

Brian Fairfield Beal

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Date and Place of Birth: 19 November 1957; Machias, Maine

Formal Education: 1979: B.S. in Biology; University of Maine at Machias
1983: M.S. in Marine Sciences; University of North Carolina, Chapel Hill
1994: Ph.D. in Marine Bio-Resources; University of Maine, Orono

Pertinent Experience:

1984-1985: Marine Project Assistant; Univ. Maine Cooperative Extension Service, Machias, Maine
1985-1986: Environmental Education Coordinator; University of Maine at Machias
1986-1994: Environmental Resources Coordinator; University of Maine at Machias
1989-1997: Assistant Professor of Marine Ecology; University of Maine at Machias
1998-2002: Associate Professor of Marine Ecology; University of Maine at Machias
1990-present: Graduate Faculty Member, University of Maine (School of Marine Science)
1996-present: Cooperating Faculty member for the School for Marine Science at the Univ. of Maine
2002-present: Professor of Marine Ecology; University of Maine at Machias
2011-present: Director, Marine Science Field Station, University of Maine at Machias

Fellowships/Scholarships/Other Awards:

Switzer Foundation Environmental Fellow (1992-1993)
Teacher of the Year, University of Maine at Machias (2000)
Fulbright Scholarship (2000-2001), National University of Ireland, Galway (lecture/research)
Distinguished Alumnus, University of Maine at Machias (2001)
Trustee Professor, University of Maine at Machias (AY 2004-2005)
Bourne-Chew Award, National Shellfisheries Association (2015)
Maine Magazine's "50 Mainers to Admire and Inspire" (2019)

Courses taught: Introduction to Environmental Studies; Marine Biology; Marine Ecology; Population and Community Ecology; Algebra I; Algebra II; Pre-Calculus; Applied Statistics; Biostatistics; Introduction to the Marine Environment; Oceanography; Introduction to Mariculture; Introduction to the Local Marine Fauna and Flora of Downeast Maine

Research Interests: Shellfish ecology; population biology; resource management; mariculture

Professional Organizations: National Shellfisheries Association

Local Organizations: Maine Aquaculture Innovation Center (Chairman of Board of Directors); Downeast Institute for Applied Marine Research & Education (Director. of Research); Cobscook Bay Resource Center (Member, Board of Directors)

Member: Maine Department of Environmental Protection, Clean-up and Response Review Board; Scientific and Technical Subcommittee, Maine Climate Council.

Selected Publications:

Beal, B.F. 2002. Adding value to live, commercial size soft-shell clams (*Mya arenaria* L.) in Maine, USA: Results from repeated, small-scale, field impoundment trials. *Aquaculture* 210:119-135.

Beal, B.F. 2005. Soft-shell clam, *Mya arenaria*, mariculture in Maine, USA: opportunities and challenges. *Bulletin of the Aquaculture Association of Canada. Special Publication No. 9*:41-44.

Beal, B.F. 2006. Relative importance of predation and intraspecific competition in regulating growth and survival of juveniles of the soft-shell clam, *Mya arenaria* L., at several spatial scales. *J. Exp. Mar. Biol. Ecol.* 336:1-17.

- Beal, B.F. 2006. Biotic and abiotic factors influencing growth and survival of wild and cultured individuals of the soft-shell clam (*Mya arenaria* L.) in eastern Maine. *J. Shellfish Res.* 25:461-474.
- Beal, B.F., Bayer, R.C., Kraus, M.G., Chapman, S.R. 1999. A unique shell marker of juvenile, hatchery-reared individuals of the soft-shell clam, *Mya arenaria* L. *Fish. Bull.* 97:380-386.
- Beal, B.F., Coffin, C.R., Randall, S.F., Goodenow, C.A., Jr., Pepperman, K.E., Ellis B.W. 2020. Interactive effects of shell hash and predator exclusion of 0-year class recruits of two infaunal intertidal bivalve species in Maine, USA. *J. Exp. Mar. Biol. Ecol.* 530-53. <https://doi.org/10.1016/j.jembe.2020.151441>.
- Beal, B.F., Coffin, C.R., Randall, S.F., Goodenow, C.A., Jr., Pepperman, K.E., Ellis, B.W., Jourdet, C.B., Protopopescu, G.C. 2018. Spatial variability in recruitment of an infaunal bivalve: experimental effects of predator exclusion on the softshell clam (*Mya arenaria* L.) along three tidal estuaries in southern Maine, USA. *J. Shellfish Res.* 37:1-27.
- Beal, B.F., Kraus, M.G. 2002. Interactive effects of initial size, stocking density, and type of predator deterrent netting on survival and growth of cultured juveniles of the soft-shell clam, *Mya arenaria* L. in eastern Maine. *Aquaculture* 208:81-111.
- Beal, B.F., Lithgow, C., Shaw, D., Renshaw, S., Ouellette, D. 1995. Overwintering hatchery-reared individuals of the soft-shell clam, *Mya arenaria* L.: a field test of site, clam size, and intraspecific density. *Aquaculture* 130:145-158.
- Beal, B.F., Randall, S.F., Pepperman, K.E. 2020. Comparative field trials to examine the efficacy of a traditional management tool – brushing – to enhance local densities of 0-y class recruits in the soft-shell clam *Mya arenaria* L. fishery in Maine, USA. *J. Shellfish Res.* 39(3):1-15.
- Beal, B.F., Mercer, J.P., O’Conghaile, A. 2002. Field-based nurseries for hatchery-reared postlarvae of the European lobster, *Homarus gammarus* (L.): results of a 10-month, manipulative field experiment on the Irish west coast and implications for stock enhancement efforts. *Aquaculture* 210:137-157.
- Beal, B.F., Meredith, S.D., Jourdet, C.B., Pepperman, K.E. 2016. Diet of an underappreciated benthic intertidal fish, *Cryptacanthodes maculatus* (Cryptacanthodidae), in eastern Maine, USA. *AIMS Environ. Sci.* 3:488-508. doi: 10.3934/environsci.2016.3.488.
- Beal, B.F., Nault, D-M, Annis, H., Thayer, P., Leighton, H., Ellis, B. 2016. Comparative, large-scale field trials along the Maine coast to assess management options to enhance populations of the commercially-important soft-shell clam, *Mya arenaria* L. *J. Shellfish Res.* 35(4):1-17.
- Beal, B.F., Parker, M.R., Vencile, K.W. 2001. Seasonal effects of intraspecific density and predator exclusion along a shore-level gradient on survival and growth of juveniles of the soft-shell clam, *Mya arenaria* L., in Maine, USA. *J. Exp. Mar. Biol. Ecol.* 264:133-169.
- Tan, E.B.P., Beal, B.F. 2015. Interactions between invasive European green crab, *Carcinus maenas* (L.), and juveniles of the soft-shell clam, *Mya arenaria* L., in eastern Maine, USA. *J. Exp. Mar. Biol. Ecol.* 462:62-73.
- Vadas, R.L., Beal, B.F., Dowling, T. & Fegley, J. 1999. Experimental field tests of natural algal diets on gonad index and roe quality in *Strongylocentrotus droebachiensis*: A case for rapid summer production. *Aquaculture* 182:115-135.
- Vadas, R.L., Beal, B.F., Dudgeon, S.R., Wright, W.A. 2015. Spatial and temporal variability of spawning in the green sea urchin *Strongylocentrotus droebachiensis* along the coast of Maine. *J. Shellfish Res.* 34:1097-1128.