

Mercury – A Service Oriented Web-based system for finding and retrieving Biogeochemical, Ecological and other land-based data

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- What is Mercury?
- What can Mercury do?
- Quick look at Mercury model
- Searching data
- Key search features
- Mercury Demonstration



Finding data – Types of users

I know what I want. Do you have it?

Searching with predefined selection criteria

I am not sure what I want. I need to see what you have available

Browsing a hierarchy of availability summaries

I will know what I want when I see it

Searching with a combination of predefined selection criteria and visual review of data plots

I need to read about what you have, then I will decide

Discover areas of interest by browsing the ORNL DAAC web documentation and collect items of interest

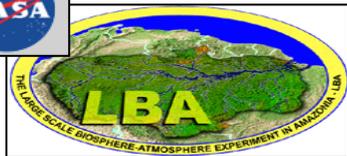
What is Mercury

- Distributed metadata management, data discovery, and access system
- Based on a combination of open source and ORNL developed software
- Standards based – XML, FGDC, Z39.50, Dublin-Core, Darwin-Core, GCMD, EML and ISO19115

What can Mercury do?

- Provide a **single portal** to information contained in disparate data management systems
- Provide **free text, fielded, spatial, and temporal** and **hierarchy search** capabilities
- Allow individuals and database managers to **distribute their data** while maintaining complete control and ownership
- **Leverage investment** in existing information systems and research

Projects using Mercury



Centro de Previsão de Tempo e Estudos Climáticos
Brazil



Project Office
LBA-Hydrometeorology



Office of Science

Science for America's Future www.science.doe.gov

U.S. Department of Energy



DADDI

a working prototype focused on arctic coastal data

North American Carbon Program
MODELING AND SYNTHESIS THEMATIC DATA CENTER

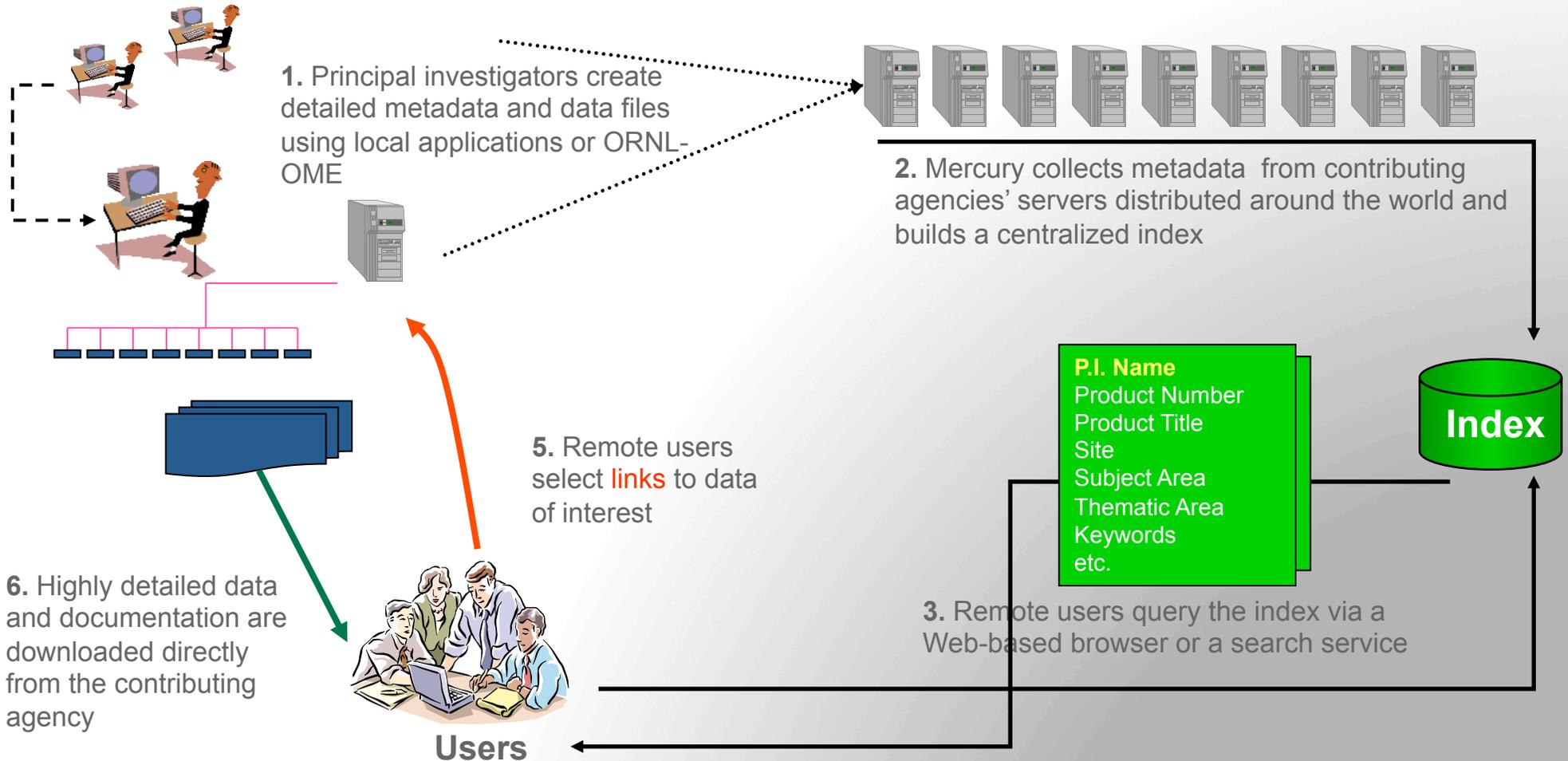


SAFARI 2000



MANAGED BY UT-BATTELLE FOR THE DEPARTMENT OF ENERGY

Mercury : Virtual Internet Database



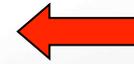
Frequent, automated harvesting and complete re-building of the index keeps the aggregate database up to date



P.I. Summary – Olson J. S
Global Organic Soil Carbon
Project: Soil Collections
Status: Completed
Download Data Set:
http://daac.ornl.gov/cgi-bin/cart/order.pl?ds_id=221

A Virtual Aggregate Database via Mercury

Metadata exists in remote legacy databases using any platform, OS or RDBMS



Databases can be of different structures and content

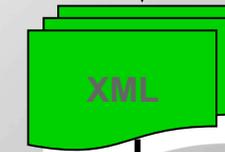
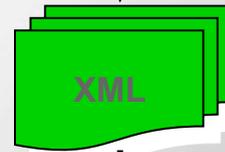
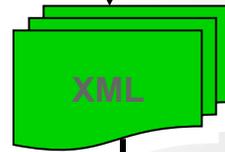
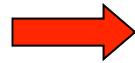
Export programs are easily written and automated



No re-programming of existing systems required

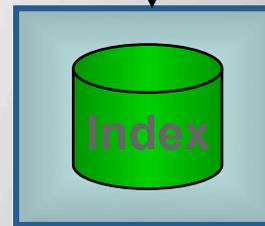
Business as usual for contributing databases

Metadata are extracted into XML files yielding standardized data objects



These files can be remotely harvested via the Internet

Harvested metadata are combined at the central site, transformed (if needed), and indexed



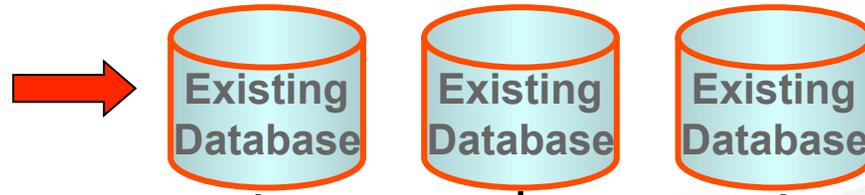
Frequent, automated harvesting and complete re-building of the index keeps the aggregate database up to date

Users work with a single, simple, web interface to access all data simultaneously



A Virtual Aggregate Database via Mercury

Metadata exists in remote legacy databases using any platform, OS or RDBMS



Databases can be of different structures and content

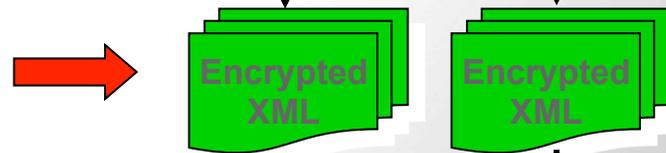
Export programs are easily written and automated



No re-programming of existing systems required

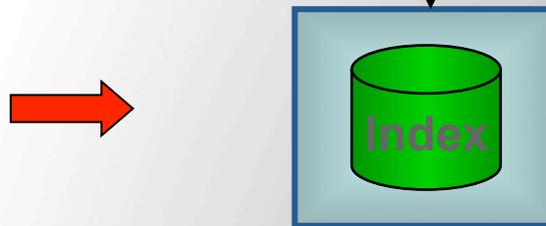
Business as usual for contributing databases

Metadata are extracted into XML files yielding standardized data objects



These files can be remotely harvested via the Internet

Harvested metadata are combined at the central site, transformed (if needed), and indexed



Frequent, automated harvesting and complete re-building of the index keeps the aggregate database up to date

Users work with a single, simple, web-like interface to access all data simultaneously



Mercury - key features

- ORNL DAAC – Simple Search & Advanced Search
- Flexible architecture - can handle multiple search services, scalable, easily extendable
- Rich client user Interfaces
- Detailed results summary - Filtering, dynamics sorting, and book marking of search results
- Has the ability to provide the harvested metadata to other applications (e.g., Google, GCMD, GeoOneStop, NBII Biobot)
- Semantic web integration support (thesaurus service)
- Seamless data ordering/data extraction functionalities
- External data visualization tools integration
- User Statistics Collection

ORNL DAAC Mercury Instance

- **Search Technology using popular open source tools**
- **More than 8000 searchable metadata records**

Currently Archiving data from:

- ORNL DAAC (Distributed Active Archive Center) Archived Data
- Regional and Global Data
- Land Validation Data
- LTER Data (Long Term Ecological Research)
- Organization of Biological Field Stations
- Land Processes Distributed Active Archive Center (LP DAAC)

Simple Mercury Search (google like search)

- <http://mercury.ornl.gov/ornldaac/index.jsp?tab=simple>
- <http://daac.ornl.gov>

The screenshot shows the Mercury Metadata Search System interface. At the top, there is a header "Mercury: Metadata Search System" with three tabs: "Simple Search", "Advanced Search", and "Browse". Below the tabs is a search input field labeled "Search for:". A hint below the field reads: "Hint: boolean operators, wildcards and phrases are allowed. ex: precipitation or (rain* and \"moisture content\")". Below the search field is a "Query" section with a "Not Editable" label. In this section, there is a "Results/Page" dropdown menu set to "10", and three buttons: "SEARCH", "CLEAR QUERY", and "HELP".

Advanced Mercury Search

Mercury: Metadata Search System

Simple Search | **Advanced Search** | Browse

Search by Keywords

Project [Help](#) | [clear](#)

Search by Date Range

during thru [Help](#) | [clear](#)
mm/dd/yyyy

Search by Spatial-Coordinate



POWERED BY Google Map data ©2010 - Terms of Use
*Click on  to select an area

List Areas in:
USA WORLD
South Africa

Search Area:
overlaps encloses
North
West East
South

[Help](#) | [clear](#)

Search from Data Sources

- ORNL DAAC Archived Data (ORNL DAAC) (i)
- Land Validation Data (LandVal) (i)
- Regional and Global Data (RGD) (i)
- LPDAAC - MODIS and ASTER Products (i)
- Long Term Ecological Research (LTER) Network (i)
- Organization of Biological Field Stations (i)

**deselect the boxes to limit the search*

Query

Not Editable `project = "bigfoot" and overlaps coordinates (n,v,s,e) = (-21.27,13.68,-35.9,33.98) and during 08/01/2000 to 08/26/2010 and from`

Results/Page

[SEARCH](#) [CLEAR QUERY](#) [HELP](#)

Type-a-head functionality

Date range search

Draw a bounding box

Web browse Tree

Mercury: Metadata Search System

Simple Search

Advanced Search

Browse

Mercury3 Browsed Tree Search

- ORNL DAAC (i) - (What's New)
- Regional and Global Data (i) - (What's New)
- Land Validation Data (i) - (What's New)

View All gives all possible results for the **Sensor: air temperature** present in the metadata

All Parameters for the Sensor: **barometer** in the Site: Amazon Basin

All Sensors for the Site: Amazon Basin

All Sites present in the metadata

Tree structure:

- MetaData Files
 - Parameter / Source / Site
 - Site / Sensor / Parameter
 - AFRICA [View All](#)
 - ALASKA [View All](#)
 - ALASKA CANADA E
 - AMAZON BASIN [View All](#)
 - [\(View All\)](#)
 - air thermometer ([View All](#))
 - analysis ([View All](#))
 - avhur ([View All](#))
 - barometer ([View All](#))
 - air temperature
 - precipitation amount
 - sea level pressure
 - surface pressure
 - carbon analyzer ([View All](#))
 - human observer ([View All](#))
 - kjeldahl digestion ([View All](#))
 - model analysis ([View All](#))
 - ph meter ([View All](#))
 - rain gauge ([View All](#))
 - stream gauge ([View All](#))
 - sun photometer ([View All](#))
 - temperature sensor ([View All](#))
 - AMAZON BASIN BRAZIL SOUTH
 - AMAZONAS (MANAUS) - EMBR...

Typical Mercury Search Results Screen

Search result can be bookmarked, emailed or used as an RSS feed

Filtering the search results

Sorting and navigating the results

Brief results with links to order the data or view full metadata record

DAAC Home -> MERCURY SEARCH

ORNL DAAC Distributed Active Archive Center for Biogeochemical Dynamics

NASA

About Us About Data Get Data Data Tools Help

Modify search **Metadata Summary** Bookmark Email Help Show Cart RSS

Your search found: 318 documents.

Query: text : climate text : change AND (datasource : (daac landval rgd lpdaac iter obs))

Choose records from: [LTER DATA \(123\)](#) [REGIONAL AND GLOBAL DATA \(113\)](#) [LPDAAC - MODIS AND ASTER PRODUCTS \(39\)](#) [DAAC DATASETS \(37\)](#) [LAND VALIDATION DATA \(6\)](#)

Filter by parameter	Filter by sensor	Filter by topic	Filter by project	Filter by keywords
precipitation amount (51)	analysis (90)	atmosphere (99)	vegetation-ecosystem	eosdis (117)
air temperature (38)	rain gauge (19)	biosphere (87)	modeling (vemap).. (9)	north america (90)
carbon (35)	pyranometer (12)	land surface (75)	nasa earth science.. (7)	climate change (66)
water vapor (28)	air thermometer (11)	hydrosphere (34)	lba (6)	climate (65)
solar radiation (27)	eddy correlation	agriculture (24)	eos land validation.. (4)	europa (46)
humidity (25)	apparatus (10)	cryosphere (17)	islsdp ii (4)	climate collections (44)
land cover (24)	fertilizer (9)	human dimensions (15)	model archive (4)	modis (44)

Viewing Documents 1 - 10 out of 318
Prev 1 2 3 4 5 6 7 8 9 10 Next

Sort By: [Index Rank](#) [Period of record](#) [Source](#) [Project](#)

MODIS LAND COVER/CHANGE (MOD12) SUBSETS FOR EOS LAND VALIDATION CORE SITES
Date: 01/01/2001 - 08/25/2010 Datasource: LAND VALIDATION DATA Project: EOS LAND VALIDATION
Moderate-Resolution Imaging SpectroRadiometer (MODIS) data are available for EOS Land Validation Core Sites as 200 km x 200 km subsets from the original Level L3 and L4, 1200 km x 1200 km, MODIS Tiles. (Note: Subsets for the ARM/CART, Cascades, and Wisconsin sites are slightly larger to include a 100 km buffer around multiple locations with active validation work.) This data set provides 96-Day, 1 km land cover types (MOD12Q1) subsets for EOS Land Validation Sites. This product is used for biophysical and biogeochemical parameterization for input to global and regional scale models. TH
★★★★★★★★★★

[Find similar data](#) [View full metadata](#)

CLIMATE DATA AND MAPS FOR BOREAL ECOSYSTEM RESEARCH AND MONITORING SITES (BERMS), CANADA
Date: 12/01/1996 - 08/25/2010 Datasource: LAND VALIDATION DATA Project: BERMS
The BERMS (Boreal Ecosystem Research and Monitoring Sites) project was designed as a 5-year partial follow-up to the BOREAS (Boreal Ecosystem-Atmosphere Study) experiment. The data set documented here, includes the near-surface meteorological measurements of three forest biomes in the southern boreal forest of Saskatchewan (referred to as the Southern Study Area in BOREAS). Prior to BERMS, the Saskatchewan Research Council maintained near-surface meteorological stations throughout the BOREAS study area from December, 1993 until December, 1996. After this, the Climate Research Branch in Saskato...
★★★★★★★★★★

[Find similar data](#) [View full metadata](#)

Typical Mercury Search Results Screen

Search result can be bookmarked, emailed or used as an RSS feed

Filtering the search results

Sorting and navigating the results

Brief results with links to order the data or view full metadata record

The screenshot shows a search results page from the Distributed Active Archive Center at Oak Ridge National Laboratory. The page title is 'Metadata Summary'. It displays the search query: 'fullText:carbon AND datasource:(daac landval rgd lter obs)'. The results are filtered by data providers, parameters, sensors, topics, and projects. The search results are sorted by Index Rank, and the first three results are shown. Each result includes a title, date range, data source, project name, a brief description, a star rating, and links to 'Get data' and 'View full metadata'.

Filter by data providers

- [LTER Data \(1015\)](#)
- [ORNLDAAC Archived Data \(294\)](#)
- [Regional and Global Data \(145\)](#)
- [Land Validation Data \(12\)](#)
- [Organization of Biological Field Stations \(6\)](#)

Filter by parameter

- [biomass \(117\)](#)
- [primary production \(114\)](#)
- [carbon \(92\)](#)
- [carbon dioxide \(89\)](#)

Filter by sensor

- [analysis \(163\)](#)
- [weighing balance \(102\)](#)
- [quadrat sampling frame \(70\)](#)
- [soil coring device \(60\)](#)

Filter by topic

- [biosphere \(292\)](#)
- [atmosphere \(199\)](#)
- [land \(182\)](#)
- [surface \(182\)](#)
- [hydrosphere \(41\)](#)

Filter by project

- [boreas \(98\)](#)
- [net primary productivity...\(74\)](#)
- [safari 2000 \(27\)](#)
- [fife \(25\)](#)

Viewing Documents 1 - 10 out of 1472
Prev 1 2 3 4 5 6 7 8 9 10 Next

Return to Search Show Cart

Sort By: Index Rank Period of record Source Project

BOREAS TE-06 NPP FOR THE TOWER FLUX, CARBON EVALUATION, AND AUXILIARY SITES 01/01/1985 - 12/31/1995
Datasource: ORNLDAAC ARCHIVED DATA
Project: BOREAS

The BOREAS TE-06 team collected several data sets to examine the influence of vegetation, climate, and their interactions on the carbon fluxes for boreal forest species. This data set contains estimates of the biomass produced by the plant species at the TF, CEV, and AUX sites in the SSA and NSA for a given year. Temporally, the data cover the years of 1985 to 1995. The plant biomass production (i.e., aboveground, belowground, understory litterfall), spatial coverage, and temporal nature of measurements varied between the TF, CEV, and AUX sites as deemed appropriate by BOREAS principal investigators.

★★★★★☆☆☆☆☆ [Get data](#) [View full metadata](#)

NPP BOREAL FOREST: FLAKALIDEN, SWEDEN, 1986-1996 01/01/1986 - 12/31/1996
Datasource: ORNLDAAC ARCHIVED DATA
Project: NET PRIMARY PRODUCTIVITY (NPP)

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's name is included.

★★★★★☆☆☆☆☆ [Get data](#) [View full metadata](#)

NPP BOREAL FOREST: JADRAAS, SWEDEN, 1973-1980 01/01/1973 - 12/31/1980
Datasource: ORNLDAAC ARCHIVED DATA
Project: NET PRIMARY PRODUCTIVITY (NPP)

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

Metadata Report

Search Criteria: fulltext:bird and datasource:(all)

[Bookmark](#) [Email](#)

[Return to Search](#) [Return to Results](#)

[Default view](#)

World Bird Database (WBDB) produced by BirdLife International

Metadata:

- [Identification Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

Filter *Identification Information:*

Citation:

Citation Information:

Originator: BirdLife International

Publication Date: 2006

Title: World Bird Database (WBDB) produced by BirdLife International

Geospatial Data Presentation Form: maps data

Online Linkage:

<http://www.birdlife.org/datazone/species/index.html>

Online Linkage:

<http://www.birdlife.org/datazone/sites/index.html>

Description:

Abstract:

BirdLife has been investing in the development of information management tools to support the activities of the Partnership for many years. This is a fully relational database, known as the World Bird Database (WBDB). The database architecture provides some 120 tables covering in excess of 1,400 data fields. Data are being added continually, and certain tables already hold in excess of 250,000 records.

Purpose:

The World Bird Database provides the information management tool through which the BirdLife Partnership manages, analyses and reports on the breadth of its scientific knowledge - Species, Important Bird Areas (IBAs) and Endemic Bird Areas (EBAs) ? much of these data are available through the Data Zone.

You can search for detailed information on Species, Sites and EBAs, see examples of recent analyses and download subsets of the database.

FGDC view

Custom Interfaces

Beija-flor Search Engine for LBA

Metadata Summary

[Bookmark](#) [Email](#) [Help](#)

Your search found: 435 documents.
Query: fullText:forest AND datasource:(lba lbaesip iai)

Filter by data sources	Filter by parameter	Filter by sensor	Filter by topic	Filter by project
lba (368) iai (35) lbaesip (32)	land cover (40) select parameter from... (24) air temperature (22) biomass (22) carbon dioxide (22) precipitation amount (18) stable isotopes (18)	mass spectrometer (29) human observer (25) analysis (23) digitizer (21) rain gauge (21) landsat tm (17) irga (infrared gas... (13) irga (infrared gas... (12)	land surface (129) biosphere (128) atmosphere (78) agriculture (22) human dimensions (13) hydrosphere (11) radiance or imagery... (9) not applicable (3)	lba (large-scale biosphere-atmosphere... (271) lba-eco (77) esip... (27) 012 (20) 003 (10) lba affiliate... (7) 001 (4)

Viewing Documents 1 - 10 out of 435
[Prev](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [Next](#)
[Return to Search](#)

Sort By: **Index Rank** | Period of record | Source | Project

GLOBAL RAIN FOREST MAPPING PROJECT SYNTHETIC APERTURE RADAR (SAR) DATA FROM THE TROPICAL RAIN FOREST INFORMATION CENTER (TRFIC) 09/01/1995 - 03/01/1997

This data set, acquired as part of the Japanese Space Agency (NASDA) Global Rain Forest Mapping Project (GRFM), is now available at the Tropical Rain Forest Information Center (TRFIC) - SAR node at JPL. The pixel spacing of the data is 100m. This data set is sensitive to flooded forest conditions, and to changes in forest structure (ie. high and low vegetation). Currently, for South America, two coverages are available (high and low flood of Amazon), and for Africa, two coverages (high and low flood of Congo river). A portion...

Data source: LBAESIP **Project:** ESIP EARTH SCIENCE INFORMATION PARTNERS PROGRAM
★★★★★★★★

[View full metadata](#)

FOREST COVER MAPS FOR THE LEGAL AMAZON FROM THE TROPICAL RAIN FOREST INFORMATION CENTER (TRFIC) 01/01/1975 - 12/31/1975

This data set consists of forest cover maps derived from Landsat satellites for the legal Amazon rain forest. The maps can be downloaded in PDF or EMF format from the Tropical Rain Forest Information Center (TRFIC) web site ("http://bsrsi.msu.edu/trfic"). The maps are available for each legal Amazon region for each year 1975, 1986, and 1992. Also available are legal Amazon vegetation and transition ecosystem classes, mean carbon per vegetation type, and major classification types. All the maps range from 30 x 20 to 38 x 30 and can be printed at...

Data source: LBAESIP **Project:** ESIP EARTH SCIENCE INFORMATION PARTNERS PROGRAM
★★★★★★★★

[View full metadata](#)

LANDSAT 7 ETM+ DATA FOR THE LEGAL AMAZON REGION FROM THE TROPICAL RAIN FOREST INFORMATION CENTER (TRFIC) 07/08/1999 - 01/31/2008

This data set consists of acquired Landsat 7 ETM+ imagery for the legal Amazon rain forest. The data and imagery can be browsed online and ordered by WRS2 path, WRS2 row, date of acquisition and file format (GeoTIFF or HDF). The Tropical Rain Forest Information Center (TRFIC) has developed two interfaces for browsing and ordering data: a Web-GIS interface and a Web-HTML interace. Please see "http://bsrsi.msu.edu/trfic" for access to the Data Port and for information on data policy and pricing...

Data source: LBAESIP **Project:** ESIP EARTH SCIENCE INFORMATION PARTNERS PROGRAM
★★★★★★★★

[View full metadata](#)

Custom Interfaces

Cart Sign In Register Tutorial Quick Data Search Go

Metadata Summary

Your search found: 361 documents.
Query: fullText:water AND datasource:(daac)

Bookmark Email Help RSS

Filter by parameter
water vapor (94)
surface air temperature (91)
precipitation amount (85)
surface winds (76)
air temperature (60)

Filter by sensor
analysis (86)
rain gauge (65)
pyranometer (63)
hygrometer (46)
net radiometer (41)

Filter by topic
atmosphere (217)
land (145)
surface (145)
biosphere (126)
hydrosphere (54)

Filter by project
boreas (120)
fire (83)
safari 2000 (36)
superior national forest... (25)
boreas follow-on (16)

Viewing Documents 1 - 10 out of 361
Prev 1 2 3 4 5 6 7 8 9 10 Next
Return to Search Show Cart

Sort By: Index Rank Period of record Source Project

SAFARI 2000 MAPSS MOD05_L2 WATER VAPOR SUMMARY DATA FOR SOUTHERN AFRICA 02/24/2000 - 03/04/2002
Datasource: ORNLDAAC ARCHIVED DATA
Project: SAFARI 2000

The Moderate Resolution Imaging Spectroradiometer (MODIS) Atmosphere Group develops remote-sensing algorithms for deriving sets of atmospheric parameters from MODIS radiance data. These parameters can be integrated into conceptual and predictive global models. MODIS Atmosphere Products Subset Statistics (MAPSS) are generated over important locations around the world, as one of the ways to increase the scope of application of the MODIS atmospheric parameters. This MAPSS data set contains daily time series of the MODIS MOD05_L2 water vapor product over seventeen (17) AERONET sunphotometer measur...

★★★★★★★★★ Get data View full metadata

GLOBAL DISTRIBUTION OF PLANT-EXTRACTABLE WATER CAPACITY OF SOIL (DUNNE) 01/01/1996 - 12/31/1996
Datasource: ORNLDAAC ARCHIVED DATA
Project: SOIL COLLECTIONS

Plant-extractable water capacity of soil is the amount of water that can be extracted from the soil to fulfill evapotranspiration demands. It is often assumed to be spatially invariant in large-scale computations of the soil-water balance. Empirical evidence, however, suggests that this assumption is incorrect. This data set provides an estimate of the global distribution of plant-extractable water capacity of soil. A representative soil profile, characterized by horizon (layer) particle size data and thickness, was created for each soil unit mapped by FAO (Food and Agriculture Organization of...

★★★★★★★★★ Get data View full metadata

Integrated in to DAAC website

Custom Interfaces

Inter-American Biodiversity Information network

The screenshot displays the IABIN website interface. The top navigation bar includes links for IABIN HOME, IABIN CONTACTS, and IABIN SEARCH. The main header features the IABIN logo and the text 'Inter-American Biodiversity Information Network (I3N)'. Below the header, there is a search results section titled 'RESULTS OF SEARCH / RESULTADOS DE LA BÚSQUEDA'. The search terms used are 'water'. The results are presented in a table with columns for Country / País, Status, and Number of pages / Número de páginas. The table lists various countries and their corresponding search results, with a total of 11359 results.

Country / País	Status : 0 Minutes, 4 seconds	Number of pages / Número de páginas
NBII Clearinghouse - Western Hemisphere	Search Complete / Búsqueda completada	30
Argentina	Search Complete / Búsqueda completada	1055
Bahamas	Search Complete / Búsqueda completada	794
Brazil	Search Complete / Búsqueda completada	1220
Chile	Search Complete / Búsqueda completada	829
Columbia	Search Complete / Búsqueda completada	832
Costa Rica	Search Complete / Búsqueda completada	4
Dominican Republic	Search Complete / Búsqueda completada	813
Ecuador	Search Complete / Búsqueda completada	935
El Salvador	Search Complete / Búsqueda completada	633
Guatemala	Search Complete / Búsqueda completada	10
Jamaica	Search Complete / Búsqueda completada	810
Mexico	Search Complete / Búsqueda completada	1055
Paraguay	Search Complete / Búsqueda completada	707
Peru	Search Complete / Búsqueda completada	814
USA	Search Complete / Búsqueda completada	12
Uruguay	Search Complete / Búsqueda completada	806
Total		11359

The website also features a sidebar with navigation links such as Home, About, Participants, How to Join?, Contact Us, and various thematic networks and tools. A search box is visible in the lower-left area of the main content, with instructions: '1. Select a country' and '2. Search:'.

Query selection and results integrated into the partner website

Custom Interfaces

USA-National Phenological Network

The Pulse of Our Planet



Metadata Clearinghouse

Simple Search Advanced Search

Fielded Search

FullText

[Help](#) | [clear](#)

Date Search

Data Collection Date during

Publication Date

Either thru

mm/dd/yyyy mm/dd/yyyy

[Help](#) | [clear](#)

Geographic Search



POWERED BY Google

Terms of Use

List Areas in:

USA WORLD

Select from list

Search Area:

overlaps encloses

North

West East

South

Place: [view on map](#) [Help](#) | [clear](#)

Data providers

USANPN - National Phenology Network [\(i\)](#)

Format

All

Maps and Data

Publications

Tools and Software

Query being built:

Not Editable:

Results/Page: 10

[SEARCH](#) [HELP](#) [CLEAR QUERY](#)

Search Results as RSS

Subscribe to this feed using

Always use Google to subscribe to feeds

[Subscribe Now](#)

ORNLDAAC Mercury Metadata Search Results RSS Feed

This is the search result based on your ORNLDAAC metadata search criteria.

[GLOBAL ORGANIC SOIL CARBON AND NITROGEN \(ZINKE ET AL.\)](#)

This package contains worldwide soil carbon and nitrogen data for more than 3,500 soil profiles. The database was begun about 40 years ago with the collection and analyses by Zinke of soil samples from California. Additional data came from soil surveys of California, Italy and Greece, Iran, Thailand, Vietnam, various tropical Amazonian areas, U.S. forest soils, and from the soil survey literature. The main samples for laboratory analyses were collected at uniform soil depth increments and included bulk density determinations, but samples reported in the literature did not always have this uniformity. For the latter group of samples, only profiles that were samples to a meter depth or to actual depth were used; if bulk densities were not reported, then estimates were made from regressions based on organic carbon content of the soil samples associated with the profile. Methods used for analytical carbon determinations were dry combustion, 'wet combustion', or loss on ignition with adjustments made to the values obtained with the last two methods. Nitrogen was determined by the Kjeldahl method on the soil fine earth fraction and reported as total organic nitrogen. The data can be used to estimate the size of the soil's organic carbon and nitrogen pools at equilibrium with natural soil-forming factors. Most of the data are from profiles associated with natural vegetation so they constitute a baseline for evaluation of the effects that disturbance or modification to natural vegetation has on soil carbon equilibrium at either a global or regional scale. The data can also be used for understanding the range and viability of soil carbon and nitrogen pools for specific ecosystems or climatic regimes.

[SAFARI 2000 ORGANIC SOIL CARBON AND NITROGEN DATA \(ZINKE ET AL.\)](#)

The data set contains a subset of the Worldwide Organic Soil Carbon and Nitrogen (Zinke et al. 1986) data set for southern Africa. The data were obtained from soil surveys by Zinke and soil survey literature. The main samples for laboratory analyses were collected at uniform soil increments and included bulk density determinations. Many samples reported in the literature did not have uniform soil increments or bulk density determinations. Only soil profiles that had been sampled either to a meter in depth or to actual depth were included in this data base from soil survey literature. In literature where bulk densities were absent, densities were estimated by regressions based on organic carbon content of the soil samples associated with the profile using 1800 soil profiles for which bulk densities were known. More information can be found at: ftp://daac.ornl.gov/data/safari2k/soils/Zinke_soil/comp/zinke_readme.pdf.

[GLOBAL DATA SET OF DERIVED SOIL PROPERTIES, 0.5-DEGREE GRID \(ISRIC-WISE\)](#)

The World Inventory of Soil Emission Potentials (WISE) database currently contains data for over 4300 soil profiles collected mostly between 1950 and 1995. This database has been used to generate a series of uniform data sets of derived soil properties for each of the 106 soil units considered in the Soil Map of the World (FAO-UNESCO, 1974). These data sets were then linked to a 1/2 degree longitude by 1/2 degree latitude version of the edited and digital Soil Map of the World (FAO, 1995) to generate GIS raster image files for the following variables: Total available water capacity (mm water per 1 m soil depth) soil organic carbon density (kg C/m**2 for 0-30cm depth range) soil organic carbon density (kg C/m**2 for 0-100cm depth range) soil carbonate carbon density (kg C/m**2 for 0-100cm depth range) soil pH (0-30 cm depth range) soil pH (30-100 cm depth range) Data Citation: The data set should be cited as follows: Batjes, N. H. (ed). 2000. Global Data Set of Derived Soil Properties, 0.5-Degree Grid (ISRIC-WISE). Available on-line from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, U.S.A.

[LBA REGIONAL ORGANIC SOIL CARBON AND NITROGEN DATA \(ZINKE ET AL.\)](#)

The data set contains a subset of the Worldwide Organic Soil Carbon and Nitrogen (Zinke et al. 1986) data set for the study area of the Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA) in South America (i.e., longitude 85 deg to 30 deg W, latitude 25 deg S to 10 deg N). The data were obtained from soil surveys by Zinke and soil survey literature. The main samples for laboratory analyses were collected at uniform soil increments and included bulk density determinations. Many samples reported in the literature did not have uniform soil increments or bulk density determinations. Only soil profiles that had been sampled either to a meter in depth or to actual depth were included in this data base from soil survey literature. In literature where bulk densities were absent, densities were estimated by regressions based on organic carbon content of the soil samples associated with the profile using 1800 soil profiles for which bulk densities were known.

[BOREAS TGB-12 SOIL CARBON DATA: NSA](#)

The BOREAS TGB-12 team made measurements of soil carbon inventories, carbon concentration in soil gases, and rates of soil respiration at several sites to estimate the rates of carbon accumulation and turnover in each of the major vegetation types. TGB-12 data sets include soil properties at tower and selected auxiliary sites in the BOREAS NSA and data on the seasonal variations in the radiocarbon content of CO2 in the soil atmosphere at NSA tower sites. The sampling strategies for soils were designed to take advantage of local fire chronosequences, so that the accumulation of C in areas of moss regrowth could be determined. These data are used to calculate the inventory of C and N in moss and mineral soil layers at NSA sites and to determine the rates of input and turnover (using both accumulation since the last stand-killing fire and radiocarbon data). This data set includes physical parameters needed to determine carbon and nitrogen inventory in soils. The data were collected discontinuously from August 1993 to July 1996.

[SAFARI 2000 SELECTED SOIL CHARACTERISTICS, 10-KM GRID \(IGBP-DIS\)](#)

The data set consists of a southern African subset of the "Global Gridded Surfaces of Selected Soil Characteristics (IGBP-DIS)" produced by the International Geosphere-Biosphere Programme - Data and Information Services. Data files are provided in ASCII GRID format. The "Global Gridded Surfaces of Selected Soil Characteristics (IGBP-DIS)" data set contains seven data surfaces: soil-carbon density, total nitrogen density, field capacity, wilting point, profile available water capacity, thermal capacity, and bulk density. All the surfaces are global, at a resolution of 5 x 5 arc-minutes, in ASCII GRID format for ARC INFO. Each file contains a single ASCII array in a geographic (lat/long) projection. The ASCII files consist of header information containing a set of keywords, followed by cell values in row-major order.

[GLOBAL GRIDDED SURFACES OF SELECTED SOIL CHARACTERISTICS \(IGBP-DIS\)](#)

These data surfaces were generated using data from the 6 miscellaneous FAO land units: DS (dunes or shifting sands), ND (no data), RK (rock debris or desert detritus), ST (salt flats), WR (inland water or ocean) and GL (glacier). The Global Gridded Surfaces of Selected Soil Characteristics (IGBP-DIS) data set contains 7 data surfaces: soil-carbon density, total nitrogen density, field capacity, wilting point, profile available water capacity, thermal capacity, and bulk density. All the surfaces are global, at a resolution of 5x5 arc-minutes, in ASCII GRID format for ARC INFO. Each file contains a single ASCII array in a geographic (lat/long) projection. The ascii files consist of header information containing a set of keywords, followed by cell values in row-major order. These data surfaces were generated by the SoilData System, which was developed by the Global Soil Data Task of the International Geosphere-Biosphere Programme (IGBP) Data and Information Services (DIS). The SoilData System generates soil information and maps for geographic regions at soil depths and resolutions selected by the user. Derived surfaces of selected soil characteristics are suitable for modeling and inventory purposes. The data surfaces are also distributed as part of the Global Soil Data Products CD-ROM. The SoilData System uses a statistical bootstrapping approach to link the pedon records in the Global Pedon Database to the FAO/UNESCO Digital Soil Map of the World. It can generate maps and output data sets for a range of original and derived soil parameters, such as carbon and nitrogen density, thermal conductivity, and water-holding capacity, for any part of the world at user-selected depth ranges. The digital output can be at any resolution (in increments of 5').

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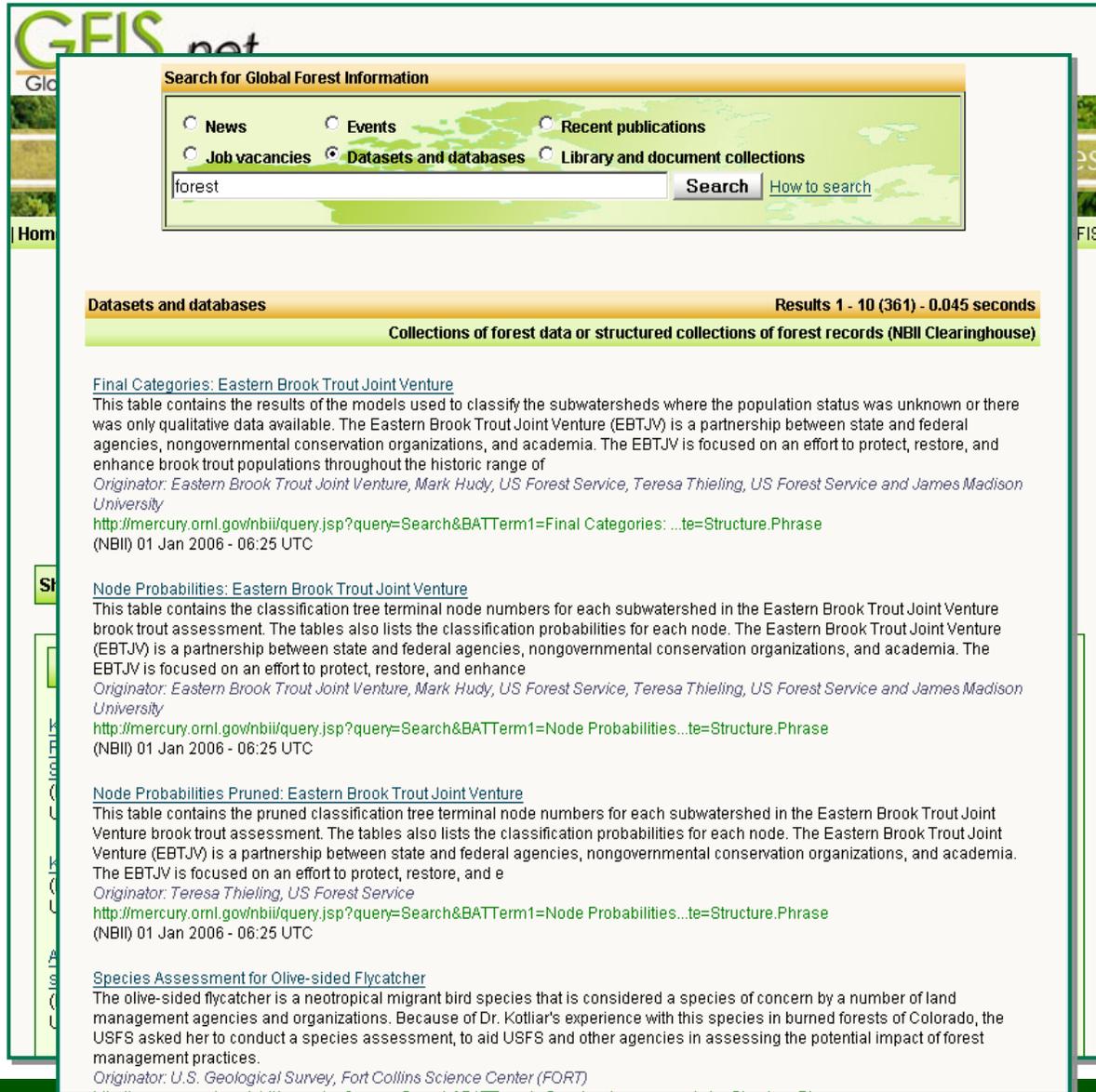


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Collections of forest data or structured collections of forest records (NBII Clearinghouse)

Final Categories: Eastern Brook Trout Joint Venture
This table contains the results of the models used to classify the subwatersheds where the population status was unknown or there was only qualitative data available. The Eastern Brook Trout Joint Venture (EBTJV) is a partnership between state and federal agencies, nongovernmental conservation organizations, and academia. The EBTJV is focused on an effort to protect, restore, and enhance brook trout populations throughout the historic range of
Originator: Eastern Brook Trout Joint Venture, Mark Hudy, US Forest Service, Teresa Thieling, US Forest Service and James Madison University
<http://mercury.ornl.gov/nbii/query.jsp?query=Search&BATTerm1=Final Categories: ...te=Structure.Phrase>
(NBII) 01 Jan 2006 - 06:25 UTC

Node Probabilities: Eastern Brook Trout Joint Venture
This table contains the classification tree terminal node numbers for each subwatershed in the Eastern Brook Trout Joint Venture brook trout assessment. The tables also lists the classification probabilities for each node. The Eastern Brook Trout Joint Venture (EBTJV) is a partnership between state and federal agencies, nongovernmental conservation organizations, and academia. The EBTJV is focused on an effort to protect, restore, and enhance
Originator: Eastern Brook Trout Joint Venture, Mark Hudy, US Forest Service, Teresa Thieling, US Forest Service and James Madison University
<http://mercury.ornl.gov/nbii/query.jsp?query=Search&BATTerm1=Node Probabilities...te=Structure.Phrase>
(NBII) 01 Jan 2006 - 06:25 UTC

Node Probabilities Pruned: Eastern Brook Trout Joint Venture
This table contains the pruned classification tree terminal node numbers for each subwatershed in the Eastern Brook Trout Joint Venture brook trout assessment. The tables also lists the classification probabilities for each node. The Eastern Brook Trout Joint Venture (EBTJV) is a partnership between state and federal agencies, nongovernmental conservation organizations, and academia. The EBTJV is focused on an effort to protect, restore, and e
Originator: Teresa Thieling, US Forest Service
<http://mercury.ornl.gov/nbii/query.jsp?query=Search&BATTerm1=Node Probabilities...te=Structure.Phrase>
(NBII) 01 Jan 2006 - 06:25 UTC

Species Assessment for Olive-sided Flycatcher
The olive-sided flycatcher is a neotropical migrant bird species that is considered a species of concern by a number of land management agencies and organizations. Because of Dr. Kotliar's experience with this species in burned forests of Colorado, the USFS asked her to conduct a species assessment, to aid USFS and other agencies in assessing the potential impact of forest management practices.
Originator: U.S. Geological Survey, Fort Collins Science Center (FORT)

<http://www.gfis.net/gfis/home.faces>

Meet the Mercury Team

Giri Palanisamy – Systems Architect & Team Leader

Ranjeet Devarakonda – Senior Software Developer

Jim Green – Senior Software Developer

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