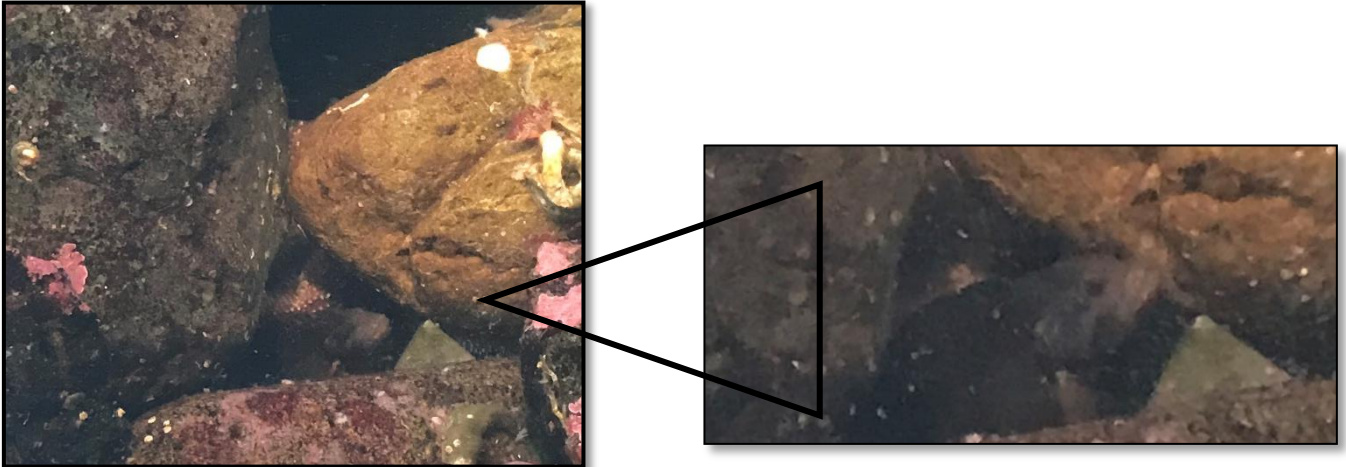


## Science Bite Gunnels, not Eels

One of our very favorite intertidal creatures can be seen in this photograph if you look very closely:



If you instantly shouted, “It’s an eel!”, you would not be alone. Many people who explore the intertidal zone believe that this Crescent Gunnel is an eel. Eels are fish and so are gunnels along with their close relatives, the pricklebacks. They all belong to the Class Osteichthyes, the bony fish. However, they do not belong to the same order of fish.

Remember, classification descends from general to specific like so:

Kingdom

Phylum

Class

Order

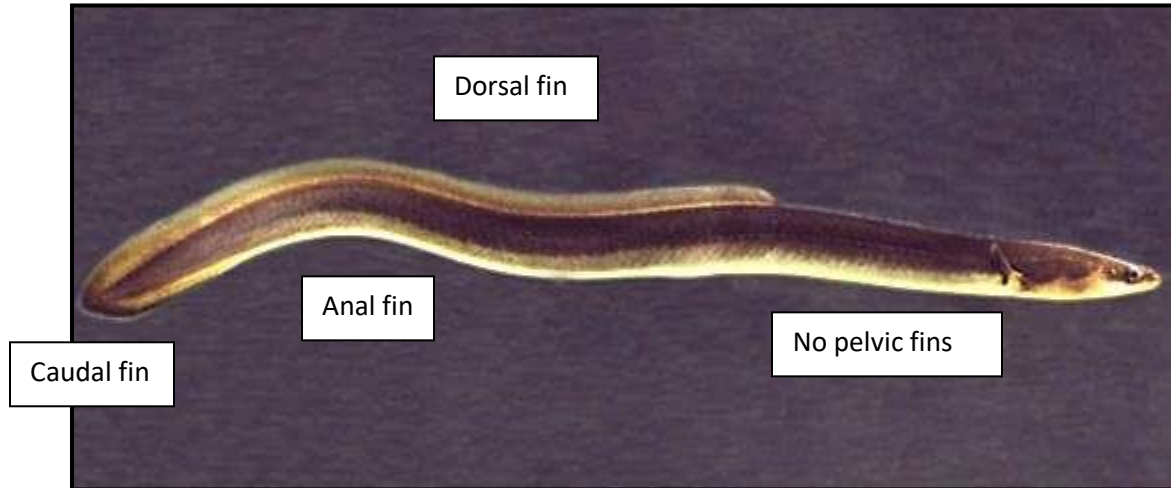
Family

Genus

Species

Eels and gunnels are animals (Kingdom Animalia), they all have spinal cords (Phylum Chordata), and they all have jaws and bones (Class Osteichthyes). But then, they diverge. Eels and gunnels do not share the same Order. Eels belong to the Order Anguilliformes and gunnels belong to the Order Perciformes. **Therefore, gunnels are not eels!**

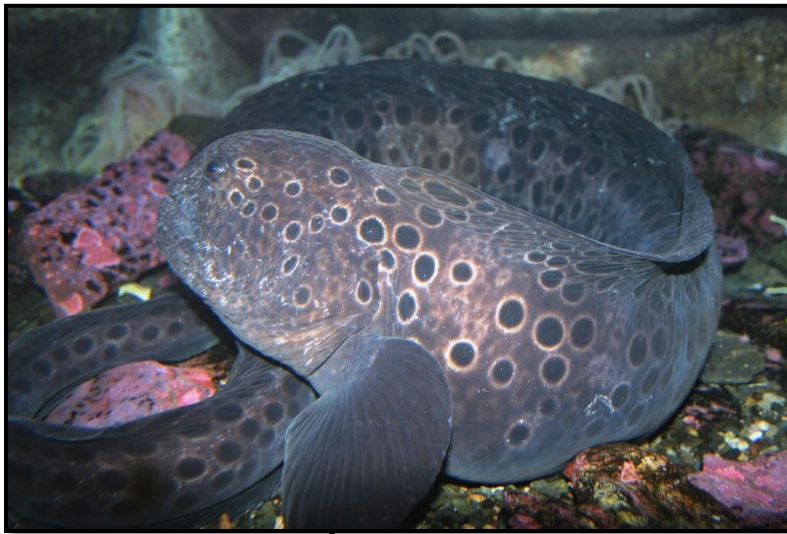
Gunnels do look like eels. Eels have a long body with a **continuous fin** that runs around the tip of the tail but they **lack pelvic fins**. The American eel in this photo shows these characteristics.



These crescent gunnels, pictured in the guide “Common SeaLife of Southeastern Alaska” by Aaron Baldwin and Paul Norwood, look similar to the shape of an eel. However, the next time you have the chance to find a gunnel under a rock at low tide, look for those tiny **pelvic fins**. When you see them, you will know – **gunnels are not eels**.



Speaking about a fish that looks like an eel but isn't – Wanda the wolf eel is not an eel either. As a matter of fact, wolf eels belong to the same order as gunnels!



Pelvic Fins

Even if you didn't already know that wolf eels and true eels were in different orders, what do you notice about this wolf eel that makes you know she is not an eel?

If you said "pelvic fins", you are right!

**Wolf eels are not eels!**

Wolf eels are found in the subtidal zone so you are unlikely to see them on your explorations at low tide. You will find gunnels and pricklebacks. If you want to learn to identify the different species, refer to guides such as the Baldwin and Norwood guide mentioned.

Since gunnels and pricklebacks are fish, how can they survive out of the water in the intertidal zone? Gunnels and pricklebacks can obtain oxygen, using both gills and skin, both from the air and from the dissolved oxygen in water. Their gills are short and sturdy so they hold up out of the water. If you observe these fish, you will see that they keep themselves moist by resting in shallow pools or even just twisting and turning on moist gravel. Their skin and gill do need to be moist to transfer oxygen. Carrying these fish in your hands for short observations is fine but then, you must put them back where you found them so they do not dry out.

Take advantage of upcoming low tides to explore the beaches. Be a good friend of the beach by being respectful of the animals and their homes. Remember, you can see all kinds of intertidal creatures by visiting the aquarium at the Science Center and also by signing up to join Sandy on her Tide Walks.