



Activity 36: The Amphibian Debate*†

Abstract

In this activity participants take on different stakeholders roles in a debate about whether a development on a newly discovered salamander's habitat should proceed. For Science in grades 4, 6, 7, 10 Academic and 10 Applied as well as Geography for grades 7, 9 Academic and 9 Applied and Guides Ecologist Badge and Scouts Conservation (Wildlife) Badge Requirements.



Ask students to choose a habitat they can relate to: a grassland, wetland, or forest for example, and one or more industrial activities that are occurring in the area, (e.g., effluent or other debris discharging into a river or wetland, or the clearing of land to make way for development in a forested area). These choices will help them form the basis for debate.

Students must reach a decision by consensus as to whether “Company A” is allowed to go through with their development as planned, or whether

*This online activity has been adapted from the Wildlife in Jeopardy Education Kit and accompanies Theme 13: Reptiles and Amphibians in Jeopardy.

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changes must be made to the original design, or if the project must be abandoned.

Encourage students to think of all the consequences of their decision — a new development will bring money and jobs to the local area but will damage the habitat of local species. Have students weigh the pros and cons. What will be the consequences (both positive and negative) if the development occurs? What will be the outcome if the development is stopped?

Educator's Note

This activity is a hypothetical example. By taking on the roles of different stakeholders in a fictitious debate, students look at the different sides of an argument and will see the importance of compromise — that others' viewpoints, although different from their own, are also valid and must be taken into consideration in decision-making. This activity can be tailored to relate to a local event by having students research a particular wildlife/ land use conflict and adapting the roles suggested in this activity accordingly.

Background

Although there were historical reports of an amphibian species once inhabiting this region, none had been found until this year when the species was located in two areas. One population was found near Town A in a park. The second population was located on the very site where Company A is planning to build a major industrial development.

This species is not on a species at risk list and therefore is not protected by any legislation, although it is protected under the province's Fish and Wildlife Conservation Act. The site that Company A wants to develop is not in a provincial or federal park but it is a geological Area of Natural and Scientific Interest (ANSI). Protection of the amphibian's habitat in the province hinges on the will of the public and the willingness of Company A to change its plans for the multi-billion dollar industrial development. Will Company A be willing to change its original plans and save one of only two habitats of this newly discovered amphibian?

The issue

The meeting will decide whether Company A needs to take another look at its plans for the new industrial development. Can it go ahead as scheduled, which means the loss of the amphibian's habitat? Are further plans nec-

essary? Is there some way to continue with the development and save the species at the same time?

The amphibian

This is your chance to explain why habitat protection is important and necessary. Your population numbers are small — all the more reason to save as many of you as possible. You may also want to mention that worldwide your numbers are in decline. Like all amphibians, you have very thin, semi-permeable skin that is sensitive to changes in the environment — both physical and chemical. Something has to be done to save your species and the other amphibians in the world.

Resident one

Enough stalling! Company A has every right to expand their operations. If they don't, another company will. Why not build as originally planned? This new plant will create more jobs for the community, something that is good for everyone! You don't particularly care about wilderness, it's full of spiders and bugs. Progress and industrial development should come before a creature that no one has even heard of!

Environmentalists have taken centre stage long enough with other issues in the province — it's time they realize that we must advance our industries. Otherwise we will be unable to compete on the world market.

Resident two

You don't want another industrial development in your backyard. If only all this development could stop. Enough ripping up your town! You are all for development — not like one of “those environmentalists” — but you have put up with enough noise and mess. You have lived in Town A all your life. You remember when other large-scale industrial developments were built. What a disruption! Trucks went by your home all night long for a year! Why should your life be disrupted so that business people can get richer!

Surely something can be done to stop all this development so close to your town. You're not sure about this amphibian, whatever it is; but perhaps there's a way to stop or curtail this huge industrial development. Maybe the engineers can find another way to develop this land that won't disrupt your own home so much!

Local resident, and member of the local hunting and fishing club

Your group doesn't always have a good name because you're mainly interested in fishing and hunting. Some people even feel that the reason endangered species got that way is because of over-hunting, even though that's not true! You've fished in the rivers and lakes surrounding your town for years — you really love the area and want to protect it!

Perhaps this is your chance to show other residents that you do care about all wildlife, not just the sport species. You know how important habitat is to a creature's survival. And, goodness knows, we've already lost enough wilderness in the province. You know how important discovering another species is, and the importance of protecting it, whatever way possible!

Local councillor

As an elected official, you will be chairing this meeting. You will open by welcoming everyone and asking Company A's engineers to explain the development. A leading biologist with expertise on this particular amphibian species will explain its physical appearance and characteristics as well as its habitat in relation to the proposed industrial development. Then, you will open the floor to discussion and questions. Remember that no one talks twice (except the engineer and biologist to answer questions) until everyone who wants to has spoken once.

Your job is to make sure no one monopolizes the meeting. You will attempt to reach a consensus — a decision that all parties can live with. You close the meeting by stating what decision was reached and thanking all those who attended.

You're not sure what all this fuss about an amphibian is about. You're interested in finding out what your constituents want. Can Company A build this development without damaging the amphibian's habitat? You can't imagine that they would be willing to do this. Still, Company A's image is not good. Perhaps a bit of public relations here would be good for them as well as your town's image.

Do the local residents really care? Sure there are a few vocal ones — there always are. Elections are coming up. Which way is the wind blowing? What is the mood of the local taxpayers?

Company A engineer

The plans for this industrial development have been in the works for more than three years, representing hundreds of hours of detailed planning by you

and your staff. You have done everything by the books and don't see why an amphibian has to stand in the way of a multi-billion dollar development! You like wildlife but let's be reasonable! It just doesn't make sense. This creature is found in other provinces, which should be good enough. Why does it have to be protected here?

More importantly, why do your company's plans have to change? There may be alternative designs for the development, but redesigning the project at this stage for the sake of an amphibian seems like a huge waste of time and money. You are certainly not going to reveal the possibility of alternatives right away — you have worked too long and too hard on the original plans to change them for some four-legged creature you have never heard of before!

Company A executive

You must balance cost and public perception. The company has not had a good record with helping the environment and the public is aware of this.

You want the engineers to take another (inexpensive) look at the plans, but so far they seem determined to stick to the original plans! You will be listening to the public at this meeting — how much support is there for this creature? You are unsure of how the legislation applies. Even though this is obviously an uncommon creature in the area, it isn't protected under the Endangered Species Act.

Expert biologist

Although uncommon, this amphibian is not listed as an endangered species and therefore not protected under the Endangered Species Act. Its habitat is not in a provincial or federal park and, although it is part of a geological Area of Natural or Scientific Interest (ANSI), the habitat has no protection under the law. The amphibian itself is protected under the provincial Game and Fish Act (even though it isn't either of those), which primarily protects individual species from being collected. It offers no habitat protection. Your hands are tied.

As a biologist, your job is to explain that this amphibian is one of the rarest animals in the province. It is really astonishing that it was found here after so many years of studying the plants and animals of the province. So, you are going to say that this amphibian and its habitat should be saved, even though there's no law forcing anyone to do so. Habitat loss is the major reason species become at risk. It is much more time and cost effective to conserve the habitat of a number of species at risk than trying to conserve individuals. You're going to show the public why habitats are at risk — through draining and destroying wetlands, converting natural areas

to agricultural land, by clearcutting forests, polluting lakes and streams — all of which, ultimately, is related to urban expansion.

Curriculum Links

GRADE 4

Science and Technology - Life Systems:

- Habitats and Communities

GRADE 6

Science and Technology - Life Systems:

- Diversity of Living Things

GRADE 7

Science and Technology - Life Systems:

- Interactions within Ecosystems

Geography:

- Geographic Inquiry
- Natural Resources

GRADE 9

Geography, Academic and Applied:

- Human-Environment Interactions
- Space and Systems
- Understanding and Managing Change

GRADE 10

Science - Academic Biology:

- The Sustainability of Ecosystems

Science - Applied Biology:

- Ecosystems and Human Activity

For more information on the Ontario Curriculum,
please visit the Ministry Of Education Web site at
www.edu.gov.on.ca/eng/general/elemsec/elemsec.html

Guides and Scouts Badge Requirements

SCOUTS BADGE/AWARD

- Communicator

GUIDES BADGE

- Ecologist