

BIOGRAPHICAL SKETCH

Roger I.E. Newell

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(a) Professional Preparation

1973 B.Sc. University of London, UK. Honours in Zoology and Comparative Physiology
1978 Ph.D. University of London, UK. Marine Biology
1977-1980 Postdoctoral Research Associate, Department of Ecology and Evolution, State University of New York at Stony Brook

(b) Appointments

1980-Pres. Assistant, Associate, and Full Professor, University of Maryland Center for Environmental Science

(c) Publications Last Three Years:

- Newell R.I.E., S.T. Tettelbach, C.J. Gobler, and D.G. Kimmel. Relationships between reproduction in suspension-feeding hard clams, *Mercenaria mercenaria*, and phytoplankton community structure. Mar. Ecol. Prog. Ser. In review.
- Kennedy, V.S., K.S. Shaw and R.I.E. Newell. 2008. Discriminatory predation by three invertebrates on eastern oysters (*Crassostrea virginica*) compared to non-native Suminoe oysters (*C. ariakensis*). Invertebrate Biology. In Press.
- Newell R.I.E., W. M. Kemp, J. D. Hagy III, C. F. Cerco, J. M. Testa , W. R. Boynton. 2007. Top-down control of phytoplankton by oysters in Chesapeake Bay, USA: Comment on Pomeroy et al. (2006). Mar. Ecol. Prog. Ser. 341: 293–298.
- Newell, R.I.E., V.S. Kennedy, and K. S. Shaw. 2007. Comparative vulnerability to predators, and induced defense responses, of eastern oysters *Crassostrea virginica* and non-native *Crassostrea ariakensis* oysters in Chesapeake Bay. Mar. Biol. 152:449-460.
- Kimmel, D. G., and R. I. E. Newell. 2007. The influence of climate variation on eastern oyster juvenile abundance in Chesapeake Bay. Limnol. Oceanog 52: 959-965.
- Fulford, R.S., D. L. Breitburg, **R. I. E. Newell**, W.M. Kemp and M.W. Luckenbach. 2007. Effects of oyster population restoration strategies on phytoplankton biomass in Chesapeake Bay: a flexible modeling approach. Mar. Ecol. Prog. Ser. 336:43-61.
- Newell, R.I.E. 2007. A framework for developing “ecological carrying capacity” mathematical models for bivalve mollusc aquaculture. Bull. Fish. Res. Agency. 18:41-51.
- Langan, R., **R.I.E. Newell**, J.P. McVey, C. Newell, J.E. Soles, J.E.J. Rensel, and C. Yarish. 2006. The USA Management Scenario. Pages 109-139 in J.P. McVey, C-S. Lee, and P.J. O'Bryen, editors. Aquaculture and Ecosystems: An Integrated Coastal and Ocean Management Approach. The World Aquaculture Society, Baton Rouge, Louisiana, USA
- Smith, G.F., D.G. Bruce, E.B. Roach, A. Hansen, **R.I.E. Newell** and A.M. McManus. 2005. Habitat conditions of mesohaline oyster bars in the Maryland Chesapeake Bay: An Assessment of 40 Years of Oyster Management. North American Journal Fisheries Management. 25:1569-1590.
- Kemp, W.M., W.R. Boynton, J.E. Adolf, D.F. Boesch, W.C. Boicourt, G. Brush, J.C. Cornwell, T.R. Fisher, P.M. Glibert, J.D. Hagy, L.W. Harding, E.D. Houde, D.G. Kimmel, W.D. Miller, **R.I.E. Newell**, M.R. Roman, E.M. Smith, J.C. Stevenson. 2005. Eutrophication of Chesapeake Bay: Historical trends and ecological interactions. Mar. Ecol. Prog. Ser. 3:1-29.
- Newell, R.I.E., T.R. Fisher, R.R. Holyoke, and J.C. Cornwell. 2005. Influence of eastern oysters on nitrogen and phosphorus regeneration in Chesapeake Bay, USA. p. 93-120 In: *The comparative Roles of Suspension Feeders in Ecosystems*. R Dame and S. Olenin (Eds.) Vol 47 NATO Science Series: IV - Earth and Environmental Sciences. Springer, NL.

(d) Five Synergistic Activities:

- Co-chair of the International Workshop “Ecosystem - Based Aquaculture and Fisheries Management” held in Hanoi, Vietnam April 2008.
- Co-lead with Dr. Rich Langan of the US delegation to the International Workshop on “The Role of Aquaculture in Integrated Coastal Management: An Ecosystem Approach” held in Honolulu, Hawaii, April 2005. Resulted in following publication: Langan, R., **R.I.E. Newell**, J.P. McVey, C. Newell, J.E. Soles, J.E. Rensel, and C. Yarish. 2006. The USA Management Scenario. Pages 109-139 in J.P. McVey, C-S. Lee, and P.J. O'Bryen, editors. Aquaculture and Ecosystems: An Integrated Coastal and Ocean Management Approach. The World Aquaculture Society, Baton Rouge, Louisiana, 70803.
- Collaborated with Mr. Blair Buck, a high school biology teacher from Alexandria, VA, and Ms Kathy Frame of the National Association of Biology Teachers to develop a project on bivalve feeding and the ecological role of bivalves as part of the NABT program to improve the science curriculum in high schools. This work, which consists of detailed instructions for 10 experimental modules together with background material, has been written up as a manual to be made available via the internet to high school teachers throughout the USA.
- Elected Vice President and President National Shellfisheries Association (1995-1998).
- Co-edited and authored 3 chapters in the text book, The Eastern Oyster, *Crassostrea virginica* (V.S. Kennedy, R.I.E. Newell, and A. Eble, eds.) published in 1996 by Maryland Sea Grant Publication. pp 734.

(e) Collaborators in preceding 4 y (excluding colleagues within my institution)

- D. L. Breitburg, Smithsonian Environmental Research Center, Edgewater
- G. Brush, Johns Hopkins University, Baltimore
- C. F. Cerco, US Army Engineer Research and Development Center, Vicksburg, R.S., Fulford, Gulf Coast Research Lab, Ocean Springs
- C.J. Gobler, School of Marine and Atmospheric Sciences, SUNY Stony Brook
- J.D. Hagy, US EPA, Gulf Ecology Division, Gulf Breeze, Florida 32561, USA
- R.R. Holyoke, University of Delaware, Lewes
- R. Langan, Jackson Estuarine Laboratory, University of New Hampshire, Durham, NH
- M. W. Luckenbach, Virginia Institute of Marine Science, Wachapreague
- J.P. McVey, National Sea Grant Program, NOAA, Silver Spring
- J.E.J. Rensel, Rensel Associates Aquatic Sciences Arlington WA.
- S.T. Tettelbach, Biology Department, Long Island University.
- C. Yarish, Department of Ecology, University of Connecticut, Stamford, CT

Graduate and Postdoctoral Advisors: B.L. Bayne (Plymouth Marine Laboratory, retired).
R.K.Koehn (University of Utah, retired)

Graduate and Postdoctoral Students:

- Chris Kelly, Ph.D. thesis advisor. University of Maryland
- Dr. Shou-Chung Huang, Ph.D. thesis advisor. University of Taiwan
- Dr. Joan Manuel, postdoctoral scholar, University of Rio Grande

Major Advisor to total of 8 Ph.D. students, 6 MS students, and 4 postdoctoral scholars