Stanford



Elliott White Jr.

Assistant Professor of Earth System Science and Center Fellow, by courtesy, at the Woods Institute for the Environment

Bio

BIO

Elliott White Jr. is an assistant professor of Earth System Science. He is a coastal ecosystem scientist that studies the effects of saltwater intrusion and sea level rise (SWISLR) on vegetation in the coastal land margin. His research experience in wetlands spans the North American Coastal Plain of the US, in addition to constructed prairie potholes in Iowa. His interdisciplinary approach to research draws from ecology, hydrology, biogeochemistry, and remote sensing. He is expanding his research to also understand the effects of SWISLR on humans living in the coastal zone. He received a BS in Biology and Animal Ecology from Iowa State University in 2015 and PhD in Environmental Engineering Sciences from the University of Florida in 2019. For more information you can visit: https://coasts.stanford.edu/.

ACADEMIC APPOINTMENTS

- Assistant Professor, Earth System Science
- Center Fellow (By courtesy), Stanford Woods Institute for the Environment

HONORS AND AWARDS

- Stanford Impact Design Lab Fellowship, Stanford Impact Labs (2022-2023)

PROGRAM AFFILIATIONS

- Center for Comparative Studies in Race and Ethnicity (CCSRE)

PROFESSIONAL EDUCATION

- PhD, University of Florida , Environmental Engineering Sciences (2019)
- BS, Iowa State University , Biology and Animal Ecology (2015)

Teaching

COURSES

2026-27

- Biology and Global Change: BIO 117, EARTHSYS 111, EARTHSYS 217, ESS 111 (Spr)
- Earth System Perspectives I: ESS 305 (Aut)
- Remote Sensing of Land: EARTHSYS 142, EARTHSYS 242, ESS 162, ESS 262 (Win)

2025-26

- Biology and Global Change: BIO 117, EARTHSYS 111, EARTHSYS 217, ESS 111 (Spr)

- Earth System Perspectives I: ESS 305 (Aut)
- Earth System Perspectives II: ESS 306 (Aut)
- Remote Sensing of Land: EARTHSYS 142, EARTHSYS 242, ESS 162, ESS 262 (Spr)

2024-25

- From Freshwater to Oceans to Land Systems: An Earth System Perspective to Global Challenges: ESS 306 (Win)
- Remote Sensing of Land: EARTHSYS 142, EARTHSYS 242, ESS 162, ESS 262 (Win)

2023-24

- From Freshwater to Oceans to Land Systems: An Earth System Perspective to Global Challenges: ESS 306 (Win)
- Remote Sensing of Land: EARTHSYS 142, EARTHSYS 242, ESS 162, ESS 262 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

AyoOluwateso Coker, Teathloach Wal

Master's Program Advisor

Sadira Bobb, Alana Esposito

Doctoral Dissertation Co-Advisor (AC)

Julia Sharapi, Miley Sinantha-Hu

Doctoral (Program)

Opal Otenburg, Ireland Sherrill, Mavis Stone, Kylie Wadkowski

Publications

PUBLICATIONS

- **Evaluating perceptions of green stormwater infrastructure (GSI) through a community-based participatory research (CBPR) approach** *ENVIRONMENTAL RESEARCH LETTERS*
  Medina, C. Y., Shrivatsa, S., Stone, M., Moanga, D., White Jr, E., Awais, M., Cardenas, A., Revels, K., Nieto, Y., Osman, K. K.
  2025; 20 (5)

- **Coastal carbon sentinels: A decade of forest change along the eastern shore of the US signals complex climate change dynamics** *PLOS CLIMATE*
  Ardon, M., Potter, K. M., White Jr, E., Woodall, C. W.
  2025; 4 (1)

- **Saltwater intrusion and sea level rise threatens U.S. rural coastal landscapes and communities** *ANTHROPOCENE*
  O'Donnell, K. L., Bernhardt, E. S., Yang, X., Emanuel, R. E., Ardon, M., Lerdau, M. T., Manda, A. K., Braswell, A. E., BenDor, T. K., Edwards, E. C., Frankenberg, E., Helton, A. M., Kominoski, et al
  2024; 45

- **The role of diseases in unifying the health of global estuaries** *FRONTIERS IN MARINE SCIENCE*
  Tallam, K., White, E.
  2023; 10

- **Climate Change Driving Widespread Loss of Coastal Forested Wetlands Throughout the North American Coastal Plain** *ECOSYSTEMS*
  White, E. E., Ury, E. A., Bernhardt, E. S., Yang, X.
  2022; 25 (4): 812-827

- **Identifying the effects of chronic saltwater intrusion in coastal floodplain swamps using remote sensing** *REMOTE SENSING OF ENVIRONMENT*
  White, E., Kaplan, D.

2021; 258

- **Restore or retreat? Saltwater intrusion and water management in coastal wetlands** *ECOSYSTEM HEALTH AND SUSTAINABILITY*
  White, E., Kaplan, D.
  2017; 3 (1)