

# Exploring Sea Surface Temperature Anomaly Maps

What's happening out in the ocean???



OREGON MARINE SCIENTIST  
AND EDUCATOR ALLIANCE



The Blob is Back

9/2019

[https://youtu.be/Age\\_O9BT8kw](https://youtu.be/Age_O9BT8kw)

# Let's take a look at map: Sea Surface Temperature Anomalies

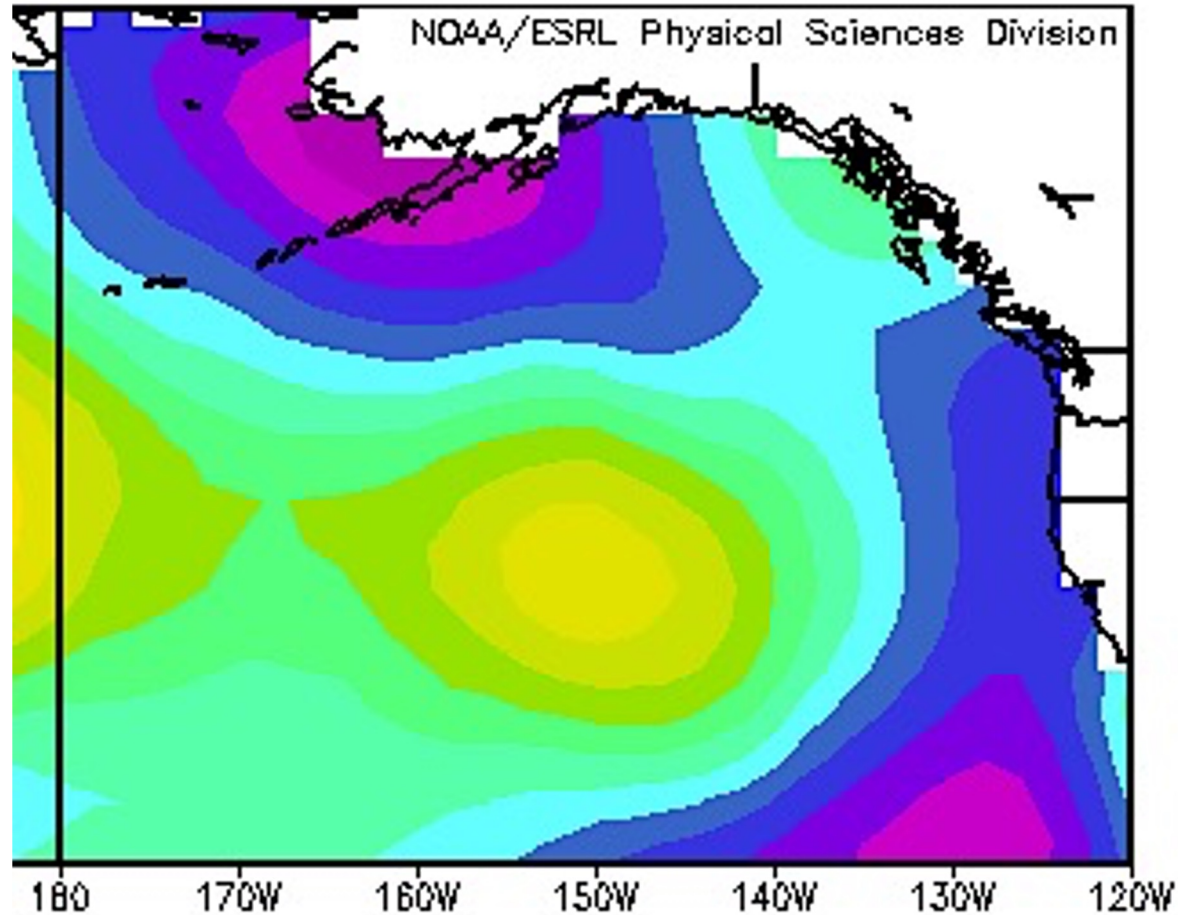
## Sea Surface Temperature

refers to the temperature at the topmost layer of the ocean.

**An anomaly** is a change from the long term average.

These maps show whether the temperatures **are higher, normal or lower than the average.**

Sea Surface Temperature Anomalies is abbreviated: **SSTa**

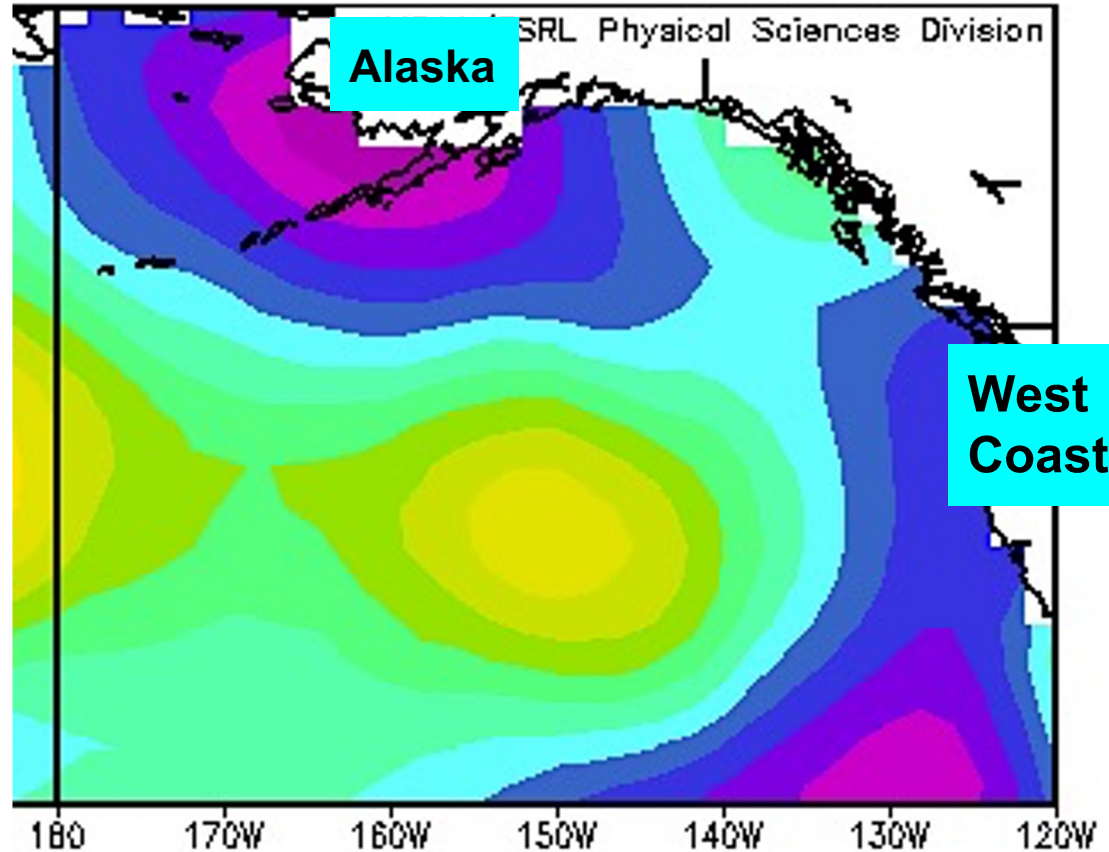


# The Legend:

**Cooler colors** (purple to blue) indicate a **cooler than average Sea Surface Temperature (SST)**.

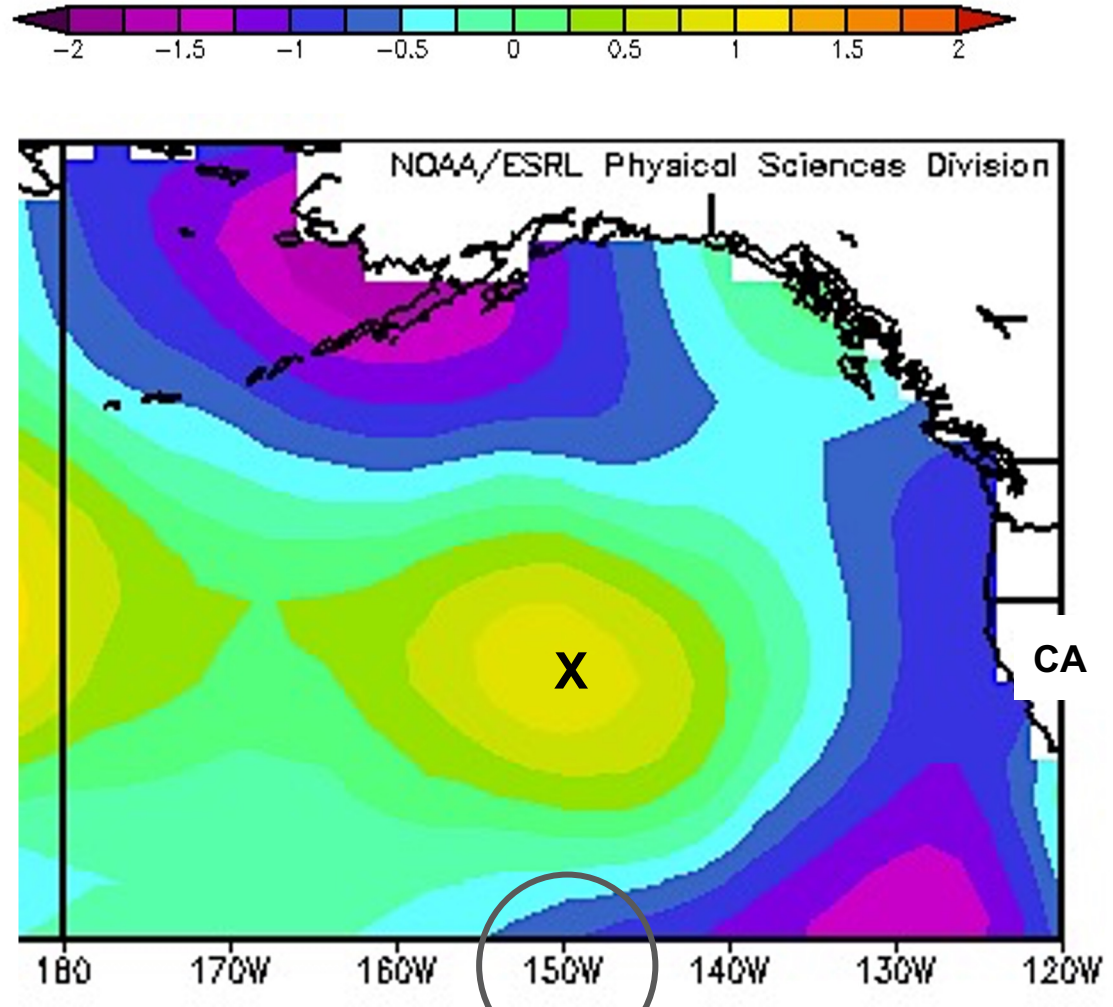
**Warmer colors** (green to red) indicate a **higher than average SST**.

Where are **two areas** on this map with **cooler than average temperatures**?



Where is an area with **warmer** than average temperatures?

When it's in the middle of the ocean, you can **use longitude and some reference points:** at 150 West longitude, about even with California.





The ocean is home to many creatures. Think about how changing temperatures might affect these creatures?

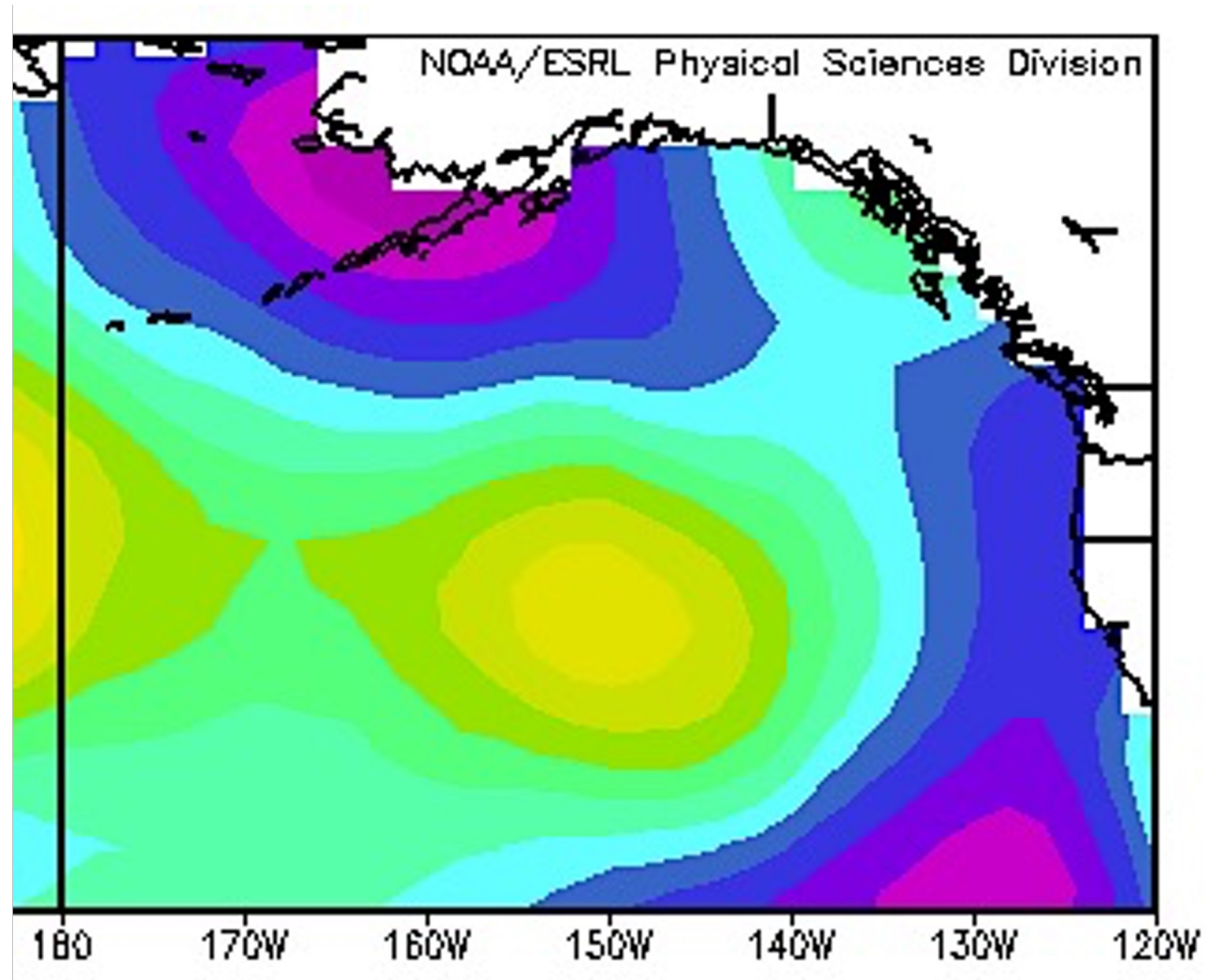


[https://youtu.be/\\_e47ptoq3a4](https://youtu.be/_e47ptoq3a4)

The Pacific Ocean is home to vast numbers of marine species.

Consider how you feel when weather at your home is hotter or colder than average as you investigate the maps.

How does life change for you?



# Let's explore some SSTA maps

As you look at your group's map:

1. Note where temperatures are above, normal, and lower than average.
2. Use longitude and states as references.
3. Note how far above or below the average these areas are.
4. Predict how these changes from the normal are affecting marine animals and plants.

## **Suggested Group Roles:**

**Manager-** Organizes group, will present for group

**Recorder-** writes down group's observations on organizer

**Location specialist-** chooses best reference points (longitude and states) to pinpoint areas

**Timer-** keeps track of time



# Worktime



1. Note **where** temperatures are above, normal, and lower than average.
2. Use **longitude and states** as references.
3. Note **how far above or below** the average these areas are.
4. **Predict** how these changes from the normal could affect marine animals and plants.

# Let's hear from the groups

How were **temperatures distributed** across the Pacific Ocean?

Where were **the regions of greatest deviation** from the average?

How do you think marine life would respond to those **anomalies**?

How were larger marine wildlife affected by the warmer SSTs?



<https://youtu.be/AfasKEj8YHM>