

Coastal Signs of the Seasons

Tutorial: Getting started with Anecdata

Anecdata

Last edited: June 2018

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1. About Coastal Signs of the Seasons & Important Links

Using their backyards as laboratories, participants in the <u>Signs of the</u> <u>Seasons</u> program help scientists document the local effects of global climate change. Hundreds are trained to observe and record the phenology (seasonal changes) of common plants and animals living in their own communities — a citizen science project that fills a gap in regional climate research. Volunteers across Maine and now New Hampshire record the growth, reproduction, migration, and other life cycle changes of 23 indicator species. The goal is to build a rich, detailed record of the region's seasonal turns, a resource too costly to build without a network of citizen volunteers. The collected data are made available to our collaborating scientists and resource managers.

For volunteers having access to the shoreline, <u>Coastal Signs of the Seasons</u> is an opportunity to provide scientists with information on an ecologically and economically valuable species. Coastal observers measure the growth and development of the brown alga, *Ascophyllum nodosum*, which is commonly called "rockweed" or "knotted wrack." Seasonal reproductive changes in this species are affected by environmental conditions, such as water temperature. By closely monitoring this rockweed, as an indicator species, researchers are able to examine changes in the intertidal zone that may affect other species that live there.

A lot of information can be gathered through coastal monitoring, but there is also a long coastline of New England to monitor. The diligent efforts of volunteer observers combined create a robust data set for our collaborating scientists. We invite you to become a citizen scientist observer by monitoring rockweed in your area. Training and equipment are provided.

Contact us with questions or comments.

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Link to Signs of the Seasons website:

<u>https://extension.umaine.edu/signs-of-the-seasons/</u> Link to Anecdata website: <u>https://www.anecdata.org/</u>

2. Registering an account

To register an account on Anecdata, go to <u>http://www.anecdata.org</u> and select the "**Register**" box at the top right of the screen (Figure 1).



Figure 1: Anecdata homepage with a red box around the "Register" button.

A box will appear titled "**Create an account**" (Figure 2). Enter a **username**, **email**, and **password**. Your username can be any nickname or codename that you choose. If you fill in the "Your name" box, it will be publically displayed on your user profile.

Username (required)	Your name
Pick a username	Your name
Email (required)	
Your email	
How did you find out about Ane Community organization, email I	cdata? (optional) ist, et cetera
Password (min 8 characters)	Confirm password
Choose a password	Confirm your password
Too short! 8 characters minimum.	

Figure 2: The "Create an account" prompt.

3. Joining the Coastal SOS Project

Once you have created an Anecdata account, you can join a Project. To find the Coastal SOS Project, click on the "**Projects**" button at the top of the page. Then you can either browse the projects or use the search function. To quickly find our Project, type "**Coastal SOS**" into the search bar (Figure 3).



Figure 3: The Anecdata Projects page with a red box around the Search function.

The Coastal SOS Monitoring project page has information about Coastal SOS and links to our website. To join the Coastal SOS Monitoring Project, click on the blue "**Request to join**" button on the left-hand side of the page (Figure 4). This will send a notification to the project leads that you would like to contribute to the project.



Figure 4: The Coastal SOS Monitoring Project page with a red box around the "Request to Join" button.

4. Submitting an observation

Congratulations - You can now upload observations into our database!

To start, click the blue "Add an observation" button on the left-hand side of the Coastal SOS Monitoring Project homepage (Figure 5, where the "Request to join" button was in the previous step). This will open a prompt that asks you which procedure you are using (Figure 6). Select either "Rockweed Procedures A & B" or "Rockweed Procedures B & C" as appropriate.



Figure 5: The "Add an observation" button on the project homepage.

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Figure 6: You will be prompted to select either "Rockweed Procedures A & B" or "Rockweed Procedures B & C".

The online datasheets in Anecdata are set up so that the questions are in the same order as the paper datasheets you use to record observations in the field. There are several places for you to **enter comments** about the data that you are uploading. There is also a place for you to **attach a photograph**. *This function is particularly helpful if you have questions about phenophases*.

4.1. Rockweed Procedures A & B

The first step when entering your observations (for either datasheets) will be to enter the **location**, **date**, and **time** of your observations. To enter the **location**, click on the map on the left-hand side at the top of the datasheet (Figure 7).

The black plus (+) symbol in the center of the map marks the location that will be recorded (Figure 8). You can use the search bar in the top left corner to get the map to the general location. To be precise, click and drag the map until the plus symbol is on top of your site. You can zoom in using the plus (+) button at the bottom right corner. Click the blue "**Use location**" button to save. Next, click on the green "**Date & Time**" box and select the date and

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Google Map data ©2018 Terms	of Use	
	E Cho	ose datasheet
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number		number
X How many dotted & inflated rec	eptacles did you see? × H	low many torn receptacles did you see?
number		number
× Comments on phenophase data	× Tidal stage:	× Comments about site
1		1
X Water Temperature (*C) X :	Salinity (ppt)	X Comments about water quality data
number G	number ppt	
		The second se
		1
+ Add another data field		
-		
Add Photo		
Further notes and observations		
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Figure 7: Example of datasheet for Procedures A & B.



time that you made your

observations (Figure 9).

Figure 9: Example of map with plus symbol indicating location of monitoring site.



Figure 8: Example of selecting the date and time of observation.

4.2. Rockweed Procedures B & C

Procedure C includes recording the age and yearly growth that we ask be conducted at each site once per season. While the online datasheet is much longer for Procedure C than for Procedures A & B, the same basics of selecting the **location**, **date**, and **time** apply. After you have entered the location, date, and time of your observation, fill out the **site information** and **water quality** data before moving on to the **age**, **phenophase**, and **yearly growth** for each of the 10 plants you measured (Figure 10).

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Figure 10: Example of the datasheet for Procedures B & C.

5. Reviewing your observations

One of the functions in Anecdata that we are excited about is the accessibility of the data that has been uploaded. You can view all submitted observations by clicking on the "**Observations**" button on Project menu bar (Figure 11).



Figure 11: Example of the Coastal SOS Monitoring homepage with a red box around the "Observations" button.

The recorded observations are sorted by most recent date and each entry will include the date that the observation was collected and the username of the member who submitted the observation (Figure 12). You can also download the data as an **Excel**, **ArcGIS**, or **Google Earth** file.



Figure 12: Example of viewing an observation that has been submitted by a the username "ascophyllum".

This function is particularly helpful if you think that you might have made a mistake in your data submission. You can review what you uploaded and make edits if needed. You can always contact us for assistance if you have concerns!

6. Data analysis toolkit

Anecdata also includes a built-in data analysis toolkit. To view this toolkit, select the "**Analyze**" button on the project menu bar (Figure 13).



Figure 13: Example of the Coastal SOS Monitoring homepage with a red box around the "Analyze" button.

You can create a variety of graphs by changing the variables in the **X-axis** and the **Y-axis** drop-down menus (Figure 14).

Towards the end of each season, we plan to develop summaries of the data that has been collected in order to provide insight into the trends that have been captured by our monitoring program.

Thank you for your hard work and we look forward to continue partnering with you in the future!



Figure 14: Example of a graph in the data analysis toolkit.