New member profiles continued



ERNEST KIPLANGAT RONOH

Research Scientist
Kenya Forestry Research Institute
Rift Valley Eco-Region Research Program

About my work

I joined KEFRI in 2020 as a research scientist in hydrology. I hold a bachelor's degree in agricultural and biosystems from Moi University and a master's degree in soil science from the University of Eldoret. I am currently pursuing a Ph.D. in environmental soil biogeochemistry. My research interests are in soils, hydrology, landscape processes, and nutrient dynamics on multi-scale environmental, hydropedology, spatiotemporal variations of land degradation, and agronomic, ecological, and agroecosystem sciences. My research activities employ biometrics, GIS and remote sensing, modeling, and spatial statistical applications to mitigate land degradation, water quality, watershed management and judicious resource use, ecosystem efficiency, enhanced natural resource conservation, ecosystem sustainability, and global food security.

Why IAGLR?

In January 2020, my passion for agroecosystem studies led me to enroll in a course offered at the Cary Institute of Ecosystems Studies in Millbrook, New York, titled Fundamentals of Ecosystem Ecology. The course covered topics such as modeling of biogeochemistry, energy flow, nutrient cycling, and ecological big data. During this course, I developed an interest in studies involving mitigation of nutrient losses from agricultural fields and other land uses. Nutrient losses lead to nutrient loading in nearby streams and rivers and eventually impact adjacent lakes. This can cause increased biomass of periphyton, macroalgae, and sestonic algae and have deleterious impacts on water quality and ecosystem function. For example, in East Africa's Lake Victoria, the growth and spread of water hyacinth negatively affect fishing, aquaculture, and navigation. Therefore, I joined IAGLR to become an active member and learn about advances in research on Great Lakes such as Lake Victoria.



LES WARREN

Graduate Research Assistant
Purdue University

About my work

Currently, I am a graduate student at Purdue University in West Lafayette, Indiana. I am pursuing a Ph.D. in Aquatic Sciences from the Department of Forestry and Natural Resources in Dr. Tomas Höök's lab. My dissertation research focuses on the importance of different nursery habitats for alewife recruitment in Lake Michigan. Over the next two summers, I will be sampling drowned river-mouth lakes along southeastern Lake Michigan to collect alewives at progressing early-life stages with help from collaborators at the USGS Great Lakes Science Center and the NOAA Great Lakes Environmental Research Laboratory. At the conclusion of this sampling, I will assess the potential contribution of these drowned river-mouth lakes to the recruitment of the greater Lake Michigan population. In response to the COVID shutdown in spring 2020, I delayed the beginning of my field sampling by a year. With the additional time off the water, I continued my research in a different form and modeled alewife recruitment by analyzing annual survey data for the year-class strength of previous cohorts. This will later be used to help understand the drivers of strong alewife year classes among several Great Lakes.

Why IAGLR?

I joined IAGLR earlier this year not only to help advance my knowledge of current research going on in the Great Lakes but also to interact with the IAGLR community. In the future, I hope to attend conferences (in person!) and present my work to other Great Lakes scientists. IAGLR also provides many opportunities for students to advance their education through awards, scholarships, and travel awards.