

[NGEE-TROPICS ARCHIVE](#)

HELP DESK: ngee-tropics-archive@googlegroups.com

INSTRUCTIONS FOR METADATA AND DATA UPLOAD

1. ACCESSING THE ARCHIVE

NGEE-Tropics Archive website: <https://ngt-data.lbl.gov>

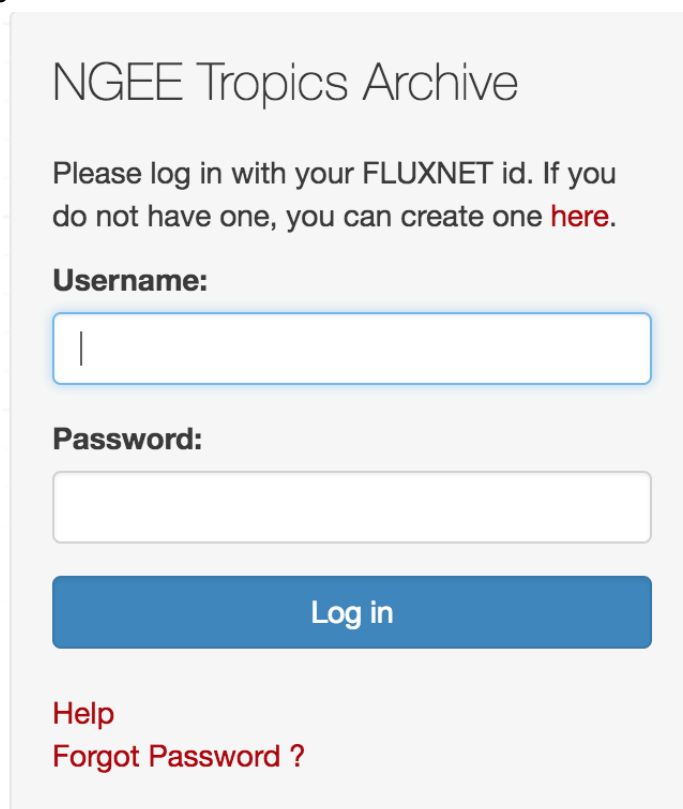
NGEE-Tropics Metadata Templates (see instructions in section 6) are located at Metadata_Central: <https://drive.google.com/drive/folders/0B0m43dY3nR9tMTZSeFduWTZrcTg>

Preferred Browsers

- Chrome
- Firefox
- Safari (has some known issues)
- (Archive is not compatible with Internet Explorer.)

Logging in

- Login with your ORCID credentials. If you do not have an account, you can create one [here](#). Everyone must have a FLUXNET/Ameriflux account, since we DO NOT have separate NGEETropics login credentials.



NGEE Tropics Archive

Please log in with your FLUXNET id. If you do not have one, you can create one [here](#).

Username:

Password:

Log in

[Help](#)
[Forgot Password ?](#)

Figure 1 NGEETropics Archive Login Screen.

- If you are an NGEE-Tropics user, you should automatically be routed to our home page. If you do not have prior permission to the Archive, you will receive a message (Figure 2). An email will be sent by the system to an administrator, who will have to authorize your access to the Archive.

The screenshot shows a web form titled "NGEE Tropics Archive". Below the title, it says "Please log in with your FLUXNET id. If you do not have one, you can create one [here](#)." There are two input fields: "Username:" and "Password:". Below these fields, a message states: "This FLUXNET account has not been authorized to access the NGEE Tropics Archive. A message has been sent to an administrator. We will be in touch with you shortly." At the bottom of the form is a blue "Log in" button. Below the button are two links: "Help" and "Forgot Password ?".

Figure 2 Screen that will appear if you do not have prior permission to access the archive. You will have to wait for an administrator to give you permission, if you get to this screen.

- If you have any concerns regarding accessing the NGEE-Tropics Archive, send us an email at ngee-tropics-archive@googlegroups.com

2. ARCHIVE OPTIONS

Expect the archive tool and these instructions to be modified as new features or new fields are added after the data team gathers feedback.

- The archive currently allows users to create datasets (metadata + data files). Datasets can be marked Public, NGEE-Tropics or Private. Currently all users can view and download data files from Public and NGEE-Tropics records. Only the person who submitted the dataset has access to Private dataset (in future releases, all metadata will be made public).
- While creating a dataset, you can save incomplete drafts, and return to edit them at any time. Once submitted, you will not be able to make changes unless an administrator returns the record to you. All submitted records will be reviewed by an administrator, who will do a basic check, and approve the dataset.
- Users can also view datasets that have been approved by an administrator, and view site and plot information that have been curated by the data team.

Instructions for each of the Archive features are below:

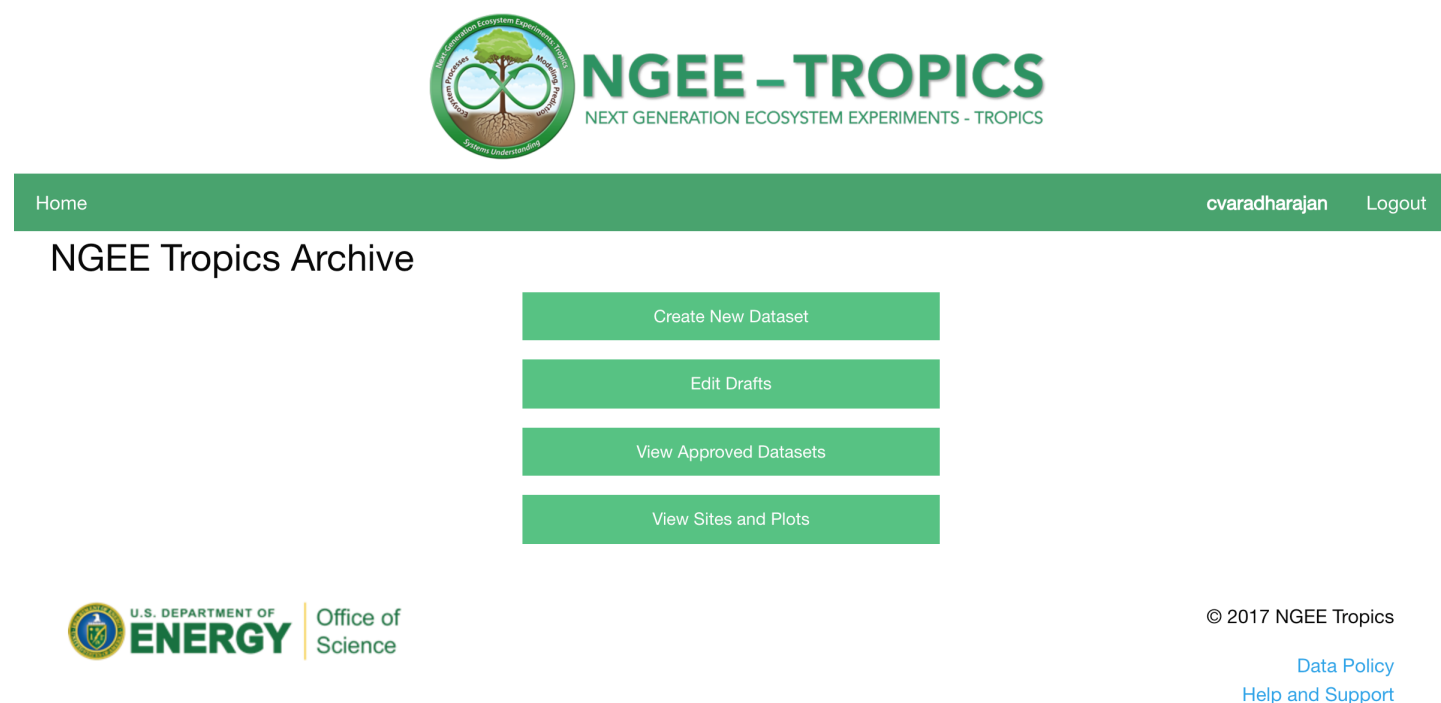


Figure 3 Home page screen, with options to create a new dataset, edit a draft, view datasets/sites/plots

Select one of the following options

1. Create New Dataset – Select this option to create a new dataset record.
 - a. Start a new record with a blank form
 - b. See below for details about the fields to be filled in, and how you can save/submit a record.
2. Edit Drafts – This page lists all the dataset records that you have saved as drafts and are still editing.
 - a. Select the record you want to edit by clicking on the record name.
 - b. **Currently, you cannot view, edit or retire records that have been submitted.** These features will eventually be added.
 - c. Records will not be added to the Archive until they have been approved by our data administrators, and may be returned to you for further edits if the information provided is incomplete, inconsistent or incorrect.
 - d. Approved or submitted records do not appear in this list.
3. View Approved Datasets - a list containing all datasets that have been approved for acceptance into the NGEE-Tropics Archive. Note that you can only see records that you have permission to view (i.e. all of your records regardless privacy setting, as well as all other records with access set to “NGEE-Tropics” or “Public”).
4. View Sites and Plots - detailed information about each site and its associated plots. Select a site from the pull down menu to view.

3. INSTRUCTIONS TO CREATE A NEW DATASET OR EDIT A DRAFT

1. Enter all the fields in the space provided (Figure 4). You only need to fill in required fields (marked with a *****) to submit a record. The full metadata list is detailed below (Table 1).

Home

cvaradharajanLogout

NGEE Tropics Archive

Create a Dataset

* = Required for submission

Dataset Name* ?

Dataset Description* ?

Dataset Field Site(s)* ?

Select site

+ Add

Dataset Field Plot(s) ?

Select plot

+ Add

Dataset Author(s)* ?

Select

+ Add

Dataset Originating Institution(s)* ?

Dataset Contact* ?

Select

Dataset Variable(s)* ?

Select variable

+ Add

Dataset Start date (YYYY-MM-DD)* ?

Dataset End date (YYYY-MM-DD) ?

Status of dataset QA/QC ?

Choose option

QA/QC Method Description ?


Indicate whether NGEЕ Tropics Resources (financial, personnel etc.) were used to obtain this dataset. The NGEЕ Tropics Internal Data Policy will apply, if checked 'yes'* ?


Yes

No

Dataset Funding organization(s)* ?

Figure 4 Create a dataset page. The metadata fields are described in Table 3.

2. If you hover over the  next to the field titles, a tooltip will appear with the description of what we expect you to fill in for that field (Figure 5). Also if you need more space, you can expand a field by dragging the right hand corner of a box with 2 diagonal lines.

Dataset Name* 

Dataset Description

This is the title of the dataset that will be listed in the DOI and dataset viewing pages. The title should be descriptive, and include what, when, and where data was collected (120 character limit.). If possible, include the site ID in the title.
E.g.: Sapflow and Soil Moisture Raw data, Jan 2016-Apr 2016, BR-Ma2: Manaus

Figure 5 Hovering over the question mark brings up a tooltip with additional descriptions about the information expected for each field

3. Field sites and plots are predefined picklists (Figure 6). Selecting one of the entries will auto populate the details of your field site/plot. If you do not see your field site or plot listed, contact ngee-tropics-archive@googlegroups.com. You can view details of the site using the “View Sites and Plots” feature on the home page.

Dataset Field Site(s)* 

✓ Select site

- BR-Cax: Caxiuana Forest-Almeirim
- BR-Ma2: Manaus - ZF2 K34
- BR-Sa1: Santarem - K67
- CR-SoC: Soltis Center
- GF-Guy: Guyaflux
- MX-CHI: CHILES
- PA-BCI: Barro Colorado Island (BCI)
- PA-PNM: Parque Natural Metropolitano
- PA-SLZ: Bosque Protector San Lorenzo (Fort Sherman)
- PR-EVR: El Verde Ridge
- PR-EVV: El Verde Valley
- PR-Ica: Icacos
- PR-Sab: Sabana
- XX-PTTr: Pantropical site

Figure 6 Picklist of Field Sites

4. Upload a **single file** containing all your data files in the Data Upload Box (Figure 7). If you have multiple files, submit a compressed file (zip, rar, 7z, etc). Data and metadata submitted to the Archive should be grouped together into packages in a way that make sense for them to be submitted and viewed together as a single record. Some examples of data packages are:
 - a. Data from a field campaign that need to be viewed together - in this case you can submit all the data collected during that field campaign as a single collection.
 - b. Data used in a publication - in this case you can submit all the data (raw or processed) that went into the publication as a single collection.
 - c. Data used in a data product that is to be released with a DOI (e.g. a synthesis data product) - in this case you can submit the data that went into the data product (raw or

- processed) as a single collection. If data are used from external databases, we suggest including those data that you used for the synthesis for reproducibility.
- d. Continuously generated sensor data - in this case, we suggest grouping raw data (such as those obtained from data loggers) and processed data as separate records so that each can be released at separate times.

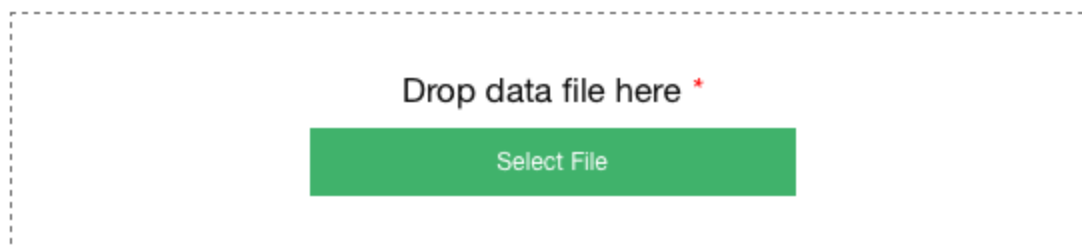


Figure 7 File upload area. Only one file can be uploaded (compress your files if you need to upload multiple files)

5. For NGEE-Tropics-sponsored datasets that are currently collecting data from permanently installed sensors, we require that the metadata reporting templates are also attached. See below (Section 4) for instructions and tips on how to group the data and metadata files.
6. While filling out the form, you have the following options (Figure 8).

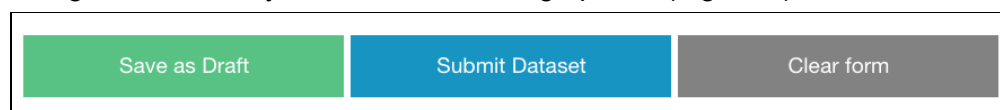


Figure 8 Options allowed while in “Create a Dataset”

a. Save as Draft

This saves a draft of the dataset

- i. A successful save returns a confirmation window with “Dataset has been created successfully. Please note: The screen will refresh after you click OK. You can edit draft further by going to Home > Edit Drafts.” You will also receive an email confirming the record was saved, with a link to return to it in the future
- ii. You can return to the draft for further editing by clicking on “Edit Drafts” on the home page, which will present a list of all draft datasets that you are allowed to edit (Figure 9). Click on the name/description to view the dataset. Click the Edit button to change a draft.

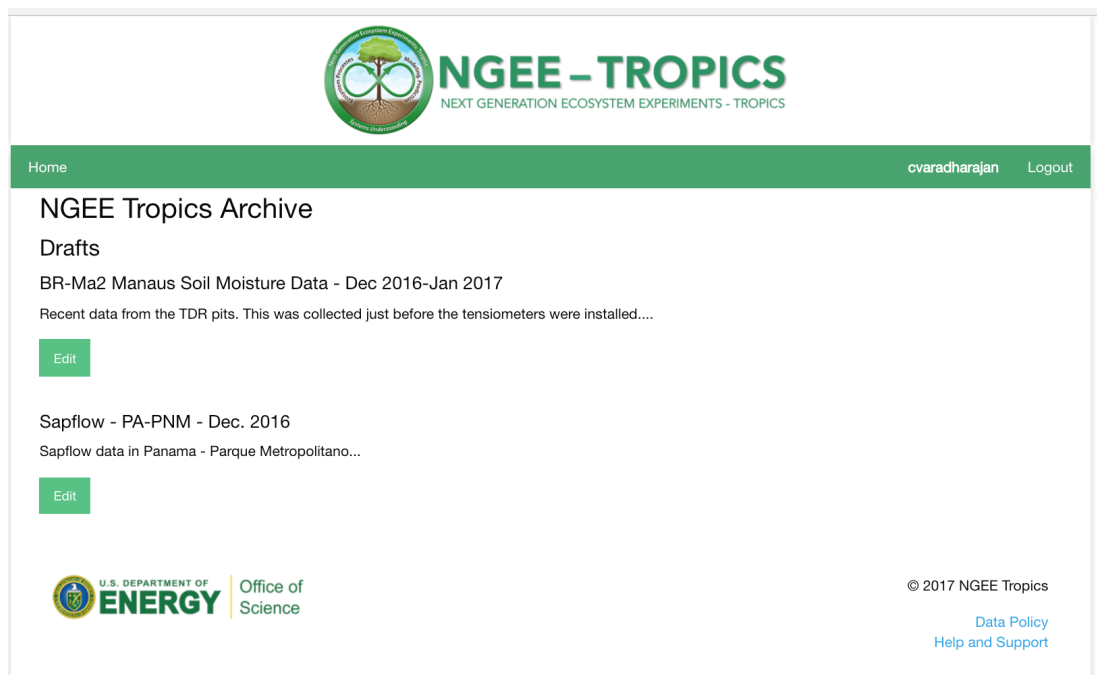


Figure 9 A list of the dataset drafts the user is allowed to edit.

b. Submit Dataset

- i. Must have all required fields complete (these are marked with a red asterisk)
- ii. A successful submission returns a confirmation window with your record details. The user will receive an email confirming the record was saved.
- iii. The Data Team will review the record. If there are issues, questions or suggested content edits, a member of the Data Team will contact the person who submitted the dataset.
- iv. If there are content changes needed, the dataset will be returned to you, and you will need to make the corrections and resubmit the dataset.
- v. The Data Team may make editorial and minor metadata consistency changes.

c. Clear Form

This will cancel the submission. Be careful about hitting this button, since you will lose all changes that have not been saved.

7. After submission, the record will be approved by the Data Team, if/when there are no issues. After approval, the record will be available for download to permitted users (defined by the access level of the dataset).

Table 1 - Information requested in the data upload tool

Field	Description	Units	Required
Dataset Name	<p>A title at least 7 words long which contains relevant information such as the topic, geographic location, dates, and scale of data. Expand acronyms where possible, if acronyms must be included please define them in the data package description. Abbreviations for dates are okay if necessary to meet character count limit.</p> <p><i>Example: Raw sapflow and soil moisture data from Jan 2016-Apr 2016 in Manaus, Brazil</i></p>	free text	y
Dataset Description	<p>The dataset description should be at least 100 words in length, written in full sentences, and understandable to anyone who has not seen related manuscripts. Include a statement about the purpose for why these data were generated and the research question it is intended to answer. A good description would provide users with adequate information to determine if the data are useful for their needs. Also include a description of the files and types of files included in the data package, as well as any software required to view/use these files.</p> <p><i>Example: This data package contains raw output from a data logger connected to 9 sapflow and 5 soil moisture sensors in Manaus, Brazil. The file xxx.dat contains raw data and the metadata file (BR-Ma2_E-fieldlog_20160501.xls) has information on locations where the sensors were installed and other sensor maintenance details. Microsoft Excel will be required to view the metadata files in .xls format. No data processing or QA/QC was done on the raw data packages. Processed data will be uploaded as separate data packages on ESS-DIVE. This research was performed as a part of the NGEE-Tropics project, which aims to advance model predictions of tropical forest carbon cycle responses to a changing climate over the 21st Century.</i></p>	free text	y
Dataset Field Site(s)	<p>Choose field sites using the drop down menu. Select all that apply. Click the +Add button to add more than one site. Additional site information can be viewed using the "View Sites and Plots" option on the main menu. If you do not see your field site listed and believe that it should be added, please contact ngee-tropics-archive@lbl.gov.</p> <p><i>Example (from dropdown menu): BR-Ma2: Manaus - ZF2 K34</i></p>	LIST (predefined sites)	y
Dataset Field Plot(s)	Field plot(s) where the data were collected from. Select all that apply. Click the +Add button to add more than	LIST	n

	one plot. Only the plots belonging to the field site selected above can be chosen. Additional plot information can be viewed using the “View Sites and Plots” option on the main menu. Contact ngee-tropics-archive@lbl.gov if the plot you need is not listed.	(predefined plots)	
Dataset Author(s)	The main researchers involved in producing the data. These include authors, owners, originators and principal investigators who should be listed in the citation. At least one author is required. List authors in the order they need to appear in the citation. Choose from the drop down menu, or add a new author by selecting “+Add,” then “ - Add Collaborator -” Complete the new entry, then hit “Add to Collaborators” to save.	free text	y
Dataset Originating Institution(s)	Name of the organization(s) that performed the research or issued the dataset. Separate multiple organizations with a semicolon and a space. Expand all acronyms. <i>Example: Lawrence Berkeley National Laboratory</i>	free text	y
Dataset Contact	Person who should be listed as the contact for the data package for the purposes of the DOI or for users seeking further information for the data. Only one contact is allowed per data package. Choose from the drop down menu, or add a new author by selecting “ - Add Collaborator -” in the dropdown list. Complete the new entry, then hit “Add to Collaborators” to save.	LIST/free text	y
Dataset Variable(s)	Measurement variables present in the data package. Choose from the drop down list. To add more than one variable, hit the +Add button. If the variable you need is not listed, contact ngee-tropics-archive@lbl.gov . <i>Example (from dropdown menu): Air Temperature</i>	LIST (VARIABLES)	y
Dataset Start Date (ISO format)	Earliest date in dataset. Provide in ISO format (YYYY-MM-DD) <i>Example: 2016-01-10</i>	YYYYMMDD	y
Dataset End Date (ISO format)	Last date in dataset. Provide in ISO format (YYYY-MM-DD) <i>Example: 2016-01-10</i>	YYYYMMDD	n
Status of dataset QA/QC	Indicate if any QA/QC has been performed on the dataset. Choices are None, Provisional QA-QC, Final QA-QC.	LIST (QA-QC_STATUS)	n
Method Description	Methods for a dataset should focus on all aspects of dataset production and should be thorough enough for your work to be reproduced. Include descriptions of the experimental design, laboratory and/or field collection methods, source data for synthesis studies, data	free text	n

	processing and QA/QC procedures, and known issues or limitations of data where applicable. You can also provide a citation for any methods used that were published previously.		
Indicate whether NGEE-Tropics Resources (financial, personnel etc.) were used to obtain this dataset. The NGEE-Tropics Internal Data Policy will apply, if checked "yes".	<p>This should be checked if any NGEE-Tropics Resources (financial, personnel, etc.) were used to generate the data. If marked yes, the data will be subject to the NGEE-Tropics Internal Data Policy.</p> <p><i>NGEE-Tropics Internal Data Policy: 'Private' Datasets that have used NGEE-Tropics Resources (financial, personnel etc.) will automatically be set to 'NGEE-Tropics' access within 6 months of submission. 'Private and 'NGEE-Tropics' datasets that have used NGEE-Tropics Resources will be set to 'Public' access within 18 months of submission.</i></p>	Y/N	y
Dataset Funding Organizations	Identify the agencies and offices that funded the work to generate the dataset. Separate multiple funders with a comma and a space.	free text	y
DOE Funding Contract Numbers	List the numbers of any DOE contract under which the work was funded. If no DOE funding for this dataset or field is empty set as "NONE". If the dataset is a result of a joint effort between two or more DOE Site/Facility Management Contractors, etc., additional DOE contract numbers may be entered. The "DE" should not be included as a part of the number.	free text	n
Dataset Acknowledgement	<p>Acknowledgement that you want the users of this data to include when they use the data (different from citation). Acknowledgements can include relevant DOI or paper(s), and/or funding for the site support. You can also indicate that you prefer to be contacted for acknowledgement text.</p> <p>If NGEE-Tropics resources (financial, personnel etc.) were used, include the following line: "Funding for NGEE-Tropics data resources was provided by the U.S. Department of Energy Office of Science, Office of Biological and Environmental Research."</p>	free text	n
Dataset Reference	Associated publications or datasets where users can learn more about the data, processing method, or how the data were used. Ideally, provide complete citation information for the publication (including DOI).	free text	n
Additional Information about Dataset Reference	Brief description of dataset reference (e.g, paper) relevance, relationship with this dataset or other comments.	free text	n
Dataset Access Level	Privacy setting for data files once the submitted record is approved. Choices are Public, NGEE-Tropics, Private.	LIST (ACCESS)	y

	<p>Public: Data and metadata can be viewed and downloaded by anyone</p> <p>NGEE-Tropics: Metadata can be viewed by anyone. Data files are available for download to NGEE-Tropics personnel and collaborators only.</p> <p>Private: Metadata can be viewed by anyone. Data files are not available for download.</p> <p>'Private' Datasets that have used NGEE-Tropics Resources (financial, personnel etc.) will automatically be set to 'NGEE-Tropics' access within 6 months of submission. 'Private and 'NGEE-Tropics' datasets that have used NGEE-Tropics Resources will be set to 'Public' access within 18 months of submission.</p>		
Additional Information about Dataset Access	<p>Provide comments, if necessary regarding data access. Indicate if there are any data usage constraints here.</p>	free text	n

4. VIEW AND DOWNLOAD APPROVED DATASETS

This feature allows you to view datasets that have been submitted to the system, and approved by the data team (Figure 10). At this time, only datasets that have access set to 'Public' and 'NGEE-Tropics' can be viewed and downloaded via this portal. In the future, metadata for 'Private' datasets will also show up in the listing, but download links will not be made available for 'Private' datasets.

NGEE Tropics Archive

21 Approved Datasets

Global 4 km resolution monthly gridded Gross Primary Productivity (GPP) data set derived from FLUXNET2015

Public

This data set contain global gridded surfaces of Gross Primary Productivity (GPP) at 2 arc minute (approximately 4 km) spatial resolution monthly for the period of 2000-2014 derived from FLUXNET2015 ...

Guyaflux-French Guiana

NGEE Tropics

A series of sapflow, inventory, meteo, C fluxes, SWC, PAI, Litterfall data from the Guyaflux site located in French Guiana...

Leaf Gas Exchange, LeafSpectra, LeafWaterPotential, LeafTraits in Panama. Feb-Apr 2016

NGEE Tropics

Diurnal and A_{Ci} gas exchange and leaf water potential. Leaf spectra and leaf sampling details for future leaf mass area, CHN and non-structural carbohydrate (NSC) analysis. Spectra files and chemistr...

Leaf area index, Soltis Tower plot, Costa Rica, 2014

NGEE Tropics

This dataset contains 9 replicate LAI estimates for the Soltis Tower plot. Data were collected using hemispherical photography on Oct 15, 2014. The average of these 9 gridded (3x3) locations within t...

Leaf surface temperature, Soltis Center, 20150122 to 20160702

NGEE Tropics

These data include actual and corrected leaf surface temperature from the top of the canopy tower. For comparison, the air temperature from a nearby sensor on the spire is also included....

Leaf surface temperature and sap velocity near Km67 tower in Santarem, Brazil (2016-03-11 to 2016-06-13)

NGEE Tropics

Raw, unprocessed data of Leaf Surface temperature (5 trees) and sap velocity (4 trees) near the Km67 flux tower....

Meteorological Data, Soltis Center, Costa Rica, Jan 2014 - April 2016

NGEE Tropics

Figure 10 A list of the approved datasets the user is allowed to view. The text in the blue boxes indicate the access level set by the person who submitted the dataset

To download a dataset:

- Click on the dataset title or description string.
- A view popup will appear that shows the metadata fields for the dataset (Figure 11a)
- At the bottom, check the box that indicates that you have read and accepted the NGEE-Tropics Data Policy (Figure 11b)
- A download link will appear allowing you to download the dataset

Global 4 km resolution monthly gridded Gross Primary Productivity (GPP) data set derived from FLUXNET2015

Data set id	NGT0020
Dataset Name	Global 4 km resolution monthly gridded Gross Primary Productivity (GPP) data set derived from FLUXNET2015
Version	1.0
Dataset Description	This data set contain global gridded surfaces of Gross Primary Productivity (GPP) at 2 arc minute (approximately 4 km) spatial resolution monthly for the period of 2000-2014 derived from FLUXNET2015 (released July 12, 2016) observations using a representativeness based upscaling approach.
DOI	http://dx.doi.org/10.15486/NGT/1279968
Dataset Start date (YYYY-MM-DD)	2000-01-01

Figure 11a - A popup showing the dataset's metadata fields

Dataset Field Plot

Dataset Variable	Other
Submission Contact	Jitu Kumar < jkumar@climatemodeling.org >
Dataset Citation	Nathan Collier, William Hargrove, Forrest Hoffman, Jitu Kumar. Global 4 km resolution monthly gridded Gross Primary Productivity (GPP) data set derived from FLUXNET2015. NGEE Tropics Data Collection. Accessed at http://dx.doi.org/10.15486/NGT/1279968 .

☒ I have read and agree to the terms of the [NGEE Tropics data policy](#).

[Download Dataset](#)

. **Figure 11b** A download link appears at the bottom of the View Dataset popup, if the terms of the NGEE-Tropics Data Policy have been accepted

5. VIEW SITES/PLOTS

Detailed information about each of the field sites and plots can be viewed using the “View Sites/Plots” button on the home page. Select a site from the picklist to view the information about the site (Figure 12a). If you scroll down to the bottom of the page, you can view the Plot information, if any plots have been associated with the site

Sites

PA-BCI: Barro Colorado Island (BCI)

PA-BCI: Barro Colorado Island (BCI)

Barro Colorado Island (BCI) is a humid tropical forest with high biodiversity, around 300 species in 50 ha. The climate has a severe dry season from end of December to end of April. Several deciduous species drop their leaves during this period. Lianas are very abundant in this forest accounting up to 30% of leaf area. (AMERIFLUX) Barro Colorado Island (BCI), a 1,560-hectare island, is STRI's primary site for the study of lowland moist tropical forests. Together with five adjacent peninsulas, BCI forms the 5,600-hectare Barro Colorado Nature Monument (BCNM), which is located in the middle of the Panama Canal. Established in April 17, 1923, BCNM and has been administered by the Smithsonian since 1946 (STRI CTFS).



Country	Panama
State/Province	Panama
UTC Offset	-5
Location Latitude	9.154
Location Longitude	-79.848
Location Elevation	150m
Location Map URL	Click here

Figure 12a Information about a selected field site

Plots in PA-BCI

BCI-50ha: Barro Colorado Island - 50 hectare plot

Site Description	The BCI plot is a 50 hectare, 1000 m x 500 m plot; the long axis lies east-west. (http://www.ctfs.si.edu/data/pdf/CTFSbook_PDF/BCIchapter.pdf)
Size	50
Location Elevation	
Location KMZ URL	Click here
PI	Joseph Wright < WRIGHTJ@si.edu >

Figure 12b Information about corresponding field plots

6. FILE UPLOAD: DATA AND METADATA FILE COLLECTIONS FOR NGEE-Tropics DATA

For NGEE-Tropics-sponsored datasets with permanently installed sensor measurements (sapflow, TDR, leaf temperature, dendrometry and solar radiation measurements), we suggest that data and associated metadata should be submitted to the Archive as 2 separate records:

1) Metadata Record:

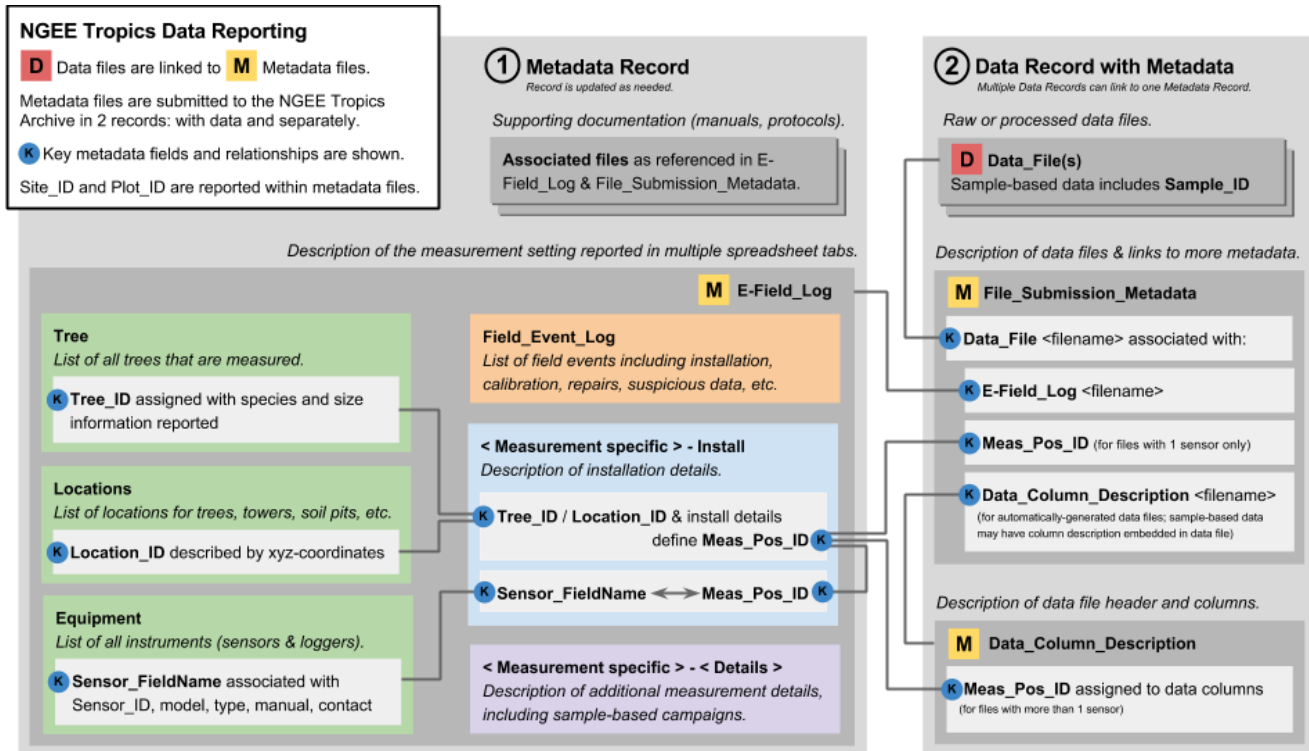
- Contains E-Field_Log metadata file and associated reference files
- Should be updated monthly or as needed

2) Data Record:

- Contains:

- Data File(s)
- File_Submission_Metadata file (required)
- Data_Column_Description metadata file (required for most data files; see next page)
- Links to Metadata Submission are made in File_Submission_Metadata file

The following diagram illustrates the metadata reporting framework:



NGEE-Tropics Metadata Reporting Templates

Metadata is reported in 3 metadata reporting templates located in the [Metadata Central](#):

1. E-Field_Log describes the measurement settings for multiple measurement types at a single site. Site and Plot information is predefined.
2. File_Submission_Metadata lists and describes all the data files submitted together in a data collection. It is required as part of every record. Data files are linked to E-Field_Log and Data_Column_Description files here.
3. Data_Column_Description describes the columns in data files.
 - a. Include a Data_Column_Description file within the data collection for data files that are automatically-generated (e.g., files from data loggers) OR if the data file does not contain a description of the columns similar to the examples provided at Metadata_Central.
 - b. Sample-based files that require manual entry may include a description of the data columns in a separate tab of an excel file. Flat files (e.g., csv, dat) must have a corresponding Data_Column_Description file even if they are sample-based.
 - c. Every data file included in a data collection must be linked to a Data_Column_Description file in the File_Submission_Metadata file. See instructions and examples in File_Submission_Metadata for details.

The following figure suggests a workflow for entering information in the metadata templates. See README tabs in the metadata templates for additional instructions.

NGEE Tropics Metadata Entry Flowchart

For each site (Site and Plot level descriptions are submitted to and approved by the Data Team prior to data submission to Archive):

