

# How to Look for Surface Life

A how-to guide on how to look for and document the life present at the ocean's surface



So, you want to look for surface life, but you find yourself feeling pretty confused. *What even is surface life?* This is how the vast majority of the population feels about surface life. If you don't know what surface life is, **you are not alone**. In fact, even the people who study surface life barely know what surface life is because we still have so much to learn about these organisms! The complete disregard for the ecosystem present at the ocean's surface is due in part to some political reasons, a major lack of publicity, and lack of scientific research, but we're trying to change that!

### **What is surface life?**

Surface life very broadly refers to the life present at the ocean's surface. This ecosystem is comprised of a couple of different kinds of organisms. The first group of organisms are the free floaters which are known as **neuston** (noo·ston). They are sometimes also called pleuston, but we strongly prefer the term neuston. The neuston all have some method of staying afloat at the ocean's surface. This can be a gas-filled float, a sail that catches the wind, a bubble raft, or just a very lightweight body. The neuston are probably the most unique and beautiful organisms present at the surface.

The second group of organisms that are part of the surface ecosystem are known as rafters. These are the organisms that attach to objects present at the ocean's surface. These objects can be neuston, driftwood, feathers, plastic, and any other material that floats at the surface. Although these organisms can't float on their own and rely on other objects, they are still present at the surface, so they play a role in the surface ecosystem. This group is a little broader because some organisms are only present at the surface for part of their lifecycle, and because this varies more between geographical regions. If you are unsure whether something you found is surface life, ask yourself: "does it float on its own?" or "was it attached to something that was floating?" If the answer is yes to either question, then you've most likely found surface life.

### **Where to look for surface life?**

Some people get confused when we say we're looking for surface life and think that it requires drones or boats. Although the animals we're trying to document and study live at the ocean's surface, they are much easier to find

when they've washed ashore! So, to look for surface life all you have to do is take a walk on any beach and look for wash-ups by the shoreline. Since neuston are free-floating, they are driven primarily by ocean currents and wind, so when they wash ashore, it is usually in very large numbers. Many different species of rafters can be attached to a single beached object as well. If you have access to a boat and you see surface animals while in the water, you can certainly document them that way too!

### **What information is useful?**

Location information is the most important piece of information since we are trying to track when and where surface life is being found. If you have allowed location services on your phone, it will automatically record the location where a picture was taken. Once the photo is uploaded to iNaturalist, the location will automatically be filled in! Other useful information includes how long you walked the beach for (time or distance), the approximate number of organisms you saw washed up, wind direction, and ocean current data.

## **California Species List**

### **Neuston**

#### **Portuguese man o' war**

*Physalia physalis*

#### **By-the-wind sailor**

*Velella velella*

#### **Blue button**

*Porpita porpita*

#### **Violet snails**

*Janthina umbilicata*

#### **Buoy barnacle**

*Dosima fascicularis*

#### **Sargassum**

*Sargassum spp.*

## **Hitchhikers/Rafters**

### **Gooseneck barnacles**

*Lepas anatifera*

*Lepas hillii*

*Lepas pacifica*

### **Other barnacles**

### **Shrimp**

### **Crabs**

*Planes spp.*

### **Isopods**

**There may be others! Get out there and see what you can find, there's still so much to discover and learn!**

Follow @goseascience on Instagram, Twitter, and TikTok to find out more about surface life.