

Importing Trees into OpenTreeMap

If you are an administrator on a tree map, you can import a large number of trees at one time using the bulk uploader system. This document includes instructions on organizing your data for upload and using the upload system.

Before importing trees, please confirm that the species included in your tree inventory are available on the species list for your tree map. You can add new species using the species import feature on the Bulk Uploader management page for your map.

Data Organization

The bulk uploader only accepts tree inventories that have been formatted to match the OpenTreeMap Tree Import template. The template can be accessed from the [Documents section](#) of the [OpenTreeMap Resources page](#) or via a link on the Bulk Uploader management page for a tree map.

Please review the following notes on data organization and consult the chart below for information on formatting specific fields.

Data Notes:

1. Only CSV files may be uploaded.
2. Point X and Point Y are the only required fields. These fields must be completed so that OpenTreeMap understands where to place the tree on the map.
3. Fields in the template relate either to the planting site (the first section of the chart below) or the tree itself (the second section of the chart below). If a record includes data only for planting site fields, the record will be added as a planting site rather than as a tree. If a record includes data for any tree fields, the record will be added as a tree. Planting sites often refer to locations of empty planting pits or locations where the existence of a tree is unconfirmed. If the Tree Present field is marked as true, the record will be added as a tree even if no tree fields are completed.
4. The scientific name (genus, species, cultivar, and other part of name) listed for a tree must exactly match a species record in the master species list. The master species list can be adjusted using the species import tool on the Bulk Uploader Management Page. If Common Name is specified, it must also exactly match the common name listed in the master species list.
5. Do not enter units of measurement in the CSV file – only enter the number (15 rather than 15 inches). However, the unit of measurement connected to the number should match the unit of

measurement configured for that field on the tree map. For example, if the map has plot length set to feet, do not enter plot length in inches in the inventory you are uploading.

6. If the tree map includes custom fields, those custom fields may be added to the template as additional columns. The column name must include whether the custom field relates to the tree or planting site (known as plot for the purposes of the template) and the name of the field exactly as it was added to OpenTreeMap. Please include a space between the colon and the name of the custom field. Some examples are Tree: Condition and Plot: Proximity to Walkway.
7. If a custom field may be completed with several possible choices, the values entered in the template must match the values configured for that custom field. For example, if the Condition custom field has values for “good,” “poor,” and “dead,” there cannot be an entry of “excellent” in the uploaded CSV.
8. If the uploaded CSV contains additional fields not included in the template or configured as custom fields, the uploader will indicate an error in the file structure and require removal of the unrecognized fields before the trees can be uploaded.
9. The bulk uploader may be used to mass update existing tree records in the tree map. Tree records are matched using the OpenTreeMap Plot ID field. This field corresponds to the number shown in the URL for a planting site or tree’s detail page (331388 in <https://www.opentreemap.org/phillytreemap/features/331388/>, for example). Complete the OpenTreeMap Plot ID field in the CSV template and the tree or planting site with that number in the tree map will automatically be updated with the information uploaded in the CSV file. Do not use the number listed in the Tree Number field on the tree detail page.
10. While there is no specific limit as to the number of rows that can be included in an inventory, files with more than a few thousand rows may take several minutes to import.

Field Name (Column Headers)	Required	Input Data	Format	Notes
Point X	Yes	Longitude of plot	Numeric	Can only accept longitude coordinates in WSG84/EPSG4326 format. Five decimal places are needed.
Point Y	Yes	Latitude of plot	Numeric	Can only accept latitude coordinates in WSG84/EPSG4326 format. Five decimal places are needed.

Street Address	No	Address associated with tree's location	Text (255 character limit)	Serves only as a reference for location and will not be used to geocode the tree
City	No	City associated with tree's location	Text (255 character limit)	Serves only as a reference for location and will not be used to geocode the tree
Postal Code	No	Postal code associated with tree's location	Text (255 character limit)	Serves only as a reference for location and will not be used to geocode the tree
Plot Width	No	Width of the plot containing the tree	Numeric (decimal)	Should use the unit of measurement set for this field on the OpenTreeMap Units management page
Plot Length	No	Length of the plot containing the tree	Numeric (decimal)	Should use the unit of measurement set for this field on the OpenTreeMap Units management page
OpenTreeMap Plot ID	No	The number assigned to the planting site by the OpenTreeMap system	Numeric (integer)	This number will be used to match the planting site or tree in an import with an existing planting site or tree on the OpenTreeMap site. The OpenTreeMap Plot ID is the number located in the URL for an individual tree or planting site. This field should be left blank if the CSV contains trees not previously uploaded to the tree map.
External ID Number	No	ID assigned to tree in system other than OpenTreeMap	Numeric (integer)	Does not need to be unique. If the user exports data from the tree map, this number can be used to match trees to records in another database.
Tree Present	No	Indicates the existence of a tree	true/false	If this field is marked as true, a tree record will be created even if no tree information (species, dbh) is available. If this field is marked as false, a tree record will not be created in the system even if there is data in the tree related fields.

Genus	No	Genus of the tree	Text (255 character limit)	The combined scientific name (genus, species, cultivar, other part of name) must match an entry in the master species list.
Species	No	Species of the tree	Text (255 character limit)	
Cultivar	No	Cultivar of the tree	Text (255 character limit)	Should not include apostrophes around the cultivar name. The system will automatically add single apostrophes around the cultivar name.
Other Part of Name	No	Variety, authority, subspecies, gender, or other elements of the scientific name	Text (255 character limit)	Text in this field does not need to follow a specific structure. The field may be used to indicate other parts of the scientific name such as subspecies, variety, and gender. The name will display exactly as listed in this field with no formatting applied by the system. When uploading new trees, the scientific name must match this field exactly. For example, if the species list includes a var. in front of the variety name, any trees with that variety will have to list the variety name with a var.

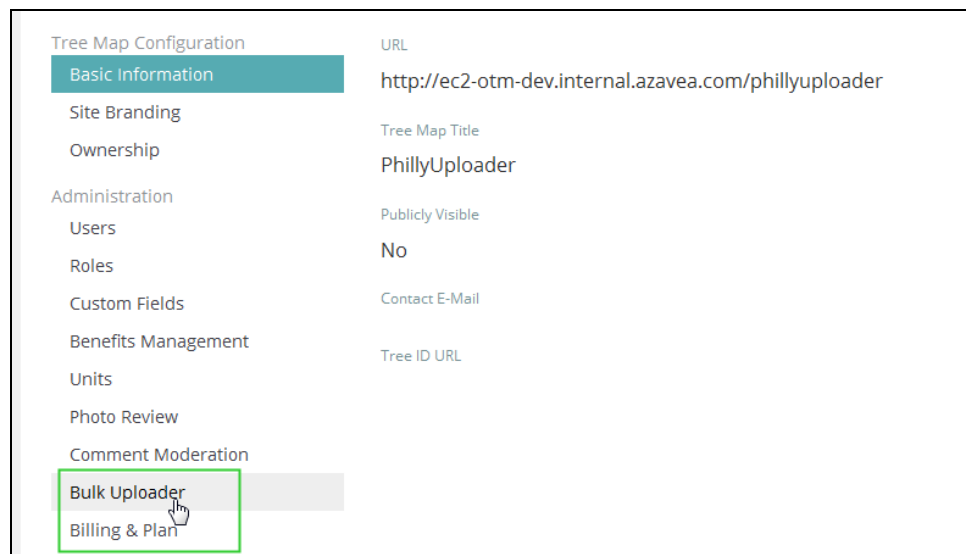
Common Name	No	Common name associated with tree's scientific name	Text (255 character limit)	If a common name is included, it should match the common name assigned to that scientific name in the master species list. If the CSV includes a common name not associated with the listed scientific name, the uploader will mark the data as an error requiring review.
Diameter	No	Diameter of the tree at breast height	Numeric (decimal)	Should use the unit of measurement set for this field on the OpenTreeMap Units management page
Tree Height	No	Height of the tree	Numeric (decimal)	Should use the unit of measurement set for this field on the OpenTreeMap Units management page
Canopy Height	No	Height of canopy portion of tree	Numeric (decimal)	Should use the unit of measurement set for this field on the OpenTreeMap Units management page
Date Planted	No	Date when tree was planted	Date in format YYYY-MM-DD	Date must include a day, month, and year
Custom Fields	No	Fields added to an individual tree map using the Custom Fields management page	Various	Custom fields already configured for your tree map may be added to the CSV template by adding a new column formatted as "Tree: Name of Custom Field" or "Plot: Name of Custom Field" depending on whether the field relates to the tree or the planting site. Please include a space between the colon and the name of the custom field. If the custom field supports choosing from several choices, the values entered in the template must match the

				values configured for that custom field. You cannot create a new custom field for your tree map via the importer. Custom fields must be created via the Custom Fields management page.
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Importing Data

Administrators can upload tree inventories using the Bulk Uploader available through the OpenTreeMap management pages.

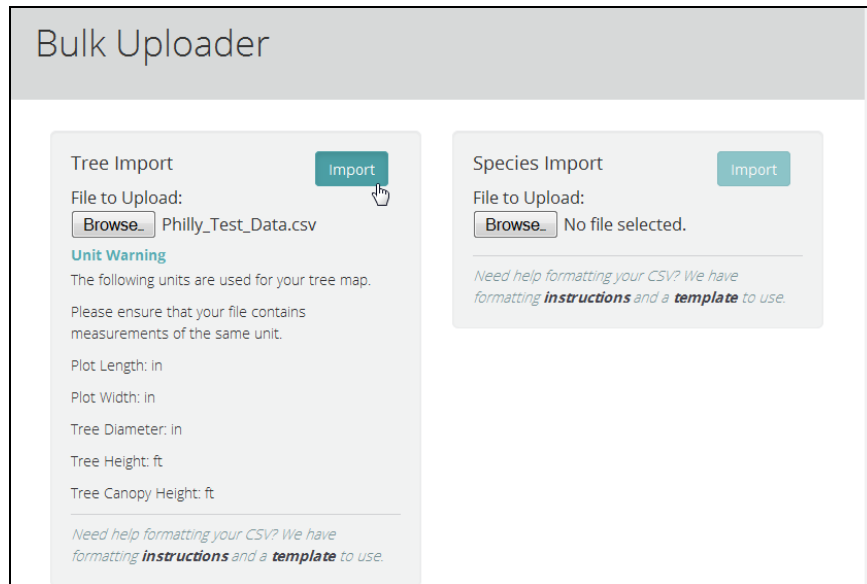
1. While logged in as an administrator, click the Manage button in the top menu and select Bulk Uploader from the options on the left side of the page.



2. The tree import feature is located on the left side of the screen. Select Browse to choose your CSV file. Once you've selected your file, you will see a "Unit Warning" that lists the various units currently configured for your tree map. While you do not need to list the units of measurement in your CSV, the numbers you entered should be calculated based on the units of measurement configured for your tree map. If necessary, make corrections to the CSV and select it again or use the Units management page to change the units of measurement for your tree map.

Once you've confirmed the units of measurement, click "Import" to start the process of checking your trees for data formatting errors and verifying they can be loaded into your tree

map. Clicking Import will not automatically add the trees to your tree map as you will need to review the data first.



Bulk Uploader

Tree Import Import

File to Upload: Browse... Philly_Test_Data.csv

Unit Warning

The following units are used for your tree map.

Please ensure that your file contains measurements of the same unit.

Plot Length: in

Plot Width: in

Tree Diameter: in

Tree Height: ft

Tree Canopy Height: ft

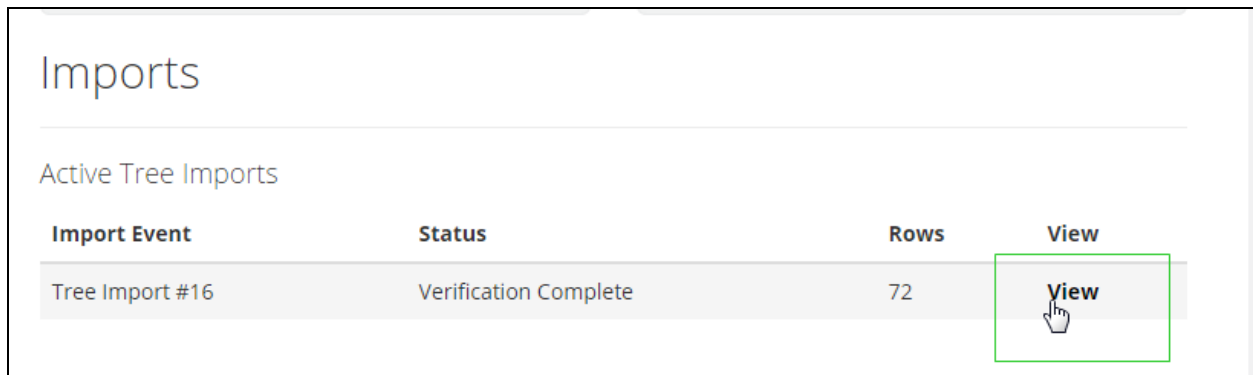
*Need help formatting your CSV? We have formatting **instructions** and a **template** to use.*

Species Import Import

File to Upload: Browse... No file selected.

*Need help formatting your CSV? We have formatting **instructions** and a **template** to use.*

- Once the file is imported, it will be listed under “Active Tree Imports” with a status of “Verification Complete.” You can click the View button to review the verified data on the Import Status page.



Imports

Active Tree Imports

Import Event	Status	Rows	View
Tree Import #16	Verification Complete	72	View

- If the file is large, the status of the import may show as “Verifying” with a count of how many trees have been imported for verification. Large files can take several minutes to import so you may want to click the View button before the verification is complete to review the incoming data and check for any large issues (incorrect latitude and longitude, species not in the system) that may require you to cancel the import and fix the data before uploading the file again.
- If the file is not structured properly, its status may be listed as “Invalid File Structure.” Click View to see specific information about errors in the file such as unrecognized column names.

Import Status

There were errors in the file structure:

Unrecognized fields in header row:

- **number of squirrels**

The CSV may contain only the following columns:

- canopy height
- city
- common name
- cultivar
- date planted
- diameter
- external id number
- genus
- opentreemap plot id
- other part of name
- plot length
- plot width
- plot: stewardship
- point x

6. The Import Status page shows your upload organized into four tabs.

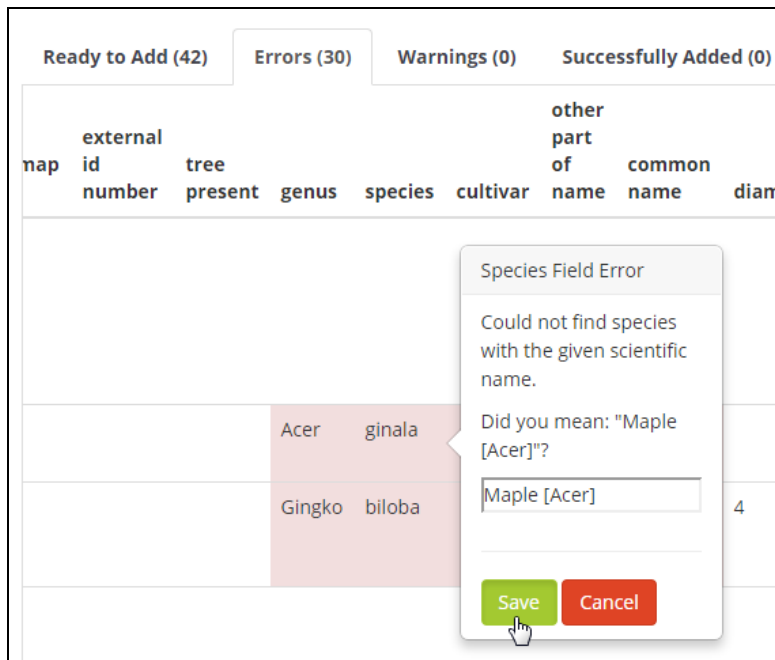
Import Status

Ready to Add (40)
Errors (32)
Warnings (0)
Successfully Added (0)

point x	point y	street address	city	postal code	plot width	plot length	opentreemap plot id	external id number	tr
-75.171131	39.94685	329 S 18th St	Philadelphia	19103					
-75.095454	39.98608	3439 RICHMOND St	Philadelphia	19134			12345		

- Ready to Add** – The Ready to Add tab lists tree records that successfully passed the verification tests and are ready to add to your tree map. If the OpenTreeMap Plot ID field is completed for any of the trees listed on the Ready to Add tab, the data in this import will override any existing data for that tree on your tree map. No action is necessary for this tab.

- b. **Errors** – The Errors tab lists tree records with incorrectly formatted data or data that does not match options available on your tree map. The data causing the issues will be highlighted in red. Click the field to view information about the error and make corrections as necessary. Once an error is corrected, that tree's information will be added to the Ready to Add tab. Common errors include:
- Location** - The Point X and Point Y fields may be highlighted if the coordinates are outside the bounds of your tree map, if they are incorrectly formatted, or if they are unavailable.
 - Species** – The species listed for the tree does not match a species on the master species list for your tree map. Only trees from species on the list may be added to your tree map so that OpenTreeMap can calculate the ecosystem benefits for those species. Click on the species field that is in error to view a suggested species or select a species from the master species list.



Ready to Add (42) Errors (30) Warnings (0) Successfully Added (0)

map id	external id	tree present	genus	species	cultivar	other part of name	common name	diameter
			Acer	ginala				
			Ginkgo	biloba				4

Species Field Error

Could not find species with the given scientific name.

Did you mean: "Maple [Acer]"?

Maple [Acer]

Save Cancel

- Date Planted** – The date planted must be formatted as YYYY-MM-DD.

Ready to Add (42)
Errors (30)
Warnings (0)
Successfully Added (0)

species	cultivar	other part of name	common name	diameter	tree height	canopy height	date planted
							15-Jan-15
ginala							
biloba				4			

Field Error

There was an error with this field:

- Invalid date (must be YYYY-MM-DD)

Please provide a new value:

Save Cancel

- c. **Warnings** – The Warnings tab lists trees whose location is within ten feet of a tree already on the tree map. The tree will be added to your tree map when you click the Add to Tree Map button, but this tab provides an opportunity for you to adjust the location of the tree if necessary. You do not need to make any adjustments if you believe the locations are correct.

Ready to Add (39)
Errors (6)
Warnings (43)
Successfully Added (0)

point x	point y	plot length	opentreemap plot id
-75.171131	39.94685		
-75.164861	39.94905		
-75.211005	40.07313		
-75.140645	39.920103		
-75.165961	39.94519		
-75.217841	39.94588		
-75.159971	39.93887		
-75.173351	40.04528		

Field Error

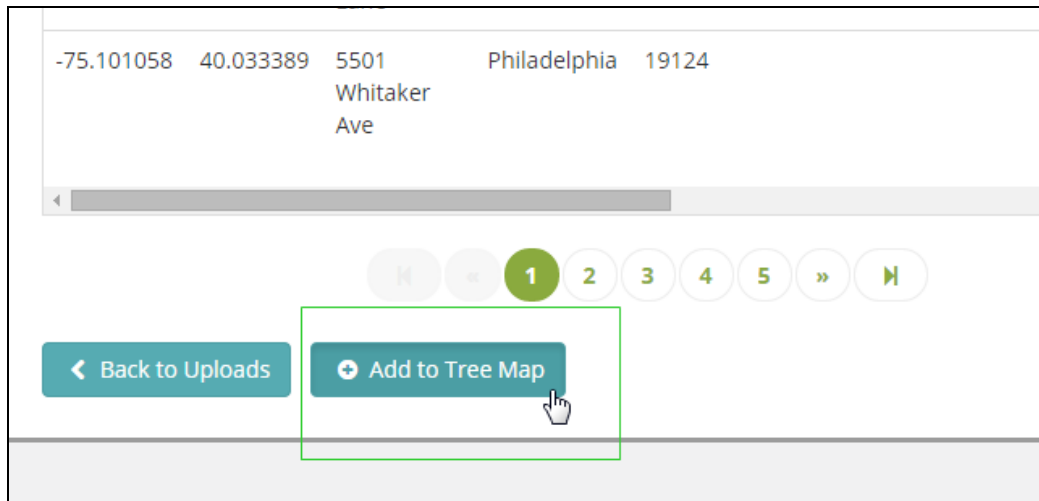
There was an error with this field:

- There are already trees very close to this one

Please provide a new value:

Save Cancel

- d. **Successfully Added** – The Successfully Added tab lists the trees from this import that have been added to your tree map. The count on this tab will remain at zero until you click the Add to Tree Map button at the bottom of the screen.
7. Review the information on the Errors tab and Warnings tab and make adjustments to the data. After reviewing the data, click the Add to Tree Map button at the bottom of the page to add your trees. Adding a large number of trees may take several minutes.



8. Once your trees are added to the tree map, the import will move to the Finished Tree Imports section. You may click View to see the data added as part of the import.

Finished Tree Imports			
Import Event	Status	Rows	View
Tree Import #16	Finished	72	View

9. If you view a finished tree import, the Successfully Added tab will list trees added to your tree map. If there are still trees on the Errors tab, you can still add those trees to your tree map by correcting the errors and clicking the Add to Tree Map button.