

Osher Lifelong Learning Institute at Auburn University
Class Schedule for "Life Goes On: Conservation Conversations II"

Organized by David Newton, Volunteer

Seven Study Group Sessions: 8:30 to 10:00 a.m., Tuesdays, January 24 - March 6, 2012

Location: Lexington Hotel University Convention Center, 1577 South College St., Auburn, AL

Jan. 24, *Plants* -- This episode in the BBC *Life* series considers some of the ways plants go about obtaining light, food, and pollination to help them survive the challenges of life.

Q & A Leader: Gary Keever, Professor, Department of Horticulture, College of Agriculture, AU

Jan. 31, *Primates* -- This episode in the BBC *Life* series considers the habitats and behaviors of several species of primates.

This will be followed by a MS PowerPoint presentation, *Primates: A Brief Overview* to facilitate the Q & A.

Q & A Leader: David Newton

Feb. 7, *Earth: The Operators' Manual -- Your Planet is Due for an Oil Change*-- "This accurate, understandable and upbeat report on the interconnected stories of humans, fossil fuels, Earth's climate history and our future energy options will leave you amazed at the beauty of the planet, inspired by human ingenuity, and optimistic about the future."

Q & A Leader: Matthew Williams, Program Manager, Office of Sustainability, AU

Feb. 14, *Power Surge: Are We Finally on the Brink of a Clean Energy Revolution?* -- "From solar panel factories in China to a carbon capture and storage facility in the Sahara desert -- to massive wind and solar installations in the United States -- NOVA travels the globe to reveal the surprising technologies that just might turn back the clock on climate change."

Q & A Leader: Matthew Williams, Program Manager, Office of Sustainability, AU

Feb. 21, *The End of the Line: Where Have All the Fish Gone?* -- "Based on the critically acclaimed book by Charles Clover, *The End of the Line*, charts the devastating ecological impact of overfishing by interweaving both local and global stories of sharply declining fish population, including the imminent extinction of the bluefin tuna, and illuminates how our modern fishing capacities far out strip the survival abilities of any ocean species."

Q & A Leader: None; the DVD content is 83 minutes which includes a variety of reports on global fishing practices.

Feb. 28, Rachel Carson's *Silent Spring* -- "With a passion for nature instilled in her at an early age, writer and biologist Rachel Carson became a fearless champion for the environment. She had been a biologist for the federal government when she first took note of the effects of the unregulated use of pesticides and herbicides. Carson's great love of the natural world drove her to write an expose of the chemical industry, specifically its unregulated use of DDT."

Q & A Leader: Lindy Biggs, Associate Professor, Department of History, AU

Mar. 6, *Birds of the Gods* -- "The island of New Guinea in the South Pacific is home to birds so spectacular and unique that the first Europeans to see the birds in the sixteenth century named them 'birds of paradise', believing they must have come to Earth directly from heaven. . . . David Attenborough introduces a young team of New Guinean scientists who are on a grueling expedition to find and film these breathtaking birds. They hope to learn a few of the secrets of these heavenly creatures, and to find a way to ensure their future."

This will be followed by a MS PowerPoint presentation, *Birds: A Brief Overview* to facilitate the Q & A.

Q & A Leader: David Newton

NOTES: 1) The quotes (above) are from the creators of the programs on DVD. 2) We also intend to seek volunteers to use a portable power meter (Kill A Watt EZ, # P4460.01, by Intertek) and a portable thermal leak detector (# TLD 100, by Black & Decker) to provide electricity use by appliances, especially televisions, and energy losses around windows and doors in their homes. Printed instructions for use of these devices will be provided. (The equipment is the personal property of David Newton.) The hope is that participants will report results to the class, and save money on their energy bills. 3) See reverse side for scientific facts about climate disruption, which relates to the class on February 7.

Some Important Scientific Facts Concerning Climate Disruption

A service of the Alabama Chapter of the Sierra Club

January, 2012

Indicators of climate disruption are numerous and scientifically sound:

- Global and U.S. surface temperatures are rising, with increased carbon dioxide being the scientifically established cause.
- Sea level is rising, caused by thermal expansion and land ice shrinkage.
- Global upper ocean heat content is rising, increasing the potential for more severe storms, e.g., hurricanes.
- Oceans are becoming more acidic, which threatens the marine food chain and food for humans.
- Northern Hemisphere snow cover is retreating, which increases the warming of the atmosphere.
- Glacier volumes are shrinking, with the threat of altering water supplies for tens of millions dependent on rivers supplied by melt-water.
- U.S. weather extremes are increasing, along with deaths and the costs of rebuilding.
- Atmospheric concentration of carbon dioxide is increasing at an alarming rate, with the concentration of carbon dioxide at a level much higher than in the preceding 800,000 years.

Some sources of factual scientific information:

National Climate Data Center/NOAA report on climate change indicators: <http://www.ncdc.noaa.gov/indicators/>

National Climatic Data Center is the world's largest archive of climate data, past and present, domestic and global:
<http://www.ncdc.noaa.gov/oa/ncdc.html>

Five Key Indicators ("Vital Signs of the Planet") from NASA, i.e., carbon dioxide concentration, global surface temperature, arctic sea ice, land ice, and sea level: <http://climate.nasa.gov/keyIndicators/>

Climate Science Rapid Response Team "is a match making service to connect climate scientists with lawmakers and the media. The group is committed to providing rapid high quality information to the media and government officials." Clicking on the resources tab at the top right of the home page, leads to a huge group of links to other sources: <http://www.climate rapidresponse.org/>

National Academies of Science 28 page booklet titled *Understanding and Responding to Climate Change*:
http://americasclimatechoices.org/climate_change_2008_final.pdf

National Research Council of the National Academies released, May 12, 2011, the final report of *America's Climate Choices*. The report is available from the National Academies Press. It includes a CD of the four panel reports of the *America's Climate Choices* series as well as materials based on those reports.: <http://americasclimatechoices.org/>

Some studies of the impacts of climate change, especially on health of citizens:

Climate Change and Your Health: Rising Temperatures Worsen Ozone Pollution from the Union of Concerned Scientists (June, 2011)
http://www.ucsusa.org/assets/documents/global_warming/climate-change-and-ozone-pollution.pdf

Climate Hot Map: Global Warming Effects Around the World from the Union of Concerned Scientists
<http://www.climatehotmap.org/>

State of the Air (for the entire U.S., with data for Alabama on pages 44-45) from the American Lung Association (2011)
<http://www.stateoftheair.org/2011/assets/SOTA2011.pdf>

The Economic Affliction of Asthma and Risks of Blocking Air Pollution Safeguards sponsored by Health Care Without Harm, Alliance of Nurses for Healthy Environments, and National Association of School Nurses (April, 2011)
http://www.noharm.org/lib/downloads/climate/Economic_Affliction_of_Asthma.pdf

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