



ORNL DAAC

Distributed Active Archive Center for
Biogeochemical Dynamics

SUMMER 2010

The ORNL Distributed Active Archive Center (DAAC) is a NASA-sponsored source for biogeochemical and ecological data and services useful in environmental research. The ORNL DAAC currently archives and distributes more than 870 products categorized as Field Campaign, Land Validation, Regional and Global, or Model Archive.

Please visit us online at <http://daac.ornl.gov> for a comprehensive description of data, services, and tools available from the ORNL DAAC. Current and past news can be found at <http://daac.ornl.gov/news.shtml>.

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<http://www.nasa.gov>

ORNL DAAC News

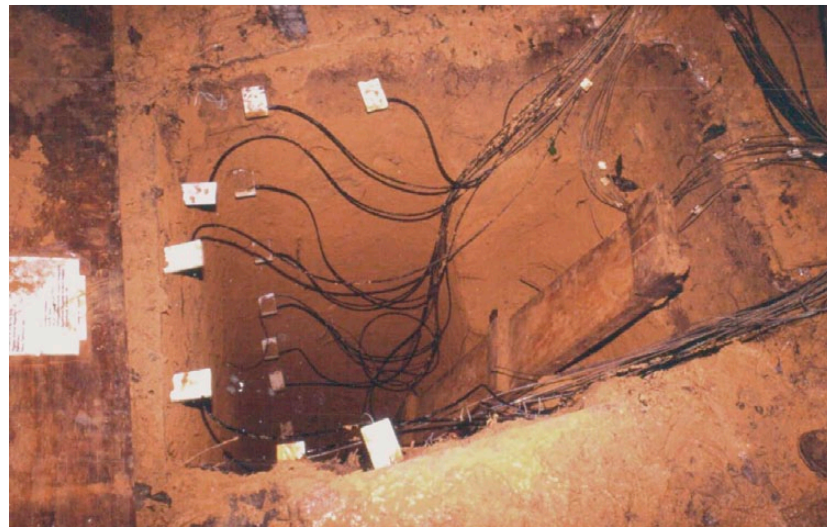
New Release of ORNL DAAC Web Site!

In an ongoing effort to improve customer service, the ORNL DAAC is pleased to announce that it released a major revision to its Web site on Thursday, May 27, 2010.

The new site includes many enhancements aimed at helping users locate and obtain data products and services. The simplified menu bar allows users to navigate quickly and to access data through a variety of tools. The DAAC's Web site address remains unchanged (<http://daac.ornl.gov>), and as always, our products and services are available free of charge.

Please note that your user account information will work on the new Web site. The Sign-in and Registration pages have a different look and will accept your email address as the User Name and retain your current password.

Seven LBA Data Sets Released



10-m deep vertical pit in undisturbed forest (about 20 m from the km 83 Tower Site) where soil moisture measurements were taken. Reflectometers were inserted horizontally into shaft walls beneath the surface.

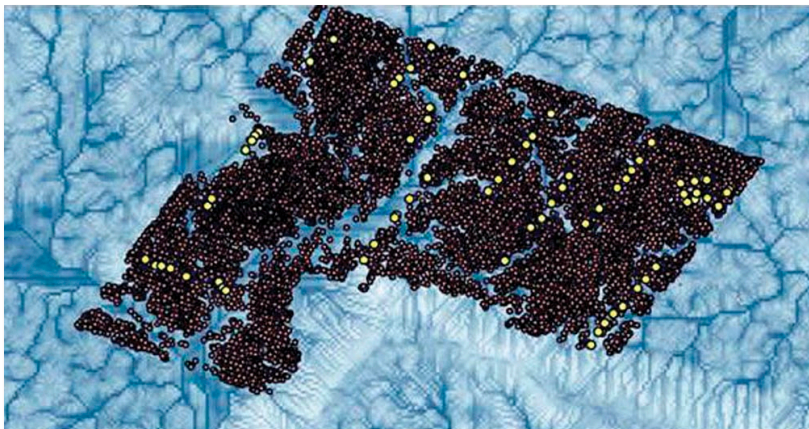
M. Goulden, and H.R. da Rocha), and CD-03 (by David Fitzjarrald and Ricardo Sakai).

Seven data sets were recently released associated with the LBA-ECO component of the Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA), an international research initiative under the leadership of Brazil.

Three data sets were published from the Carbon Dynamics teams of CD-04 (S. Miller,

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Seven LBA Data Sets (continued)



Commercial timber inventory (dark points) and scientific transect waypoints (yellow points) for Block 5, super-imposed on the topographic index (derived from 30-m ASTER DEM); identifies areas of landscape with similar hydrology. Darker tones represent convergence zones, whereas the lighter blue areas are well drained.

These data were collected in the region of the Tapajós National Forest, Para, Brazil.

The CD-04 teams collected heat and CO₂ flux data from the km 83 Gap Tower Site and soil moisture data from

the km 83 Tower Site. The CD-03 team collected flux micrometeorological data at the km 77 Pasture Site.

Four data sets were from research conducted in the region of NW Mato Grosso, Brazil, by the Nutrient Dynamics and Surface Water Chemistry (ND-11) research teams (Ted Feldpausch, Susan Riha, Stefan Jirka and colleagues). The research focus was on vegetation surveys and the effects of reduced impact logging activities on vegetation and soil chemistry.

Sixteen Regional/Global Data Sets Published

The ORNL DAAC recently published 16 data sets from the following collections: Vegetation, Soil, and The International Satellite Land Surface Climatology Project, Initiative II (ISLSCP II).

The Vegetation collection data set, *BASINTCP Stable Isotope Composition of CO₂ in Terrestrial Ecosystems*, reports stable isotope ratio data of CO₂ (13C/12C and 8O/16O) associated with photosynthetic and respiratory exchanges across the biosphere-atmosphere boundary. These data were collected periodically from 2001 through 2004 from selected AmeriFlux sites in the United States. This data set was prepared by Jim Ehleringer and Chun-Ta Lai.

Fourteen ISLSCP Initiative II data sets were also published from the following categories:

Vegetation: Five land cover and land classification data sets prepared by N. Ramankutty, J.A. Foley, M.A. Friedl, A.H. Strahler, J. Hodges, R.S. DeFries, M. Hansen, and K.K. Goldewijk; Three data sets that provide a Normalized Difference Vegetation Index (NDVI), generated to provide a 17-year, satellite record of monthly changes in the photosynthetic activity of terrestrial vegetation, prepared by Sietse O. Los, Jorge E. Pinzon, Compton Tucker, and Molly Brown; and one data set on Leaf Area Index (LAI), compiled from more than 300 sources, for the time period 1932 through 2000, prepared by Jonathan Scurlock, Gregory Asner, and Tom Gower.

Socioeconomics: Two data sets pertaining to the Global Gridded Domestic Product (GDP), 1990, and the global world population for 1982-1998, prepared by D. Balk, S. Gaffin, and U. Deichmann.

Snow, Sea Ice, and Oceans: Three data sets with data on sea surface temperature, global sea ice concentration, and northern hemisphere monthly snow cover extent, prepared by D. Balk, S. Gaffin, and U. Deichmann.

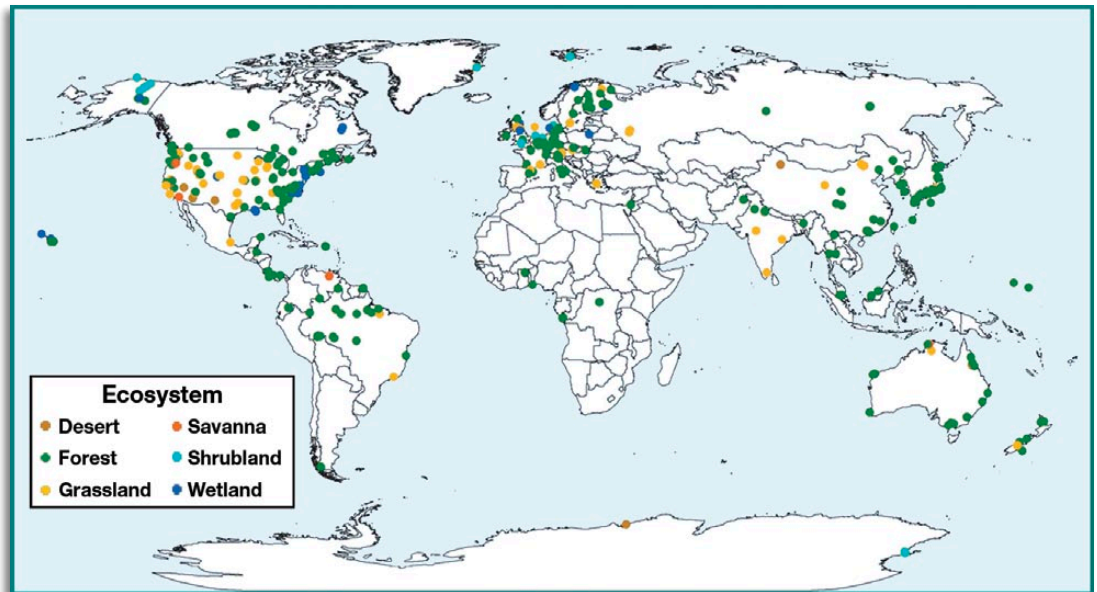
The ISLSCP Initiative II data collection is designed to support modeling studies of the global carbon, water and energy cycle. This data collection contains 50 global time series spanning the ten-year period 1986 to 1995 compiled under the guidance of Forrest Hall and colleagues, NASA Goddard Space Flight Center.

In the Soil Collections, the data set, *A Global Database of Soil Respiration Data, Version 1.0*, prepared by B.P. Bond-Lamberty and A. M. Thomson was published and provides a soil respiration data database (SRDB); a near-universal compendium of published soil respiration (RS) data. The database encompasses all published studies that report at least one of the following data measured in the field (not laboratory): annual RS, mean seasonal RS, a seasonal or annual partitioning of RS into its sources fluxes, RS temperature response (Q10), or RS at 10 °C. The data-

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Sixteen Data Sets Published (continued)

base includes a file of RS data and a linked file of study bibliographic data. Both files are in comma-separated format. The compilers of the SRDB database make it available to the scientific community both as a traditional static archive (ORNL DAAC) and as a dynamic community database that will be updated over time by interested users. The dynamic version of the database is hosted on Google Code: <http://code.google.com/p/srdb/>. Instructions for making a contribution are listed on the Google Code site.



Location of SRDB database observations (dots), by ecosystem type. A Google Earth data layer is included with this data set as a companion file for easy geographic visualization of the included studies.

Workshops on Data Set Preparation and NASA Tools for Remote Sensing



Join us at the 95th Ecological Society of America (ESA) Annual Meeting, (<http://www.esa.org/pittsburgh/>) where staff from the ORNL DAAC will present 2 workshops: one on the use of tools developed by the DAAC

to aid in the extraction and use of data; and a workshop on the preparation of data sets. The tools workshop focuses on a MODIS Land Products Subsetting and Visualization Tool which produces time series data at a scale and format useful for field investigations from NASA's MODIS (Moderate Resolution Imaging Spectroradiometer). The 2nd tool, the Spatial Data Access Tool—allows users to find, access, and download user defined spatial data. Users can select time period, spatial extent, format, resolution, and projection for their own customized requirements.

Also, a tool for discovery of environmental and ecological data will be demonstrated.

The workshop on data set preparation, which is co-sponsored by DataONE (<https://dataone.org/>) is designed to provide guidance on fundamental data management practices that investigators should perform during the course of data collection to improve the usability of their data sets. Topics will include data structure, quality control, and documentation. We will also discuss the elements of an effective data management plan for use in grant proposals and project planning. The target audience is graduate students, post-docs, and researchers who are actively compiling data. Faculty members who would like to include exercises on best practices for preparing data as part of their curricula are encouraged to attend. Workshop participants must bring their own laptop to participate in hands-on activities and are encouraged to bring their own data sets, which instructors will assist in organizing.

Please Participate in the NASA Customer Satisfaction Survey



Thanks to everyone who participated in the 2009 survey! Your helpful comments will be considered towards future improvements.

During mid-August and early September, 2010, ORNL DAAC users will receive an e-mail invitation

from Claes Fornell International (CFI) Group on behalf of NASA to participate in a Web-based survey about the quality and utility of ORNL DAAC products and services. It takes approximately 10 minutes to complete this anonymous questionnaire and optional comment fields are provided to address user concerns.

Please Participate! Your feedback affects our future performance, and helps us to identify science needs. ORNL DAAC is one of twelve NASA Earth Observing System Data and Information System (EOSDIS) data centers evaluated by this survey.

ACCESSING ORNL DAAC DATA

Web-based interface:  <http://daac.ornl.gov/>

Advanced data search: <http://mercury.ornl.gov/ornldaac/>

Anonymous FTP browsing: <ftp://daac.ornl.gov/data/>

DAAC WebGIS: <http://daac.ornl.gov/mapserver.shtml>

MODIS Land Products Subsets: <http://daac.ornl.gov/MODIS/modis.html>

DAAC FLUXNET Project: <http://daac.ornl.gov/FLUXNET/fluxnet.html>

DAAC SDAT: <http://webmap.ornl.gov/wcsdown>

All data from the DAAC are free and are available electronically.

National Aeronautics and Space Administration: <http://www.nasa.gov>



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