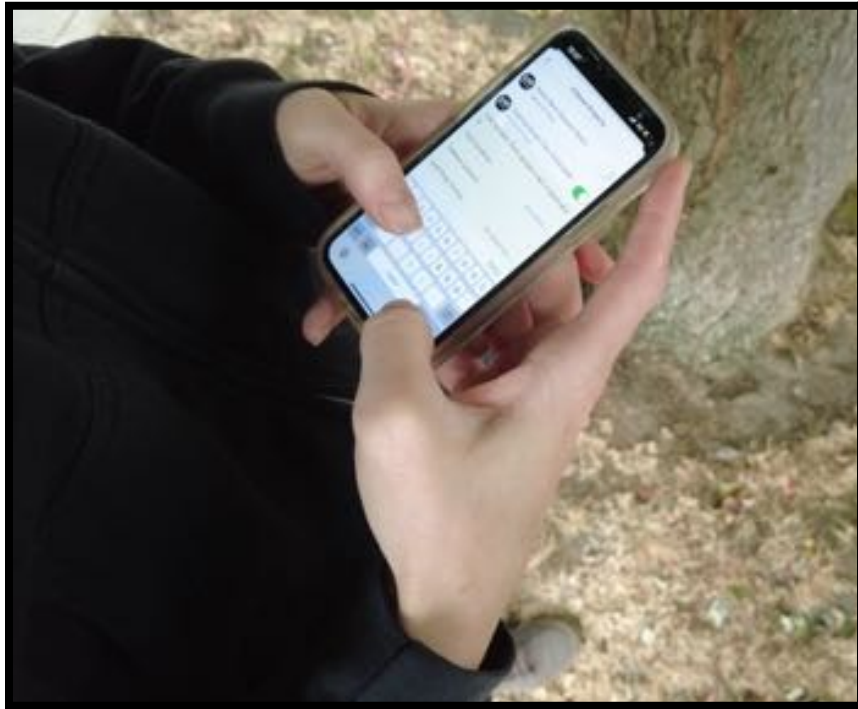


TACOMA STREET TREE VULNERABILITY STUDY

INATURALIST - FIELD MANUAL



FOREST HEALTH WATCH COMMUNITY SCIENCE

September 2022 version

More information available at <https://foresthealth.org/tacoma>

JM Hulbert, Washington State University

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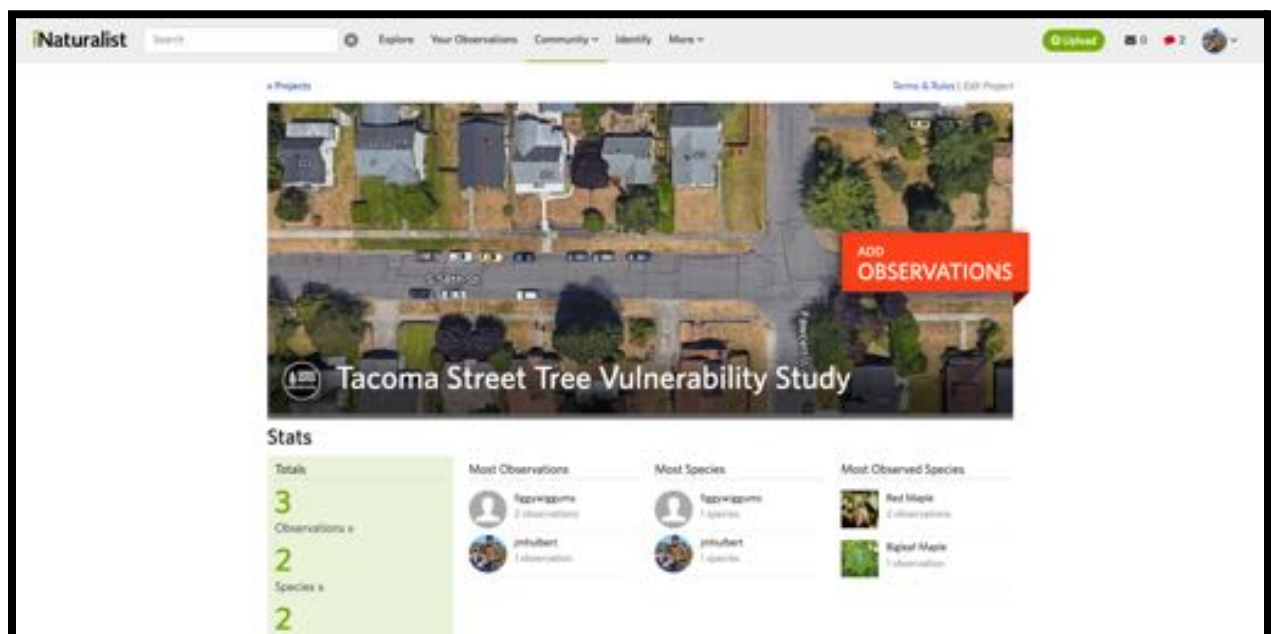
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INTRODUCTION

The purpose of this document is to provide guidance for adding observations to the Tacoma Street Tree Vulnerability Study project on iNaturalist.org. Below you will find instructions and photos demonstrating the process for contributing to the project and research.

SUMMARY OF STEPS TO PARTICIPATE

1. Create an account on [iNaturalist.org](https://www.inaturalist.org).
2. Join the [Tacoma Street Tree Vulnerability Study](#) project.
3. Add an observation of a street tree via mobile app or internet browser.
4. Tag Tacoma Street Tree Vulnerability Study project in the observation.
5. Answer required (and optional please) project questions about the observation.
6. Share the observation!

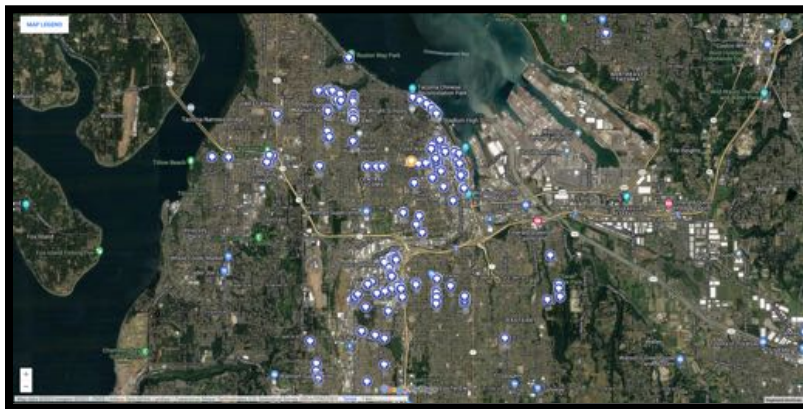


TACOMA COMMUNITY SCIENCE METHODS

Trees can be added to the [Tacoma Street Tree Vulnerability Study](#) project on iNaturalist following two methods.

METHOD 1 - VISIT THESE SPECIFIC MAPLE TREES

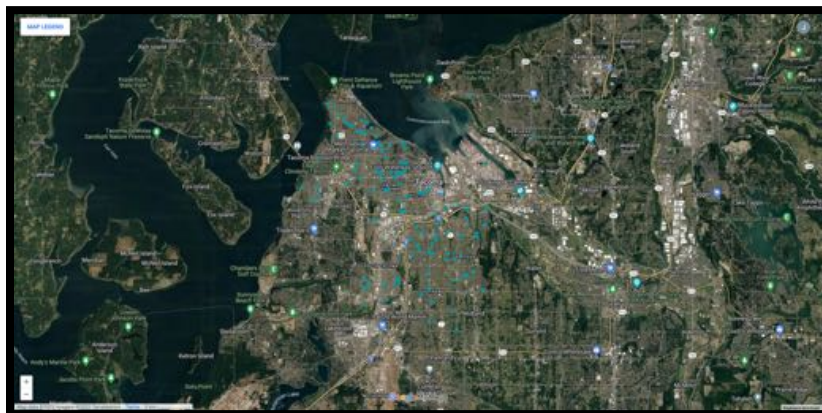
Community scientists can contribute to this project after visiting specific trees around Tacoma. These trees were randomly selected from the Tacoma Street Tree Inventory. Participate by visiting one of these trees and adding it to the [Tacoma Street Tree Vulnerability Study](#) project on iNaturalist.



https://www.google.com/maps/d/u/0/edit?mid=189sdTG79V_W0xkEAW9_flr2K_BAIK3Q&usp=sharing

METHOD 2 - ARE THESE STREETS VULNERABLE?

Community Scientists can contribute by walking these streets and adding all of the street trees to the [Tacoma Street Tree Vulnerability Study](#) project on iNaturalist.



https://www.google.com/maps/d/u/0/edit?mid=1BzKC-qlDEb8dVI_DmX5HhYq9C_h6pLE&usp=sharing

<https://foresthealth.org>

WHAT DO WE MEAN BY 'STREET TREES'?

The [Tacoma Street Tree Vulnerability Study](#) is designed to only collect information on street trees.



Helpful links from City of Tacoma:

- [What is Right-of-Way?](#)
- [Planting in the Rights-of-Way](#)

OTHER INATURALIST PROJECTS IN TACOMA

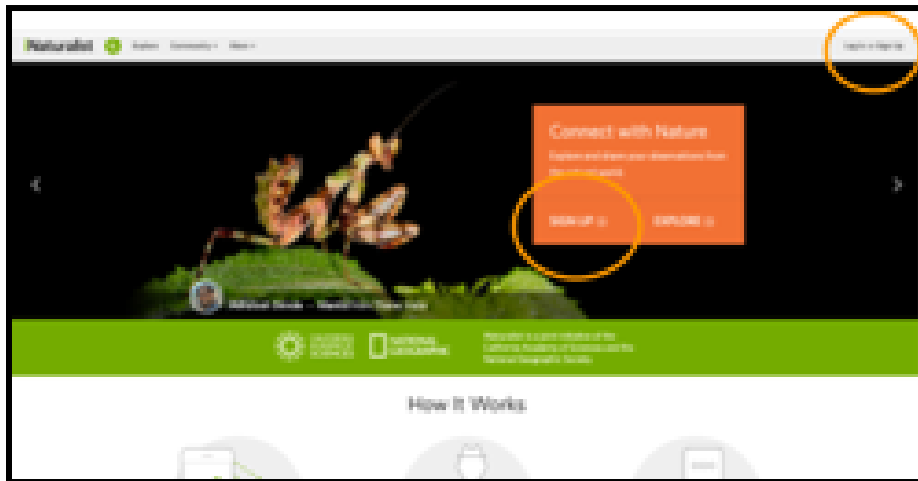
Trees from private properties or parks can be added to any of the below projects:

- [Sooty Bark Disease Watch](#) - Regional project collecting observations of sooty bark disease.
- [Western Redcedar Dieback Map](#) - Regional project collecting observations of healthy and unhealthy redcedar trees.
- [Tacoma Trees](#) - Local project collecting observations of trees anywhere in Tacoma.
- [Tacoma Exceptional Trees](#) - Local project collecting observations of exceptional trees.

CREATE LOGIN IN iNATURALIST

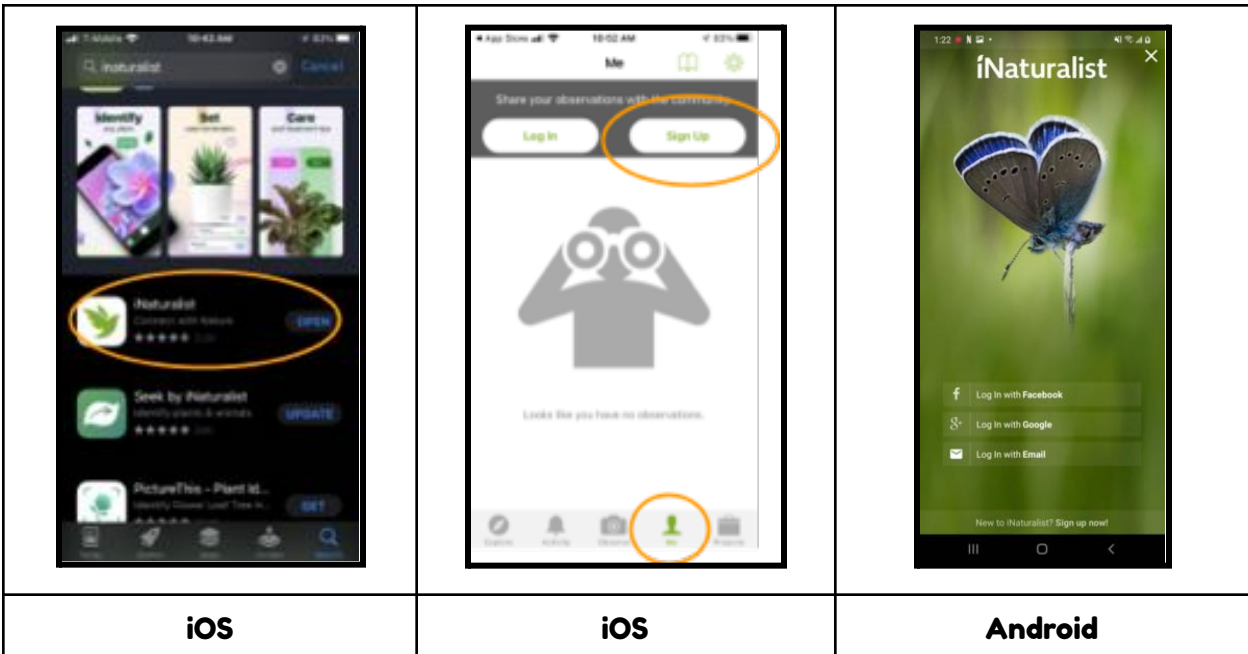
USING DESKTOP COMPUTER (INTERNET BROWSER)

Browse to <https://inaturalist.org> on your computer, then click on the 'sign up' button or click 'Login or Sign Up' in the upper right corner of the page.



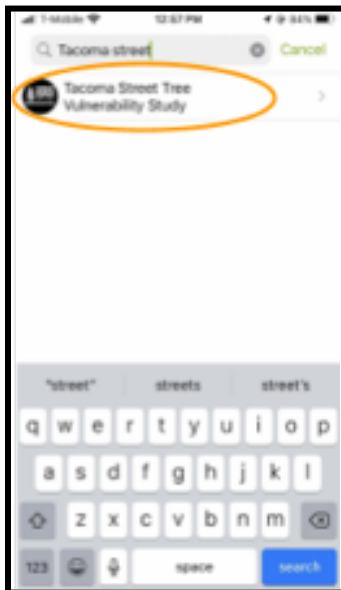
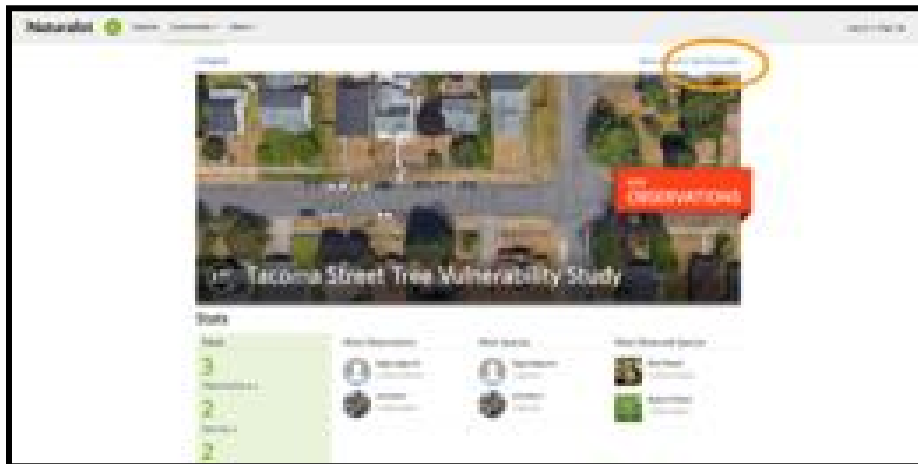
USING MOBILE APPLICATION

Download and open iNaturalist from App Store or Play Store. Sign up or login from the 'Me' tab at the bottom on iOS).

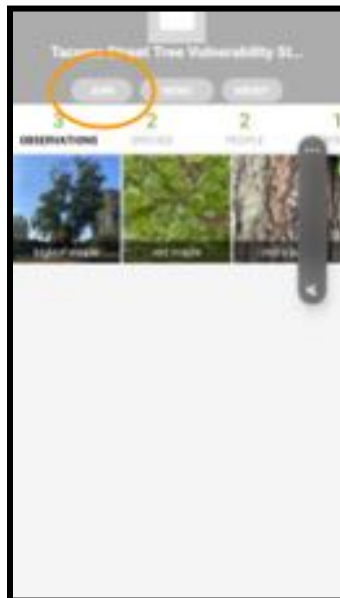


JOIN THE PROJECT

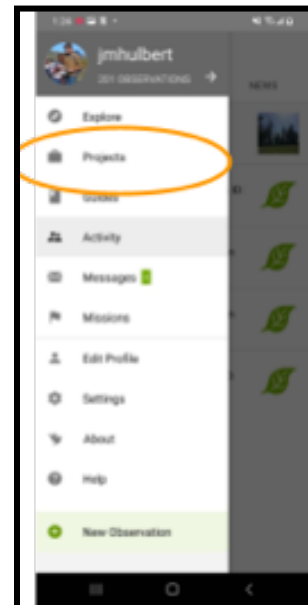
Browse to the Tacoma Street Tree Vulnerability Study (<https://www.inaturalist.org/projects/tacoma-street-tree-vulnerability-study>) or search for 'Tacoma Street Tree Vulnerability Study' in the projects tab of the iNaturalist mobile App, then click 'join this project' or 'join', respectively.



iOS



iOS



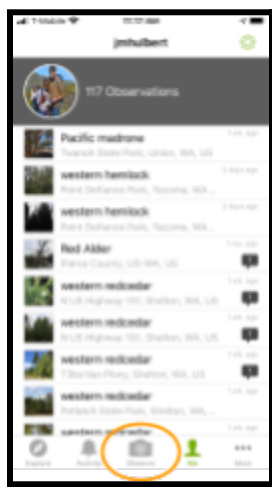
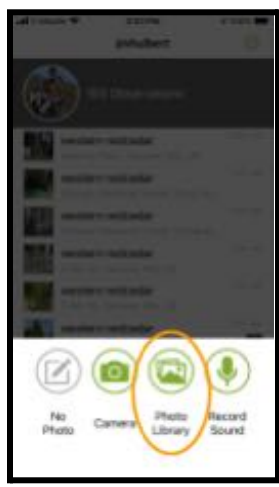
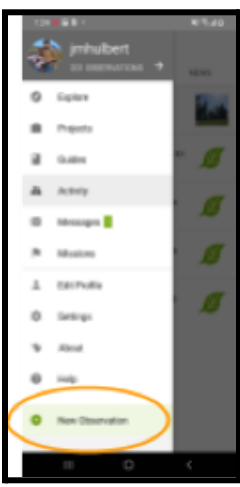
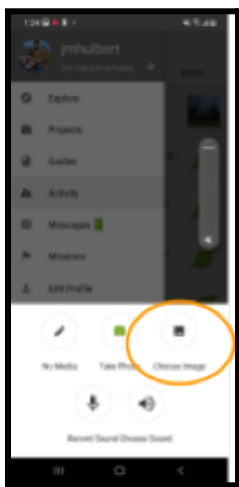
Android

ADD AN OBSERVATION TO iNATURALIST

Add an observation to iNaturalist from your phone or internet browser. Note we recommend taking photos and then adding the observations from your computer, the 'Photo Library' (iOS) or 'Choose Image' (Android) options to select photos from your device.

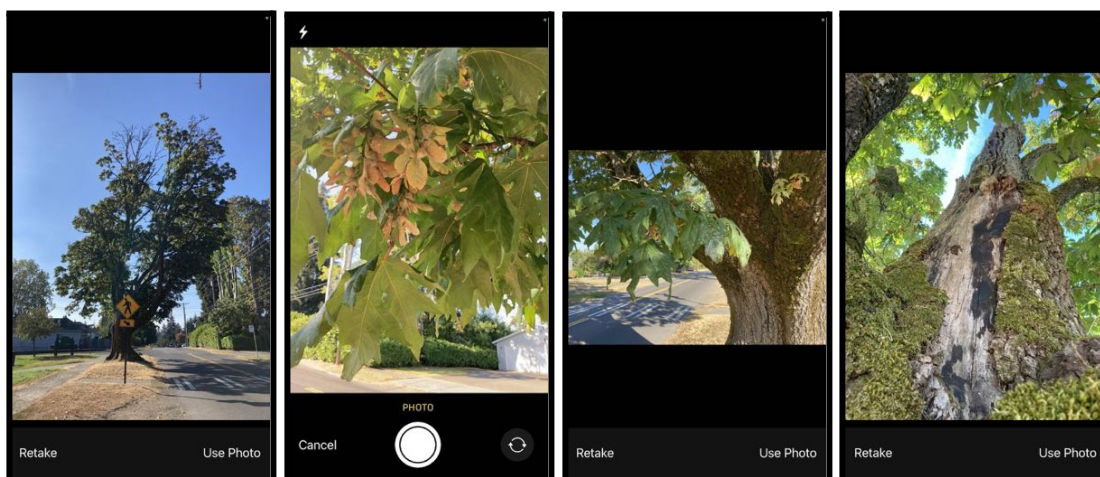
MOBILE APP

1. Tap 'Observe' (iOS) or 'New Observation' (Android)

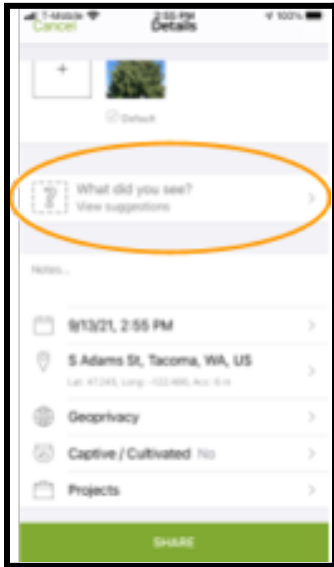
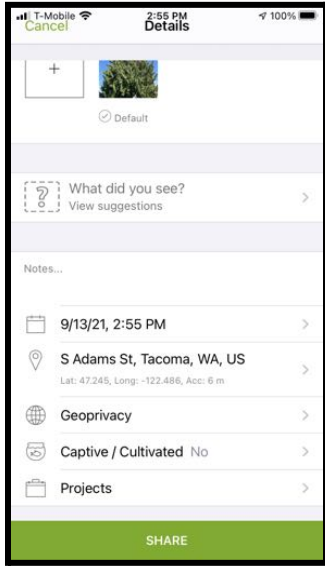
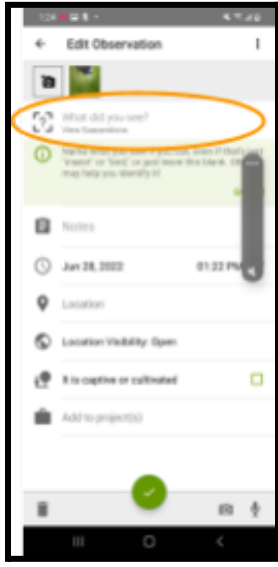
			
iOS	iOS	Android	Android

2. Tap to select up to four photos

- Please include at least four photos with your observation: 1) whole tree, 2) leaves and seeds/flowers (if present), 3) bark, and 4) signs or symptoms.

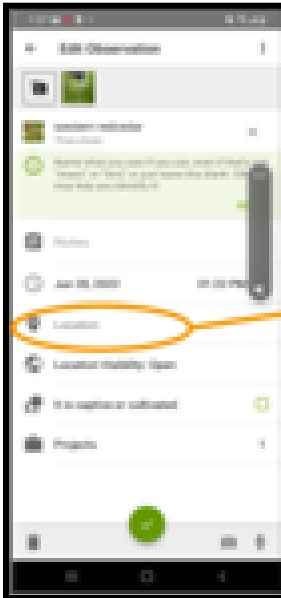
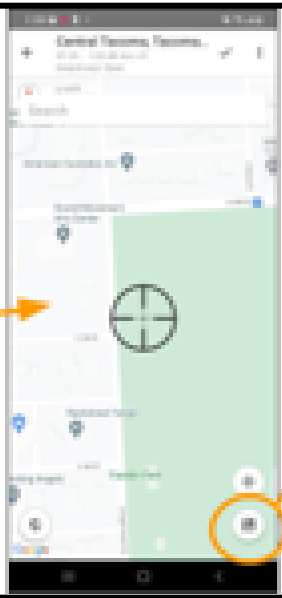



3. Identify the Organism in the Observation

 The screenshot shows the 'What did you see?' screen on an iOS device. A green dashed box highlights the 'What did you see?' text and the 'View suggestions' link below it. The screen also shows a photo placeholder, a 'Notes...' section, and a list of details including the date and time (9/13/21, 2:55 PM), location (S Adams St, Tacoma, WA, US), and various settings like Geoprivacy and Captive/Cultivated status.	 This is another screenshot of the 'What did you see?' screen on an iOS device, showing the same interface as the first one, with the 'What did you see?' text and 'View suggestions' link highlighted by a green dashed box.	 The screenshot shows the 'What did you see?' screen on an Android device. A green dashed box highlights the 'What did you see?' text and the 'View suggestions' link below it. The screen also shows a photo placeholder, a 'Notes...' section, and a list of details including the date and time (Jun 28, 2022, 9:22 PM), location, and various settings like Geoprivacy and Captive/Cultivated status.
iOS	iOS	Android

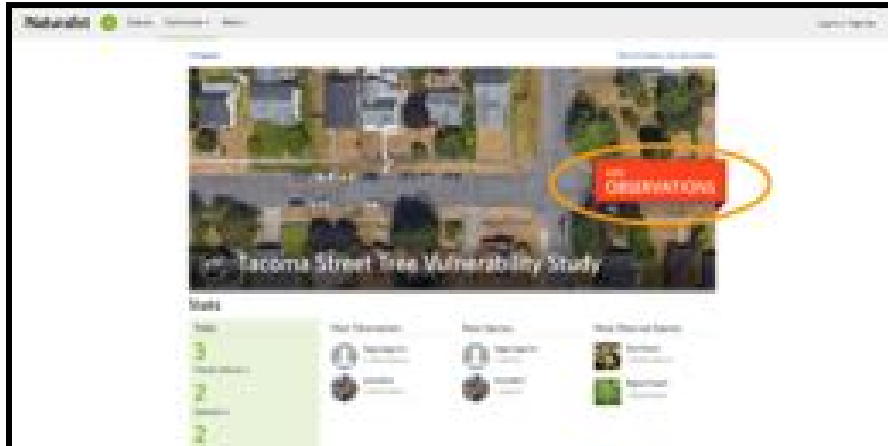
4. Record Location

- The location will be automatically added with photos if you give your phone permission to record location when you take photos.
- Otherwise, click on location, zoom in to the place on the map, and click the check box (Android) or back arrow (iOS).

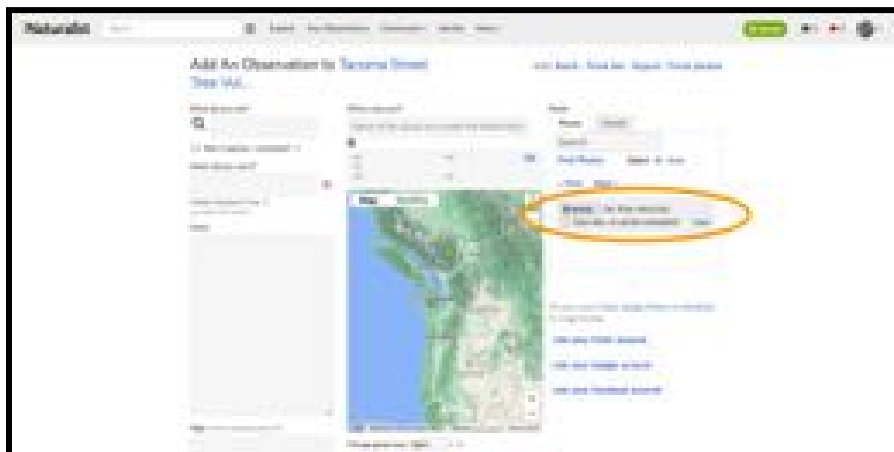
 The screenshot shows the 'Edit Observation' screen on an Android device. A green dashed box highlights the 'Location' field. The screen also shows a photo placeholder, a 'Notes...' section, and a list of details including the date and time (Jun 28, 2022, 9:22 PM), location, and various settings like Geoprivacy and Captive/Cultivated status.	 The screenshot shows the map screen on an Android device. A green dashed box highlights the map area. The screen also shows a photo placeholder, a 'Notes...' section, and a list of details including the date and time (Jun 28, 2022, 9:22 PM), location, and various settings like Geoprivacy and Captive/Cultivated status.	 The screenshot shows the map screen on an Android device. A green dashed box highlights the map area. The screen also shows a photo placeholder, a 'Notes...' section, and a list of details including the date and time (Jun 28, 2022, 9:22 PM), location, and various settings like Geoprivacy and Captive/Cultivated status.
Android		

INTERNET BROWSER

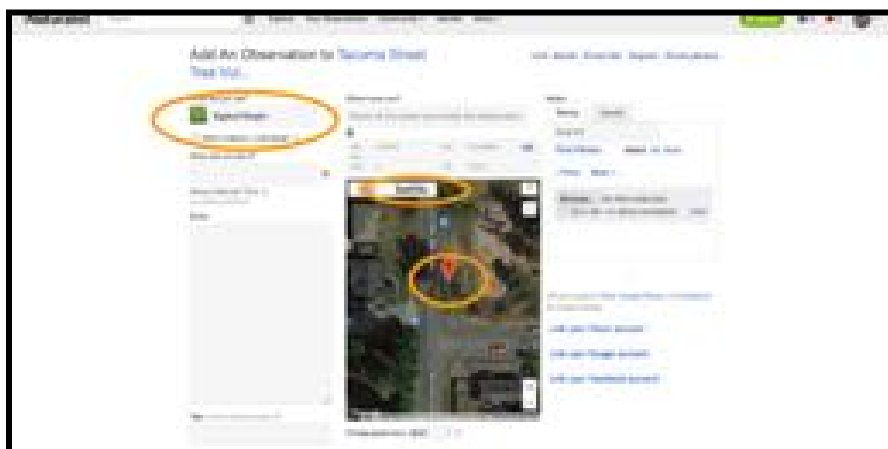
1. Browse to Tacoma Street Tree Vulnerability Project (<https://www.inaturalist.org/projects/western-redcedar-dieback-map>) and click 'add observations'.



2. Select Photos from Computer



3. Identify the Organism in the Observation and Drop a Pin in the location

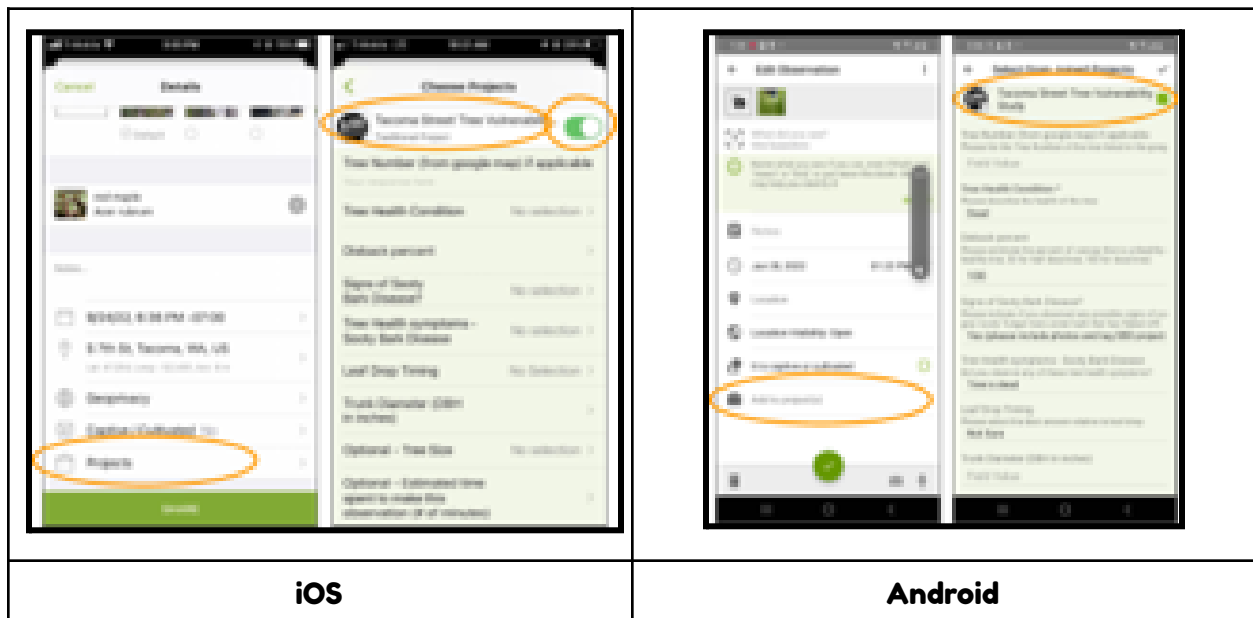


TAG PROJECT AND ANSWER QUESTIONS

MOBILE APP

Tag the project in the observation edit field before hitting share. Otherwise, you can edit the observation after it has been shared.

1. Click on Projects and Search for Tacoma Street Tree Vulnerability Study, then click the arrow (iOS) or check box (Android)



2. Answer project questions

a. Note answers for the bold questions are required before the observation can be added. The other questions are optional.

b. See the Tree Health Classification Field Guide for guidance on symptoms.

The four screenshots show the 'Choose Projects' app interface on an iPhone. The first screenshot shows the initial form with fields for 'Tree Number', 'Tree Health Condition' (set to 'Poor'), 'Dieback percent' (set to '40'), 'Signs of Sooty Bark Disease?' (set to 'No selection'), 'Tree Health symptoms - Sooty Bark Disease' (set to 'No selection'), 'Leaf Drop Timing' (set to 'No Selection'), 'Trunk Diameter (DBH in inches)', 'Optional - Tree Size' (set to 'No selection'), and 'Optional - Estimated time spent to make this observation (# of minutes)'. The second screenshot shows the 'Tree Health Condition' dropdown menu open, with 'Poor' selected. The third screenshot shows the 'Optional - Tree Size' dropdown menu open, with 'Large (too big to wrap...)' selected. The fourth screenshot shows the 'Optional - Estimated time spent to make this observation (# of minutes)' dropdown menu open, with '30' selected.

3. Tap check box (Android) or back arrow (iOS) after answering questions

The two screenshots show the 'Choose Projects' app interface on an iPhone. The left screenshot shows the 'Choose Projects' screen with a back arrow icon circled in orange in the top left corner. The right screenshot shows the 'Select from Joined Projects' screen with a checkmark icon circled in orange in the top right corner.

iOS	Android

INTERNET BROWSER

Note, if you clicked 'Add Observation' from the project page in your web browser, the project questions will be at the bottom of the page.

The screenshot shows the iNaturalist web interface for adding an observation. The page title is "Add An Observation to Tacoma Street Tree Vul...". The form is divided into several sections:

- Where did you see it?**: Includes a map view (Satellite) and a text field for "Name of the place you made the observation".
- When did you see it?**: Includes a date and time picker.
- How did you see it?**: Includes a dropdown menu for "How did you see it?".
- What did you see?**: Includes a text area for "Notes".
- Where did you see it?**: Includes a map view (Satellite) and a text field for "Name of the place you made the observation".
- How did you see it?**: Includes a dropdown menu for "How did you see it?".
- What did you see?**: Includes a text area for "Notes".

Below the form, there are links for "Add a Field", "Create a New Field", and "View All Fields". At the bottom of the page, there are links for "About", "Help", "Privacy", "Terms of Use", "Contact Us", "Donate", "Store", "Google Play", "App Store", "California Academy of Sciences", and "National Geographic".

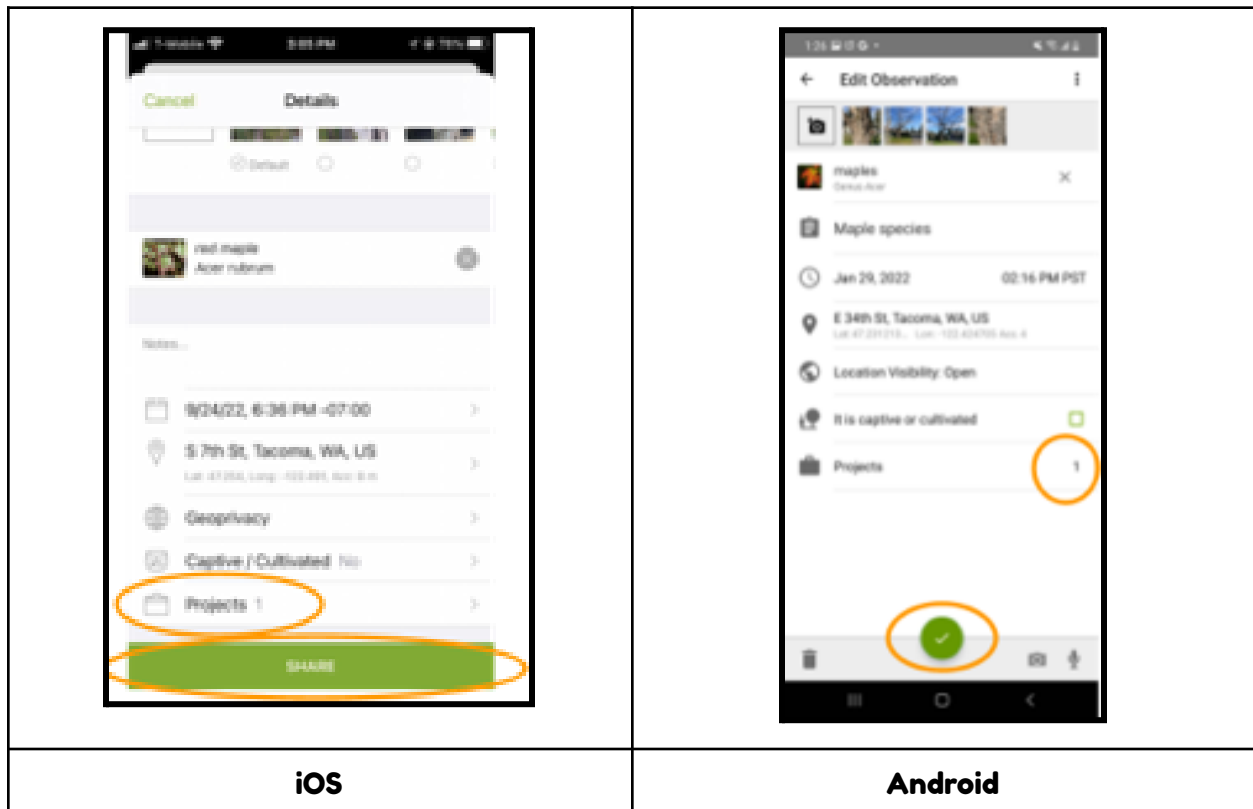
<https://foresthealth.org>

SHARE THE OBSERVATION!

Check that all of the questions are answered and a project is tagged in the observation. Please check there is a '1' or greater listed in the Projects section of the observation.

Nice! Now you're ready to share the observation!

If you're using the mobile App, finish adding the observation by tapping 'Share' or the check mark (Android).









If you're using your internet browser, finish adding the observation by clicking 'Share the Observation' at the very bottom.



THANK YOU for participating as a community scientist!

SOOTY BARK DISEASE SIGNS

Sooty Bark Disease 'signs' are observations of fungal tissues. Keep an eye out for black 'sooty' looking patches and be sure to include photos if you observe them. Note the signs can look different depending on the tree species. Please include any photos that are potential signs in observations.

Bigleaf Maple	Red Maple	Pacific Dogwood
		
Horse Chestnut	Water Birch	Vine Maple
		



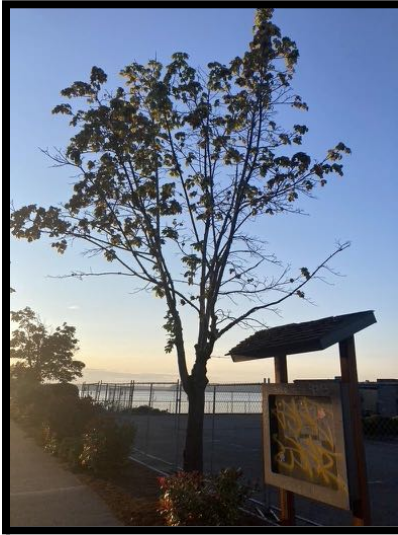



SOOTY BARK DISEASE SYMPTOMS

Below are some common symptoms of tree health issues on maples. Feel free to add photos of any other type of symptom you observe.

Stem sprouts	Bark peeling	Old dead stem
		
Branch tip dieback	Thinning	Other - Bleeds
		

CROWN DIEBACK PERCENT

Do your best to estimate the percent of the crown that is dead or dying, but don't worry too much about the accuracy.

~5%	~15%	~20%
		
~30%	~35%	~100%
		

ADDITIONAL RESOURCES

Forest Health Watch Home Page: <https://foresthealth.org/>

Forest Health Watch Sooty Bark Disease <https://foresthealth.org/sbd>

Sooty Bark Disease, Washington State University: <https://ppo.puyallup.wsu.edu/sbd>