

Name: _____

Date: _____

AMPHIBIAN UNDERPASSES FOR THE PACIFIC RIM HIGHWAY PART 2

StoryMap Scavenger Hunt

This activity was developed by West Coast NEST, an initiative of the Clayoquot Biosphere Trust, based on the 'Amphibian Underpasses for the Pacific Rim Highway Part 2' [StoryMap](#) created by Associations of Wetland Stewards for Clayoquot and Barkley Sounds, with funding provided by the NSERC PromoScience program.

Photo Credit: Barb Beasley



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StoryMap Scavenger Hunt

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

What other animals have you noticed as roadkill or worry about when it comes to road crossings?

Barb Beasely has dedicated decades to supporting creatures like frogs and salamanders. If you could choose one animal to protect, what would it be and why?

What would you do or design if you were trying to help an animal cross the road safely?

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*

What were the three main parts of the SPLAT project in the early years?

Where did Barb go to see other examples of road developments for animal crossings?

What equipment was used to install the first culvert?

After the culvert was installed, what was done to make it more hospitable to amphibians?	
What did the team do to the fence covering/fabric to ensure salamanders didn't escape?	
What did the team do to ensure that amphibians on the wrong side of the fence could access the culvert?	
How did researchers capture amphibians to record their movements?	
What was a drawback of trying to take game-camera photos of amphibians?	
What were the most observed amphibians according to the photos collected?	
What other animals were observed using the culverts?	
What did researchers notice about pacific tree frogs?	
How do researchers monitor population health of amphibians?	
Aside from road mortalities, what other factors affect amphibians?	

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

What was the most suprising part of the StoryMap and why?	
What more do you think could be done to conserve amphibians in the Clayoquot region?	
If you had Barb Beasely in front of you, what question would you ask her?	



TEACHER RESOURCE

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

What were the three main parts of the SPLAT project in the early years?	• Surveying roadkill • Installing roadside fencing and traps • Carrying amphibians across the road
Where did Barb go to see other examples of road developments for animal crossings?	• Amphibian culvert: Qualicum, BC • Road Tunnel on Hwy 97: Osoyoos, BC • Underpass for frogs Hwy 99: Whistler, BC • Turtle eco-passage: Long Point Biosphere Region, Ontario
What equipment was used to install the first culvert?	Road hammer, excavator and crane truck.
After the culvert was installed, what was done to make it more hospitable to amphibians?	The inside was half-filled with moist dirt, logs and branches to make it "feel" more like a continuation of the forest floor.
What did the team do to the fence covering/fabric to ensure salamanders didn't escape?	They dug it into the ground so that salamanders couldn't burrow underneath.
What did the team do to ensure that amphibians on the wrong side of the fence could access the culvert?	They created one-sided ramps from the outside to inside channel with a mesh cover for amphibians to climb.
How did researchers capture amphibians to record their movements?	They used pitfall traps.
What was a drawback of trying to take game-camera photos of amphibians?	Amphibians do not trigger the motion sensors of these cameras.
What were the most observed amphibians according to the photos collected?	388 amphibians (64% frogs and 44% salamanders). Most of the frogs were identified as Northern Red-legged Frogs, and most of the salamanders were Northwestern Salamanders.

What other animals were observed using the culverts?	Red squirrels, deer mice, shrews, voles, ermine, mink, marten, and even a black bear!
What did researchers notice about pacific tree frogs?	They could escape more easily than other amphibians and therefore were not as protected by the fence as other species.
How do researchers monitor population health of amphibians?	By studying their egg mass.
Aside from road mortalities, what other factors affect amphibians?	Pollution, habitat loss, invasive species, disease, climate.

Critical Thinking Questions: Answers will vary

Suggested Extension Activities & Continued Learning Opportunities

- Conduct a problem-based learning inquiry with a hypothetical local development - have students explore different habitats of concern around the development and potential impacts. Explore how to mitigate negative impacts to the local ecosystem.
- Visit an amphibian culvert in Clayoquot Sound - invite Barb!

Curriculum developed by **Monique Comeau** of the West Coast NEST, an initiative of the Clayoquot Biosphere Trust, based on the 'Amphibian Underpasses for the Pacific Rim Highway Part 2' [StoryMap](#) created by **Barbara Beasley** of the **Associations of Wetland Stewards for 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.

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