°E) from 2000 to 2011. Water extents in the reservoir region were mapped from high-quality images selected from the MODIS Terra daily surface reflectance imagery (MOD 09). The mapping frequency was aimed to be about 1 daily snapshot out of every 10 days. All water extents provided here (a total number of 355 snapshots) have gone through quality control by rigorous human inspection and correction. Please refer to Wang et al. (2014) for detailed mapping methodology and quality assurance.

Data Format:

All layers are stored as feature classes (polygons) in an ESRI geodatabase *Danjiangkou.gdb* which includes:

- (i) *COI_lake_region* – a spatial mask that defines the Danjiangkou Reservoir region; and
- (ii) *COI_year_mo_da* – the water extent mapped in this reservoir region on a specific date: the number “*year*” indicating the year, “*mo*” the month, and “*da*” the date.

“*COI*” is an index number assigned to the Danjiangkou Reservoir region as further explained in Wang et al. (2014). Each daily feature class is under the MODIS sinusoidal projection (unit: meter) with two major attributes:

- AREA (double): area in square kilometers
- IMG_SOURCE (string): the mapping source image (from MOD 09) with the acquisition date indicated by the string “*year_month_date*”.