



Trafficking Wildlife

6-8 grade

Themes: Sustainability of Natural Resources

Location:

This lesson can be taught in a classroom. You can do the introduction activity outside on the school grounds.

If possible, we recommend taking students to their nearest public lands as an extension to the lesson and identify what natural resources are available.

Remote learning modification: Lesson can be taught over Zoom or Google Classrooms. '

The PowerPoint, brainstorming, and assessments can be done in the classroom with student computers.

Standards:

NGSS

[MS-LS2-4](#)

Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

CCSS

[WHST.6-8.1](#)

Write arguments to support claims with clear reasons and relevant evidence.

[WHST.6-8.9](#)

Draw evidence from literary or informational texts to support analysis, reflection, and research.

WA OSPI

[ESE Standard 3](#)

Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.

Modifications, Adaptations:

For COVID-19 distance learning, or other remote learning modification, look for **Remote learning modifications** throughout the lesson plan.

Objectives:

Students will...

1. Model how poaching can impact local communities and ecosystems by playing a simulation game.
2. Discuss how wildlife trafficking impacts ecosystems and local peoples.
3. Investigate local cases of wildlife trafficking and determine how these real-life scenarios may have impacted people and wildlife locally and globally.
4. Design a one-page infographic that displays information about one species that is trafficked into/out of Washington.

Vocabulary:

Biodiversity: Biodiversity is the full range of life in all its forms. This includes the habitats in which life occurs, the ways that species and habitats interact with each other, and the physical environment and the processes necessary for those interactions.

Exotic Species: A plant or animal species that is non-native to a particular ecosystem. For example, macaws are an exotic species in Washington.

Exploit/Exploitation: The act of taking advantages of resources (natural, capital) for one's own benefit, but to the detriment of others.

Fishery: A fishing effort centered on a particular region and/or a particular species (e.g., Columbia River coho salmon fishery).

Ivory: Any mammalian tooth or tusk which has commercial value. Most common sources of ivory come from elephants, mammoths, walrus, toothed whales and narwhales, hippos, warthogs, manatees, and dugongs.

Lacey Act: A federal law that makes it unlawful to import, export, sell, acquire, or purchase fish, wildlife, or plants that are taken, possessed, transported, or sold: 1) in violation of U.S. or Indian law, or 2) in interstate or foreign commerce involving any fish, wildlife, or plants taken, possessed, or sold in violation of State or foreign law.

Poaching: The illegal hunting, capturing, or harvesting of wildlife, vascular plants, fungi, etc.

Sustainability: The avoidance of the depletion of natural resources to maintain an ecological balance and ensure that future generations have access to the resource.

Trafficking: The poaching or other taking of protected or managed species and the illegal trade in wildlife and their related parts or products.

Materials:

Small objects (such as marbles, coins, beans, candy etc.), wildlife poaching name cards. Students will need a computer and research materials.

Procedure:

Introduction to poaching

Ask students to tell you what it means when someone "poaches" a natural resource. After sharing answers, show the definition of poaching on a white board or [virtual whiteboard](#). Ask students if they can think of examples of poaching. Someone fishing or hunting without a license may be an example of poaching, so is someone fishing with a license, but catching fish under the size limit or catching over the catch limit. Have them share examples of poaching and write them down on the white board.

After students are done sharing, ask them to think about why state and federal agencies set limits on and require licenses for taking natural resources. Should everyone be able to catch as many fish or harvest as many trees or deer as they want? Why or why not? Have students discuss this topic and then share answers as a class.



The Poaching “Mafia” Game

For this activity, we recommend taking students outside if you are able. You will need a container of small objects (such as beans, coins, beads, marbles, wrapped candy, etc.). Try to have 10 times the amount of students you have. For example, if you have 30 students, you will need 300 objects. You will need to print and cut out the wildlife poaching name cards. These cards will be passed to students and will be their role for the game. Because [Washington’s fisheries are co-managed](#) with various tribes make sure you have an even number of townspeople (non-tribal members) and tribal members cards. Fisheries can include fish, shellfish and invertebrates like urchins and sea cucumbers.

Randomly distribute the cards and tell students to keep their roles to themselves. Have students memorize their cards and then return them to you. Students are not allowed to reveal, until they are “out”, what their role was in the game.

In your classroom (or outside), scatter the small object of your choice throughout the room or available space. Tell students the objects represent individual fish in a population. Both commercial and recreational fishers use this fishery. To ensure the fishery is sustainable, the Washington Department of Fish and Wildlife sets limits on how many fish people can catch. Commercial fishers can catch three per season and recreational fishers can catch one per season. Once the number of small objects is down to 10, the fishery is shut down to allow the population time to reproduce and grow for future harvest. Poachers do not abide by these rules and catch as many as they possibly can. The detective’s goal is to try and find the poachers. The detective cannot reveal themselves as they are working undercover. They can ask you (the narrator) questions about who is or isn’t a poacher.

Ask all students to shut their eyes to pretend to sleep. Have the poachers open their eyes, get up, (they should try and be as silent as possible) and steal as many “fish” as possible in 30 seconds. When they are done, have them go “back to sleep”, shut their eyes and have the commercial fishers “wake up”. Commercial fishers can catch up to three fish per session (30 seconds). After the 30 seconds, tell commercial fishers to go to sleep and ask the recreational fishers to wake up. Recreational fishers can only catch one fish per session (30 seconds). Playing music for each 30 second period may help make it harder for students to hear their peers next to them moving.

At the end of each season, ask the detective to wake up. They can ask you one question about who the poacher is, and then they must go back to sleep. Ask all students to try and determine who they think is a poacher. Students must vote by a majority to “catch” the poacher. Try and limit this portion of the game to three minutes. After students have voted someone as a poacher, the student can reveal his/her role and is out of the game. If the person voted off is not a poacher, you can use the following scenarios:

The following scenarios represent some fisheries (like clams and urchins) that have experienced poaching in Washington. Tell students that even though the type of “fish” changes in these scenarios, that they are real-life occurrences.

- Unfortunately, the clams that the poachers caught this season contained deadly domoic acid. Despite the fishery closure, they caught the desirable clams anyway. Because of these unsafe clams three townspeople have become very sick and must now be hospitalized (you can choose the three additional townspeople).

- Poachers found out they could get more money for the fish they caught by selling it overseas rather than the local market. Because the poachers took so many fish, they have run one commercial fisher out of business.

- A tribal fisher went to their historic fishing grounds this season only to find there were few urchins left because the population had been poached. For the first time, the tribe does not get to harvest this species for their community. This means three people must leave.

- Tribal elders have been eating sea cucumbers for centuries. A poacher stole half of the sea cucumber and now the elders can no longer eat their traditional food in order to give the population time to recover. Two members must leave.

Repeat this scenario until the poachers are caught or you are out of fish (remember poachers don’t abide by the 10 fish left rule) or out of townspeople.

After finishing the game, ask students to reflect with a peer on the following questions. You can write these on a whiteboard or hand them out on a sheet.

- If you were a commercial fisher, how did it feel when there were no more fish left to catch because of poachers?

o Did you want to poach? Why or why not?

- If you were a recreational fisher, how did it feel when there were no more fish to catch?

o Did it make you want to poach? Why or why not?

- As the detective, what was it like to catch poachers? Explain.

- If you were a townspeople who relied on this fishery for survival, would you support poaching if it meant more money for you in the short term, but later the resource was wiped out? Explain.

- How does poaching affect the sustainability of a resource?

- How does poaching affect those who obey the laws?

- Can a commercial fisher be a poacher? Explain.

- Can a recreational fisher be a poacher? Explain.

- Can a tribal member be a poacher? Explain.

After students are done sharing in their pairs or small groups, ask the questions as a class and share answers.

Optional extension: mix up the size, shape, or type of objects and tell students they represent fish that are too small or too young to be caught. Experiment with how this changes the game’s outcome.

Remote learning modifications: You can play this game on Zoom or Google classrooms but without the props. Modify the roles more to align with the game “Mafia”. [Ways to adapt online can be found here](#). Breakout rooms can be used for the discussion part at the end.

Introduction to wildlife trafficking

Open this part of the lesson with the question, “Why do you think it is harmful to communities and ecosystems when people illegally harvest wildlife and plants?” Have students



think-pair-share and then share a few student answers as a class, writing ideas on the whiteboard.

Ask students to remind you of the definition of poaching. Poaching can include people who “take one extra” fish or deer, but many poachers see natural resources as a dollar sign. They often exploit the resource to make money, leaving a wrecked ecosystem and affecting the abilities of others to use the resource. Prompt students to [watch this three-minute video](#) which highlights how animals are trafficked in the U.S. This [two-minute video](#) shows how wildlife crimes pose a hazard to human health as well.

As a class, read the short blog, “[10 Things Poachers Don’t Want You to Know about Wildlife Trafficking](#)”. Ask students to popcorn read each paragraph.

Wildlife trafficking in Washington

Many different species are shipped in and out of Washington. Exotic species like pangolins, tigers, turtles, and more may come from across the world, but did you know that Washington’s natural resources are at risk of poaching and trafficking as well? Washington Department of Fish and Wildlife police officers and detectives work hard to ensure the sustainability of Washington’s natural resources, and they also play a large role in global wildlife trafficking that comes into the state. Every year, fish and wildlife officers catch thousands of poached and trafficked goods. To combat this, the Washington State Legislature passed the [Washington Animal Trafficking Act](#) (WATA).

Wildlife trafficking and poaching is also a regional problem. In Washington, people poach bears for their gallbladders, illegally harvest maple trees for cabinet building, and illegally harvest geoduck clams for overseas markets. Students will interact with two actual Washington case studies to see how illegal wildlife trade occurs at a variety of local and global levels.

As a class, read the Sea Cucumber case study (an article from Game Warden monthly). Ask students to popcorn read paragraphs to keep student engagement. Afterwards, answer the following questions together:

- How did Mr. Namkoong impact the Puget Sound sea cucumber population?
- What do you think about Mr. Namkoong’s punishment? Do you think it was too much or too little or fair? Why?
- In just two years, Mr. Namkoong and the divers cut the Puget Sound sea cucumber population in half. Scientists think it will take the population decades to recover.
 - o Describe how the loss of sea cucumbers might affect the Puget Sound ecosystem.
 - o How would you feel if you were a fisher who harvests sea cucumbers legally, but now is unable to harvest because of low population numbers?
- Acronyms in this story include:
 - o **NOAA**, National Oceanic and Atmospheric Administration (the federal governing agency for fisheries)
 - o **AUSA**, Assistant United States Attorney (an attorney who represents the interests of the United States of America at a regional level).

As a homework assignment, assign students to read the

Netsuke Ivory Case and answer the following questions:

- Mr. Rooney said he has collected ivory pieces for years. Even though he did not poach animals directly, how did he contribute to the problem of wildlife trafficking?
- Many wildlife or natural products are illegally trafficked to use in traditional medicines that have been part of the culture for centuries. With a higher population and higher demand for wildlife resources, how do we balance the needs of a culture with the needs of an ecosystem?
- How can you be a more informed consumer to ensure you’re not buying trafficked or illegal goods?

Wildlife Trafficking Project

Students will research one species that is trafficked into or out of Washington. Commonly trafficked items out of Washington include geoduck, sea cucumber, sturgeon eggs, bear gallbladders, and elk racks (antlers). Students may also chose to focus on [a species protected under WATA](#). Students will create a one-page infographic that tells members of the general public a little about the species and any threats the species face due to poaching and/or trafficking.

Students should address:

- Where the species comes from and what ecosystem they live in.
 - o Consider: what role does the species play in its ecosystem?
 - How poaching has impacted the species and their ecosystem.
 - o Consider: How do poachers remove the animal/plant from the ecosystem? Do poachers burn the environment? Do they channel water away from streams or rivers? Do they rake and destroy the ocean floor? How might these physical or biological changes impact other species in the ecosystem?
- How has poaching impacted local peoples of that region?
 - o Has it impacted them economically? Has it impacted their culture? Has it caused disease or sickness?
- What is the animal poached for? (e.g., traditional medicines, food, jewelry, clothing, exotic pets, etc.)?
- What can Washingtonians do to help?

Students should cite their sources appropriately. Sources should come from a peer reviewed paper, government webpage, or document or a credible science organization or non-governmental organization.

We recommend giving students up to a week and a half to research and complete their infographic. Students can share their infographic with the class to help teach others about the variety of animals impacted by wildlife trafficking.

Note: It’s important to make it clear throughout the lesson that illegal wildlife trade and wildlife trafficking negatively impact the sustainability of the resource, the health of our planet, and our people. Legal wildlife trade sustains many people’s livelihoods and is important for recreation as well. Local, state, and federal management agencies often work together to let limits, quotas, and laws that help perpetuate the sustainability of the resource.



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Additional Resources :

You can use the following resources to build onto this lesson, or share these resources with students for their research project.

Supplemental Activities:

[Illicit Markets for Wildlife, Forest, and Fisheries Products lesson unit](#)-UNDOC

[Illegal Wildlife Trade: Investigations](#)- World Wildlife Fund

Other resources:

Government Resources:

[Wildlife trafficking FAQ](#)-WDFW

[About wildlife trafficking](#)-WDFW

[Wildlife Trafficking](#)-U.S. Department of Justice

[Federal Wildlife Crimes](#)- Department of Justice

[Wildlife trafficking](#)- U.S. Fish and Wildlife Service

Organizations and Programs:

[Toss The Tusk](#)-Northwest Trek

[Washington Takes A Stand Against Wildlife Trafficking](#)-

Woodland Park Zoo

[Wildlife Trafficking Alliance](#)

Articles:

[4 Things You Didn't Know About Wildlife Trafficking in the U.S.](#)- Defenders of Wildlife

[Wildlife Trafficking](#)- Smithsonian Magazine

[There Are No winners in the Illegal Wildlife Trade](#)-

United Nations Environment Programme

Videos:

[Benny the Rhino Lookout](#)- Woodland Park Zoo

[Illegal Wildlife Trade](#)-Terra Matter

[Wildlife Detectives: The Poaching of Puget Sound](#)-KCTS9

[Report Poaching to WDFW Police](#)

Teachers and Parents!

Show off your students' work! Share student projects from this lesson with WDFW.

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[#WildWashington](#) [#WildWa](#)

Share students work or give feedback and receive Benny the K9 cards for your class!



Did you teach this lesson? [Give us your feedback.](#)