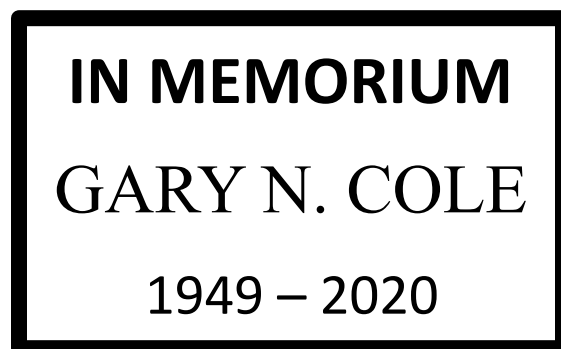


EMBARRAS VOLUNTEER STEWARDS
CONSERVATION DAYS FOR SPRING 2020

“OUR 25TH YEAR”

SEE OUR SPRING SCHEDULE BELOW



THE MEANING OF LIFE?

By Gary Cole

In the middle part of this current millennium, many people were bewildered because no one could define the meaning of life. The church doctrine that spelled out how the general populace should think and act was being questioned. A revolution had started. Scientists were discovering that the earth was not the center of the universe and that its shape was not flat after all. Many questions could not be answered; people wanted to find the purpose of their being. No meaningful solution presented itself. Mankind continued to develop natural resources into useful inventions that would make life simpler and easier. They set their sights on a new continent and set sail. The new land they found was rich in hardwood trees, open fields of grasses with underlying fertile soil, wetlands

teeming with wildlife of all sorts, majestic, clear waterways and native inhabitants who lived in harmony with all these elements. A new meaning of life shaped itself in this rich, new land: Economic Security.

The New World offered riches no one could have imagined: fuel, both above ground and underground, for our homes and transportation; trees to build those homes; fertile ground that would grow any crop. Methodically, we began. We drove the native peoples into confined spaces of our choosing. We cleared the forests. We plowed under the prairies. A mass destruction of the environment had begun, comparable only to the last glacier. We introduced alien species that overran native species, driving some to extinction. We polluted the streams and the skies. We sterilized the soil with chemicals. We were mindless in our abuse of the environment.

Then, many people realized what was happening and wanted desperately to spread the word, to make clear to the world what they had discovered to be the meaning of life. Even though they felt that it could be too late, a few organized themselves and a name was chosen: The Nature Conservancy. Could anything be done to change what had been done? It seemed hopeless, but they started anyhow. In the beginning, they started out in small groups to preserve and protect what was left. They replanted areas where they could. The numbers grew as the word spread. The meaning of life was clear now. The only question remaining now is - Are we too late?

(Gary Cole wrote this piece for the Fall 1996 EVS newsletter.)

GARY COLE'S IDEA

THE DOUGLAS-HART/EMBARRAS VOLUNTEER STEWARDS HERBARIUM

Gary Cole had the original idea that we should start an herbarium that would be open to the public. The herbarium is housed at Douglas-Hart Nature Center, and is available for use whenever the Nature Center is open. (Check with staff to be sure the room is not in use.) It now houses hundreds of samples of plants, shrubs, and trees that are native to our area, mounted on acid-free paper and stored in alphabetical order by genus names. Each is labeled with its genus name and common name, the location where it was gathered, the date, and the name

of the person who gathered it. A list of the samples by genus and common name hangs in the cabinet. Plant and tree field guides are available in the Douglas-Hart library room for help with I.D. As herbariums go, this one is in its infancy; but we are adding to it regularly, and amateur naturalists are invited to submit samples. Check with Marissa Grant, Land Stewardship Director, if you are unsure about identification or mounting technique.

The herbarium is for all of us. Learn and enjoy!

CRISIS: OUR DISAPPEARING INSECTS

Douglas Tallamy, *Nature's Best Hope: A New Approach to Conservation*

Timber Press, 2020

Douglas Tallamy, Professor of entomology at the University of Delaware, and the author of the widely-acclaimed "Bringing Nature Home" (2009), tells us that the crisis of disappearing insects is now so serious that we can no longer leave conservation just to the professional conservationists. One million plant and animal species, mostly insects, are at imminent risk of extinction. There has been a 45 percent decline in insect populations just in the past 40 years! If there were no insects, nearly all flowering plants, and the food webs they support, would vanish, as would most of earth's animals, including humans.

Tallamy's recommendation is that each of us do our small part to conserve insect habitats, starting with Americans who have mostly sterile yards of lawn grass. About 73 percent of the land in the U.S is privately owned, so we can make a huge contribution to saving ourselves from oblivion by planting pollinator gardens, removing invasive plants, minimizing insecticide use, and removing white lights. In other words, invite insects into your yard. Insects, especially native bees, pollinate 80 percent of all plants. Native plants support the life cycles of 100 times more insect species than nonnative plants. Avoid mosquito fogging, which kills all insects. Homeowners use more insecticides per acre than farms do. White lights draw insects, endangering them; yellow ones do not.

The web of life includes us. Failure to recognize our responsibilities in the natural world is not an option.

Larry Thorsen

Peter Wadhams, *A Farewell to Ice*. Oxford, 2017

Peter Wadhams is a highly respected professor of ocean physics. His book about the decline and immanent disappearance of Arctic sea ice is written for non-scientists. The introductory chapters are on the nature of ice, the cycle of ice ages and the beginning of the meltback. The stunning later chapters describe the present catastrophe and what humans can do to stop it. His answer is - - - - almost nothing!

Having made the scientific case that arctic sea ice is in a “death spiral” because of the greenhouse effect, Wadhams says it is already too late to save the climate, and thus human life as we know it, just by reducing carbon emissions. Overreliance on technology that produces unacceptable levels of carbon emissions is built into our social, economic and physical fabric. There is no possible way to reduce the levels in time, given the successful efforts of government, industry and the public to do little or nothing about it. We humans have simply decided to try to live with it; but the ceiling for “acceptable climate warming” will be reached by 2030! Beyond that, catastrophe is inevitable unless we are able to remove carbon dioxide from the atmosphere.

Sounds okay, we say, but here’s the problem: there exists no known way to remove it! Geoengineering is not a developed science, so the only thing we can do now is to invent new technical solutions. Planting millions of acres of grasses and trees to sequester carbon would help, but we need the land for food production, especially given the rapid

increase in the world's population. Anyway, economic pressures keep forcing the elimination of grasses and trees.

In his last section, "Time for Battle," Wadhams says there are three things we must do while waiting for a technical fix that may or may not be achieved. First, work to counter the lies and misrepresentations by climate change deniers. Get responsible scientists to speak up. If it hurts their careers, at least "they will no longer be burned at the stake." Second, reduce unnecessary use of fossil fuels in your own life. Third, make government change the basis of power generation away from fossil fuels; and don't be afraid of nuclear power.

Will we do it? If we don't,

Larry Thorsen

Lewis Dartnell, *Origins: How Earth's History Shaped Human History*. Basic Books, 2019

It has been the changes in earth's climate since hominin species appeared that have forced us to adapt, and thus are responsible for our large brains and, ultimately, our own influence on the climate. This is the message that Lewis Dartnell gives us as he describes the unimaginably slow geological forces that have driven climate change over tens of millions of years, and how early primates and then modern humans reacted to temperatures, winds, plains, mountains, oceans and minerals, finally reaching the point where we ourselves affect nature.

Never in the past 66 million years have greenhouse gas emissions risen as quickly as they are rising now. Carbon dioxide in itself is not the problem; it is the reason complex life exists. But the rate of increase in emissions has become so high in the industrial and post-industrial age that it is upsetting the equilibrium of the atmosphere astonishingly fast.

In fact, carbon dioxide levels in the atmosphere will not return to pre-industrial levels for tens of thousands of years!

The reader will enjoy easy-to-understand descriptions and maps of continental drift, glaciers, plants, animals, rocks and minerals, and wind patterns, and how humans have become increasingly versatile as we have lived with them, achieving technology and rapid population growth. Well-written and highly recommended.

Larry Thorsen

The following books are all available in the Eastern Illinois University
Booth Library

These volumes are good reading for those who are not geologists but like to view and learn about landforms such as moraines, the courses of rivers, exposed rock, glacial erratics and other results of the glaciation of Illinois, including our prairies and woodlands and the web of life they support. They are both general introductions to the effects of glaciers and travel guides to viewing and understanding the landforms the glaciers left in their wakes.

Raymond Wiggers offers particularly interesting guides to 37 sites in the state, from Galena and Chicago to far southern Illinois. Each site, its origins and characteristics, is described in layman's terms, many with historical anecdotes. The casual reader will be entertained while learning. Readers in our area will want to read the descriptions of the Shelbyville moraine, the Rose Hill-Robinson area of the Illinois Basin, and Beall Woods, but will be impelled to travel to many other sites as well.

The other three volumes are short descriptions of the geology of our area, as well as travel guides written for EIU field trips. The reader can

follow the driving itineraries to identify features of local landforms, including parts of the moraine that runs through Fox Ridge, Hutton and Westfield, and add to her/his understanding of Rocky Branch Nature Preserve, the Westfield oil field, the moraine at Westfield, Lake Charleston, and other locations.

Raymond Wiggers, *Geology Underfoot in Illinois*. Mountain Press, 1997

Edgar Odom, et al., *Guide Leaflet, Geological Science Field Trip, Charleston Area*. Illinois State Geological Survey, 1961 (1967)

Robert B. Jorstad (Ed.), *The General Environmental and Economic Geology and Stratigraphy of East Central Illinois*. Eastern Illinois University, 1991

Wayne T. Frankie, et al., *Guide to the Geology of the Casey-Martinsville Area*. Illinois State Geological Survey, 1994

SPRING CONSERVATION DAYS

Our conservation workdays are on Saturdays from 9:00 to 11:00 a.m. Everyone is welcome and no prior experience is necessary. We do not have formal membership or dues. Just come as often as you like and help us do our small part to maintain the health of woodlands, prairie remnants, and prairie restorations. Visit this page from time to time to get updates. To receive email notifications of updates and cancellations send your email address to Larry at thorsenhutton@gmail.com with a request to be added to the list.

We advise sturdy footwear and gloves at workdays. Tools are provided but personal tools are welcome.

March 28 - Continuing work at Reasor Park to help the Urban Butterfly Initiative prepare it for planting pollinator plants. Park at the south end of Reynolds Drive in Charleston.

April 4 - Join Grand Prairie Friends at Warbler Ridges Conservation Area for their first-Saturday-of-the-month workday. Meet at the red shack one mile off Route 130 on Daileyville Road (CR 470N).

April 11 - Lafferty Nature Center for removal of bush honeysuckle. Park by the water tower on Douglas Drive in Charleston.

April 18 - Woodyard Conservation Area for removal of winged wahoo, bush honeysuckle and others. 1.8 miles south of Route 16 on Route 130.

April 25 - Earth Day activities at Douglas-Hart Nature Center, corner of DeWitt Avenue and Loxa Road in Mattoon.

May 2 - Our annual walk at Rocky Branch Nature Preserve. Meet at the café at the top of the hill in Clarkesville for carpooling, as parking at Rocky Branch is limited.

May 9 - Annual Illinois spring bird count

May 16 - Burgner Acres for garlic mustard removal. Take CR 1000N to CR1150E, turn south and go about 0.2 mile to the end of the road.

May 30 - Lakeview Park for bush honeysuckle removal. Park at the end of McKinley Avenue in Charleston.

June 6 - Coneflower Hill Prairie for sweet clover removal. Take the Bruce-Findlay road about 5 miles west from Coles Station, turn right at the electric substation, go 2 miles to the "T," then turn left and go one mile to the parking area.

June 13 - Park at the Sister City parking area on Route 130 in Charleston. We will walk into a section of Lakeview Park to remove bush honeysuckle.

June 20 - Lake Charleston. Park by the red barn. We will walk across the floating bridge to remove bush honeysuckle along the ridge.

June 27 - Another visit to Lafferty Nature Center