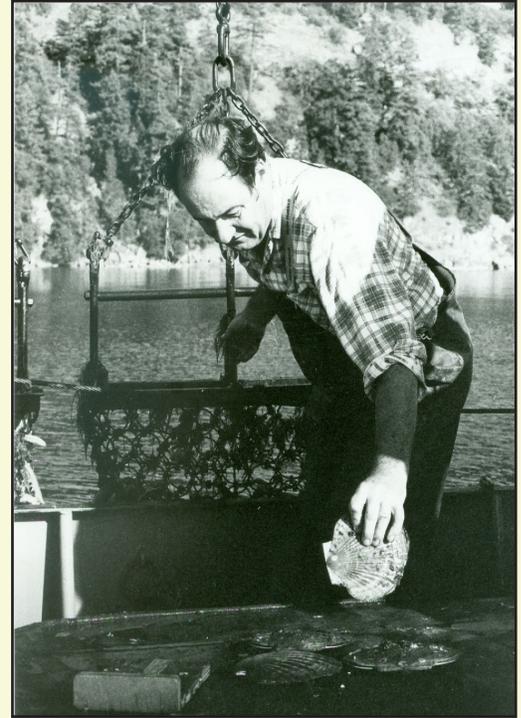


## Neil Fitzroy Bourne (1929-2018)

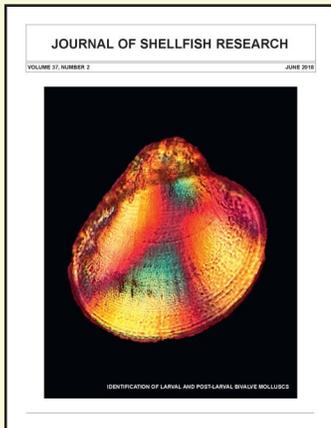
Another icon lost. Neil passed away on July 21<sup>st</sup> in Nanaimo. A full 'In Memoriam' will appear in a future issue of *JSR*. The following brief summary of Neil's background courtesy of Leslie Barton.

Neil's sphere of influence was considerable and his contributions lasting. Neil joined the Fisheries Research Board in 1959, working from St. Andrews Biological Station. In 1965 he moved west and joined the Pacific Biological Station where he worked on many species of molluscs and was responsible for the molluscan culture program. Neil took a secondment from Fisheries in the mid-1970s to the Canadian International Development Agency, serving as Director of the Fisheries Training Program at the University of the South Pacific in Fiji. Neil and family returned to Nanaimo in 1976 where he continued to make lasting contributions to the aquaculture industry of BC. Neil served on the executives of many societies and associations, including that of the National Shellfisheries Association from 1974 to 1983 serving as President from 1981 to 1982. Neil retired from public service in 1994, embarking on his second career as Emeritus Research Scientist, providing mentorship and support on a regular basis until as early as last month. Neil's obituary can be found at: <https://www.nanaimobulletin.com/obituaries/Neil-Fitzroy-Bourne/>

Neil was predeceased by his daughter, Dianne and his wife, Jean. He is survived by sons Don (Mindy) Jim and daughter Mary (Bob). Also four grandchildren and one great-grand child. Per Neil's request, there will be no service. Contributions made in his memory can be donated to the Nanaimo Hospital Foundation, 1200 Dufferin Crescent, Nanaimo, BC V9S 2B7, Canada.



### Mission Completed: Identification of Larval and Post-larval Bivalve Molluscs



The most recent ("extra freebie") special issue of the *Journal of Shellfish Research* is a special volume dedicated to the identification of larval and early post-larval bivalve molluscs. This comprehensive opus should serve as an invaluable reference for identifying the early life history stages of over 50 species of bivalve molluscs isolated from plankton and benthic samples from a spectrum of marine, estuarine and freshwater environments.

Forty-five years ago, a subset of the authors of the two papers in this special issue had a vision of picking up where Paul Chanley and Jay Andrews left off with their classic article on "Aids for identification of bivalve larvae of Virginia" published in *Malacologia* in 1971. These and other colleagues cultured under laboratory conditions the larvae and/or post-larvae of a myriad of bivalve molluscs. Most of these species were from environments along the east coast of North America and include the majority of the commercially important species in this region. Their goal was to put together a monograph in which consistently-oriented, disarticulated shell valves of the larval and post-larval stages of these bivalve molluscs were imaged under a scanning electron microscope in an effort to accurately document shell morphologic and morphometric features that could be used to assist in the routine identification of the early life history stages of a wide

spectrum of bivalves. The first paper in this special volume represents a realization of that 45-year-old vision of several of the authors who are still alive, as well as a number of our dear colleagues who are sadly no longer with us and are sorely missed, but who join us as authors on this work which would never have materialized were it not for them. The resulting monograph includes 195 plates of scanning electron micrograph sequences of the disarticulated shell valves of laboratory-reared larval and post-larval stages of 56 species of bivalves. The second paper in this special issue presents representative polarized light images of birefringence patterns of various developmental stages of 40 of the larval/post-larval bivalve species contained in the collection of vials in which the larvae/post-larvae had been stored over the approximate 4 decades (remarkably, a large quantity of the vials in which the ethanol had evaporated contained specimens whose shell valves could be imaged to highlight the birefringence patterns of the larval and post-larval shells). In addition, molecular (PCR) techniques were used to sequence many of the dried-out specimens and they successfully identified 10 of these 40 species with matches in GenBank. The results demonstrate that optical techniques to highlight birefringence patterns on larval and post-larval bivalve shells and molecular (PCR) techniques can be effective for systematic classification and genetic sequencing purposes even after preserved specimens that were originally stored in ethanol have subsequently dried out and been stored for considerable lengths of time.

**Rich Lutz**  
**Jake Goodwin**