

Baltimore Environmental Film Series: Racing Extinction

Monday, November 7, 2016 at 6:30 p.m., McGuire Hall East

Sponsored by Environmental and Sustainability Studies and the Wellness Infusion Network, Natural & Applied Sciences, Film Studies, Communication, Economics, Physics, Mission Integration, Facilities Management, the Center for Humanities at Loyola, Messina, CCSJ, Campus Ministry, and Loyola Notre Dame Library

About the event:

Even as we engage in philosophical and scientific debates about whether life exists on other planets, we are in the midst of the sixth mass extinction in the history of life on earth. While the other five occurred before the evolution of humans, and were caused by natural disasters (asteroid impacts, volcanic eruptions, etc.), the driving force behind the sixth mass extinction is humankind. There is always a background rate of extinction, but during mass extinctions, rates of species loss dramatically increase: the current rate of extinction is 1,000 times higher than the background rate, and future rates could rise to 10,000 times higher than background. The film, *Racing Extinction*, brings to light the plight of endangered species, and exposes the major threats to life on earth as we know it. Viewers will be immersed in both the science and the passions that activists and artists can bring to expose the practices that have been leading to this extinction, and to the creative solutions that can be applied to help bring awareness to the problem and perhaps slow the rate of loss.

Messina Theme Connections:

This theme-wide event speaks to each of Messina's four themes: The Visionary, Self and Other, Stories We Tell, and The Good Life. The film captures the essence of several visionaries, and demonstrates how they became activists and used creative means to teach broad audiences about the crisis of the Sixth Mass Extinction. Viewers will encounter the discernment that each activist is going through, when reflecting not only about what self-and-other might mean within our species, but how their world-view expands this concept to the other species sharing the earth. Throughout this film's 90 minutes, consider the cutting room floor and how it must have been filled with unused film, so that the filmmakers could tell this particular story in this particular way. Finally, this film may help you evaluate your conception of "the good life", and will perhaps cause you to make difficult but enriching changes in your lifestyle that just might help prevent a species from going extinct.

Questions for Discussion and Reflection

1. Human activities have pushed us into a new epoch, the Anthropocene, marked by 7 signs as described in Waters et al. (2016) and as summarized in Wong (2016). Before looking at the summary in the article by Wong (2016) in the resources for further study below, see if you can list some of the long lasting marks humanity has, and continues to have, on earth's stratographic record.
2. After looking at the 7 signs described in Wong (2016), what actions would you support to help diminish our species' impacts? Your vote in upcoming elections can show your support for these types of actions, but as a society, we still need to go much further than even the most "green" candidate suggests. What can you do personally to reduce your global footprint? What will you do?
3. Consider all the species that you have ever learned about in the past. Now consider that you have only been exposed to a very small fraction of the biodiversity that is named (known). What's even more amazing is that, except for a small number of taxa (such as higher plants, or vertebrate animals), we have cataloged only a very small fraction of present-day species – less than 15% of the estimated 8.7 million species on earth. Reflect on

the current extinction rate of 100 per 1 million species being lost as the sixth mass extinction accelerates. How does it make you feel that species we don't even know exist are being pushed to extinction by human activities?

4. At the end of the film, you will see an amazing display of photos, facts, and figures related to the current mass extinction, as they are projected onto large buildings in New York City. What is so compelling about these images, and in what ways (if any) were you moved by the displays?

Resources for Further Study:

Caballos G, PR Erlich, AD Barnosky, A Garcia, RM Pringle, TD Palmer. 2015. Accelerated modern human-induced species losses: entering the sixth mass extinction. *Science Advances* 1(5): e1400253.

De Vos JM, LN Joppa, JL Gittleman, PR Stephens, SL Pimm. 2015. Estimating the normal background rate of species extinction. *Conservation Biology* 29(2): 452-462.

Kolbert E. 2014. *The Sixth Extinction: An Unnatural History*. Picador: New York.

Frazer J. June 2014. The Artful Amoeba blog: Natural History is Dying, and We Are the Losers.

<https://blogs.scientificamerican.com/artful-amoeba/natural-history-is-dying-and-we-are-all-the-losers/>

HHMI Biointeractive: Extinctions. Provides a variety of engaging videos, lectures, posters, and classroom activities related to extinctions past and present. <http://www.hhmi.org/biointeractive/explore-extinctions>

Wong S. 2016. Marks of the Anthropocene: 7 signs we have made our own epoch. *New Scientist Daily*.

<https://www.newscientist.com/article/dn28741-marks-of-the-anthropocene-7-signs-we-have-made-our-own-epoch/>

Waters CN, J Zalasiewicz, C Summerhayes, AD Barnosky, C Poirier, A Galuszka, A Cearreta, et al. 2016. The Anthropocene is functionally and stratigraphically distinct from the Holocene. *Science* 352(6269): 137.

Note: This document was prepared by Bernadette Roche, Director of the Environmental and Sustainability Studies Minor. One of the references in the list, Elizabeth Kolbert's book, *The Sixth Extinction*, is one of this year's Diversity Reading Group books.