

FS R&D, Research Data Services

FS RESEARCH DATA ARCHIVE

Making data discoverable, accessible, and usable

Research Data Archive

Roots of our Research



Search catalog



Data Catalog

Using Our Formats

Terms of Use

Submitting Data

Metadata & Tools

About Us



Spatial wildfire occurrence data for the United States, 1992-2015

This spatial database of wildfires that occurred in the United States from 1992 to 2015. It includes 1.88 million geo-referenced wildfire records, representing a total of 140 million acres burned during the 24-year period. Wildfire records were acquired from federal, state, and local fire reporting systems. Core data elements are: discovery date, final fire size, and a point location at least as precise as Public Land Survey System (PLSS) section (1-square mile grid). The data were transformed to conform, when possible, to the data standards of the National Wildfire Coordinating Group (NWCWG). Basic error-checking was performed and redundant records were identified and removed, to the degree possible.

Ever wonder how science knows what it knows? Mostly by thinking about observations made on the natural world, also known as data. The roots of our research are in the data we collect. Short-term sharing of research data is important for the transparency and reproducibility of the research results our scientists publish in research papers. Preserving these data for long-term use is important to being able to re-use the data for multiple purposes. The FS Research Data Archive offers a catalog of hundreds of research datasets funded by Forest Service Research and Development ([FS R&D](#)) or by the Joint Fire Science Program ([JFSP](#)). Of special interest, our collection includes long-term datasets from a number of Forest Service Experimental Forests, Ranges, and Watersheds.

Data publications listed in the catalog are publicly available either from us or another scientific data repository (the publication description page will include a link to the dataset's location if in a different repository). Each published dataset comes with a complete set of metadata (data documentation) and other information the scientist considered important to understanding and successfully using the data. Most data publications that we have released are downloadable; others have a database query interface to help you get that part of the large dataset which is of interest to you. Some data are also available through a map service. Check out the catalog and discover if there are data of interest to you!

Forest Service Research Data Archive (FS-RDA)

www.fs.usda.gov/rds/archive

- Purpose

- Publish digital research data funded by

- FS Research & Development
- Joint Fire Science Program
- APHIS National Wildlife Research Center

- What we publish

- Long-term research data
- Data from specific studies
- Supplements to FS publications
- Image libraries

The screenshot displays the Forest Service Research Data Archive (FS-RDA) website. The header features the title "Research Data Archive" with the tagline "Roots of our Research" and a search bar. A navigation menu includes links for "Data Catalog", "Using Our Formats", "Terms of Use", "Submitting Data", "Metadata & Tools", and "About Us". The main content area shows a search interface with a sidebar for filtering by "Publication Year", "Authors", "Locations", "Funder", "Keywords", and "GIS". The search results list four items, each with a title, author(s), and a brief description. The first item is "Glacier Lakes Ecosystem Experiments Site (GLEES) hourly meteorology tower data (3rd Edition)" by Korfmacher, John L.; Hultstrand, Douglas M.; Doebley, Valerie T.; Claybrook, Tanner P.; Ellsworth, Alan C. The second item is "United States hurricane accumulated cyclone energy and its potential impacts to forest basal area and urban tree canopy" by Cole, Jason A.; Nowak, David J.; Greenfield, Eric J. The third item is "Granivory and germination data for: 'Tree encroachment impacts on seed predator selection and seedling establishment in degraded pine woodlands'" by Willis, John L.; Schnake, David K.; DePerno, Christopher S.; Lashley, Marcus A.; Wetzstein, Branson; Yow, Justin. The fourth item is "Subalpine seedling establishment and climate data provide broad scale drivers of subalpine tree establishment patterns" by Schapira, Zoe H.; Stevens-Rumann, Camille S.

Research Data Archive
Roots of our Research

Search catalog

Data Catalog Using Our Formats Terms of Use Submitting Data Metadata & Tools About Us

Limit your search

Publication Year +

Authors +

Locations +

Funder +

Keywords +

GIS +

Search

(To search for a phrase use "", e.g. "experimental forest")

Displaying items 1 - 10 of 595

Sort by [Date\(desc\)](#) | [Relevance](#) 10 | 20 | 50 | per page

1. [Glacier Lakes Ecosystem Experiments Site \(GLEES\) hourly meteorology tower data \(3rd Edition\)](#)
Author(s): Korfmacher, John L.; Hultstrand, Douglas M.; Doebley, Valerie T.; Claybrook, Tanner P.; Ellsworth, Alan C.
2. [United States hurricane accumulated cyclone energy and its potential impacts to forest basal area and urban tree canopy](#)
Author(s): Cole, Jason A.; Nowak, David J.; Greenfield, Eric J.
3. [Granivory and germination data for: "Tree encroachment impacts on seed predator selection and seedling establishment in degraded pine woodlands"](#)
Author(s): Willis, John L.; Schnake, David K.; DePerno, Christopher S.; Lashley, Marcus A.; Wetzstein, Branson; Yow, Justin
4. [Subalpine seedling establishment and climate data provide broad scale drivers of subalpine tree establishment patterns](#)
Author(s): Schapira, Zoe H.; Stevens-Rumann, Camille S.

How to access data in the FS-RDA

Step 1: Go to Data Catalog

Step 2: Limit your search
OR

Do your own search

Step 3: Click on data pub
title of interest

Making data discoverable...

The screenshot shows the Research Data Archive (RDA) website. The header includes the logo 'Research Data Archive Roots of our Research' and a search bar with a magnifying glass icon and the text 'Search catalog'. A red arrow points to the search bar. Below the header is a navigation bar with links: 'Data Catalog' (circled in red), 'Using Our Formats', 'Terms of Use', 'Submitting Data', 'Metadata & Tools', and 'About Us'. A red arrow points to the 'Data Catalog' link.

On the left side, there is a 'Limit your search' section with a list of filters: 'Publication Year', 'Authors', 'Locations', 'Funder', 'Keywords', and 'GIS'. Each filter has a plus sign icon. A red arrow points to this section.

On the right side, there is a search form with a text input field containing 'Penobscot', a dropdown menu set to 'All Fields', and a 'Search' button. A red arrow points to the search form. Below the search form, there is a message: 'You searched for: "Penobscot" in All Fields'. Below this, there is a summary bar showing 'Displaying items 1 - 9 of 9' and 'Sort by Date | Relevance'. Below the summary bar, there are two search results listed:

- 1. [Understory vegetation and site condition data from the "Nonnative Invasive Plants" study at the Penobscot Experimental Forest](#)**
Author(s): Olson, Elizabeth K.; Kenefic, Laura S.; Zukswert, Jenna M.; Langley, CJ M.; Dibble, Alison C.; Muñoz Delgado, Bethany L.
- 2. [Overstory and regeneration data from the "Rehabilitation of cutover mixedwood stands" study at the Penobscot Experimental Forest \(2nd Edition\)](#)**
Author(s): Kenefic, Laura S.; Gerndt, Kathryn M.; Puhlick, Joshua J.; Kuehne, Christian

A red arrow points to the second search result.

How to access data in the FS-RDA

Step 4: View publication details & citation info

*Note: We assign DOIs to **internal** data publications, which also helps meet journal requirements.*

[Data Catalog](#) [Using Our Formats](#) [Terms of Use](#) [Submitting Data](#) [Metadata & Tools](#) [About Us](#)

Publication Details

Title: Overstory tree and regeneration data from the "Silvicultural Effects on Composition, Structure, and Growth" study at Penobscot Experimental Forest (2nd Edition)

Author(s): [Kenefic, Laura S.](#); [Rogers, Nicole S.](#); [Puhlick, Joshua J.](#); [Waskiewicz, Justin D.](#); [Brissette, John C.](#)

Publication Year: 2015

How to Cite: These data were collected using funding from the U.S. Government and can be used without additional permissions or fees. If you use these data in a publication, presentation, or other research product please use the following citation:

Kenefic, Laura S.; Rogers, Nicole S.; Puhlick, Joshua J.; Waskiewicz, Justin D.; Brissette, John C. 2015. Overstory tree and regeneration data from the "Silvicultural Effects on Composition, Structure, and Growth" study at Penobscot Experimental Forest. 2nd Edition. Fort Collins, CO: Forest Service Research Data Archive. <https://doi.org/10.2737/RDS-2012-0008-2>

Abstract: This data publication contains overstory tree measurements, regeneration data, and permanent sample plot location information collected between 1952 and 2014 under the study plan: FS-NRS-07-08-01 "Study Plan: Silvicultural effects on composition, structure and growth of northern conifers in the Acadian Forest Region: Revision of the Compartment Management Study on the Penobscot Experimental Forest" (see Methodology citation section). Data are available in six data sets. 1) Overstory tree measurement data include tree species, condition code (e.g., merchantability status and cause of mortality, if applicable), and diameter at breast height (dbh), 1952 to 2014. 2) Regeneration data include tree seedling species, presence, and count by height class, 1964 to 2014. 3) Spatial location data include location of a subsample of trees, 2000 to 2014. 4) Height and crown measurement data include tree height, height to crown base, and crown radii for a subsample of trees, 2000 to 2014. 5) Understory vegetation data include percent cover by substrate and non-tree vegetation categories, 2000 to 2014. 6) Permanent plot location data include the geospatial coordinates for permanent sample plots.

How to access data in the FS-RDA

Step 5: View documentation

Step 6: Download data - multiple options available

- Zip file (most common)
- Query database
- Image library (new)
- External repository

Keywords: biota; Forest & Plant Health; Botany; Inventory, Monitoring, & Analysis; Monitoring; Natural Resource Management & Use; Forest management; silviculture; species composition; timber supply; forest management; forest stand dynamics; tree regeneration; tree and stand growth; tree height; tree crown; canopy; crown width; balsam fir; red spruce; woody plants; Penobscot Experimental Forest; Maine

Data Access:

- View [metadata](#) (HTML)
- View [file index](#) (HTML), which lists all files in this data publication and short description of their contents
- Download [data publication](#) (13.47 MB - compressed format, ZIP; [Checksum](#)) which includes metadata, file index, data files, and any other supplemental files provided by the author
- OR Query [database](#) (data available in multiple formats)

Note: Download options are specific to each data publication.

Making data accessible...

Example 1: Zip file

Download and unzip file



Fileindex explains contents



Overstory tree and regeneration data from the "Silvicultural Effects on Composition, Structure, and Growth" study at Penobscot Experimental Forest (2nd Edition)

Research Data Product File Index

File	Folder	Description
_metadata_RDS-2012-0008-2.html		Metadata file in HTML format containing a description of the content, quality, and other characteristics of the data.
_metadata_RDS-2012-0008-2.xml		Metadata file in Extensible Markup Language (XML) format containing a description of the content, quality, and other characteristics of the data.
PEF_CompartmentStudy_HeightCrownData.csv	\Data	Comma-delimited ASCII text file containing height and crown measurements for a subsample of USFS CFI plots, collected from 2000 through 2014.
PEF_CompartmentStudy_PlotLocationsData.csv	\Data	Comma-delimited ASCII text file containing permanent sample plot location information.
PEF_CompartmentStudy_RegenerationData.csv	\Data	Comma-delimited ASCII text file containing plot regeneration data from 1964 through 2014.
PEF_CompartmentStudy_SpatialTreeLocationsData.csv	\Data	Comma-delimited ASCII text file containing tree location data in relation to plot center from 2000 through 2014.
PEF_CompartmentStudy_TreeData.csv	\Data	Comma-delimited ASCII text file containing live tree data from 1952 through 2014, mortality data from 1959 through 2014, and deadwood data from 1996 through 2014.
PEF_CompartmentStudy_UnderstoryVegData.csv	\Data	Comma-delimited ASCII text file containing the understory vegetation data collected from 2000 through 2014.
PEF_CompartmentStudy_ActivityDates_INV_REGEN.csv	\Supplements	Comma-delimited ASCII text file containing numbers and dates of regeneration inventories in each management unit (MU) in the compartment management study (CMS).
PEF_CompartmentStudy_ActivityDates_INV_TREE.csv	\Supplements	Comma-delimited ASCII text file containing numbers and dates of tree inventories in each management unit (MU) in the compartment management study (CMS).
PEF_CompartmentStudy_ActivityDates_TRMT.csv	\Supplements	Comma-delimited ASCII text file containing numbers and dates of treatments in each management unit (MU) in the compartment management study (CMS).
PEF_CompartmentStudy_DatabaseChangesV1toV2.pdf	\Supplements	Adobe Acrobat PDF a file containing a list of changes between the previously published compartment study database and the current compartment study database.
PEF_CompartmentStudy_Kcodes.pdf	\Supplements	Adobe Acrobat PDF a file containing descriptions of tree condition codes.
PEF_CompartmentStudy_Map.jpg	\Supplements	JPEG file containing an image showing the location of management units in the Penobscot Experimental Forest Silvicultural Study.
PEF_CompartmentStudy_MUdesc.pdf	\Supplements	Adobe Acrobat PDF a file containing descriptions of management units.

Example 2: Query Database

Penobscot Research Data

Introduction

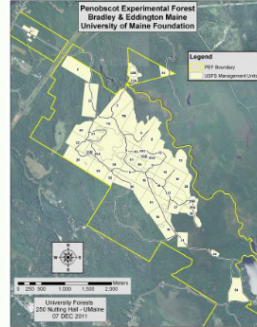
The mission of the Penobscot Experimental Forest (PEF) is to afford a setting for long-term research conducted cooperatively by USDA Forest Service scientists, university researchers, and professional forest managers in Maine; to enhance forestry education of students and the public; and to demonstrate how the timber needs of society are met from a working forest. Though owned by the University of Maine Foundation, the PEF has been a Forest Service experimental forest since 1950. Today the PEF is the site of a number of collaborative research programs.

Located 15 km north of Bangor, Maine, the PEF is in the Acadian Forest, a region covering much of Atlantic Canada and adjacent Maine. An ecotone between boreal and broadleaf biomes, the region is dominated by mixed conifers. Red spruce is the signature species of the Acadian Forest.

More information can be found on the [Penobscot EF website](#).

Data Description

Scientific studies on the PEF have traditionally been focused on management of mixed conifer stands for timber. Over the past 30 years, research was broadened to include fundamental studies of tree growth and maturation, wildlife habitat, spruce budworm predation, biodiversity, root structure and function, coarse woody material, economics, and growth and yield modeling, among other topics. The long-term silvicultural experiment that is the basis for most of the Forest Service's research on the PEF includes 10 replicated treatments representing a range of even- and uneven-aged prescriptions: clearcutting, variants of shelterwood, selection with three cutting cycles,



[Penobscot](#) > [Silvicultural study](#)

Silvicultural study

The data sets available for query/download are displayed below.

If you click the "Metadata" button, a new window will open that displays the metadata for that data set. If you click the "Query/Download" button, you can extract all or a subset of the data and download it.

Height and crown	Metadata	Query/Download
Plot locations	Metadata	Query/Download
Regeneration	Metadata	Query/Download
Spatial tree locations	Metadata	Query/Download
Tree data	Metadata	Query/Download

Penobscot Experimental Forest

Visitor count: 8,721

[Find results by query id](#)

[Penobscot](#) > [Silvicultural study](#) > Height and crown

Height and crown

Output variables:

The following variables are always included:

- Experiment number
- Inventory
- Management unit
- Plot number
- Month

Filter criteria:

Inventory:

(11 to 25)

Minimum:

Maximum:

Management unit:

- ☒ All
- ☒ 10
- ☒ 12
- ☒ 15
- ☒ 16
- ☒ 17

Summarize data:

(Skip if you want to see raw data for your selected time period.)

Summary statistics:

- ☐ Mean
- ☐ Minimum
- ☐ Maximum

Summarize by factors:

- ☒ None
- ☐ Inventory
- ☐ Management unit
- ☐ Plot number
- ☐ Month
- ☐ Year

Optional variables:

- ☒ All
- ☒ Total tree height (ft)
- ☒ Height to base of live crown (ft)
- ☒ Crown radius (ft) at 0 Degree
- ☒ Crown radius (ft) at 90 Degree

Example 3: Image Library



Research Data Archive

Research Image Library

You are here: [Home](#) > Search Results

Limit your search

Search for

Search

Selected

Click to remove

- Collection - [Fort Valley Experimental Forest Historic Images](#)
- Photographer - [Krauch, Hermann](#)
- Subjects - [grounds](#)

Publication Year +

Locations +

Subjects +

Organisms +

Displaying items 1 - 3 of 3

Sort by [Date](#) | [Relevance](#)

[10](#) | [20](#) | [50](#) per page



[more info/bigger image](#)

collection: Fort Valley Experimental Forest Historic Images

subjects: equipment
personnel
grounds

Location: Fort Valley, Coconino N.F.; AZ; United States

caption: Krauch, Talbot, and Forbes leaving tool shack for work.

date: 1913



collection: Fort Valley Experimental Forest Historic Images



ID:	9531
File name:	fv000012.jpg
Caption:	Krauch, Talbot, and Forbes
Subjects:	equipment personnel grounds
Photographer:	Hermann Krauch?
Collection Call num.:	16929A
Media:	3.5 in. x 4.5 in. black and white print
Collection:	Fort Valley Experimental Forest Historic Images
Quality:	4
People:	Hermann Krauch, M.W.Talbot, Forbes
Location:	Fort Valley, Coconino N.F.; AZ; United States
Date(yyyy):	1913
Comments:	Fort Valley grounds; Fort Valley scientists leaving tool shack for work. From left: Hermann Krauch, M.W. Talbot, and Reginald Forbes.
Citation:	Olberding, Susan D.; Huebner, Daniel P.; Edminster, Carleton B. 2007. Fort Valley Experimental Forest historical photographs. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. https://doi.org/10.2737/RDS-2007-0005

DOWNLOAD

Example 4: External Repository

Publication Details

Title: Stambaugh - Pine Camp - PIEC - ITRDB TN032

Author(s): [Stambaugh, Michael C.](#); [Guyette, Richard P.](#); [Marschall, Joseph M.](#)

Publication Year: 2013

How to Cite: These data were collected using funding from the U.S. Government and can be used without additional permissions or fees. If you use these data in a publication, presentation, or other research product please use the following citation:

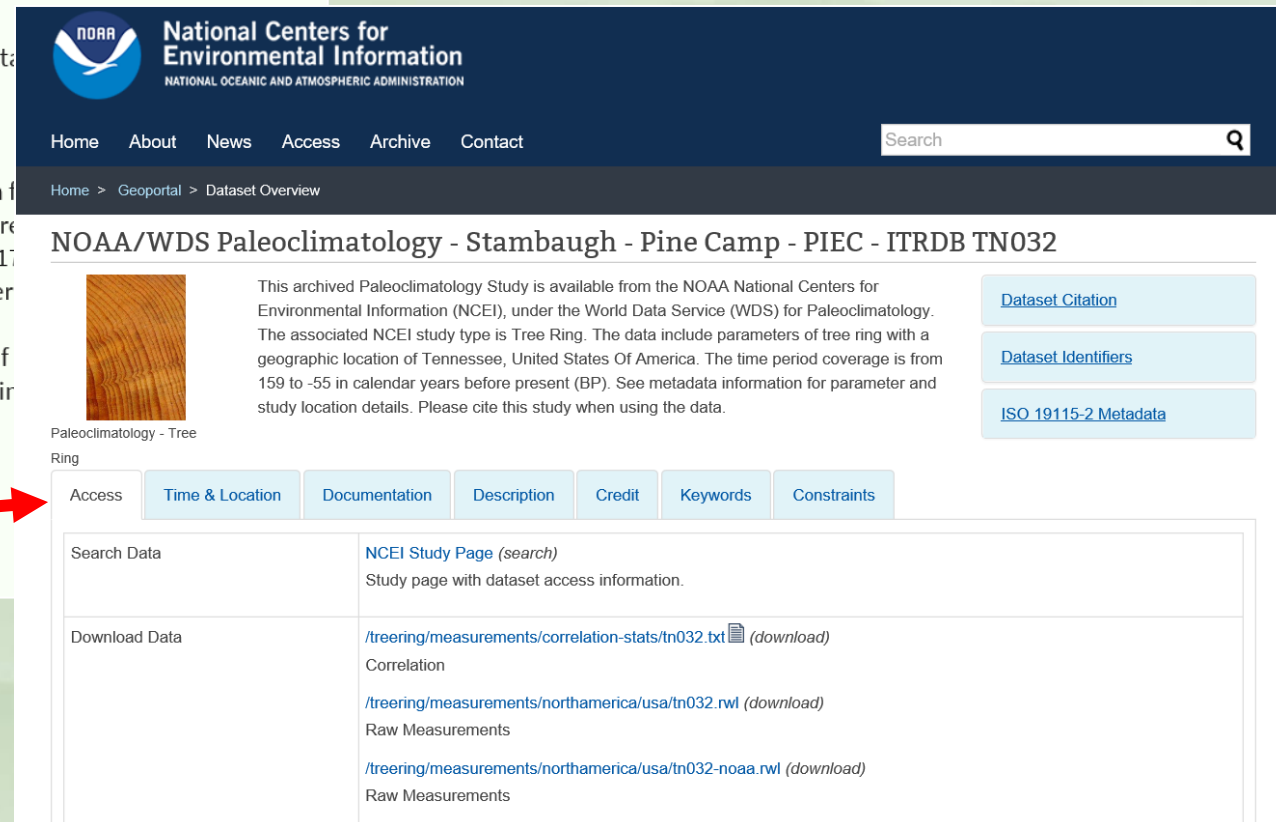
Stambaugh, Michael C.; Guyette, Richard P.; Marschall, Joseph M. 2013. Stambaugh - Pine Camp - PIEC - ITRDB TN032. Boulder, CO: NCDC-Paleoclimatology.
<https://doi.org/10.25921/hhr9-v632>

Abstract: Fire scar histories are a critical fire data source because they form a foundation for understanding fire history. This data package contains crossdated tree-ring measurements used to date fire scars in the Pine Camp in Land Between the Lakes National Recreation Area in Tennessee from 1700 to 1900. These data are part of a larger project to archive fire history data in the southern and eastern United States.

Keywords: earth science; paleoclimate; tree-ring; ring width; Pinus echinata Mill.; shortleaf pine; Fire Science Program; geoscientificInformation; Fire; Fire detection; Fire ecology; Pinus

Data Access: 

- View [metadata](#) (HTML)
- Access [data](#) (available via external archive)



NOAA/WDS Paleoclimatology - Stambaugh - Pine Camp - PIEC - ITRDB TN032

This archived Paleoclimatology Study is available from the NOAA National Centers for Environmental Information (NCEI), under the World Data Service (WDS) for Paleoclimatology. The associated NCEI study type is Tree Ring. The data include parameters of tree ring with a geographic location of Tennessee, United States Of America. The time period coverage is from 159 to -55 in calendar years before present (BP). See metadata information for parameter and study location details. Please cite this study when using the data.

[Dataset Citation](#)
[Dataset Identifiers](#)
[ISO 19115-2 Metadata](#)

Access | Time & Location | Documentation | Description | Credit | Keywords | Constraints

Search Data	NCEI Study Page (search) Study page with dataset access information.
Download Data	/treering/measurements/correlation-stats/tn032.txt (download) Correlation /treering/measurements/northamerica/usa/tn032.rwl (download) Raw Measurements /treering/measurements/northamerica/usa/tn032-noaa.rwl (download) Raw Measurements