

## In Memoriam Charles Henry Peterson

Charles 'Pete' Peterson passed away on October 24, 2020 at his home in Pine Knowles Shores, North Carolina, USA. Pete was an exceptionally creative and productive scientist, who made many important contributions to ecology and marine science. He obtained a BA in Biology at Princeton University in 1968 before receiving an MS in Zoology (1970) and a PhD in Biology (1972) working with Joe Connell at the University of California, Santa Barbara. After a brief stint at the University of Maryland (Baltimore County), Pete moved to The University of North Carolina at Chapel Hill, where he taught, advised, and conducted research until he retired in 2019. Over the past half century, Pete fundamentally transformed our understanding of marine ecosystems while also applying his research to solving environmental problems. He published over 200 peer-reviewed papers, and his research contributed conceptually to ecology, marine biology, environmental sciences, fisheries ecology, restoration ecology, and conservation biology. He significantly influenced marine ecological science as a longtime Contributing Editor and later Co-Editor-in-Chief for *Marine Ecology Progress Series*, and Editor-in-Chief of *Oecologia*.

Trained as a benthic ecologist, Pete used both marine and estuarine soft-sediment habitats as models to explore how key ecological processes such as competition, recruitment, and predation structure communities. He studied benthic boundary layer systems to disentangle complex physical-biological processes. Pete also examined how habitat created by seagrass beds, salt marshes, oyster reefs, deep sea hydrothermal vent organisms, and Antarctic crustaceans influences marine communities and produces ecosystem services. Pete's research advanced basic ecological science, but some of his most profound contributions were in applied marine and fisheries ecology, solving real world problems, while also contributing to scholarship. He recognized long before many others that fishing caused a plethora of ecological impacts, and worked tirelessly to develop sustainable fishing practices and management strategies. He highlighted that oil spilled by the 'Exxon Valdez' triggered a cascade of long-lasting ecological effects throughout Prince William Sound, thus transforming our understanding of oil spill impacts. Pete's exceptional capacity to integrate and synthesize ideas across disciplines



Photo: UNC Research

Pete Peterson (1946–2020)

resulted in him recognizing that restoring scallop populations decimated by red tides in coastal North Carolina was critical to local fishers while also providing novel insights into larval connectivity and recruitment limitation. His many contributions to marine conservation were widely recognized and awarded, such as with a Pew Fellowship and other prizes.

Pete spent a large proportion of his career actively shaping policy and engaging in management on a range of environmental issues. While Pete served on numerous international and national advisory committees, including with ICES (International Council for the Exploration of the Sea), GLOBEC (Global Ocean Ecosystem Dynamics), NSF (National Science Foundation), and NCEAS (National Center for Ecological Analysis & Synthesis), he was equally proud of his work on the North Carolina Environmental Management Commission, just one of the several environmental commissions in the state that Pete served on over the past several decades. North Carolina's coastal habitats and resources are more resilient thanks to Pete's tireless efforts and dedication.

Above all, Pete was an educator and mentor. His ability to articulate difficult concepts in the classroom and in the field coupled with his enthusiasm for teaching inspired and enabled many to pursue careers in marine ecology. Pete left behind a large network of former students, post-docs, and colleagues whose careers he helped shape. At his retirement party in 2019, many of these recounted with gratitude how Pete made them stronger scientists through demanding the level of scientific rigor, clarity, and excellence that he consistently delivered in return. He will be greatly missed.

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