

Colette Ciresi

Speech #3 Outline

- I. Arouse
 - a. “Scientists say, the Earth is on the brink of a sixth such “mass extinction event.” Only this time, the culprit isn’t a massive asteroid impact or volcanic explosions or the inexorable drifting of continents. It’s us.” (Sarah Kaplan, Washington Post: June 22, 2015)
 - i. Right now you are living in the midst of the sixth major extinction
 1. Losing biodiversity at an alarming rate
 - b. Claim: We are all inhabitants of the same world and components of the same universal food web. This integral connection we share with the world around us gives us not only the responsibility, but also the power to help preserve Earth’s biodiversity. Frogs and other amphibians are at most risk of going extinct and we should prioritize saving them for our own benefit and the world.
- II. Map
 - a. Proof of the sixth extinction affecting frogs
 - b. Why losing frogs is affects you
 - c. The impact saving the frogs could have on the world
 - d. How you as an individual can help save the frogs
- III. Dissatisfy
 - a. “Today, amphibians enjoy the dubious distinction of being the world’s most endangered class of animals,” but that is not all that is in trouble, “It is estimated that one-third of all reef-building corals, a third of all fresh water mollusks, a third of sharks and drays, a quarter of all mammals, a fifth of all reptiles and a sixth of all birds are headed towards oblivion.” (Kohlbert, Sixth Extinction)
 - i. Estimate “200 species have already gone extinct and hundreds more may be on their way out” (*Why*)
 - b. What’s causing it?-Us
 - i. Fossil Fuel Consumption
 1. Climate change and UV-B radiation as a byproduct of our fossil fuels consumption
 2. Acid precipitation and soil caused by us
 3. Pesticide and fertilizer contamination in waterways polluted by us
 - ii. Trade Routes
 1. Habitat modification and fragmentation caused by us
 2. Invasive species brought by us
 3. Disease spread by us
 - a. More than 695 frog species in 71 counties have suffered the ill effects of this serious ailment (Kriger).

- IV. Gratify-why should we try to stop the extinction of frogs
 - a. Bioindicator
 - b. Vital part of food chain
 - i. Insect control, therefore disease control (“Frogs:”)
 - ii. Prey for other animals
 - c. Medicine
 - i. “Frog toxins may hold keys to unlocking mysteries about our own bodies.”(“Frogs:”)
 - ii. “Compounds include amines, alkaloids, and peptides. They play as poisons, antibiotics, and pain relievers.” (Endangered Species)
- V. Visualize-big picture solution
 - a. Ecosystem Interactions
 - i. Humans are part of that food chain too
 - ii. Tadpoles purify water (Kriger and “Frogs:”)
 - iii. Disease control and prevention (“Frogs:”)
 - b. Medical Breakthroughs
 - i. Red-eyed Australian tree frog that may block infection by HIV (Vanderbilt Researchers)(“Frogs:”)
 - ii. giant Mexican leaf frog peptide treats high blood pressure and blood clotting (“Frogs:”)
 - iii. poison dart frog contains chemicals that have been used to develop a pain killer that is 200 times stronger than morphine (Kriger)
 - iv. The waxy monkey frog is able to treat anti-biotic resistant staphylococcus (Kriger)
 - c. Scientists
 - i. Many Nobel peace prizes have used frogs as model organisms
 - 1. Development, genetics, molecular biology etc.
 - 2. Discovery of mature cells can be reprogramed to become pluripotent (2012: Sir John B. Gurdon)
 - d. Legislators
 - i. Climate change
 - ii. Water contamination prevention
 - iii. trade
- VI. Move-what an individual can do to help achieve this recovery of frogs
 - a. Simple everyday habit tweaks
 - i. Don’t use fertilizers
 - ii. Don’t eat frogs
 - iii. Don’t have frogs as pets
 - iv. Spread the word
 - v. Seek out more information from Amphibian Ark, Save the Frogs, and National Geographic organizations

b. Summary

- i. Extinctions are a normal phenomenon, but rate is not natural
- ii. frogs: world's health :: canary: coal mine (Chelsea Harvey, Washington Post 2015)
- iii. Claim Reinstated: Our world is undergoing the sixth extinction whether people care to accept it or not. Frogs and other amphibians are at most risk of going extinct. I invite you all to prioritize saving them for our own benefit and the world.

Works Cited

- Aldred, Jessica. "The World's Most Endangered Frogs." *The Guardian*. Guardian News and Media, 09 Jan. 2008. Web. 25 Feb. 2017.
<<https://www.theguardian.com/environment/gallery/2008/jan/09/conservation.endangeredspecies>>.
- "Frogs: The Thin Green Line." *PBS*. Public Broadcasting Service, 17 Oct. 2014. Web. 25 Feb. 2017.
<<http://www.pbs.org/wnet/nature/frogs-the-thin-green-line-a-world-without-amphibians/4852/>>.
- Harvey, Chelsea. "We're risking a mass extinction of frogs-they're the canary in a coal mine." *The Washington Post*. WP Company, 15 October 2015. Web. 25 Feb. 2017.
- Kaplan, Sarah. "Earth Is on Brink of a Sixth Mass Extinction, Scientists Say, and It's Humans' Fault." *The Washington Post*. WP Company, 22 June 2015. Web. 25 Feb. 2017.
<https://www.washingtonpost.com/news/morning-mix/wp/2015/06/22/the-earth-is-on-the-brink-of-a-sixth-mass-extinction-scientists-say-and-its-humans-fault/?utm_term=.d630031e23d5>.
- Kolbert, Elizabeth. *The Sixth Extinction: An Unnatural History*. London: Bloomsbury, 2015. Print.
- Kruger, Kerry. "How to Help." *How to Help Save Frogs*. Save the Frogs, 2013. Web. 25 Feb. 2017.
<<http://www.savethefrogs.com/how-to-help/index.html>>.
- Kruger, Kerry. "Threats to Frogs." *How to Help Save Frogs*. Save the Frogs, 2013. Web. 25 Feb. 2017.
<<http://www.savethefrogs.com/how-to-help/index.html>>.
- Kruger, Kerry. "Why Frogs?" *How to Help Save Frogs*. Save the Frogs, 2013. Web. 25 Feb. 2017.
<<http://www.savethefrogs.com/how-to-help/index.html>>.
- Rosenblum, Erica Bree, Jamie Voyles, Thomas J. Poorten, and Jason E. Stajich. "The Deadly Chytrid Fungus: A Story of an Emerging Pathogen." *PLoS Pathogens*. Public Library of Science, Jan. 2010. Web. 25 Feb. 2017. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2813266/>>.
- "Why Care for Amphibians?" *Endangered Species International*.
[Http://www.endangeredspeciesinternational.org/amphibians6.html](http://www.endangeredspeciesinternational.org/amphibians6.html), 2011. Web. 25 Feb. 2017.
<<http://www.endangeredspeciesinternational.org/amphibians6.html>>.