

Name: _____

Date: _____

EXPLORING OCEANSIDE HABITATS OF FROGS & SALAMANDERS PART 2

StoryMap Scavenger Hunt

This activity was developed by West Coast NEST, an initiative of the Clayoquot Biosphere Trust, based on the 'Exploring Oceanside Habitats of Frogs & Salamanders' StoryMap created by Associations of Wetland Stewards of Clayoquot and Barkley Sounds, with funding provided by the NSERC PromoScience program.

Photo Credit: Barb Beasley



EXPLORING OCEANSIDE HABITATS OF FROGS & SALAMANDERS PART 2

StoryMap Scavenger Hunt

Pre-Reading: The goal is to activate and connect to prior knowledge: *Full sentences*

Where do you find answers to the questions you have?	
What is your experience of the intertidal zone? What animals have you observed in an intertidal or spray zone?	
Do you think amphibians can live in salt water environments?	

Activity: Work through the StoryMap to assist you with answering. Take your time and think critically. *Point form accepted, make sure to answer all parts of the question*

According to the StoryMap, what is the spray zone?	
What are adaptations of animals living in a spray zone? In other words, what do they have to do to survive there?	
What do researchers do as the first steps to analyzing a pond?	

What factors influence the number of ponds on a coastline?	
Describe an amphibians skin	
What is salinity exactly?	
What is the normal or expected salinity threshold for fresh water organisms?	
What do tadpoles do in ponds?	
What can affect the visual clarity of pond water?	
What species of amphibian live in the coastal spray zone?	
What next steps would researchers like to explore?	

Critical Thinking Questions: Apply your understanding, think bigger, deeper and connect. *Full sentences*

What did you find most suprising about this StoryMap?	
When developing infrastructure projects like bulidings and roadways, what may you think about when it comes to protecting local ecosystems?	
If you had to pick a body of water to study, where would you choose and why?	



TEACHER RESOURCE

This key uses typical answers based on the StoryMap content; adapt as needed

According to the StoryMap, what is the spray zone?	The spray zone is the area above the highest high tide-line of the upper intertidal zone. It is where large waves splash and strong winds spray salt water. It is a transitional area where the terrestrial ecosystem meets the marine world.
What are adaptations of animals living in a spray zone? In other words, what do they have to do to survive there?	They have to be tolerant of dessication (drying out), salt spray, wind, and occasional surfaction.
What do researchers do as the first steps to analyzing a pond?	They estimate the total surface area and set a timer to allow for 1 minute of looking at every square meter of the pond.
What factors influence the number of ponds on a coastline?	Shape of the coastline/terrain, temperature and amount of rainfall.
Describe an amphibians skin	Amphibians have permeable skin that allows liquids and gases to pass through it easily. This makes them vulnerable to dehydration (drying out).
What is salinity exactly?	Salinity is a measure of the total chloride salt concentration in water.
What is the normal or expected salinity threshold for fresh water organisms?	1 part per thousand (ppt).
What do tadpoles do in ponds?	By grazing biofilm from the rocky substrate in the ponds, tadpoles create space for new growth of algae, fungi and bacteria. Tadpoles also defecate tiny tube-like poop that alters the bottom substrate of the pond. These processes influence water chemistry, nutrient levels and structure which means tadpoles play a role as ecosystem engineers in these ponds. Ultimately, tadpoles can affect the algae and plants growing in ponds.

What can affect the visual clarity of pond water?	The number of nutrients present.
What species of amphibian live in the coastal spray zone?	Pacific tree frog and rough skinned newt.
What next steps would researchers like to explore?	Map the water sources and waterways that feed amphibian ponds along the outer coast so they can be properly protected. We will share our maps with municipal planners so they can help ensure that small wetlands, ephemeral (temporary) creeks, and underground seeps are not destroyed or disrupted by future residential and resort development.

Critical Thinking Questions: Answers will vary

Suggested Extension Activities & Continued Learning Opportunities

- Do the CoastSmart quiz on coastal hazards online to assess your readiness to do work on the coast! (<https://coastsmart.ca/hazards/>)
- Listen to Barb Beasley's interview with local USS student on youtube: <https://www.youtube.com/watch?v=ENN4nwVzTpw>
- Contemplate a coastal development as a class and explore different stakeholder opinions and development considerations when building within a sensitive ecosystem

Curriculum developed by **Monique Comeau** of the West Coast NEST, an initiative of the Clayoquot Biosphere Trust, based on the 'Exploring Oceanside Habitats of Frogs & Salamanders' [StoryMap](#) created by **Barbara Beasley** of the **Associations of Wetland Stewards of Clayoquot and Barkley Sounds**, with funding provided by the NSERC PromoScience program.

What is West Coast N.E.S.T.?

The West Coast N.E.S.T. (Nature. Education. Sustainability. Transformation.) is a regional initiative led by the Clayoquot Biosphere Trust that connects communities, organizations, businesses, and knowledge holders on the west coast of Vancouver Island.

Through education, collaboration, and capacity-building, the NEST creates meaningful learning opportunities, promotes the region's diverse educational programs, and supports a resilient and diversified local economy.

The NEST also facilitates place-based learning by connecting learners with local experts, creating educational resources, and hosting community events.

Learn more at westcoastnest.org.

Looking for more place-based educational content?

The West Coast NEST connects visitors and residents with unique and impactful learning opportunities. Many of these come in the form of place-based, face-to-face, and hands-on activities, but the NEST also helps share the region's abundant knowledge with schools and learners from afar. You can explore local research and conservation work through our online collaborative resources such as our interview series and our StoryMaps collection.

For high school, university, and adult groups seeking immersive educational experiences, we also offer customized itinerary planning, on-site orientation, and ongoing support for each visit. Delivered by regional partners, each program can be tailored to include hands-on learning in areas such as Indigenous culture, ecology, sustainability, science, language, history, outdoor education, and the arts.

Contact info@westcoastnest.org to start planning.

Follow us on social media

IG: [@westcoastnest](#) | FB: [@westcoastnest](#) | YT: [@westcoastnest8938](#) | LK: [@westcoastnest](#)

Follow our [newsletter](#)!

Have feedback?

We would love to hear from you! Reach out to info@westcoastnest.org to share feedback on our resources, suggest ideas for new learning materials, or ask questions. Your input helps us create tools that better support educators and learners.

