

Dataset Title

Satellite-based daily water extents in Dongting Lake region, China, 2000–2011

Authors

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Data relevant to:

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Data Overview

This dataset provides GIS vector layers of daily water extents in the Dongting Lake region (about 28.7–29.5°N, 111.9–113.2°E) from 2000 to 2011. Water extents in the lake 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 at least 1 daily snapshot out of every 10 days. All water extents provided here (a total number of 539 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 *Donting.gdb* which includes:

- (i) *A02_lake_region* – a spatial mask that defines the targeted Dongting Lake region; and
- (ii) *A02_year_mo_da* – the water extent mapped in this lake region on a specific date: the number “year” indicating the year, “mo” the month, and “da” the date.

“A02” is an index number assigned to the Dongting lake 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”.