



KATHERINE C. EWEL

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Professor Emerita at the School of Forest Resources and Conservation, University of Florida (USA).

Her research focuses on the ecology and management of cypress swamps, pine plantations and mangrove forests.

Vice-president (2003), president (2004) and past president (2005) of the Society of Wetland Scientists.

Fellow of Society of Wetland Scientists.

HERSTORY

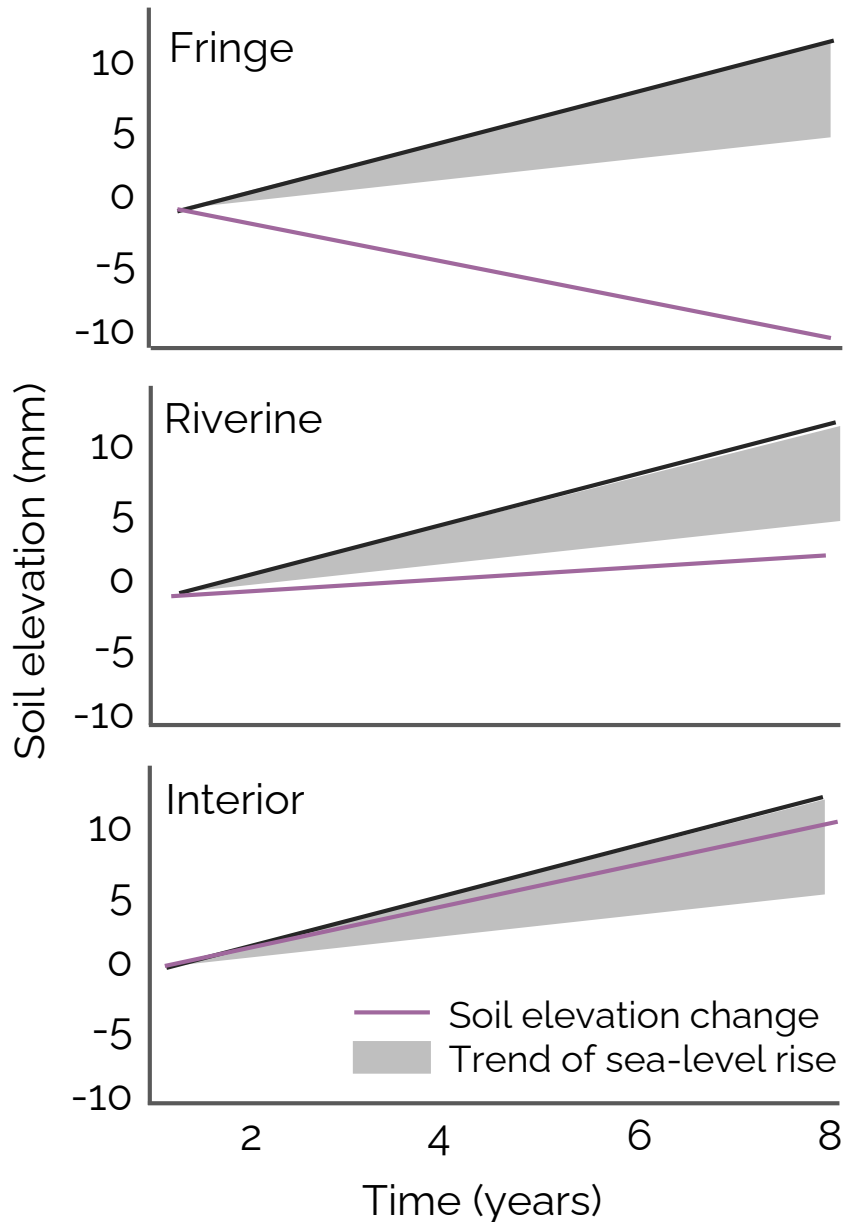
Despite as a child she loved outdoor activities in the nature, Katherine wanted to be a journalist. Her goals changed after a biology course at high school and an ecology class at University.

MANGROVES TYPES & SERVICES

TYPES	PROPRIETARY SERVICES
FRINGE MANGROVES Tide-dominated	Protect shorelines
RIVERINE MANGROVES River-dominated	Sediment trapping Organic matter export Nutrient sink (P) Provide food and habitat for animals Provide aesthetically pleasing environment
BASIN MANGROVES Interior mangroves	Nutrient sink (C, N) Improve water quality Provide plant products

Adapted from: Katherine C. Ewel et al. (1998).
Global Ecology and Biogeography Letters.

SUSCEPTIBILITY OF MANGROVES TO SEA-LEVEL RISE



The types of mangroves in Micronesia have different sedimentation rates increasing their elevation.

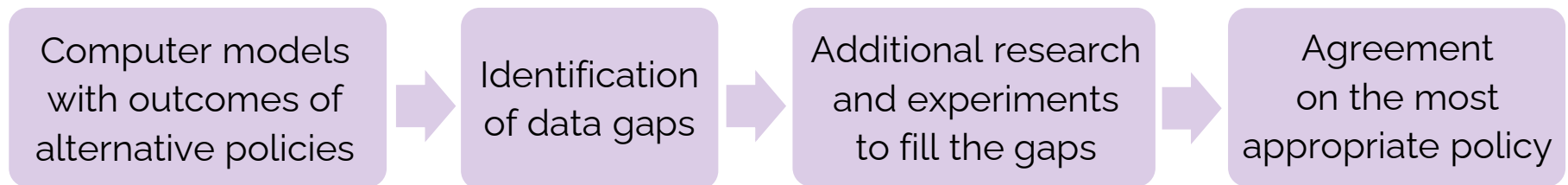
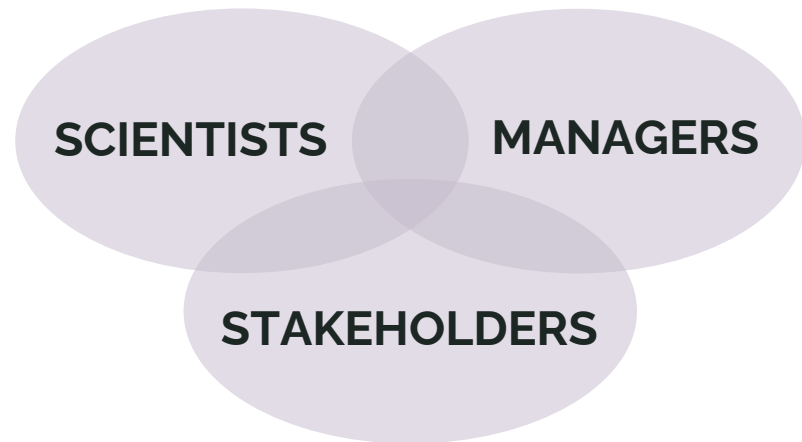
Surface elevation losses in **fringe mangroves**, caused by physiological and hydrological processes, make them the most vulnerable to long-term sea-level rise.

Modified from: Ken W. Krauss et al. (2010). *Ecosystems*.

NATURAL RESOURCE MANAGEMENT

Highlighting **ecosystem services** is an effective way to communicate why ecosystems should be protected, and helps to establish conservation priorities.

Adaptive environmental assessment and management is a good approach for scientists, managers & stakeholders working together to solve management problems.



RELEVANT CONTRIBUTIONS

Ewel, K. C., Odum, H. T. (1986). Cypress swamps. University Presses of Florida.

Ewel, K. C., Twilley, R. T., Ong, J. E. (1998). Different kinds of mangrove forests provide different goods and services. *Global Ecology and Biogeography Letters* 7, 83-94.

Ewel, K. C. (2001). Natural resource management: the need for interdisciplinary collaboration. *Ecosystems* 4, 716-722.

Duke, N. C., Meynecke, J. O., Dittmann, S. et al. (2007). A world without mangroves? *Science* 317, 41-42.

Krauss, K. W., Cahoon, D. R., Allen, J. A., **Ewel, K. C.**, Lynch, J. C., Cormier, N. (2010). Surface elevation change and susceptibility of different mangrove zones to sea-level rise on Pacific high islands of Micronesia. *Ecosystems* 13, 129-143.

LOOKING
FOR MORE?

You can find more information about her story and research at:

<http://sfrc.ufl.edu/people/faculty/ewel/>

https://en.wikipedia.org/wiki/Katherine_Ewel

<https://scholar.google.com/citations?user=wM3GwLgAAAAJ&hl=en>