

CURRICULUM VITA

1. NAME

Ronald Goldberg

2. PROFESSIONAL ADDRESS

NMFS NEFSC Milford Laboratory, 212 Rogers Avenue Milford CT 06460

3. CURRENT TITLE / POSITION / GRADE

Supervisory Research Fishery Biologist/Chief, Culture Systems and Habitat Branch

4. EDUCATIONAL HISTORY

B.A. Northeastern University, 1975, Biology

M.S. Southern Connecticut State Univ., 1985, Marine Ecology

Other training:

Supervision of Groups, USDA Graduate School, 2003

NOAA Leadership Training, 1999

Connecticut DEP Recreational Boating Certification, 1999

American Red Cross CPR and First Aid Certification, 1979 - present

ArcInfo Geographic Information Systems Software, 1998

Building Teams, 1998

UNIX Training, 1995

Maintaining Personal Computers, 1985

Statistics and Experimental Design, 1982

NOAA Dive Certification and Dry Suit Training, 1984

5. PROFESSIONAL HISTORY

2004 - Present

Supervisory Research Fisheries Biologist, Chief, Culture Systems and Habitat Evaluation Branch, Coordinates research, budget, and personnel activities within the Branch, investigations of the aquaculture of mollusks and finfish and the role of nearshore coastal habitats as nursery areas. Projects include: developing aquaculture methods for molluscan species, habitat ecology of finfish, invasive species, interactions between aquaculture and the ecology of benthic organisms, and assessing lobster stock enhancement.

1997 - 2003

Fisheries Biologist (Research), Team Leader, Shellfish and Finfish Habitat Evaluation and Enhancement Project. (supervisor, F. Thurberg) Coordinates and conducts research activities of the Habitat Team, investigating the role of nearshore coastal habitats as nursery areas for young fish and shellfish. Projects include: bay scallop restoration, defining essential habitat for young-of-the-year winter flounder, and fisheries enhancement of tautog. Other activities include using seaweed biofilters to ensure environmentally compatible aquaculture and developing a nitrogen budget for the Laboratory's closed-system aquaculture.

1992 - 1997

Fisheries Biologist (Research), Physiological Effects of Pollution Stress Investigation. (supervisor, F. Thurberg) Developed sampling protocol for young-of-the-year (YOY) winter flounder for the NEFSC Life-History Model. Conducted study comparing growth, distribution, and abundance of winter flounder within and adjacent to an urban harbor. Responsible for field experiments to measure growth rate of YOY winter flounder and tautog in different nearshore coastal habitat-types including eelgrass beds, macroalgal areas, and in marsh creeks. Serves as NEFSC representative to NMFS Restoration Center.

1987-1992

Fisheries Biologist (Research), Leader, Life History Unit, Genetics/Life History Investigation. (supervisor, A Longwell) Responsible for research on the ecology and recruitment processes of hard clams. With one other member of unit, conducts experiments in the laboratory and field designed to quantify spatial and temporal variability of recruitment success at different life- history stages. Coordinates activities with other laboratory groups on joint projects. Activities include field experiments and observations using SCUBA, measurement of environmental parameters, and analysis of population structure from growth rings in shells.

1985-1987

Fisheries Biologist (Research), Life History Unit. (supervisor, E. Rhodes) Assisted in developing and implementing a study of hard clam recruitment in Long Island Sound (LIS). This work included establishing experimental sites, representative of different habitats within LIS, and measuring growth and settlement of hard clams. In more focused studies, physiology, pollutant uptake, and predation rate were measured.

1975-1985

Fisheries Biologist (Research), Subtask Leader, Spawning and Rearing of Mollusks. (supervisor, W. Landers) Developed aquaculture methods for the surf clam to a potentially marketable (50 mm) length. All phases of culture, larval, nursery, and field grow-out were investigated. Studied reproductive biology in relation to broodstock conditioning for spawning. Provided information and training on aquaculture methods. Since completion of this project, 4 commercial aquaculture firms have adopted methods and begun to develop young surf clams as a product.

1975

Biologist, Normandeau Associates, Portsmouth, New Hampshire. Cultured soft shell clams and analyzed morphometrics to improve identification of larvae from plankton samples.

1973-1975 (Intermittent)

Cooperative Education Student, Northeastern University, Milford Laboratory - reared invertebrates and mass cultured algae. Other positions; EPA, Edison, NJ - microbiology, Harvard University - invertebrate species identification, Northeastern University's Marine Lab, Nahant, MA - histology and seawater system construction.

6. AWARDS

2005 Employee of the Year, NOAA Fisheries, NEFSC, Supervisory
1999 NOAA Bronze Medal, Scallop Aquaculture System
1980 Special Act Award, Developed Seawater Monitoring System
1978 Sustained Superior Performance
1993, 1994, 1996 Quality Step Increases

7. PUBLICATIONS

Peer-reviewed

- Meseck, S., Mercaldo-Allen, R., Rose J.M., Clark, P., Kuropat, C., and Pereira, J., and **Goldberg, R.** (2014) Effects of hydraulic dredging for *Mercenaria mercenaria*, Northern quahog, on sediment biogeochemistry. *J World Aquaculture Society*, 45(3):301-311.
- Goldberg, R.**, Rose J.M., Mercaldo-Allen, R., Meseck, S. L., Clark, P., Kuropat, C., and Pereira, J. (2014). Effects of hydraulic dredging on a cultivated bed of the Northern quahog, *Mercenaria mercenaria*. *Aquaculture*, 428-429 (2014):150-157.
- Brousseau, D., **Goldberg, R.**, and Garza, C. (2014). Impact of Predation by the Invasive Crab, *Hemigrapsus sanguineus*, on Survival of Juvenile Blue Mussels in Western Long Island Sound, USA. *Northeastern Naturalist*, 21(1):119-133.
- Goldberg R.**, R Mercaldo-Allen, J M. Rose, P Clark, C Kuropat, S Meseck, and J Pereira. (2012) Effects of hydraulic shellfish dredging on the ecology of a cultivated clam bed. *Aquaculture Environment Interactions*. Vol. 3: 11–21.
- Mercaldo-Allen R., **R. Goldberg**, P. Clark, and C. Kuropat (2011) Observations of juvenile lobsters, *Homarus americanus*, on a rock-reef in Long Island Sound Northeastern Naturalist 181(1):45-60.
- J. Ziskowski, R. Mercaldo-Allen , J.J. Pereira, C. Kuropat, **R. Goldberg** (2008) The effects of fin rot disease and sampling method on blood chemistry and hematocrit measurements of winter flounder, *Pseudopleuronectes americanus* from New Haven Harbor (1987–1990) *Marine Pollution Bulletin*, 56 740-750.
- Brousseau, D and **R. Goldberg** (2007) Predation by the invasive crab, *Hemigrapsus sanguineus* on recruiting barnacles, *Semibalanus balanoides* in western Long Island Sound: field experiments to assess ecological impact *Mar. Ecol. Prog. Ser.*, Vol. 339: 221–228.
- Goldberg, R.** (2006). Datasheet on aquaculture of the surf clam, *Spisula solidissima*. CAB International. *Aquaculture Compendium*, CAB International Wallingford, UK: 5 pp.
- Goldberg, R.**, B. Phelan, J. Pereira, S. Hagan, P. Clark, A. Bejda, A. Calabrese, A. Studholme, and K Able. (2002) Variability in the distribution and abundance of young-of-the-year winter flounder, *Pseudopleuronectes americanus*, across habitat types in three northeastern U.S. Estuaries. *Estuaries* 25(2): 215-226.
- Kuropat, C., **R. Goldberg**, E. Caldarone, B. Phelan, F. Thurberg. (2002) Evaluation of RNA content as an indicator of growth in young-of-the-year winter flounder, *Pseudopleuronectes americanus*, and tautog, *Tautoga onitis*, among and within different habitat types. *Marine Ecology Progress Series* 230: 265-274.
- Phelan, B., **R. Goldberg**, A. Bejda, J. Pereira, S. Hagan P. Clark, A. Studholme, A. Calabrese, and K Able. (2000) Estuarine and habitat-related differences in growth rates of young-of-the-year winter flounder, *Pseudopleuronectes americanus*, and tautog, *Tautoga onitis*, in three northeastern estuaries. *Journal of Experimental Marine Biology and Ecology* 247: 1-28.

- Goldberg, R.**, J. Pereira, and P. Clark. (2000) Strategies for enhancement of natural bay scallop populations, *Argopecten irradians irradians*; a case study in the Niantic River estuary, Connecticut. *Aquaculture International* 8: 139-158.
- Pereira, J, **R. Goldberg**, J. Ziskowski P. Berrien, W. Morse, D. Johnson. (1999) Essential Fish Habitat Source Document: Winter Flounder (*Pseudopleuronectes americanus*). NOAA NOAA Technical Memorandum NMFS-NE-138
- Wikfors, G.H., W.J. Blogoslawski and **R. Goldberg**. (1993) Relationships between bacterial abundance and selected hydrographic and seston measures at three Long Island Sound sites. Publication No. CT-SG-93-03, Connecticut Sea Grant Program, University of Connecticut. pp. 191-195.
- Goldberg, R.** and R.L. Walker. (1990) Cage culture of yearling surf clams, *Spisula solidissima*, in coastal Georgia. *Journal of Shellfish Research*, Vol. 9, No. 1 pp 187-193.
- Goldberg, R.** (1989) Biology and culture of the surf clam. In: J. Manzi and M. Castagna (eds.) Clam Mariculture in North America. Elsevier Press, Holland. pp. 263 - 276.
- Lutz, R, Goodsell, J, Castagna, M, Chapman, S, Newell, C, Hidu, H; Mann, R; Jablonski, D, Kennedy, V; S. Siddall, **R. Goldberg**, H. Beattie, C. Falmagne, A. Chestnut, and A. Partridge (1982) Preliminary observations on the usefulness of hinge structures for identification of bivalve larvae. *Journal of Shellfish Research* vol. 2, no. 1, pp. 65-70
- Goldberg, R.** (1980) Biological and technological studies on the aquaculture of yearling surf clams; Part 1: Aquacultural production. *Proceedings of the National Shellfisheries Association*, Vol. 70, pp. 55-60.
- Rhodes, EW, **Goldberg, R.**, Widman, J.C. (1981) The role of raceways in mariculture systems for the bay scallop, *Argopecten irradians irradians*, and the surf clam, *Spisula solidissima*. Nursery culturing of bivalve molluscs. Proceedings of the International Workshop on the Nursery Culturing of Bivalve Molluscs Spec. Publ. Eur. Mariculture Society, vol. 7 European Mariculture Soc., Bredene (Belgium) pp. 227-251.
- Goldberg R.**, (1978) Some effects of gas-supersaturated seawater on *Spisula solidissima* and *Argopecten irradians*. *Aquaculture*, 4, pp. 281-287.
- Savage, N.B. and **R. Goldberg**. (1976) Investigation of practical means of distinguishing *Mya arenaria* and *Hiatella sp.* larvae in plankton samples. *Proceedings of the National Shellfisheries Assoc.*, Vol. 66, pp. 42-53.
- Non-peer-reviewed**
- Mercaldo-Allen R, **Goldberg R.** 2011. [Review of the Ecological Effects of Dredging in the Cultivation and Harvest of Molluscan Shellfish](#). US Dept Commer, NOAA Technical Memorandum NMFS-NE-220; 78p.
- Pereira, J, **R. Goldberg**, J. Ziskowski. (1999) Essential Fish Habitat Source Document: Winter Flounder (*Pseudopleuronectes americanus*), NOAA Technical Memorandum NMFS-NE-138

Goldberg, R., A. Studholme, A. Calabrese and K. Able. (1993) Functional significance of estuaries in the Northeast: A proposed case study comparing habitat utilization and quality. Proceedings of Coastal Zone 1993 Conference, New Orleans, LA, July 1993. American Society of Civil Engineers Press, New York, NY. pp. 1630 -1644.

Goldberg, R (1985) Growth and energetics of the surf clam, *Spisula solidissima*, (Dillwyn) at different algal concentrations. Masters Thesis, Southern Connecticut State University, New Haven CT, 65 pp.

Goldberg, R (1984) Cage Culture of Yearling Surf Clams. NOAA Technology Brief, NTIS Tech Notes, Life Sciences PB84-925511. U. S. Govt. Printing Office.

Rhodes, EW, **Goldberg, R**, Widman, J.C. (1984) Density-dependent growth of the bay scallop, *Argopecten irradians irradians*, in suspension culture. International Council for the Exploration of the Seas, C. M./1984/K:/18.