



Faculty Directory

The College

AS News

Cathryn R.
Newton
Professor and Dean
Emerita of Earth
Sciences



Email: crnewton@syr.edu

Earth Sciences
466 Life Sciences Complex
Phone: 315-443-3487



Research and Teaching Interests

Prof. Newton's scholarly work involves studies of modern and ancient biodiversity, including the quantitative dynamics of ancient and modern mass extinction.

Paleoecology and Ocean Sciences



Cathryn R. Newton was raised in Beaufort, NC, home of the Duke Marine Laboratory. As a 16 year old Duke sophomore, she was part of the scientific team (with Harold “Doc” Edgerton of MIT) that found the ironclad MONITOR 111 years after it was lost beneath the sea. She later earned a masters degree in Geology from the University of North Carolina and a doctorate in Earth Sciences from the University of California, Santa Cruz, where she developed an interest in invertebrate paleontology and mass extinctions. Her early work included the book ANCIENT ENVIRONMENTS – co-authored with Leo Laporte and translated into five languages including Japanese and Portugese. She did field work in the Northern Calcareous and Southern Alps, western Canada, and various parts of the United States, and her work on shocked quartz in the Apennines of Italy contributed importantly to explaining the relations of meteorite impacts to mass extinctions. She has spent much time at sea working on modern marine faunas and environments, and has a special interested in low-oxygen environments in both modern and ancient seas. She has published in

some fiercely competitive journals, including Science (where some of her papers are denoted Science Classics) and Geology. She continues to do fieldwork at sea and is currently pursuing research on deep-water corals, an area in which she has worked since 1979.

In 1983, Newton joined the faculty of Syracuse University, where she became an award-winning scholar and teacher, a powerfully effective mentor of women in the sciences and co-founding director of the Women in Science and Engineering Program (WISE), and a nationally admired leader both in Earth Sciences and in higher education. She served as Dean of the College of Arts and Sciences for eight years before assuming her present position as the university's only Professor of Interdisciplinary Sciences – a position that recognizes the broad scope of her scientific work as transcending the boundaries of any one discipline.

In her new project, Newton combines her extensive experience in paleontology and her longstanding fascination with shipwrecks – revealing with captivating stories, rigorous science, and extraordinarily creative insights, that once we recognize the thousands of shipwrecks on the ocean floor as the array of fossils they literally are, we can ask – and answer – new questions that transform our understanding of many aspects of science and of cultural history. Newton has, with this book project, written an elegant, lucid, compelling narrative and also created a searchable data base of thousands of shipwrecks that is an unprecedented resource for future work by others. This combination reveals Newton to be a thinker and writer of extraordinary scope and originality.

Courses

Earth Science (EAR 105)
History of Earth and Life (EAR 102)
Introduction to Paleobiology (EAR 325)
Graduate Seminar in Mass Extinctions (EAR 600)
Graduate Seminar in Paleobiology (EAR 629)

Linked Lenses: Science and Philosophy
(HNR 250)
Oceans and Shipwrecks (HNR 200)

Seminar: Modern and Ancient Biodiversity
(BIO 200)

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Research Spotlight

PALEONTOLOGY



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