

Grades: 8 - 12th Intermediate

Issue or Problem: Scientists estimate that approximately one elephant is killed every 25 minutes for their ivory. It is estimated that approximately 20,000 elephants are poached every year for their ivory. Poaching isn't only impacting elephants but also the ecosystems where elephants live.

Objectives: By the end of the lesson, students will:

- understand the connection between the changing environment and ecology of Africa due to poaching of elephants
- be able to explain the importance of elephants as a keystone species
- understand that this is an environmental, ecological and economic issue
- be able to describe what poaching is
- participate in collaborative basis to create original and effective ways to spread awareness and assist in the effort to halt elephant poaching

Time Frame suggestion: 4 class periods (one hour per period)

Background Information for Teachers:

Elephants are considered a keystone species in the African landscape. That means elephants play a key role in maintaining the balance of all other species in the community. They pull down trees and break up thorny bushes, which help to create grasslands in which other animals survive. They create salt licks by digging up earth that contains many minerals thereby providing a food source for other animals. They dig waterholes in dry riverbeds that other animals can use as a water source, and their footprints create deep holes that water can collect in. They create trails that act as fire breakers and water run offs. Other animals, including humans, depend on the openings elephants create in the forest and in the water holes they dig. Elephant dung (droppings) is important to the environment as well. Baboons and birds pick through dung for undigested seeds and nuts, and dung beetles reproduce in these deposits. The nutrient-rich manure replenishes depleted soils so that humans can have a nutrient rich soil to plant crops in. Elephant droppings are also a vehicle for seed dispersal. Some seeds will not germinate unless they have passed through an elephant's digestive system.

Poaching is the illegal taking of wild plants and animals or parts of the plants or animals. It is estimated that approximately 20,000 elephants are poached every year for their ivory. With statistics like this the African elephant is headed for extinction within 15-20 years, unless we can put a stop to these illegal activities through education and alternative resources for income in communities that assist in the ivory trade. Ivory has become more valuable than gold. In fact, ivory has been called "white gold". The tusks of one elephant bring in the same amount of money that 12 or more years of farming or herding does. Scientists estimate that approximately one elephant is killed every 25 minutes for their ivory.

Additional background information can be found in the Elephants and Ivory Lesson Plan at <https://elephanatics.org/wp-content/uploads/2019/02/Elephants-and-Ivory-11.6.pdf>

VOCABULARY/DEFINITIONS

- Poaching: Poaching is the illegal taking of wild plants and animals or their parts.
- Keystone species: A species on which other species in an ecosystem largely depend, such that if it were removed the ecosystem would change drastically. *The elephant is a keystone species in that it is responsible for maintaining the balance of all other species within the region they live.
- Ivory: the hard creamy-white material that composes the tusks of a tusked mammal (such as an elephant, walrus, or narwhal)

Materials:

- ✓ Computers/online access for research
AND/OR:
- ✓ Books, such as The National Geographic.
- ✓ Art paper to construct a poster with the statement - “Ivory Belongs to Elephants” - on it, or an equally effective statement emphasizing anti- poaching.
- ✓ Pencils, coloring pencils, markers, scissors, glue.

Suggested schedule for lesson:

1st Period- Introduce the ecological and environmental importance of the elephant as a keystone species and describe the poaching crisis and how it is affecting the balance of each. Provide the students with the questions outlined in the lesson plan in regards to the ivory trade and poaching in relation to the environment. If students have computers or iPads in the room, have them do some research on the questions.

2nd Period - Review and discuss some of the answers the students came up with from their own research on the ivory trade and have them build a poster. Have them put the statement “Ivory Belongs to Elephants” on their poster, or an equally effective statement in regards to anti-poaching. Have them put pictures or drawings on and include the graph they drew showing the number of elephants poached from 2002-2012.

3rd Period – Have students write a short report on their research findings and attach to the completed poster. Spend the rest of the class period having them brainstorm in groups of four on other possible ideas they may have thought of to help prevent poaching. If they are having trouble thinking of ideas, introduce some from the lesson plan.

4th Period – Have students visit other classes or local libraries or community centers etc. to share what they have learned and encourage others to help protect elephants from poaching.

Possible questions for student research:

- What is the price of ivory? Was it higher in the past?
- Who is buying most of the ivory?
- Where in Africa are elephants being poached? Are some areas affected more than others?
- Are Asian elephants facing the same crisis?
- What is driving the demand for ivory?
- What will happen to the grasslands of Africa if all the elephants disappear?
- How will the environment/ecology be affected by the possible extinction of the elephant in Africa or Asia or the world?
- How are we affected locally by poaching?

Additional Activity suggestions:

- Create a petition
- Coordinate a run for elephants to bring awareness to the community
- Adopt an elephant from a wildlife organization.
- Contacting other schools in their vicinity to spread the word.
- Have a scavenger hunt including questions about elephants – i.e.: How much do elephants weigh? What is an elephant's skin like?
- Ask your local library, or community centre, or business institution to hang their work so that others in the community can learn from them and help spread awareness about this global crisis.
- Follow up with businesses or community centers at a later date to see if others have taken the initiative to support anti-poaching.

Internet Resources:

- Elephanatics: <https://elephanatics.org>
- Mara Elephant Project: www.maraelephantproject.com
- IFAW: <http://www.ifaw.org/united-states>
- The David Sheldrick Wildlife Trust: <http://www.sheldrickwildlifetrust.org/>
- The Northern Rangeland Trust: <http://www.nrt-kenya.org/>
- Emotion: <http://www.emotion.org/elephant-tourism/>
- Eleaid Asian Elephant Conservation Charity: <http://www.eleaid.com/>
- Elephant Asia Rescue and Survival Foundation (EARS): www.earsasia.org

Elephanatics.org
Effects of Elephant Poaching

- Elephant Voices: <https://www.elephantvoices.org/>
- Save Elephant Foundation: <http://www.saveelephant.org/>
- International Elephant Foundation: <https://elephantconservation.org/>
- WildlifeDirect: <http://wildlifedirect.org>
- World Elephant Day: <https://worlddelephantday.org/about/elephants>
- Tsavo Trust: <http://tsavotrust.org/>
- Save the Elephants: <http://www.savetheelephants.org/>