



Earth Care Forum Series - 2023

OPEN TO ALL INTERESTED

Sundays, January 8 – February 5, 9:15 - 10:15 am

Recordings can be found here: <https://www.youtube.com/@firstpreslawrence2258/playlists>

First Presbyterian Church, 2415 Clinton Parkway
(Fellowship Hall)



Jan. 8: Bringing the Ocean Back to Kansas

Presenter: Lisa Ball: Ball teaches environmental Science at Lawrence High School. Her teaching awards include the following: Toyota International Program (Galapagos Islands); Earthwatch Teacher Fellow (2009 and 2017); 2020 KEEP Konza Teacher of the year; Science Communication Fellow with Ocean Exploration Trust. She was recently awarded a Fulbright Teachers for Global Classroom. As a result, Ball will be part of an international school exchange somewhere in spring or summer of 2023.

Description: Lisa had the opportunity to sail with Dr. Bob Ballard and his ship, the Nautilus, in December 2021 as a Science Communication Fellow for the Ocean Exploration Trust. She was able to teach her classes in Kansas as well as students around the world while on expedition near the Hawaiian Islands. For Kansas students, she connected the ocean of today with the native biome prior to the prairie (the Cretaceous Ocean). Come and learn about her adventures and the science and conservation of the deep sea.

January 15: Recycling Critical Metals Utilized in Lithium-ion Batteries Using Oxalate Chemistry

Presenter: Mark B. Shiflett, Ph.D., P.E., *Foundation Distinguished Professor Institute for Sustainable Engineering, Editor-In-Chief Journal of Ionic Liquids*, The University of Kansas, Institute for Sustainable Engineering

Description: Lithium-ion batteries (LIBS) are rechargeable energy storage devices having great importance in portable electronic goods and electric vehicles. The growing demand for LIBS has prompted a need to mitigate the scarcity of critical metals used in production. Today, less than 5% of the critical metals in LIBs is recycled. New technologies are being developed by the Shiflett Research group to recycle the Lithium, Cobalt, and other critical metals in an environmentally friendly manner that will be highlighted in this presentation.

January 22: All About Bees

Presenter: Sidney Plantz, Master Gardener, KU Graduate in Cellular Biology, Retired from Kansas Bureau of Investigation

Description: Plantz has incorporated her academic studies into genetic research being performed in the development of Varroa destructor resistance in bee colonies. As a beekeeper she will discuss plants for bees, pollination, types of bees, nesting, pests, bee "products" and how to become a beekeeper.

January 29: Is Solar for Churches a Possibility?

Presenter: Bill Woods, Project Director for Cromwell Solar

Description: The Inflation Reduction Act that was recently passed in Washington DC included direct 30% payment available to nonprofits, including churches. Wood will explain how this can occur. Since the Solar Tax Credit was increased back up to 30% for homeowners and commercial businesses, their interests in solar have been raised as well.

February 5: "Do we have an Ethical Duty to Conserve the High Plains Aquifer?"

Presenter: Burke W. Griggs, Associate Professor of Law, Washburn University School of Law

Description: The High Plains-Ogallala Aquifer spans eight states and supplies modern production agriculture with its most important single ingredient, water. The aquifer is enormous and is responsible for transforming High Plains agriculture from a risky proposition into a dependable, if not always profitable, business. Unfortunately, the aquifer is also mostly non-renewable, and so groundwater pumping to supply the agricultural industry has permanently depleted the aquifer, especially across Kansas, Oklahoma, and the Texas panhandle. Prof. Griggs will pursue the question of whether the State of Kansas and its citizens have an ethical duty to conserve the aquifer. How far should the state go in regulating private property rights-- water rights-- to serve the public interest? Should eastern Kansans have a say in the management of water supplies that are mostly confined to western Kansas? Are the aquifer's supplies really any different than other valuable sub-surface minerals such as oil and natural gas? And finally, just what is-- and what should be-- the connection between the state's water supplies and its citizens?

Since 2015, the EcoTeam of First Presbyterian Church has coordinated presentations by well-informed individuals addressing earth care concerns which are open to church members and the general public. The church is recognized by the Presbyterian denomination as an Earth Care Congregation and is also a member of Lawrence Ecology Teams United in Sustainability (An interfaith network of green teams related to the following faith traditions: Muslim, Jewish, Catholic, Protestant, Unitarian Universalist, Zen Buddhist).