



Opening a New Chapter

Using the Pandemic to forward collaboration, innovation and new data collection using Place, Zoom, and GLOBE Asset Innovation.



Northern Ireland

Mission - Common Ground's mission is to create a space where individuals and groups from all communities can explore their relationships with the natural environment and each other.

To achieve this by offering 4 streams of activity - Nature- Based Therapies, Professional Training in Ecotherapy, Expressive Arts in Nature and Nature- Based Retreats.

Common Ground 5 R's -
Retreat, Reconnect, Recover, Rewild, Reconcile in Nature



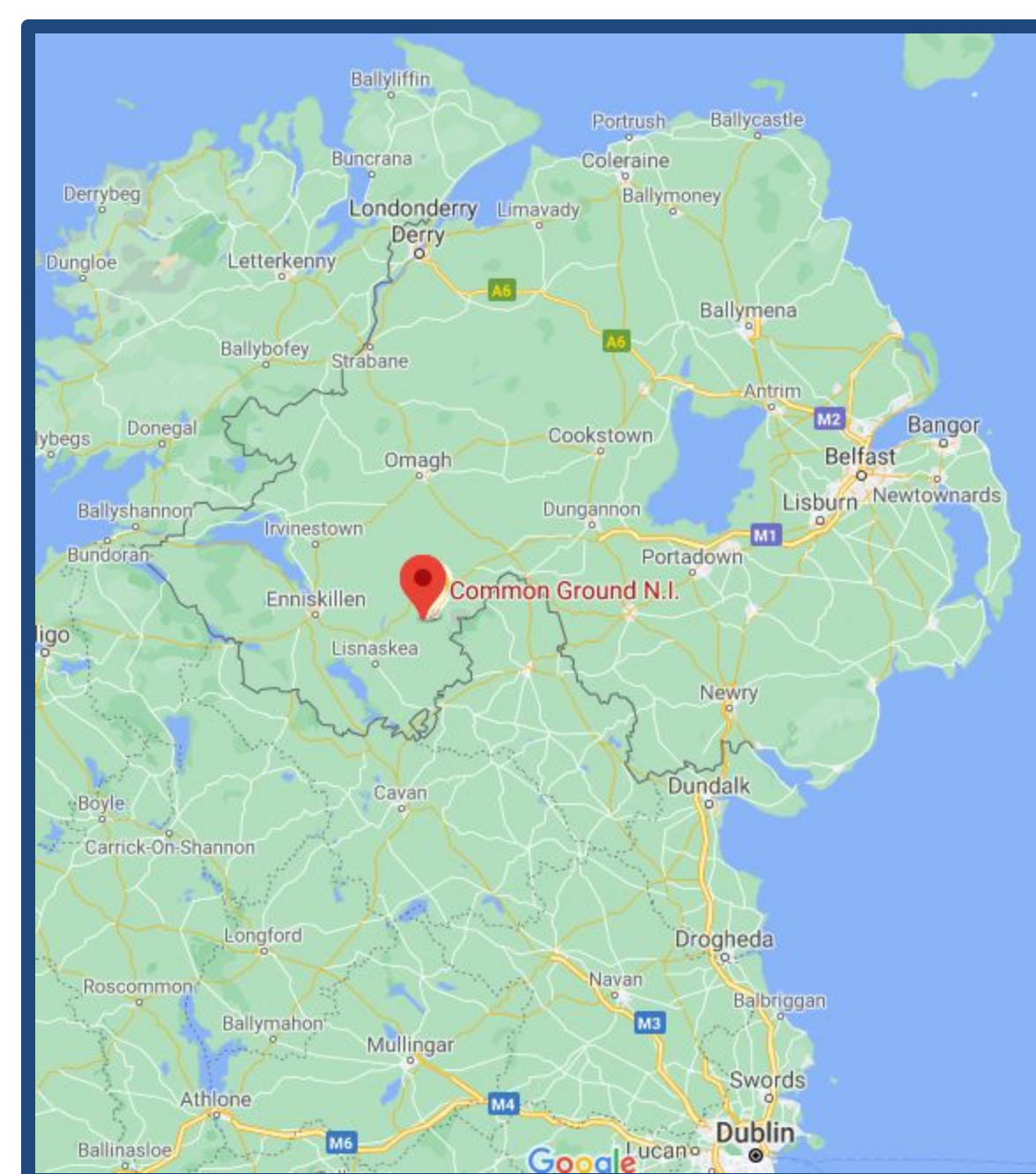
Horticulture Therapy for Anxiety, Depression and Social Isolation



Studying River Ecology - sampling the Colebrooke River for invertebrates with Primary School Children (Hands-on Science).



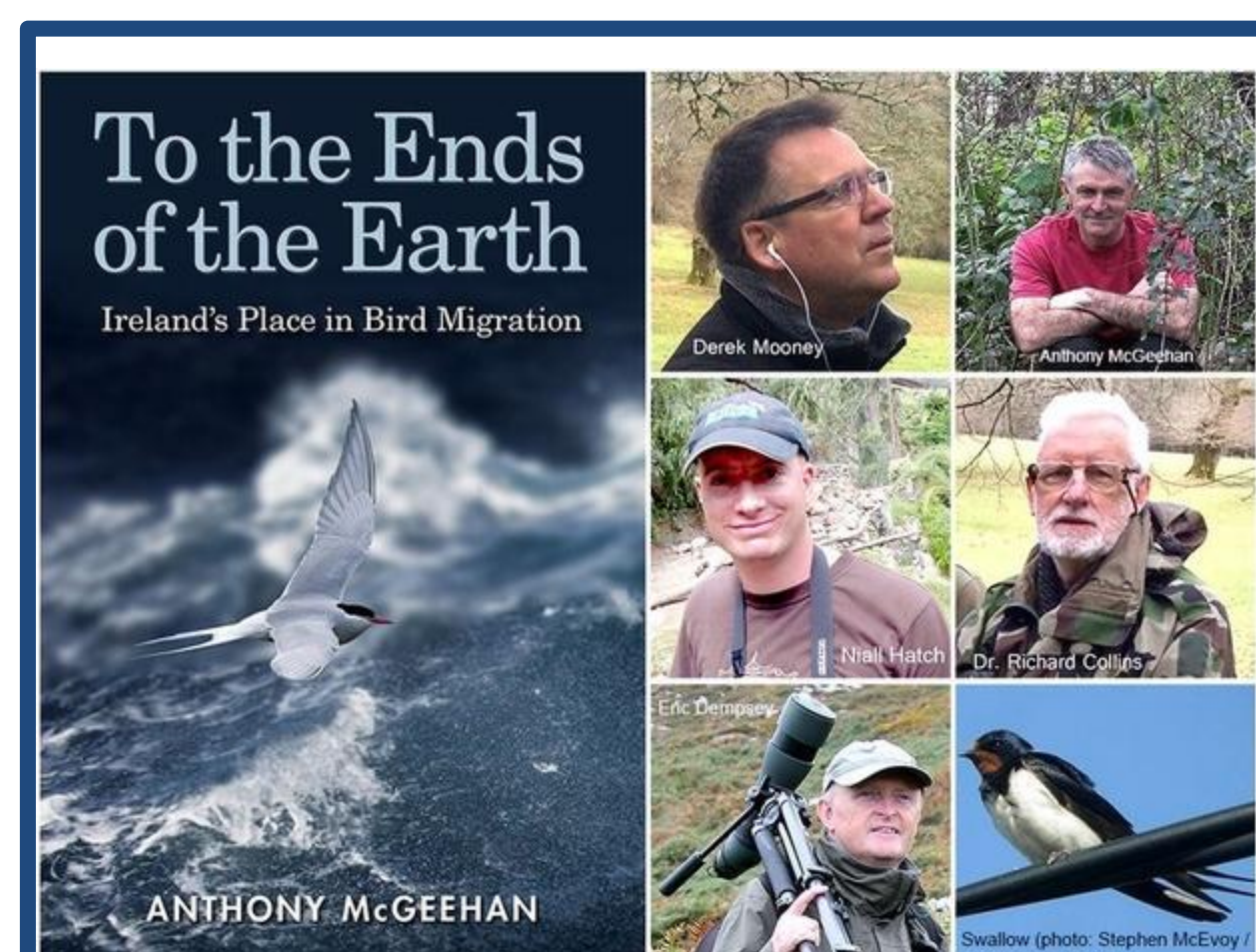
Our Silo turned into a structure for Common Group STEM promotion thru Art Enterprise linking patrons to the Farm



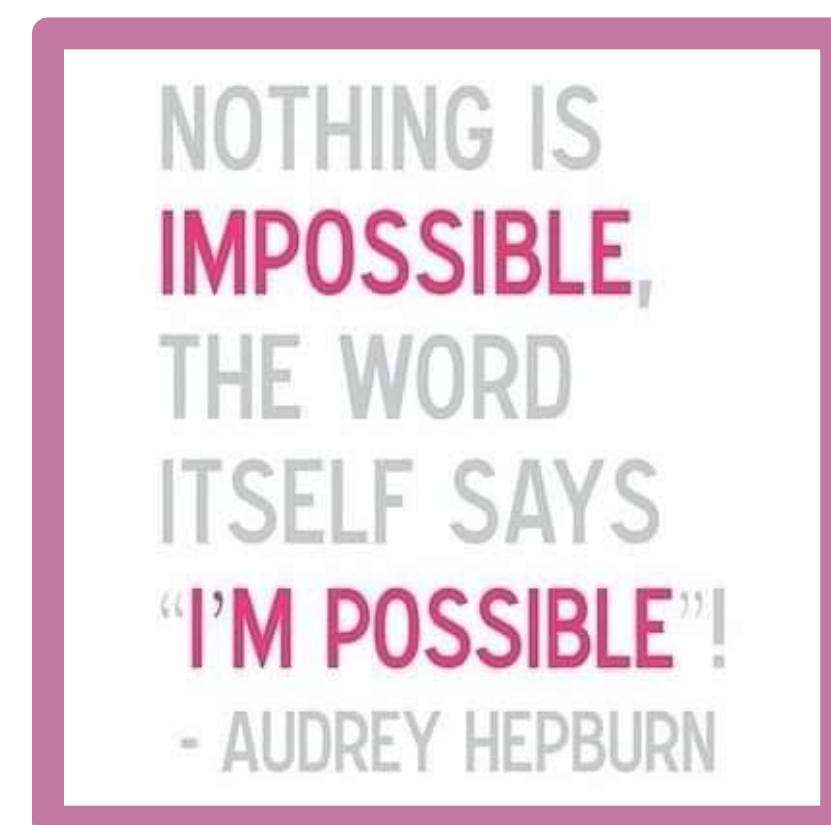
<http://www.commongroundni.org/>

Audio - words by Robbie Breadon

Protocols for using GLOBE in the United Kingdom



Birds, Trees, Crops and Systems -Connected through GLOBE investigation



[Resource Folder](#)

Cynthyny Lebo, New Education Options
Robbie Breadon of Common Ground N.I.

Vicki Rae Harder-Thorne, 5th generation land holder, Ohio
Kevin Czajkowski & Janet Struble The University of Toledo

Common Features

Boosting Therapeutic Alternatives
thru Systems Science for Conservation
Training and Awareness

Planting Trees &
Reconnecting with the Land

Connecting Academics to the World

Stewardship of the Commons for
future generations

Outcome: 2 New Farm Labs (GLOBE Community Centers)

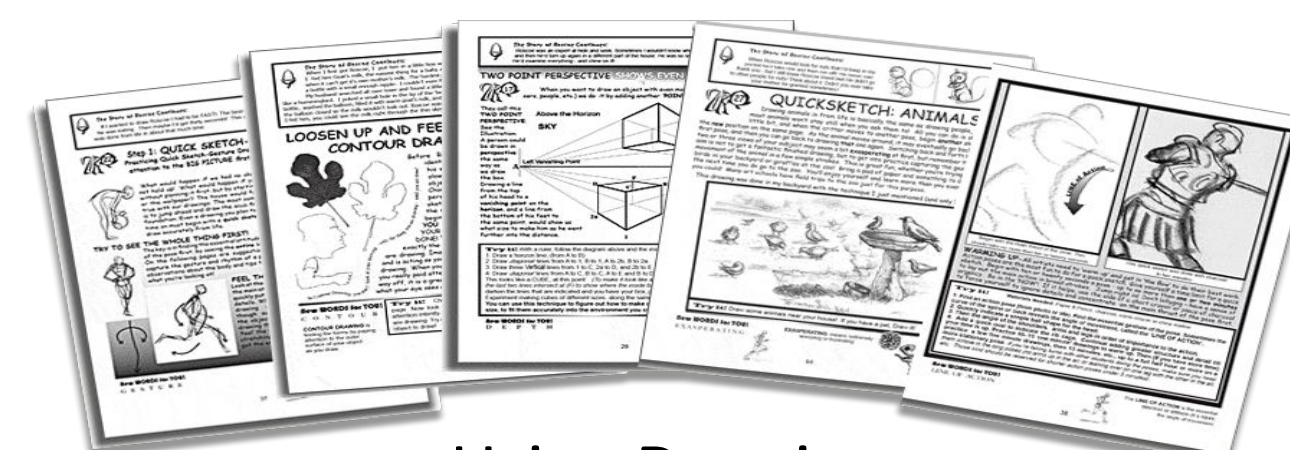
- To use environmental literacy as a common ground for lifelong learning.
- To link urban and rural communities for economic development and well-being through continuous education and outdoor STEM with Satellite Imaging and Consumer Electronics tools.
- Continue to build strong worldwide value through collaboration, i.e. trading farm products between Northern Ireland and California

Useful GLOBE protocols to assess the landscape & steward the community:

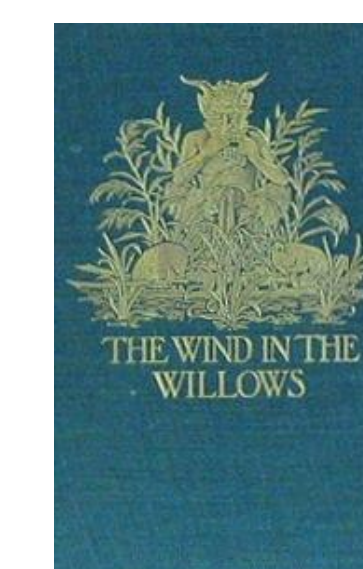
- Atmosphere
- Air Temperature
 - Surface Temperature
 - Clouds
- Biosphere
- Tree Height
 - Green Up/Green Down
 - Land Cover Type
- Hydrosphere Protocols
- Turbidity
 - Macroinvertebrates
 - Dissolved Oxygen
 - PH
 - Water Temperature
 - Mosquito Habitat Mapper
- Pedosphere
- Soil Moisture



This work started at the GLOBE Learning Expedition in Killarney Ireland 2018.



Using Drawing to Reinforce STEM



Connecting Studies to the World

Ohio

Mission: To provide a legacy for living that protects our soil, air and water by improving the health of our habitats, ourselves, and our economy; to sustain the land in the same loving way it sustained our family for generations, and supported the people of the Erie (Western Seneca) and Odawa nations before us.

Creating open space for education, healing and fun: K-12 STEAM classes; university research on soil, air and water health relating to carbon sequestration and mitigation of hazardous algal blooms (HABs); ECO-activities that include birding, art, native habitat, herbal medicine, indigenous history, land restoration and climate adaptation; community monitoring of the ecosystem's wildlife species.

onstrations > Vicki Rae Harder-Thorne & The Nature Conservancy: Earth H



Aerial view of Earth Heart Farms LLC:
80 acres, Ottawa County, Ohio



30 years of fallowed ground & increased biodiversity - grassland/wetland restoration



Beginning stage for this cycle of the land's evolution:

- Envisioning a new habitat for eco-education, eco-research, eco-therapy, eco-tourism
- Regenerative ecosystems - everything affects everything else
- Working cooperatively with the land, soil and moisture regime
- Community intergenerational help from IVSS to volunteers

earthheartfarms@gmail.com

California



Making School Cool



Trees Family Guide



New Education Options (NEO)

Musical Linguistics Supports Children Engagement

- NGSS: Focus on STEM
- Ask, Learn, Observe, Create, Act (see Family Guide on Trees above)
- Bring music into the classroom to deepen inquiry-based learning!
- Engage students in receptive and productive language skills
- Open student curiosity into observing, making sense, and reading, writing, and speaking
- Go beyond cultural bias into a new world of science and understanding

To contact NEO: leboc@covote.csusb.edu



Musical Linguistics™ Audio

New Education Options

GLOBE in K-16 as an ASTC member

To contact Cynthyny Lebo, NEO: leboc@coyote.csusb.edu



Fire Dept dressing our Redwood Tree for Santa



Pan-Piper at the Gates of Dawn



KidsFirst (6 - 8 years) singing at GLOBE LA Annual Conference

**Climate Change
from the Streets**

Thurs, Feb 4th | 1pm PST | Zoom

From Pacoima to
Watts, LA
neighborhoods are
planting trees



LAUSD Elementary Schools working
with NEO and KidsFirst SoCal on
Citizen Science

UK GLOBE potential at Common Ground N.I.

- a rewilding and woodland development



Satellite image of the 12 fields of the farm with overlay of the tree planting plan for the whole farm.

4000 trees to develop areas of deciduous woodland, scrub areas and human utility areas, and joining GLOBE as an outdoor classroom, working with NEO.



Combining STEM with community and school programming, and working with special needs audiences.

Elements Local & Regional (GLOBE):

Campaign Community - Trees around the GLOBE - GLOBE.gov

Getting Started with Your Student Research and Accessing GLOBE Protocol Data -

Trees around the GLOBE - GLOBE.gov

Activities, Resources, Online Tools, Blogs and Discussion - Trees around the GLOBE - GLOBE.gov

Publications - GLOBE Observer - GLOBE.gov

Ireland and NI and or UK:

<https://ccea.org.uk/learning-resources/science-through-stories#section-5186>

Shine a Light.pdf (ccea.org.uk)

Bogs in the Classroom - Resources for Teachers Irish Peatland Conservation Council (ipcc.ie)

Wondrous Woodland.pdf (ccea.org.uk)

NEO - Ohio GLOBE at Earth Heart Farms LLC, in Ottawa County, NW District



World Data on Land: [Land Use - Our World in Data](#)

Vision for the Black Swamp

[Restoration of historic Great Black Swamp could help save Lake Erie | The Blade \(toledoblade.com\)](#)

[Hidden in Plain Sight: the Great Black Swamp of Northwest Ohio | Midstory & WGTE Public Media](#)

World Economic Forum launches plan to help nature and the climate aka The Global Risks Report 2020:

[The Global Risks Report 2020 | World Economic Forum\(weforum.org\)](#)

Regional Hubs: [Regional engagement | 1t.org](#)

The Great Reset: [WEF Citizen Perspectives on a Just Great Reset 2021.pdf\(weforum.org\)](#)

Lake Erie Hazardous Algal Blooms (HABs):

The problem: [Lake Erie turns toxic every summer. Officials aren't cracking down on the source. | Center for Public Integrity, Grist, and The World \(January 23, 2020\)](#)

One solution: [Reducing Harmful Algal Blooms HABs using Prairie Grasses and Wildflowers | Sandusky County CVB on YouTube \(2016\)](#)

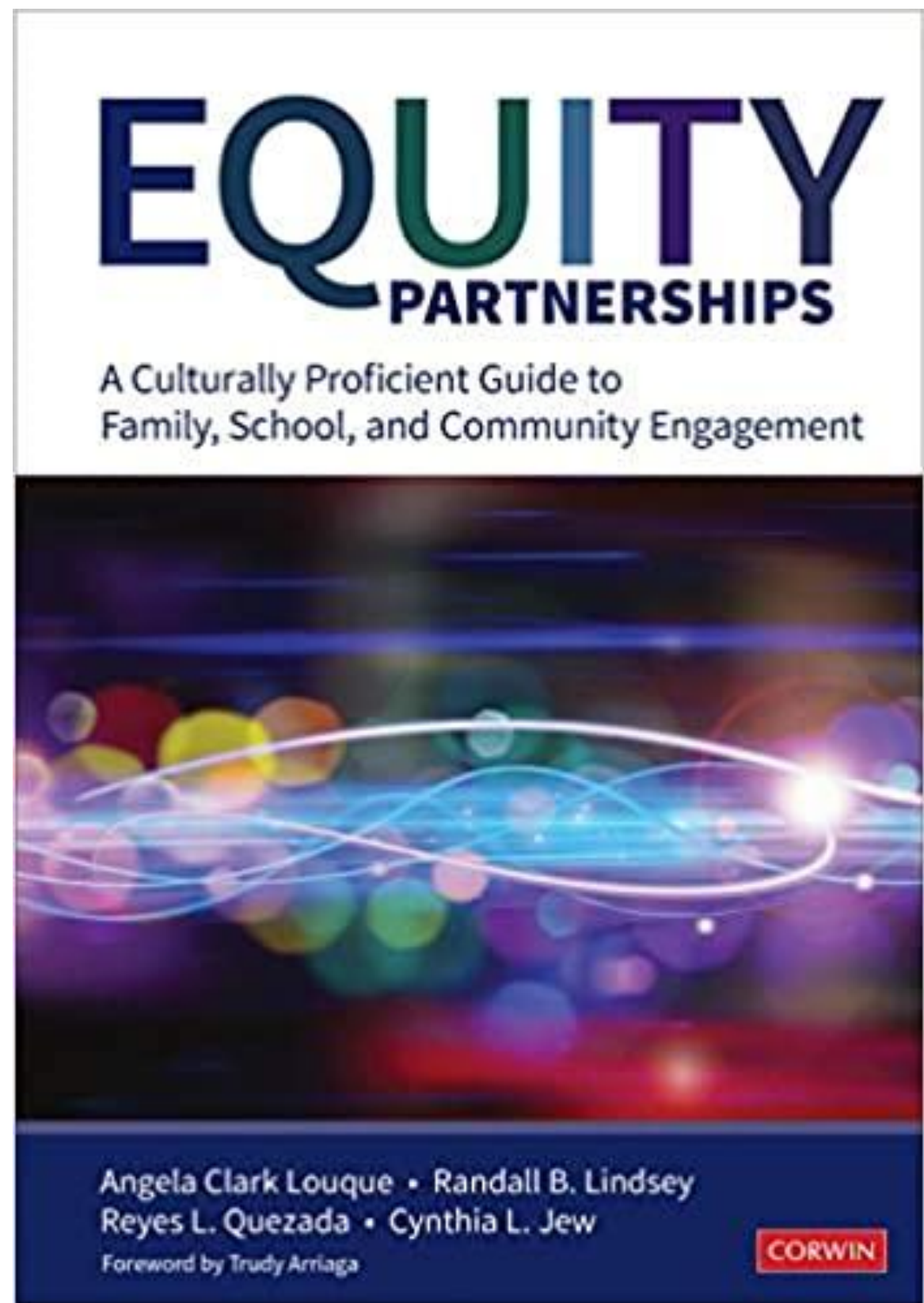
Species Inventories:

All animals: [Ottawa County Species Inventories | iNaturalist.org](#)

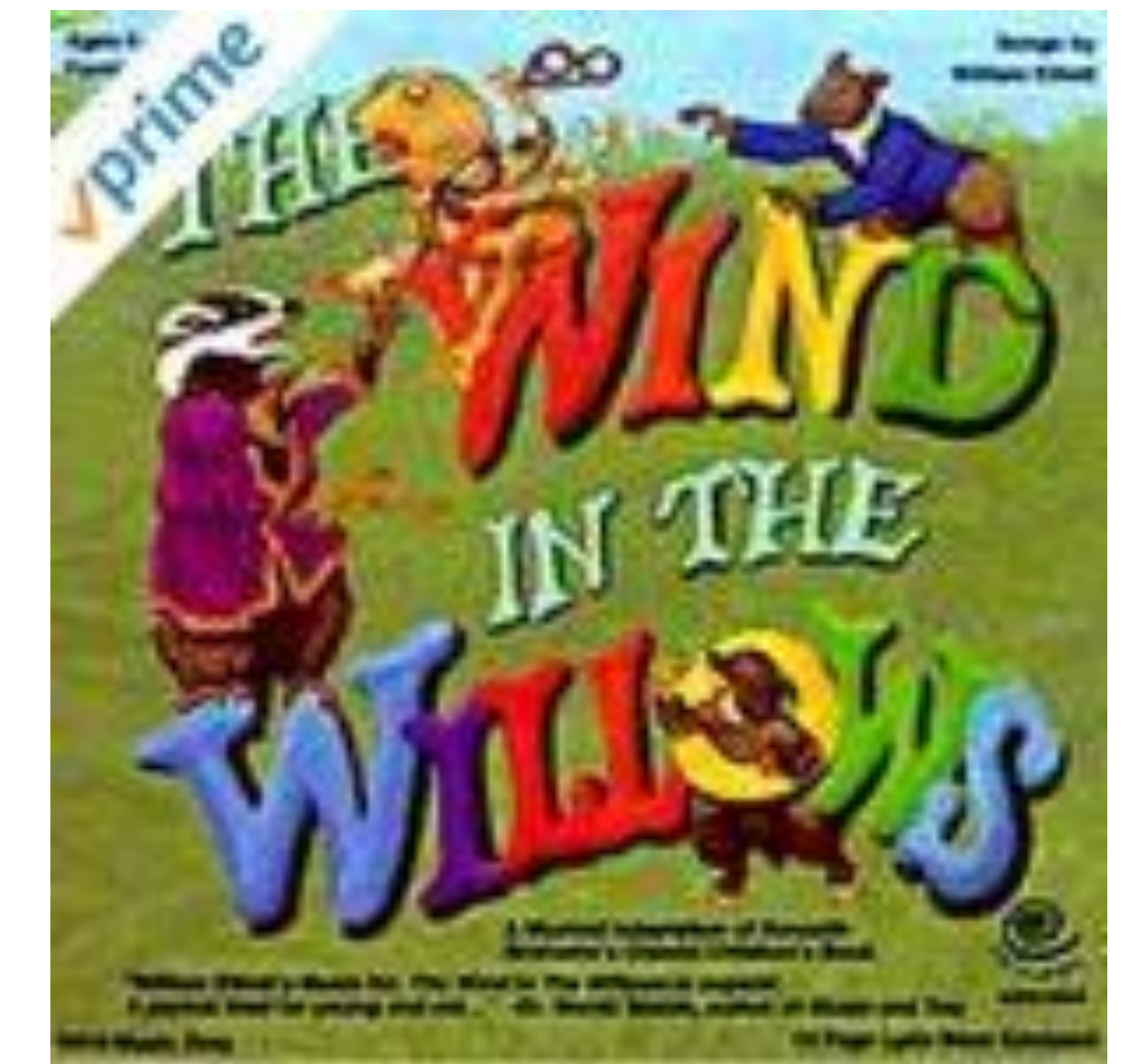
At risk animals: [Ottawa County State Listed Animal Species | Ohio Division of Wildlife \(March 2020\)](#)

Bald Eagle restoration: [Ottawa County's 90 nests lead Ohio's eagle count | The Beacon \(April 29, 2020\)](#)

Potential habitat changes: [Climate Change Atlas – Trees & Birds | USDA Forest Service](#)



Thank You to:

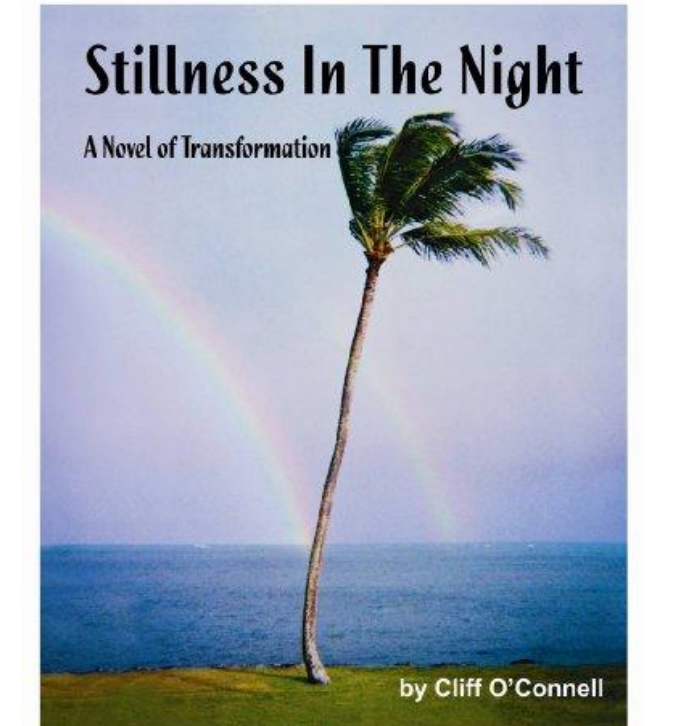


Honoring: Principals Nancy Vallens & Brenda Olortegui, Liggett Elementary School, NW Esc, LAUSD; Kathy Hayes; Principal Brad Albion, Gault Elementary; Evelyn Seubert & Cleveland Media Academy; Cleveland High School; GLOBE Director, Tony Murphy et al.

Volunteers: Ruth Elliott of Edudesigns.org, Heather Williams of Drawing Together, David Jakim of In the Woods, Pauric Dolan of the Fermanagh Writers; Lisdean Farm home of CommonGroundNI.org; Earth Heart Farms LLC, and Birding Info from Black Swamp Observatory; Sepulveda Basin Wildlife Preserve. (partial list)

Advisors & Consultants: Janet Struble; Kevin Czaikowski

NB: All contents included are for educational use only. Music courtesy of NLO AV featuring William Elliott.



This poster dedicated to what collaboration and presentation can bring to each community. As an organizing learning experience these inquiries enliven Science instruction through handheld STEM with big data, big hearts and new tools for our return to school. Thank you to the leaders, educators, policy makers who have made these advances in understanding big problems accessible to the world by the uniqueness of each and every mind.

