ISLSCP II Global Primary Production Data Initiative Gridded NPP Data

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Revision date: July 1, 2011

Summary:

Net Primary Production (NPP) is an important component of the carbon cycle and, among the pools and fluxes that make up the cycle, it is one of the steps that are most accessible to field measurement. Direct measurement of NPP is not practical for large areas and so models are generally used to study the carbon cycle at a global scale. This data set contains 2 *.zip files for above ground and total NPP data.

Additional Documentation:

This data set is one of the products of the **International Satellite Land-Surface Climatology Project, Initiative II (ISLSCP II)** data collection which contains 50 global time series data sets for the ten-year period 1986 to 1995. A complete description of the data, it's derivation, acknowledgements, and references provided by the ISLSCP II Data Management Staff is included with this data set as a companion file named 1_gppdi_npp_gridded_doc.pdf .

ISLSCP II is a consistent collection of data sets that were compiled from existing data sources and algorithms, and were designed to satisfy the needs of modelers and investigators of the global carbon, water and energy cycle. The data were acquired from a number of U.S. and international agencies, universities, and institutions. The data and documentation have undergone two peer reviews.

ISLSCP is one of several projects of Global Energy and Water Cycle Experiment (GEWEX) [http://www.gewex.org/] and has the lead role in addressing land-atmosphere interactions -- process modeling, data retrieval algorithms, field experiment design and execution, and the development of global data sets.

Related Data Sets:

- Additional ISLSCP II data sets are available from the Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC).

Data Citation:

Cite this data set as follows:

Prince, S.D., D. Zheng. 2011. ISLSCP II Global Primary Production Data Initiative Gridded NPP Data . In Hall, Forrest G., G. Collatz, B. Meeson, S. Los, E. Brown de Colstoun, and D. Landis (eds.). ISLSCP Initiative II Collection. Data set. Available on-line [http://daac.ornl.gov/] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A. doi:10.3334/ORNLDAAC/1023

File Information:

The archived data sets for ISLSCP II have been organized by categories. This data set is in the Carbon category.

Data Set Spatial Extent: Global gridded

Westernmost Longitude: -180 W

Easternmost Longitude: 180 E

Northernmost Latitude: 90 N

Southernmost Latitude: -90 S

Projection: Geographic

Data Set Spatial Resolution: 1.0 degree and 0.5 degree in both latitude and longitude

Data Set Temporal Extent: annual

Data File Format

All of the data files in each data set within the ISLSCP Initiative II data collection are in standard ESRI ArcGIS ASCII grid format. The file format consists of numerical fields of varying length, which are delimited by a single space and arranged in columns and rows. There are two *.zip file with this data set, in 1.0 degree (1deg) and 0.5 degree (hdeg) spatial resolutions:

gppdi_npp_gridded_hdeg.zip - When extrapolated, this file contains three files mapped at 0.5 degree spatial resolution. **gridded_anpp_map_hd.asc**, and **gridded_totnpp_map_hd.asc** both contain the mapped above ground and total NPP, respectively. The third file is **gppdi_gridded_npp_hd.csv** and it is the original file submitted by the investigators as a comma-delimited file, with the extension .csv. It contains above ground and total Net Primary Production (NPP) for 2,335 half degree grid cells.

gppdi_npp_gridded_1deg.zip. When extrapolated, this file contains two files mapped at 1.0 degree spatial resolution (the pixels were averaged from the half degree map files): **gridded_anpp_map_1d.asc** and **gridded_totnpp_map_1d.asc**, and both contain the mapped above ground and total NPP, respectively.

Please refer to **0_gppdi_npp_gridded_readme.txt** and **1_gppdi_npp_gridded_doc.pdf** for a more complete description of the data data files and naming conventions.

References:

Olson R.J., K. Johnson, D. Zheng, and J.M.O. Scurlock (2001). Global and regional ecosystem modeling: databases of model drivers and validation measurements. ORNL/TM-2001/196, Enviro. Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, pp 84.

Zheng, D., S.D. Prince, and R. Wright (2002). Terrestrial net primary production estimates for 0.5 degree grid cells from field observations-a contribution to global biogeochemical modeling. Global Change Biology 9:46-64.

Data Access:

These data are available through the Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC) [http://daac.ornl.gov].

Data Archive Contact Information:
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