

NPP Database Holdings at the ORNL DAAC

Summary:

The NPP Database contains documented field measurements of NPP for global terrestrial sites compiled from published literature and other extant data sources. The NPP Database contains biomass dynamics, climate, and site-characteristics data georeferenced to each intensive site. A major goal of the data compilation is to use consistent and standard well-documented methods to estimate NPP from the field data. Other important components of the database include a summary, investigator contact information, and a list of key references for each site. As far as possible, the original principal investigator or his/her successor has been contacted to review the data and documentation.

The NPP Database currently contains detailed data for over 60 intensive study sites. A majority of these sites are grasslands, the remainder being tropical forests, boreal forests, and tundra study sites. Some combination of above-ground annual peak live biomass data and/or seasonal biomass dynamics data are available for all sites. Many sites also have data on below-ground biomass and/or turnover. Estimates of net primary productivity are included, where available, for individual sites, and as part of the NPP Summary tables. Climate and soils data are available for all sites in varying degrees of detail. The sites have been grouped according to vegetation maps based upon [Bailey ecoregions](#), [Holdridge Life-Zones](#), [Matthews vegetation classes](#), and [Olson World Ecosystem Complexes](#).

Previously compiled multi-site data sets of georeferenced NPP estimates are also provided. NPP estimates are available from a number of different collections, containing more than 1700 sites but with less information available for each individual site as compared to the intensive sites. Records for these sites typically include an NPP value, latitude and longitude, original source of the data, and sometimes information on vegetation type, management, soils, and local climate.

More information on the entire Net Primary Productivity Project can be found at the [NPP home page](#), with links to further details on individual study sites or multi-site collections. Users are encouraged to browse these Web pages to find details of original studies, methodologies, and original research contacts. NPP data are available on-line [http:www.daac.ornl.gov] from the ORNL Distributed Active Archive Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee, U.S.A.

Detailed site descriptions and documentation for the individual NPP data sets are available from the links below:

Grassland Sites:

- [Badkhyz \(Turkmenistan\)](#)
- [Beacon Hill \(United Kingdom\)](#)
- [Bridger \(U.S.A.\)](#)
- [Calabozo \(Venezuela\)](#)
- [Cañas \(Costa Rica\)](#)

[Central Plains Experimental Range \(U.S.A.\)](#)
[Charleville \(Australia\)](#)
[Dickinson \(U.S.A.\)](#)
[Dzhanybek \(Kazakhstan\)](#)
[Hays \(U.S.A.\)](#)
[Jornada \(U.S.A.\)](#)
[Khomutov \(Ukraine\)](#)
[Klong Hoi Klong \(Thailand\)](#)
[Konza Prairie \(U.S.A.\)](#)
[Kursk \(Russia\)](#)
[Kurukshetra \(India\)](#)
[Lamto \(Côte d'Ivoire\)](#)
[Matador \(Canada\)](#)
[Media Luna \(Argentina\)](#)
[Montecillo \(Mexico\)](#)
[Nairobi \(Kenya\)](#)
[Nylsvley \(South Africa\)](#)
[Olokemeji \(Nigeria\)](#)
[Osage \(U.S.A.\)](#)
[Otradnoe \(Russia\)](#)
[Pampa de Leman \(Argentina\)](#)
[Rio Mayo \(Argentina\)](#)
[Shortandy \(Kazakhstan\)](#)
[Towoomba \(South Africa\)](#)
[Tullgarnsnäset \(Sweden\)](#)
[Tumentsogt \(Mongolia\)](#)
[Tumugi \(China\)](#)
[Tuva \(Russia\)](#)
[Vindhyan \(India\)](#)
[Xilingol \(China\)](#)

Tundra Sites:

[Point Barrow \(U.S.A.\)](#)
[Toolik Lake \(U.S.A.\)](#)

Boreal Forest Sites:

[Canal Flats \(Canada\)](#)
[Flakaliden \(Sweden\)](#)
[Jädraås \(Sweden\)](#)
[Kuusamo \(Finland\)](#)
[Mississagi \(Canada\)](#)
[Schefferville \(Canada\)](#)
[* Siberian Scots Pine Forests](#) - data from 14 boreal forest stands in eastern Russia
[Superior National Forest \(U.S.A.\)](#)

Temperate Forest Sites:

[Great Smoky Mountains \(U.S.A.\)](#)

[Humboldt Redwoods State Park \(California, U.S.A.\)](#)

* [OTTER Project Sites](#) - 9 treatments from 6 distinct study sites in the Oregon Transect Ecosystem Research Project in the northwestern U.S.A.

Tropical Forest Sites:

[Atherton \(Australia\)](#)

[Barro Colorado \(Panama\)](#)

[Chamela \(Mexico\)](#)

[Cinnamon Bay \(U.S. Virgin Islands\)](#)

[Darien \(Panama\)](#)

[Gunung Mulu \(Malaysia\)](#)

[John Crow Ridge \(Jamaica\)](#)

[Kade \(Ghana\)](#)

[Khao Chong \(Thailand\)](#)

[La Selva \(Costa Rica\)](#)

[Luquillo \(Puerto Rico\)](#)

[Magdalena Valley \(Colombia\)](#)

[Manaus \(Brazil\)](#)

[Marafunga \(Papua New Guinea\)](#)

[Maui, Hawaii \(U.S.A.\)](#)

[Pasoh \(Malaysia\)](#)

[San Carlos de Rio Negro \(Venezuela\)](#)

[San Eusebio \(Venezuela\)](#)

Multi-Site / Multi-Biome Data:

[Global International Biological Programme \(IBP\) Woodlands Data Set](#) - data from 117 international forest research sites

[Global Osnabrück Data Set](#) - data from 720 sites worldwide synthesized by Dr. G. Esser and Prof. H. Lieth

* [OTTER Project Sites](#) - 9 treatments from 6 distinct study sites in the Oregon Transect Ecosystem Research Project, northwestern U.S.A.

[PIK/Bazilevich \(selected data\)](#) - data from 127 sites in northern Eurasia (former U.S.S.R.) adapted from N. I. Bazilevich

* [Siberian Scots Pine Forests](#) - data from 14 boreal forest stands in eastern Russia

[TEM \(Terrestrial Ecosystem Model\) Calibration Data Set](#) - data from 16 vegetation types worldwide

[VAST Model Calibration Data](#) - data from 33 sites in Australia, with over 550 other records of biomass, litterfall, and soil carbon

Associated GPPDI Products:

[Ecosystem Model-Data Intercomparison \(EMDI\)](#) - a worldwide NPP data set and driver data for comparison with models

[Gridded NPP Data Set](#) - half-degree grid cell data for selected worldwide regions compiled by the University of Maryland

[NCEAS Working Groups](#) - consistent data compiled by international working groups for several vegetation types. The data are available for each biome as follows:

- [boreal forest: consistent worldwide estimates](#)
- [cropland: gridded estimates for the central U.S.A.](#)
- [grassland: consistent worldwide estimates](#)
- [tropical forest: consistent worldwide estimates](#)

[Combined GPPDI Data](#) - NPP estimates compiled by the combined efforts of the Global Primary Production Data Initiative (GPPDI), covering 2523 individual sites and 5164 half-degree grid cells

* N.B.: Some data sets appear under more than one heading.

Data Citation:

Cite the data sets by using the following reference format:

Author, P. A., and M. B. Author. Year. Data Set Title. Data set. Available on-line [<http://daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A.

For example:

Williamson, P., and J. Pitman. 1999. NPP Grassland: Beacon Hill, U.K. 1972-1973. Data set. Available on-line [<http://daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A.

Data Description:

Spatial Characteristics:

Spatial Coverage:

Global distribution of study sites, 180 E to -180 W longitude, 80 N to -80 S latitude.

Temporal Characteristics:

Temporal Coverage:

Data sets cover various time frames from January 1, 1937, to January 1, 2001.

Temporal Resolution:

Generally one month for grasslands and tundra to one year for forests.

Data Format:

The data are in ASCII files. The first 18 lines are metadata; data records begin on line 19. The variable values are delimited by semi-colons. The value -999.9 is used to denote missing values.

Data Access:**Contact Information:**

ORNL DAAC User Services Office
Oak Ridge National Laboratory

Telephone: +1 (865) 241-3952
E-mail Address: ornldaac@ornl.gov

Data Center Identification:

ORNL Distributed Active Archive Center
Oak Ridge National Laboratory

Telephone: +1 (865) 241-3952
E-mail Address: ornldaac@ornl.gov

Procedures for Obtaining Data:

Users may place requests by telephone, electronic mail, or fax. Data are also available via the World Wide Web at <http://daac.ornl.gov>.

Data Center Status/Plans:

NPP data may be ordered from the ORNL DAAC. Please contact the ORNL DAAC User Services Office for the most current information about these data and how to order them.

Output Products and Availability:

Data can be provided electronically by FTP, on CD-ROM, or on diskette.

Glossary of Terms

A glossary is available at [Glossary](#).

List of Acronyms

A general list of acronyms for the DAAC is available at [Acronyms](#).

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