Larry Philip Atkinson

1941-2020

While it is popular to say that "life is a journey, not a destination" when remembering a colleague, we tend to list the destinations or accomplishments—the greatest hits, if you will—and not the path and history that made them possible. Larry Atkinson began his journey through oceanography in 1941 in Iowa and completed it in December 2020 in Virginia. Along the way, he traveled, lived, and worked all over the world, transforming his own research emphases, helping colleagues, starting research programs, and having a great time wherever he was.

Larry's outstanding career in oceanography could, without too much exaggeration, be said to have extended from the age of wooden ships to today's era of satellites, autonomous platforms, and steel research vessels jam-packed with electronic and acoustics gear. As an undergraduate and master's degree student at the University of Washington in the 1960s, Larry was exposed to an interdisciplinary approach to oceanography, but his early focus was on chemical oceanography under the tutelage of F.A. Richards. Richards' cadre of student researchers concentrated on suboxic and anoxic conditions found in basins and fjords, and the suboxic waters of the eastern tropical Pacific Ocean. Data from two of British Columbia's anoxic fjords, Saanich Inlet and Lake Nitinat, were collected from R/V Hoh, a surplus army tugboat with a wooden hull. Getting into Lake Nitinat was an adventure because of this fjord's shallow sill. Hoh had to "catch a wave" to reduce the chance of grounding. Hoh had a captain/boat operator, but everything else was done by the scientists. Thus, Larry was involved in oper-



ating the winches and cooking meals, among other diverse activities. The galley was dual-purpose, serving as the shipboard lab between meals.

During the mid-1960s, the University of Washington was transitioning its ocean-going ship capability from the wooden-hulled *Brown Bear* to the first *Thomas G. Thompson* (since replaced by the present *Thompson*, a much larger and easier-riding ship). Larry participated in *Thompson's* maiden voyage, a several month adventure that included sampling the anoxic Cariaco Trench and suboxic water in the eastern Pacific Ocean. Larry obtained his MS degree in 1967. His thesis focused on methane and resulted in two peer-reviewed papers.

Subsequently, Larry took a position as a research associate at the Duke University Marine Lab. During this period (1966–1968), he worked closely with Professor Unnsteinn Stefánsson, whom he had first met while Unnsteinn was visiting and working with F.A. Richards at the University of Washington. He also collaborated with several other researchers to produce five peer-reviewed papers focusing on the physical and chemical properties of the waters off the North Carolina coast. Larry decided to pursue a PhD, and

1969 enrolled in the graduate program in oceanography at Canada's Dalhousie University, where he joined a diverse multinational group of graduate students in Pete Wangersky's chemical oceanography laboratory. Pete always encouraged independence and creativity, and Larry pursued a combined chemical and physical oceanographic research effort to look at bubbles in the mixed layer and the resulting air-sea gas exchange. Dalhousie's Department of Oceanography, under Gordon Riley, was a vibrant, exciting place enhanced by graduate students who brought interesting prior experiences. Larry earned his PhD in 1972 and then moved on to other adventures at the Skidaway Institute of Oceanography in Georgia, which was only four years old at the time.

At Skidaway, Larry began to focus on nutrient biogeochemisty in coastal waters, perhaps a reflection of his earlier work at Duke, but his journey in chemical processes started to turn to physical oceanographic aspects. The driver of this change was likely the Department of Energy project on the South Atlantic Bight that Skidaway's director, Dave Menzel, organized in the late 1970s. Larry's part of that study focused on nutrient sources, transport, and fate, and the results of his studies provided the framework for our understanding that upwelling along the shelf break dominates the nutrient budget of the shelf. He wanted to understand the timing and mechanisms that controlled this upwelling, and this subject pretty much consumed his research in his later years at Skidaway. It followed that he would develop collaborations with physical oceanographers like Tom Lee (University Miami), Len Pietrafesa (North Carolina State

¹ Lynn H. Hough, *The Christian Advocate*, 1920

University), and Skidaway's Jack Blanton.

In 1985 it was time for a new journey. Encouraged by former Skidaway faculty William Dunstan and George Oertel, Larry became Professor and Eminent Scholar at Old Dominion University's (ODU's) Department of Oceanography in Norfolk, Virginia. At ODU he continued his studies of coastal physical processes that drive chemical and biological ones, but he also perfected his talent for developing new programs and leading others. Indeed, he coordinated the founding of ODU's Center for Coastal Physical Oceanography in 1991 and was its director until 2003. During the same time, he was the Department of Oceanography's Chair from 1992 to 1997. And, if this wasn't enough, from 1988 to 1992 he was an editor and then the senior editor of the Journal of Geophysical Research: Oceans, and from 1993 to 1997 the editor for The Oceanography Society's Oceanography magazine. In addition to his work on Oceanography, Larry was a stalwart supporter of The Oceanography Society. He joined as a charter member in 1987, served a term as the Applied Technology Councilor, then as Meetings Chair. He could always be counted on to provide advice and encouragement for TOS initiatives.

For more than 40 years, Larry's research journeys took place aboard research vessels of all types, so he logically served on the University-National Oceanographic Laboratory System (UNOLS) Council from 1989 to 1991, then on the UNOLS Fleet Improvement Committee from 1995 to 1997 and as its chair from 1997 to 2003. While Larry may have started his oceanographic journey on wooden ships, his later years were filled with the newest technology (e.g., high-frequency radar to measure surface currents), and in his usual fashion, he helped everyone make the best use of these new types of data, and he facilitated early career investigators' contributions and participation. In terms of new technology, the Ocean Observatories Initiative (OOI) was spending many millions of dollars to set up these systems, and the National Science Foundation (NSF) asked UNOLS to form a committee to represent the science community. When the Ocean Observatories Science Committee (OOSC) was organized, Larry was called on to be its chair. He served in that position from 2010 until about 2016, overseeing the committee through OOI's installation and commissioning. He worked hard during these years to engage the community and promote OOI. Larry had a particular focus on early career scientists and promoting their use of OOI data. After OOI was fully installed, NSF formed the OOI Facility Board (OOIFB), and Larry was again asked to be the chair. He served in this position from the board's inauguration in 2017 until 2019 (and then transitioned into a past-chair position). Just as with the previous OOSC, Larry focused on inclusion, diversity, and new participants. As a result of his dedication, in May 2020 the OOIFB and NSF honored Larry with the establishment of the Larry P. Atkinson Travel Fellowship for Students and Early Career Scientists.

Larry projected a calm and affable aura, but because he was so well respected, he could make good things happen with a quiet word—likely because there was a lot going on inside his head before he suggested a course of action. When discussing a new idea, how to implement some program, or where to go to dinner or what wine to choose, Larry would lean back, smile slightly or give a small chuckle, and say, "Well, have you considered..." He was a great colleague, a man who always took a no-nonsense approach to finding solutions, a resource for our science, and an advocate for allparticularly early career scientists.

CONTRIBUTED BY

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AUTHORS NOTE

When compiling the story of colleague, no one person can accurately tell the tale. The authors thank many for their contributions, particularly Annette De Silva. Jonathan Sharp, and Herb Windom.



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