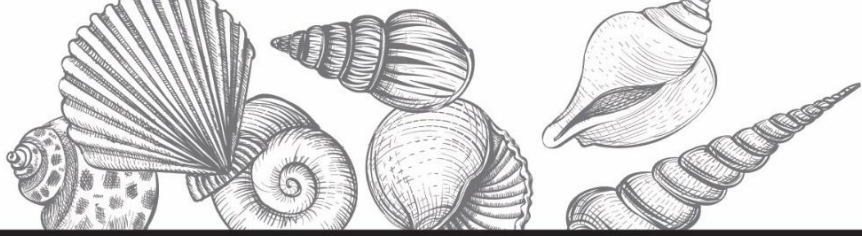


Reading a tide chart



Vocabulary:

Tide: The rise and fall of water at the beach caused the gravity of the moon. There are typically two high tides and two low tides per day.

High tide: The point during the day when the level of the water is highest. This happens two times a day. The level and times of the high tides change daily, monthly, and yearly.

Low tide: The point during the day when the water level is at its lowest. This happens two times a day. The level and times of the low tide change daily, monthly, and yearly.

Tide level: The height of the water on the shore measured in feet. How high or low the water is.

Tide chart: A tool used to show the predicted levels and times of the high and low tides of a particular beach.

Why would I want to know the tide levels

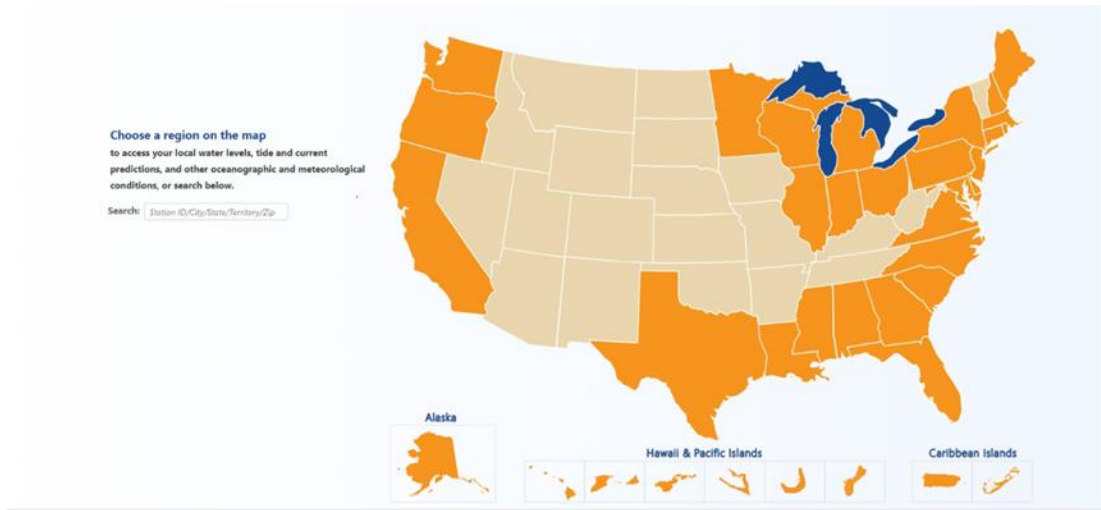
When planning a tide pooling trip to the beach it is necessary to know when the low tide is. The time of the low tide will be the best time to look for tide pool species because more of the beach will be exposed. Knowing the level of the low tides and the times for the beach you want to go to will help you pick the best date and time to have your tide pooling trip. The lower the low tide the better. This is why it is necessary to know how to find and utilize a tide chart

How can I find the tide levels for the beach I am going to?

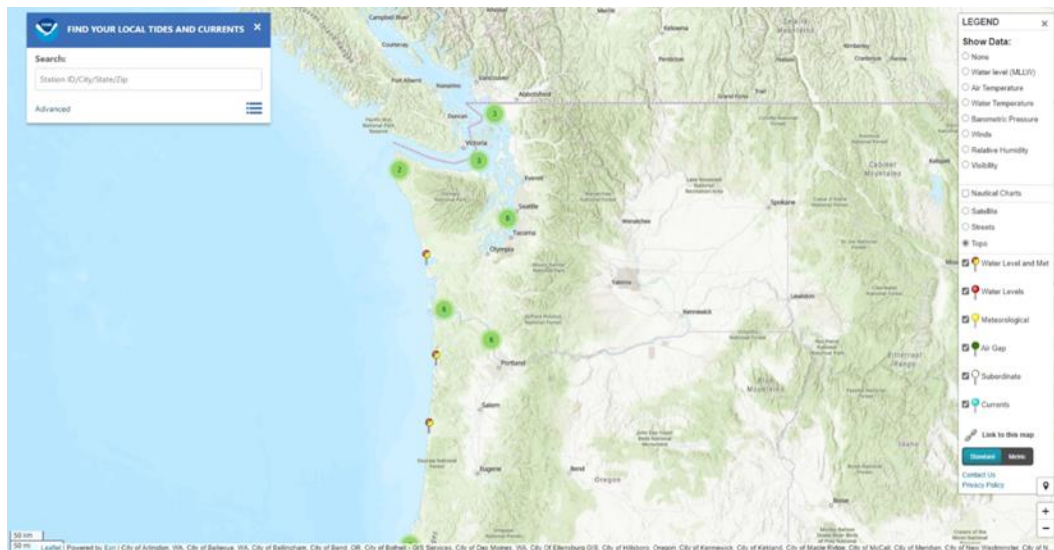
You can find the tide chart for the beach you are going to from <https://tidesandcurrents.noaa.gov>. This is a government website that has tide charts for all the NOAA monitored beaches in the United States.

How to use NOAA Tides and Currents

1. Click the link provided or search “NOAA Tides and Currents”. This will take you to a page that has a map of the United States.



2. Click on the state that you want to go to the beach in. This will take you to a more detailed map of that state.

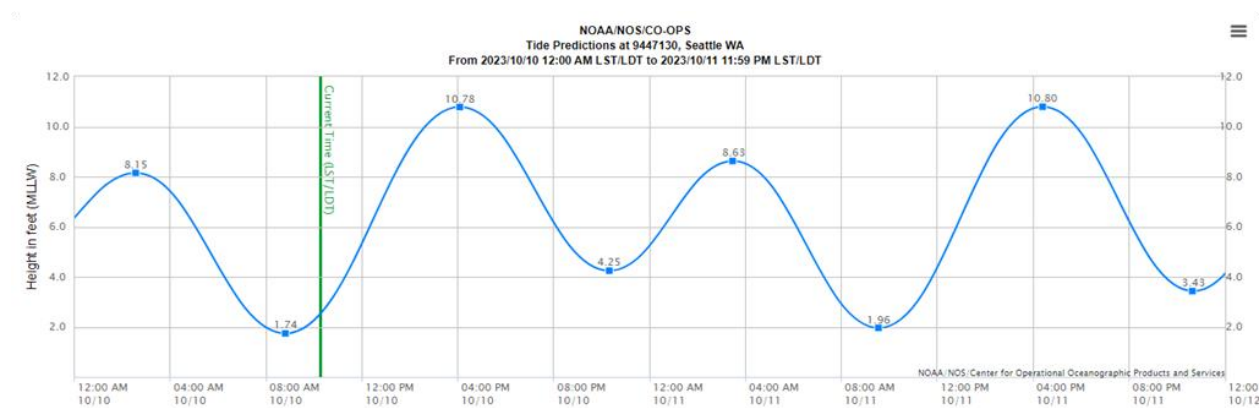


3. You can use the search box in the top left corner to find a specific city or beach's tide chart. Or you can use the map to click on the area you want to look at. This will show you the predicted high and low tides for that day.
4. If you need the tide charts for further in the future,
 - a. If you're on a computer, click the "more data" tab
 - b. If you're on mobile click the three horizontal lines that are in the right-hand corner above "today's tides"

5. This will open a menu, click “tide predictions” this will take you to another web page that has future tide predictions for the beach that you have selected.
6. Using this website allows you to easily compare multiple beaches in your area.
Tides in the negatives are the best times to go tide pooling. These will be the lowest tides so look for these low tides when comparing multiple beaches or days to go.

Reading a tide chart

Most tide charts are shown in two ways. The first is line plot. The line on this graph will be the tide levels. The x-axis (or the bottom of the graph) will have the time and date listed. The y-axis (or the left side of the graph) will have the tide level listed in feet. The larger the numbers, the higher the tide. The lower the number, the lower the tide. This is a way to visually see how the tide will change at different times that day.



In this example, the highest tide for October 10th is at 4:00 PM at a level of 10.78 feet. The lowest tide for October 10th is at just past 8:00 am at a level of 1.74 feet.

The second way that the tide chart can be shown is as a table. It will typically have the date on the left-hand side of the table and then the time of the tide and the tide levels in the following columns. This is an easy way to only see the numbers of the tides. The larger the number, the higher the tide. The lower the number, the lower the tide. Sometimes there will be negative numbers for the low tides. These tides are generally the best to go tide pooling because these are exceptionally low tides and most of the beach will be exposed.

Data Listing

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Date	Day of the Week	Time (LST/LDT)	Predicted (ft)	High/Low
2023/10/10	Tue	02:33 AM	8.15	H
2023/10/10	Tue	08:48 AM	1.74	L
2023/10/10	Tue	04:04 PM	10.78	H
2023/10/10	Tue	10:18 PM	4.25	L
2023/10/11	Wed	03:29 AM	8.63	H
2023/10/11	Wed	09:33 AM	1.96	L
2023/10/11	Wed	04:23 PM	10.80	H
2023/10/11	Wed	10:40 PM	3.43	L

In this example the highest tide for October 10th is at 4:04 PM with a level of 10.78 Feet. The lowest tide for October 10th is at 8:48 PM with a level of 1.74 feet.

Happy tide pooling!

Common FAQ

Q. Do I need to wait for a significantly low tide to go tide pooling?

A. No! There will be different life to see at different tide levels. Any negative tide is a good low tide where you will be able to find some cool tidepool creatures! But any time at the beach will be beneficial to your students' learning and mental health.

Q. Will the beach be too busy on a negative tide?

A. There are a few times a season where the tide will be very low. These tides are typically -4 feet or lower and the beaches will be busy. We recommend that you either prep your students for being on a crowded beach or you choose a date that has a slightly higher tide- this way you're not fighting the crowd and will still get to see the same kinds of animals

Q. Can I plan months ahead and rely on the tide charts?

A. Tide charts are predictions and the farther out the date you are looking at the higher the chance that the predicted tide level and time will change. If you are scheduling a field trip months in advance be aware that the tide levels and times of the low tide may change from the current predicted data as you get closer to the date. The tide level and time of the low tide should not change too significantly though. To prepare for this it is good to plan to be on the beach at least 30 minutes before and after the predicted low tide, this way you are accounting for any time fluctuation. Changes in time of the low tide are not usually more than 30 minutes off.