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Education

B.S.	(Biology/Marine Biology)	1989, University of Mass., North Dartmouth, MA.
M.S.	(Marine Biology)	1992, University of Charleston, Charleston, SC.
Ph.D.	(Science Education)	2005, University of California, Berkeley, CA

Employment

2008-Present	<u>Assistant Professor of Science Education</u> , Rutgers University Joint Appointment in the Graduate School of Education and the School of Environmental and Biological Sciences. Teach courses on learning theory and pedagogical practice as they relate to science education, technology in education, and learning in informal learning contexts. Conduct research on student learning of science, particularly ocean science concepts, and on the design of Internet connected computer technologies including classroom-based and mobile technologies.
2006-2008	<u>Program Manager</u> , University of California, Berkeley, Lawrence Hall of Science NSF Center – Center for Ocean Science Education Excellence (COSEE). Managing COSIA (Communicating Ocean Sciences to Informal Audiences), a large, \$1.8 million program funded by Informal Science Education at NSF, consisting of a consortium of 6 university/aquarium partnerships collaborating on training future marine scientists. Developed university-level science majors' course on learning theory and pedagogy. Designed ocean science instructional materials and informal learning activities for communicating ocean science topics in informal learning contexts.
2000-2005	<u>Graduate Student Researcher</u> , Univ. of CA, Berkeley, Graduate School of Education NSF Center – Technology Enhanced Learning in Science (TELS). Designed, implemented, and evaluated science curricula and assessments that enacted a theoretical framework of learning and instruction. Developed and evaluated curricula in partnership with science disciplinary partners (e.g., the National Geographic Society, Monterey Bay Aquarium, National Oceanic and Atmospheric Administration). Designed and implemented new pedagogical methodologies and technology tools for integrating school and museum learning environments.
1997-2000	<u>National Program Manager</u> , United States Environmental Protection Agency, HQ Office Managed national Clean Water Act Section 404 enforcement program. Coordinated Section 404 enforcement actions in 10 regional EPA offices. Wrote national environmental policy for EPA. Made policy decisions on the direction of EPA's national CWA 404 program.
1996-1997	<u>National Program Manager</u> , United States Army Corps of Engineers, Headquarters Office Wrote and promulgated national environmental policy. Negotiated interagency (EPA, COE, USFWS, NMFS, USDA) agreements. Prepared and presented briefings and recommendations to and for White House officials, members of Congress, the Chief of Engineers, the Assistant Secretary of the Army, and Pentagon Officials. Supervised 11 NWP Task Force members during collation, analysis and response to over 4000 comments on the NWP Federal Register proposal.
1992-1996	<u>Project Manager</u> , United States Army Corps of Engineers, Charleston SC District Office Evaluated environmental impacts to aquatic resources associated with permits and alleged violations. Designed and evaluated restoration and mitigation plans.

- Directed/mediated interagency meetings between the public and federal, state and local agencies. Resolved conflicts among stakeholders.
- 1992 Research Assistant, SC Dept. of Natural Resources, Marine Resources Research Institute
Captured, tagged, and released sea turtles to determine their frequency and abundance in Charleston harbor. Conducted underwater live bottom shoal research using videography and side-scan sonar techniques.
- 1989-1992 Teaching Assistant, College of Charleston, Biology Department
Taught undergraduate labs (general biology; human anatomy and physiology).
- 1990-1992 Research Assistant, University of Georgia, Savanna River Ecology Laboratory
Initiated and implemented original field research on diamondback terrapin nesting habits. Conducted nesting surveys, developed methodologies for collection of nesting parameters and performed statistical analysis of data. Captured, marked, released, and recaptured terrapins to obtain population dynamics data.
- 1989 Outdoor Instructor/Marine Naturalist, MA Audubon Soc., Wellfleet Bay Wildlife Sncy
Taught outdoor environmental education classes to students in grades K-10. Conducted 3-hour informational cruises: captured and identified organisms and explained their life histories to MA Audubon Society members.

Publications

Books/Book Chapters

Daring-Hammond, L., Barron, B., Pearson, P.D., Scheonfeld, A.H., Stage, E.K., Zimmerman, T.D., Cervetti, G.N., & Tilson, J.L. (2008). *Powerful learning: What we know about teaching for understanding*. San Francisco, CA: Jossey-Bass.

Zimmerman, T.D. & Stage, E.K. (2008). Teaching science for understanding. In L. Darling-Hammond (Ed.) *Powerful learning: Teaching for understanding in the classroom*. (pp. 151-191) San Francisco, CA: Jossey-Bass.

Peer Reviewed Publications

Payne, D.L. & Zimmerman, T.D. (in review). Beyond terra firma: Bringing Ocean and Aquatic Sciences to Science Teacher Education. *ASTE Monograph: The Inclusion of Environmental Education in Science Teacher Education*.

Lovich, J.E., A.D. Tucker, D.E. Kling, J.W. Gibbons, and T.D. Zimmerman. 1991. Behavior of hatchling diamondback terrapins (*Malaclemys terrapin*) released in a South Carolina salt marsh. *Herpetological Review* 22(3):81-83.

Collaborations

James D. Slotta, University of Toronto

Affiliations

Member AAAS, AERA, ASTE, CERF, ISLS, NARST

Proposal Reviewer – National Science Foundation; American Educational Research Association

Journal Reviewer – Journal of Research in Science Teaching; Public Understanding of Science

Graduate Advisors

Ph.D.: Marcia C. Linn, Barbara Y. White, Ian S. Carmichael (University of California, Berkeley); James D. Slotta (University of Toronto, Toronto, Ontario, Canada)

M.S.: Julian R. Harrison (retired); J. Whitfield Gibbons (University of Georgia); Carl Whitney, Zhexi Luo (unknown)

Graduate Advisees

Current: Edward Cohen, Missy Holzer (Rutgers University); Celeste Barthel (Oregon State University)