

Spectacular Sea Jellies

Often called jellyfish, these fascinating creatures are not actually fish; they lack gills, bones, a brain, and a heart. They belong to the phylum *Cnidaria*, which also includes corals, sea anemones, and hydroids. They are considered some of the oldest (and longest) animals in the sea.

Look for:

- *Radial Symmetry*: Their bodies radiate outwards from a central point. (Cnidarians have this in common with echinoderms – see Sea Star info)
- *Bell-shaped Body (Medusa)*: This is the typical jellyfish form, with tentacles hanging down.
- *Tentacles*: Armed with stinging cells called nematocysts, used for capturing prey and defense.
- *Oral Arms*: Located around the mouth, used for directing food into the digestive system.
- *Lack of Complex Organs*: Jellies have simple systems for digestion, respiration, and nerve conduction.
- *Lack of Gills*: Jellies breathe by absorbing oxygen from the water through their skin!

Sea Jelly Diversity:

Thousands of sea jelly species exist, exhibiting incredible diversity in size, color, and tentacle arrangement. Here are some jellyfish species frequently reported in the Salish Sea:

- *Moon Jelly (Aurelia aurita)*: This is perhaps the most commonly sighted jellyfish in the Salish Sea. They are relatively small, translucent, and have a mild sting.
- *Lion's Mane Jellyfish (Cyanea capillata)*: These are larger jellies, with a reddish-brown to orange coloration. They can have a very noticeable sting, though generally not life-threatening to humans.
- *Sea Nettle (Chrysaora fuscescens) and Pacific Sea Nettle (Chrysaora fuscescens)*: A larger, more potent stinging jellyfish, they are often more prevalent in certain years and areas than others.
- *Fried Egg Jelly (Phacellophora camtschatica)* Yes, it really does look like a fried egg!

Danger?

Sea Jelly stings can be lethal. While none are usually considered lethal in the Salish Sea, the severity of stings can vary depending on the species, the individual's sensitivity, and the amount of contact. It is always best to steer clear of Sea Jellies (for your safety and theirs!). Sometimes you'll find dead or dying jellies on the shore. Even in this state, their tentacles can pack a sting!



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Classroom Use of Sea Jelly Models:

Sea jelly models can be invaluable teaching tools. Here are some ways to use them effectively:

- *Anatomy Studies:* Models allow students to visualize and identify different parts of a jellyfish's body (bell, tentacles, oral arms).
- *Ecosystem Interactions:* Models can illustrate the roles of jellies as both predator and prey within the marine food web. This could be done with smaller models placed within a larger model of the ocean floor.
- *Movement and Propulsion:* Discuss how jellyfish use their bell to move through the water. Students can create their own model jellies and test their propulsion methods.
- *Toxicity Awareness:* Use models of venomous species to discuss the dangers of jellyfish stings and appropriate safety precautions.
- *Art and Crafts:* Creating jellies from various materials (clay, paper, fabric) or making watercolour paintings of jellies allows for creative expression and reinforces learning. For inspiration and lesson plans, visit "Washed Ashore", a project making sculptures from marine debris (www.washedashore.org)
- *Storytelling:* incorporate the FPPL (First People's Principles of Learning) by engaging in oral story telling using a model. Have students use models to create their own stories.

Challenges Facing Sea Jellies:

- *Climate Change:* Ocean acidification and warming waters affect the growth and survival of jellyfish populations, as well as the species they prey on.
- *Overfishing:* The removal of jellyfish predators and competitors can lead to jellyfish blooms, impacting other marine life.
- *Pollution:* Plastic pollution in the ocean is a major threat, potentially causing entanglement and ingestion of debris by jellyfish. It is also important to know that plastic floating in the ocean is sometimes mistaken for a jelly by its predators, causing the predator to accidentally eat the plastic!

This information is intended as a starting point. More detailed research on specific species and their habitats can expand this document. Remember to consult reputable scientific sources for accurate and up-to-date information when teaching.

Learn More:

Download Intertidal Life in Boundary Bay (from the City of Delta's files)

View JellyFish 101 a Nat Geo Wild video on Youtube:

<https://bit.ly/3FkUEgd>



SCAN ME



www.birdsonthebay.ca