

TROPILUNCH



Biophysical condition assessment of urban springs ecosystem on the foothills of Southeastern Mount Cameroon

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BIO

Ewane Basil Ewane, PhD, is a tenured Senior Lecturer in the Department of Geography, Faculty of Social and Management Sciences of the University of Buea in Cameroon. He is also an international consultant and Chief Scientific Officer with Ecoresolve, based in San Francisco, California. He received his PhD in Forest Resources from Yeungnam University in South Korea in 2016, an MSc in the Sustainable Management of Inland Aquatic Resources from the University of Jyväskylä in Finland in 2010, and another MSc in Environmental Geography from the University of Buea in Cameroon in 2006. His research integrates geospatial applications and local ecological knowledge systems in understanding and addressing sustainable forest management, ecosystem restoration, watershed hydrology, ecotourism, biodiversity conservation, climate change, and livelihood development issues. Dr. Ewane has more than 10 years of experience working extensively with NGOs and local communities in Cameroon's Western Highlands on multiple ecosystem restoration, conservation, and livelihood development projects. He volunteers as a Co-science lead with the United Nations Volunteering Program via the Morobe Development Foundation in Papua New Guinea. He previously served as a Visiting Researcher with Qatar University in 2023 and is currently a Visiting Faculty member with the School of Forest, Fisheries, and Geomatics Sciences of the University of Florida under the Fulbright African Research Scholar Exchange Program, 2026/2027.

SUMMARY



Springs play a critical role in providing domestic water security to communities in water-stressed urban settlements in Cameroon. However, their protection and management remain structurally and systematically neglected, increasing their vulnerability to anthropogenic disturbances. Dr. Ewane will share his experiences on biophysical condition assessment of urban springs ecosystem using 14 pre-defined indicators, community stewardship actions, and constraints to their sustainable management. The experiences were gathered using direct field measurements, spatial analysis, and semi-structured interviews with local people. His team observed human land use change, pollution activities and absence of site protection fences within a 30 m radius from a springwater source in 53 (96.4%) of the 55 surveyed springs, contrary to Cameroon's legal framework on spring protection. Land use change decreased vegetation cover density within a 200 m radius for 53 (96.4%) of the urban springs, evident by decreasing normalized difference vegetation index values from 2010 to 2026. The communities identified governance, environmental, and socio-economic constraints undermining the sustainable management of their springs. The lessons learnt suggest that an integrated springs ecosystem management approach with structured government and private support to local communities is needed to protect and restore urban springs to sustain household water security and avoid potential public health risk.

Tuesday - September 22, 2026

12:45 - 1:45 pm

Grinter Hall 376 or

[Zoom link](#)

Tropilunch is a seminar run by graduate students from the Tropical Conservation and Development (TCD) Program. It provides a forum for a range of discussions and presentations related to TCD work and research. Special guests, visiting scholars, and practitioners also participate. It happens weekly around lunchtime.



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