

CURRICULUM VITAE

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EDUCATION:

- 1972 B.S., St. Mary's College of Maryland, St. Mary's City. Biology.
- 1993 Ph.D., University of Maryland, College Park. Marine-Estuarine-Environmental Sciences

PROFESSIONAL BACKGROUND:

- 1969 Biological Aide, Maryland Department of Natural Resources, Department of Chesapeake Bay Affairs, Annapolis, MD.
- 1972-1973 Biological Aide, University of Maryland, Center for Environmental and Estuarine Studies, Chesapeake Biological Laboratory, Solomons.
- 1973-1975 Faculty Research Assistant, University of Maryland, Center for Environmental and Estuarine Studies, Chesapeake Biological Laboratory, Solomons.
- 1975-1977 Faculty Research Assistant, University of Maryland, Center for Environmental and Estuarine Studies, Horn Point Environmental Laboratories, Cambridge.
- 1977-1981 Biologist II, University of Maryland, Center for Environmental and Estuarine Studies, Horn Point Environmental Laboratories, Cambridge.
- 1982-Present Shellfish Aquaculture Specialist, University of Maryland Cooperative Extension Service, Sea Grant Extension Program, Horn Point Laboratory, Cambridge.
- 1986-1993 Associate Agent, University of Maryland, Center for Environmental and Estuarine Studies, Horn Point Environmental Laboratories, Cambridge.
- 1993-1999 Agent, University of Maryland, Center for Environmental Science, Horn Point Laboratory, Cambridge.

1999-Present Senior Agent, University of Maryland, Center for Environmental Science, Horn Point Laboratory. Cambridge.

2012-Present Principal Agent, University of Maryland, Center for Environmental Science, Horn Point Laboratory, Cambridge.

AWARDS:

1976 Orville Crowder Scholarship: World Nature Association and the Audubon Naturalists Society.

1992 H.Lou Gibson Best Journal Paper Award 1992
(for Photographing the Osprey in the Chesapeake Bay Region)

2002 UMCES Presidents Award for Excellence in the Application of Science.

2005 Oyster Recovery Partnership Outstanding Service Award

2013 Maryland General Assembly: Citation for Service in Oyster Restoration in Maryland. Presented by Senator Bryan Simoniare.

RESEARCH:

Areas of Professional Expertise

Culture experience in these species: American oyster *Crassostrea virginica*, Asian Oyster *Crassostrea ariakensis*, soft clam *Mya arenaria*, hard clam *Mercenaria*, *Mulinia lateralis*, *Macoma balthica*, *Rangia cuneata*, Antarctic limpet, Antarctic starfish, striped bass *Morone saxatilis*, hybrid striped bass *Morone saxatilis* X *Morone chrysops* and soft shelled blue crab *Callinectes sapidus*, turbot *Scophthalmus maximus*, hard clam *Tapes philipinarum*.

Special training in these areas: Warm water fish culture, striped bass culture, bird censusing and SCUBA diving.

Current Research Projects:

Restoration of Oysters in Chesapeake Bay:

Funded through several sources, and includes a wide range of activities. This work has both hatchery and field components and involves significant collaboration with others.

EXTENSION PUBLICATIONS:

Webster, D. and D. Meritt. 1985. Oyster Aquaculture Workbook, Work Sheet 1: Purchasing Seed Oysters. UM-SG-MAP-85-02. 4 pp.

- Webster, D. and D. Meritt. 1988. Oyster Aquaculture Workbook, Worksheet 2: Stabilizing Oyster Ground. UM-SG-MAP-88-04. 4 pp.
- Webster, D., D. Meritt and G. Flick. 1989. Aquaculture in Maryland and Virginia: Problems, Politics and Potential. UM-SG-MAP-89-01. 32 pp.
- Bohn, Richard, Don Webster and Don Meritt. 1995. Producing Oyster Seed by Remote Setting. Oyster Aquaculture Workbook Series 3. Maryland Sea Grant Extension Program, UM-SG-MAP-95-03. 8pp.
- Meritt, D. W. 1995. Maryland Oyster Recovery Partnership. *Maryland Aquafarmer*, Summer. <http://www.mdsg.umd.edu/Extension/Aquafarmer/Fall95>.
- Meritt, D. W. 1995. Choptank River Oyster Recovery Area activities begin. *Maryland Aquafarmer*, Fall. <http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Fall95/#RECOVER>
- Meritt, D. W., D. W. Webster. 1996. Projects and Activities Involving Oysters. Sea Grant Extension Program Site Review Briefing Document.
- Meritt, Don, 1996. Sizing A Remote Setting System. *Maryland Aquafarmer*, Winter <http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Winter96/#REMOTE>
- Meritt, Donald. W. 1997. Adventures in Low-salinity Oyster Culture: Strategies for coping with too much Fresh Water. Proceedings of 17th Milford Aquaculture Seminar. Milford, CT. Feb 1997.
- Baptist, Garry and Don Meritt, 1997. Preparation and use of algal paste for shellfish hatchery operation. Proceedings of the forty-ninth annual Interstate Seafood Seminar. November 1997, Ocean City, Maryland.
- Goldsborough, William and Donald Meritt. 1998. Oyster Gardening.UM-SG-MAP-98-02. <http://www.mdsg.umd.edu/issues/chesapeake/oysters/garden/>
- Webster, Don and Don Meritt. 1998. The Oyster Alliance: Aquaculture for the Environment, *Maryland Aquafarmer*, Summer. <http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer98/index.php>
- Webster, Don and Don Meritt. 1998. Broodstock Management for Shellfish Hatcheries, *Maryland Aquafarmer*, Summer. <http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer98/>

- Donald W. Meritt, 1998. Oyster Hatchery Expansion, Maryland Aquafarmer, Fall.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Fall98/>
- Goldsborough, William and Donald Meritt. 1999. Oyster Gardening for Restoration and Education. UM-SG-SGEP-99-04. 8 pp.
<http://darc.cms.udel.edu/ibog/umdog.pdf>
- Webster, Don and Don Meritt, 1999. Citizen's Oyster Forum, Maryland Aquafarmer, Spring.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/spring99/>
- Meritt, Don and Don Webster, 1999. Hard Clam Potential for Maryland. Maryland Aquafarmer, Winter
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Winter99/>
- Webster, Don and Don Meritt, 1999. Aquaculture Down Under. Maryland Aquafarmer, Summer
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer99/#2>
- Meritt, Donald W. and W. Goldsborough. 1999. Oyster Gardening for restoration and Education. A publication of the Oyster Alliance.
<http://darc.cms.udel.edu/ibog/umdog.pdf>
- Meritt, D. W. 1999. Oyster Hatcheries in Maryland. Maryland Aquafarmer, Fall, 1999.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Fall99/index.php#1>
- Meritt, Don. 2000. Oyster Production at the Horn Point Laboratory, 1994-2000. Maryland Aquafarmer, Fall 2000.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Fall00/#2>
- Meritt, Don and Merrill Leffler. 2000. Oyster Restoration in the Chesapeake Bay: Looking Back, Looking Forward. Maryland Aquafarmer, Fall, 2000.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Fall00/#1>
- Webster, Don and Don Meritt. 2000. Keeping an Eye on Clam Disease, An Interim Report, Maryland Aquafarmer, Winter.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Winter00/#3>
- Webster, Don and Don Meritt. 2001. The Future of Oysters in Chesapeake Bay, Different Paths to Restoration. Maryland Aquafarmer. Summer.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer01/>
- Meritt, Donald W. 2001. Creating Oyster Habitat: What Makes a Good Site? Maryland Aquafarmer, Spring 2001.

<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Spring01/>

- Meritt, Don. 2001. University of Maryland's Horn Point Hatchery. The Bay Restorer. Winter 2001. p.4.
- Meritt, Don, and Merrill Leffler. 2002. Non-native Species The Need for Balanced Evaluation. Maryland Aquafarmer, Spring 2001.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Spring02/#1>
- Webster, D. & D. Meritt, 2004. Aquaculture in Micronesia. Maryland Aquafarmer, Maryland Sea Grant publication 2004-1.
- Webster, D. and D. Meritt. 2004. Extension Abroad: Aquaculture in Micronesia. Maryland Aquafarmer, Summer 2004, Maryland Sea Grant Publication 2004-2.
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer04/#6>
- Webster, D. and D. Meritt, 2005. New Law Streamlines Aquaculture in Maryland. Maryland Aquafarmer, Maryland Sea Grant Publication 2005-1. pp.1,2. Reprinted in Aquaculture Magazine, with international distribution. Available on web at
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer05/>
- Webster, D. and D. Meritt. 2005. PERSPECTIVES: A Role for Aquaculture in Maryland's Oyster Fishery. Maryland Aquafarmer, Maryland Sea Grant Publication 2005-1, p. 10. Reprinted in Aquaculture Magazine with international distribution. Available on web at
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer05/>
- Meritt, Donald. 2005. Quarantine Facility Key for Studies on Non-Native Oyster. Maryland Aquafarmer, Maryland Sea Grant Publication 2005-1, p 10. Available on web
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer05/#7>
- Wicks, C., R. Orth, C. Wazniak, D. Meritt, D. Webster, E. Porter, M. Tarnowski and T. Carruthers, 2007. "The Role of Benthic Communities in the Health of Maryland's Coastal Bays", 4 page newsletter produced by the Integration and Application Network (IAN) UMCES. February, 2007.
- Webster, D., D. Meritt, J. Takacs, T. Rippen, A. Lazur, and D. Terlizzi. 2007 and 2009. Aquaculture Situation and Outlook Report 2007: Maryland. 6 pages. Part of Northeastern Regional Aquaculture Center publication No. 104-2007. On web at:
http://nrac.umd.edu/files/Factsheets/NRAC-104-2007_Maryland.pdf
- Webster, D. and D. Meritt. 2007. Lease Laws and Regulations. 21 pages, 1 table. A compendium of laws regulating private leases with references to the Code of Maryland Regulations, Annotated Code of Maryland, and federal laws affecting oyster aquaculture. On web at
<http://www.mdsg.umd.edu/programs/extension/aquaculture/oysters/background/index.ph>

Parker, Matt., D. Webster, D. Meritt, and S. Dill. 2011. Economics of Remote Setting in Maryland: A Spreadsheet for Cost Analysis. Excel Computer Program and Instruction Booklet.
http://www.mdsg.umd.edu/programs/extension/aquaculture/oysters/remote_setting/

Parker, M., S. Dill, D. Webster & D. Meritt. 2013. Bottom Culture Cost Analysis. 14 pages manual with accompanying spreadsheet for calculating cost and return in submerged land lease operations.
http://extension.umd.edu/sites/default/files/_images/programs/aquaculture/Bottom%20Culture%20Cost%20Analysis%20full.pdf

PEER REVIEWED PUBLICATIONS:

Books, Chapters in Books, and Other Significant Publications

Pomponi, S. and D. Meritt. 1985. Life History and Boring Rates of the Low-Salinity Boring Sponge *Cliona truitti* in the Upper Chesapeake Bay. UM-SG-TSN-85-03. 4 pp.

Harrell, Reginal M., John N. Hochheimer, Donald W. Meritt, and David A. Rhoades. 1987. A new system for control of temperature and salinity for experimental and production tank culture. *Aquacultural Engineering*: Vol 8, Issue 3, pp. 155-163.

Harrell, Reginal M., Donald W. Meritt, John N. Hochheimer, Donald W. Webster, and Wallace D. Miller. 1988. Overwintering Success of Striped Bass and Hybrid Striped Bass Held in Cages in Maryland. *The Progressive Fish-Culturist*: Vol. 50, No. 2, pp. 120-121.

Pomponi, Shirley A. and Donald W. Meritt. 1990. Distribution and life history of the boring sponge *Cliona truitti* in the Upper Chesapeake Bay. 1990. In: Klaus Ruetzler, ed. *New Perspectives in Sponge Biology*, Smithsonian Institution Press, Washington, D.C., pp. 384-390.

Meritt, D. W. 1996. Double-crested Cormorant *Phalacrocorax auritus*. (species account) in: *Atlas of the Breeding Birds of Maryland and the District of Columbia*. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburgh Press.

Meritt, D. W. 1996. Canada Goose *Branta canadensis*. (species account) in: *Atlas of the Breeding Birds of Maryland and the District of Columbia*. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburgh Press.

Meritt, D. W. 1996. Wood Duck *Aix sponsa*. (species account) in: *Atlas of the Breeding Birds of Maryland and the District of Columbia*. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburgh Press.

- Meritt, D. W. 1996. American Black Duck *Anas rubripes*. (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Meritt, D. W. 1996. Mallard *Anas platyrhynchos* . (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Meritt, D. W. 1996. Blue-winged Teal *Anas discors*. (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Meritt, D. W. 1996. Northern Shoveler *Anas clypeata*. (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Meritt, D. W. 1996. Gadwall *Anas strepera*. (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Meritt, D. W. 1996. Hooded Merganser *Mergus cucullatus* . (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Meritt, D. W. 1996. American Coot *Fulica americana*. (species account) in: Atlas of the Breeding Birds of Maryland and the District of Columbia. Chandler S. Robbins, Senior Editor, Erik A. T. Blom, Project Coordinator. University of Pittsburg Press.
- Zhihua, Kuang, Laura McConnell, Alba Torrents, Donald Meritt, and Stephanie Tobash. 2003. Atmospheric Deposition of Pesticides to an Agricultural Watershed of the Chesapeake Bay. *Journal of Environmental Quality* 32: 1577-1582.
- C. A. Milbury, D. W. Meritt, R. I. E. Newell and P. M. Gaffney. 2004. Mitochondrial DNA markers allow monitoring of oyster stock enhancement in the Chesapeake Bay. *Marine Biology*. DOI: 10.1007/s00227-004-1312-z
- Webster, D. and D. Meritt, 2005 Aquaculture in Micronesia. *Aquaculture Magazine* Vol. 31, No. 1. pp 12-14. Reprinted from Maryland Aquafarmer, Maryland Sea Grant publication 2004-1.
- Brown, Bonnie L., A. J. Butt, S.W. Shelton, D. Meritt, and K. T. Paynter, 2005. Resistance of Dermo in eastern oysters, *Crassostrea virginica* (Gmelin), of North Carolina but not Chesapeake Bay Heritage. *Aquaculture Research*. 36, Issue 14. October.

- Brown, Bonnie L., A. J. Butt, D. Meritt, and K. T. Paynter, 2005. Evaluation of resistance to Dermo in eastern oyster strains tested in Chesapeake Bay. *Aquaculture Research*. 36, Issue 15. 1544-1554.
- Boesch, D. F., V. S. Kennedy, D. W. Meritt, R. I. E. Newell, E. W. North, and K. T. Paynter. 2005. "Bar Cleaning" in Oyster Restoration. A Consensus Statement from the University of Maryland Center for Environmental Science.
- Hare, Matthew P., Standish K. Allen Jr., Paulette Bloomer, Mark D. Camara, Ryan B. Carnegie, Jenna Murfree, Mark Luckenbach, Donald Meritt, Cheryl Morrison, Kennedy Paynter, Kimberly S. Reece and Colin G. Rose. 2006. A genetic test for recruitment enhancement in Chesapeake Bay oysters, *Crassostrea virginica*, after population supplementation with a disease tolerant strain. *Conservation Genetics*. Vol. 7, N. 5. DOI 10.1007/s10592-005-9108-3. March 2006.
- Glibert, P.M., J. Alexander, D.W. Meritt, E.W. North and D.K. Stoecker. 2007. Harmful algae pose additional challenges for oyster restoration: Impacts of the harmful algae *Karlodinium veneficum* and *Prorocentrum minimum* on early life stages of the oysters *Crassostrea virginica* and *Crassostrea ariakensis*. *J. Shellfish Res.* 26: 919-925.
- Alexander, J.A. D. K. Stoecker, D. W. Meritt, S. T. Alexander, A. Padeletti, D. Johns, L. Van Heukelem and P. M. Glibert. 2008. Differential feces and pseudofeces production by the oyster *Crassostrea ariakensis* when exposed to diets containing harmful dinoflagellate and raphidophyte species. *J. Shellfish Res.* 27: 567-579.
- Stoecker, D.K., J.E. Adolf, A.R. Place, P.M. Glibert, and D. Meritt. 2008. Effects of the dinoflagellates *Karlodinium veneficum* and *Prorocentrum minimum* on early life history stages of the Eastern Oyster, *Crassostrea virginica*. *Marine Biology*. 154:81-90,
- Paynter, K.T., J.D. Goodwin, M.E. Chen, N.J. Ward, M.W. Sherman, D. W. Meritt, & S.K. Allen. 2008. *Crassostrea ariakensis* in Chesapeake Bay: Growth, Disease, and Mortality in Shallow Subtidal Environments. *J. Shellfish Res.* 27(3): 509-516.
- Kingsley-Smith, P.H., Harwell, M.L., Kellogg, S.M., Allen, S.K. Jr., D.W. Meritt, K.T. Paynter, Jr., & M.W. Luckenbach. 2009. Survival and growth of triploid *Crassostrea virginica* (Gmelin, 1791) and *C. ariakensis* (Fujita, 1913) in bottom environments of Chesapeake Bay: Implications for an introduction. *J. Shellfish Res.* 28:1-16,
- Paynter, K.T., Volitano, V., Lane, H., Allen, S.M. and D.W. Merit. 2010. Growth Rates and prevalence of *Perkinsus marinus* prevalence in restored oyster populations in Maryland. *J. Shellfish. Res.* 29(2): 309-317.
- Goel, Anubha, L.L. McConnell, A. Torrents, D.W. Meritt, S.T. Alexander, J.R. Scudlark, and R. Scarborough. 2010. Environmental factors affecting the levels of legacy pesticides in

the air shed of Delaware and Chesapeake Bays, USA. *Environmental Toxicology and Chemistry*. 29(9): 1893-1906. <http://onlinelibrary.wiley.com/doi/10.1002/etc.243/full>

Harwell, Heather, D., P. Kingsley-Smith, M.L. Kellogg, S.M. Allen, S. K. Allen Jr., D.W. Meritt, K.T. Paynter, JR., and M.W. Luckenbach. 2010. A Comparison of *Crassostrea virginica* and *C. ariakensis* in Chesapeake Bay: Does oyster species affect habitat function? *J. Shellfish Res.* 29 :(2): 253-269.

Alaina H Campbell, Donald W Meritt, Rima B Franklin, Edward L Boone, Carol T Nicely and Bonnie L Brown., 2011. Effects of age and composition of field-produced biofilms on oyster larval setting. *Biofouling* 27(3):255-65 (2011) PMID 21360359

Meritt, D and D. Webster. 2013. Classroom in the Hatchery. An invited chapter in *Advances in Aquaculture Hatchery Technology*, G. Allan and Gavin Burnell, editors, Publication focusing on new technologies in maintaining sustainable aquaculture through hatchery practices, 30 chapters with international authors. Woodhead Publishing Ltd., Cambridge UK. pp. 596-625

Video and Television Productions:

Maryland Oyster Recovery Plan: Segment on Outdoors Maryland television program. Broadcast during 1996.

Common Ground: Video produced by Chesapeake Bay Foundation. Assisted with footage and interview. 1998-99.

Islands of the Chesapeake Bay: Segment of Outdoors Maryland television program. Broadcast several times from 1992 - 2004.

Maryland's Owls: Segment of Outdoors Maryland television program. Broadcast several times from 1991 - 2004.

Oyster culture in Maryland: Segment of Outdoors Maryland television program. Broadcast several times from 1990 - 2004.

Oyster Recovery Efforts in Chesapeake Bay: CNN interview, summer 2000.

CONTRACTS AND GRANTS:

Awarded and Expired:

Assessment of disease resistance and growth performance in distinct populations of the American oyster, *Crassostrea virginica*. United States Department of Commerce, NOAA. January 1991-June 1994. \$42,662. (8% time).

A comprehensive investigation of larval development and mortality in the eastern oyster. Northeastern Regional Aquaculture Center. April 1992-October 1994. \$198,698. (Co-investigator with Scott Gallager, Roxanna Smolowitz, Gary Wikfors, and Dennis Walsh).

Improving oyster seed production in Maryland: Determination of algal diets and triacylglyceride levels in oyster larvae which maximize metamorphic survival. United States Department of Agriculture Cooperative Grants Program, University of Maryland Agricultural Experiment Station. July 1994-June 1995. \$22,000. (Co-investigator with Ken Paynter).

Evaluation of American Oyster Stocks for Resource Rehabilitation: Disease Resistance and Genetics. United States Department of Commerce, NOAA. December 1994-November 1996. \$47,360. (Co-investigator with Ken Paynter and Pat Gaffney, 8% time).

Using oysters to enhance profitability in hybrid striped bass. Maryland Industrial Partnerships. July 1994-July 1997. \$63,463. (Co-investigator with HyRock Aquaculture Farm, Donald Webster, Reginal Harrell, Garry Baptist, and Kennedy Paynter, 4% time).

Evaluation of American Oyster Stocks for Resource Rehabilitation: Disease resistance and Genetics. Sea Grant Oyster Disease Research Program. December 1994-November 1997. \$92,676. (Co-investigator with Kennedy Paynter and Patrick Gaffney, 4% time).

Cooperative Regional Oyster Selective Breeding Project (CROSBREED). Maryland Sea Grant. September 1995-December 1997. \$33,766. (Co-investigator with Ken Paynter, 4% time).

Production of disease-free oysters for use in oyster recovery area research. Maryland Sea Grant. September 1995-July 1997. \$100,749. (Co-investigator with Kennedy Paynter, 8% time).

Brood stock management of disease resistant stocks in the hatchery. Sea Grant Oyster Disease Research Program. September 1997-August 1998. \$31,976. (Co-investigator with Stan Allen and Mark Luckenback).

Cooperative Program for Evaluation of Three Strains of the Eastern Oyster in Chesapeake Bay. Chesapeake Production of hatchery reared oyster spat for use in habitat rehabilitation and repletion efforts. Maryland Department of Natural Resources. July 1998 - June 1999. \$177,782. (Principal Investigator, 8% time).

Pesticide Residues in oyster tissues of the Chesapeake Bay. United States Department of Agriculture. September 1999-August 2000. \$5,091. (Principal Investigator)

Chesapeake Appreciation, Inc. July 1999-December 2001. \$39,612.

Adoption of Hard Clam Culture Techniques to Maryland's Seaside Bays. Maryland Industrial Partnership Program. August 1999-December 2002. \$80,981. (Principal Investigator).

Production of Seed Oysters for Strain Evaluation in Chesapeake Bay. Chesapeake Appreciation, Inc. (NOAA) October 1999-June 2001. \$ 64,000. (Principal Investigator)

Severn River Sanctuary Project. Chesapeake Appreciation, Inc. June 1999-September 2001. \$5,000 (Principal Investigator)

Collection of Rain and Air Samples for Pesticide Analysis from a site at HPL. United States Department of Agriculture. February 2000-January 2001. \$ 9,419 (Principal Investigator)

Oyster Recovery Project, Project Management. Chesapeake Appreciation, Inc. February 2000-February 2001. \$4,000.

Eastern Bay Sanctuary Project. Chesapeake Appreciation, Inc. May 2000-September 2001. \$5,000. (Principal Investigator)

Collection of Rain and Air Samples for Pesticide Analysis from a site at HPL. United States Department of Agriculture. March 2001-December 2001. \$ 5,976.40 (Principal Investigator)

Upgrade for Setting System and Production of spat for restoration activities. Maryland Oyster Recovery Partnership/Chesapeake Bay Foundation. June 2001-December 2002. \$25,000

Oyster Restoration in Chesapeake Bay. Chesapeake Appreciation Inc. February 2001-December 2001. \$56,000. (Principal Investigator)

Chesapeake Bay Restoration Activities.2001-2002. Department of Commerce, NOAA (thru Chesapeake Appreciation Inc). June 2001-December 2002. \$45,000. (Principal Investigator)

Production of oysters for restoration in the Magothy and Nanticoke Rivers. Chesapeake Bay Trust thru Maryland Oyster Recovery Partnership. April 2001- December 2002. \$7,000.

Chesapeake Bay Restoration Activities ORP/CBF Joint Project. 2001-2002. ORP/CBF thru Chesapeake Appreciation, Inc. June 2001-December 2002. \$57,400. (Principal Investigator).

Oyster Recovery Partnership. National Fish and Wildlife Foundation (through Chesapeake Appreciation, Inc.). April 2001-December 2002. \$3,000. (Principal Investigator).

Magothy and Nanticoke River Sanctuary Projects. Chesapeake Bay Trust (through Chesapeake Appreciation, Inc.). April 2001-December 2002. \$7,000. (Principal Investigator).

Production of oysters for restoration. Maryland Oyster Recovery Partnership. April 2001-December 2002. \$3,000.

Cooperative Regional Oyster Selective Breeding (CROSBreed) Project: Comprehensive Strategy for Genetic Rehabilitation and Conservation of Oysters. NOAA Oyster Disease Research Program. Co. P. I. *with* Standish K. Allen, Jr., Kimberly S. Reece, Eugene Burreson, Mark Luckenbach, Mark Camara. Virginia Institute of Marine Science, College of William and Mary. Gregory A. DeBrosse, Ximing Guo. Haskin Shellfish Research Laboratory, Rutgers University. Matt Hare, Kennedy Paynter, Don Meritt University of Maryland. Patrick M. Gaffney. College of Marine Studies, University of Delaware. October 2001- September 2003. \$410,077.

Lipid Enrichment of Eastern Oyster Broodstock and Larvae for Increased Production. Northeast Regional Aquaculture Center thru Cornell Cooperative Extension. February 2002-March 2003. Co. P.I. with K. Paynter, G. Rivara. \$39,150.

Oyster Display Tank. NOAA (through Maryland Sea Grant). February 2002-June 2002. \$1,500. (Principal Investigator)

Oyster Restoration Activities. Oyster Recovery Partnership (from MDNR/MES) \$281,745. Current ending date TBD. (Principal Investigator)

Evaluation of Gametogenesis and Spawning Cues for diploid *Crassostrea ariakensis* for Estimation of Environmental Risk. Maryland Department of Natural Resources. February 2004-March 2005. \$82,047 (Co-Principal Investigator with Stan Allen)

Chesapeake Bay Restoration Activities-Oyster Recovery Partnership Program. Maryland Department of Natural Resources/Maryland Environmental Services, (various projects). \$247,499 (Principal Investigator).

Oyster Restoration Activities. Oyster Recovery Partnership (from USACOE). \$26,250. November 2004 – December 2007. (Principal Investigator)

Characterizing the performance of the Suminoe Oyster, *Crassostrea ariakensis*, in Maryland waters. June 2003-May 2005. University of Maryland Sea Grant Co P. I. With K. Paynter, S. Allen (VIMS), \$152,510.

Genetic rehabilitation and conservation of Chesapeake oysters using disease-tolerant oyster strains; A study of their recruitment and introgression potential. 2003-2005. University of Maryland, Sea Grant, Oyster Disease Program. With Matt Hare, Ken Paynter. \$357,464

Evaluation of gametogenesis and spawning cues for diploid *C. ariakensis* for estimation of environmental risk and establishment of diploid brood stock populations. Maryland

Department of Natural Resources. (With S. Allen, VIMS), February 2004-March 2005. \$82,047. (Principal Investigator).

Chesapeake Appreciation, Inc. Remote Setting and Training Program for oyster growers in Maryland. 2011-13. \$490,000 total for three years.

Maryland Technology Institute (MIPS). Automated Spat-on-Shell Oyster Production System. Start, 2013-14, Total budget, \$256,274.

Awarded and Active:

MOU with Maryland Department of Natural Resources for Production of Spat. March 2004 – December 2008. 2004 funding level \$540,000; 2005 funding level \$475,000, 2006 funding level \$875,000, 2008 funding level \$500,000. Current funding level \$700,000 (Principal Investigator) (continuing annually)

Chesapeake Bay Restoration Activities-Oyster Recovery Program. Department of Commerce, NOAA. (Thru Chesapeake Appreciation, Inc. various funding sources). Approximately \$400,000/annually. (Principal Investigator).

Chesapeake Appreciation, Inc. Production of Oyster Larvae and Support Training. 2014-16. \$225,000.

Maryland Technology Institute (MIPS). Automated Spat-on-Shell Oyster Production System (Phase II). 2015-16, Total budget, \$256,274.

INVITED SEMINARS AND PRESENTATIONS:

Meritt, D. W. 1995. Choptank River Oyster Recovery Area. Maryland Waterman's Association Meeting. Ocean City, MD.

Meritt, D. W. 1995. Bird Islands of the Chesapeake Bay. Maryland Ornithological Society. Caroline County Chapter. Denton, MD.

Meritt, D. W. 1995. Update on Oyster Restoration Activities at Horn Point. Maryland Waterman's Association Meeting. Ocean City, MD.

Meritt, D. W. 1997. Restoring Oyster Reefs in Chesapeake Bay. Maryland SCUBA Divers Association. Baltimore, MD.

Meritt, D. W., Baptist, G. 1997. Preparation and Use of Algal Pastes for Shellfish Hatchery Operations. Aquaculture in the Mid-Atlantic '97. Ocean City, MD.

- Meritt, D. W. and Luckenbach, M. K. 1998. Oyster Culture in the Chesapeake Bay Region. Special Session of the Annual Meeting of the World Aquaculture Society. Las Vegas, NV.
- Meritt, D. W., R. M. Pfeiffer, M. J. Garreis, K. T. Paynter, and J. U. Takacs. 1999. Restoration Projects: A Chesapeake Bay Example. World Aquaculture Society, Sydney, Australia.
- Meritt, D. W. 2000. There are no Warblers in Australia. Maryland Ornithological Society. Talbot County Chapter. Easton, MD.
- Meritt, D. W. and Tobash, S. 2000. Production of Disease-free Oyster Seed Using Shallow Water Nurseries in the Mid-Chesapeake Bay. Fourth International Conference on Shellfish Restoration. Hilton Head, SC.
- Webster, D. W. and Meritt, D. W. 2000. Linking Public and Private Partnerships for Restoration Aquaculture in Maryland's Seaside Bays. Fourth International Conference on Shellfish Restoration. Hilton Head, SC.
- Goldsborough, W.J., R.D. Brumbaugh, D. W. Meritt & J.A. Wesson. 2000. Community-Based Oyster Restoration: Case Studies From Chesapeake Bay. Fourth International Conference on Shellfish Restoration. Hilton Head, SC.
- Meritt, D. W., S. Tobash, G. Baptist, and J. Takacs. 2000. Toys or Tools: Using Oyster Hatcheries in Restoration Projects. Scientific and Technical Advisory Committee, Aquatic Reef Subcommittee, Waldorf, MD.
- Meritt, D. W. 2000. Summary of Horn Point Hatchery Production 1994-1999. Second Virginia Maryland Natural Resources Colloquium. Rosaryville, MD.
- Meritt, D.W. 2000. Maryland Sea Grant Workshop for Congressional Staffers, Baltimore, MD.
- Meritt, D. W. 2000. The Role of Hatcheries in Oyster Rehabilitation. Workshop on Genetic Considerations for Hatchery-Based Restoration of Oyster Reefs. Gloucester VA.
- Meritt, D. W., 2001. Birdlife of Southeastern Australia. Maryland Ornithological Society, Caroline County Chapter. February 2001. Denton, MD.
- Meritt, D. W., 2001. Oyster Aquaculture the Roll of Hatcheries in Production and Restoration. Presentation to HPL summer students. June 2001.
- Meritt, D. W., S. Tobash, K.T. Paynter, and T. Koles. 2001. Tobash, S. and Meritt, D. W. 2000. Oyster Restoration and the University of Maryland: Interactions between Research, Industry and the Public (Poster). Fourth International Conference on Shellfish Restoration. Hilton Head, SC.

- Meritt, D. W. and J. Reese. 2001. Maryland Ornithological Society, Talbot County Chapter, 50 Years of Great Birding. Maryland Ornithological Society 56th Annual Conf. Salisbury, Md. June 2001. (Poster)
- Meritt, D. W., 2001. Oyster Hatchery Activities (part of the Oyster Restoration Efforts Panel). Maryland Waterman's Trade Show and Exposition. February. Ocean City, MD.
- Meritt, D. W., 2001. Creating Oyster Habitat What Makes a Good Site? 3rd Annual Maryland Citizens Oyster Forum. Annapolis, MD.
- Meritt, D.W. 2001. Birdlife of Southeastern Australia. Maryland Ornithological Society, Caroline County Chapter. February 2001. Denton, MD
- Meritt, D.W. 2001. Oyster Aquaculture the roll of Hatcheries in Production and Restoration. Presentation to HPL. Summer Students. June 2001
- Meritt, D.W., W.S. Tobash, K.T. Paynter, and T. Koles. 2001. Oyster Restoration in the Chesapeake Bay: Criteria for Site Selection. Fifth International Conference on Shellfish Restoration. Nanaimo, B.C.
- Meritt, D. W. 2001. Oyster Hatcheries: Their Roll in the Chesapeake Bay. Chesapeake Bay Maritime Museum. St. Michaels, MD. November, 2001.
- Meritt, D. W. 2001. Oyster Gardening in the Chesapeake: What is it? What's it good for? How do we do it? Where else can it work? University of Rhode Island, Ocean State Aquaculture Association. June 2001. Kingston, R.I.
- Paynter, K.T., S. Jordan, D. Meritt. 2001. Oyster Density and Habitat Creation. Estuarine Research Federation. St. Petersburg Beach, FL. November, 2001.
- Meritt, D. W. 2002. Oyster Restoration in Chesapeake Bay: Strain Selection and Non-native Species Use. Chesapeake Bay Seafood Industries Association. Annapolis, MD. "Oyster Restoration Activities at the University of Maryland's HPL Hatchery", poster display in coordination with the Oyster Recovery Partnership presented at the East Coast Commercial Fishermen's and Aquaculture Trade Expo, Ocean City, Md. January 2002.
- Meritt, D. W., 2002. Oyster Restoration in the Face of Disease. Citizens Oyster Forum. Annapolis, MD. March 2002.
- Meritt, D. W., 2002. Oyster Restoration in Maryland. Special presentation to visiting Japanese fishery scientists. HPL. March 2002.

- Meritt, D. W., 2002. The new Aquaculture and Restoration Ecology Laboratory. Shellfish Genetics work group. Mystic, CN. April 2002.
- Meritt, D. W., 2002. The Role of Hatcheries in Oyster Restoration in Chesapeake Bay. Presentation to the Society of Environmental Journalists. HPL. October 2002.
- Paynter, K.T., T. Koles, S. Tobash, D. Meritt. 2002. Mortality of Oysters Produced in the Hatchery and Planted in the Maryland Portion of Chesapeake Bay. 6th International Conference on Shellfish Restoration. Charleston, SC. November 2002.
- Reece, K.S., S.K. Allen, Jr., E. M. Burreson., M. Luckenbach. G.A. DeBrosse, X. Guo, M. P. Hare, D. Meritt, K. Paynter, P. M. Gaffney. 2002. Cooperative Regional Oyster Selective Breeding (CROSBreed) Project: Comprehensive Strategy for Genetic Rehabilitation and Conservation of Oysters. 6th International Conference on Shellfish Restoration. Charleston, SC. November 2002.
- Hare, M., S. K. Allen, Jr., E. M. Burreson, M.D. Camara, M. Luckenbach, K. S. Reece, G.A. DeBrosse, X. Guo, D. Meritt, K. Paynter, P.M. Gaffney., 2002. Preliminary Results on the Genetic Discrimination of Recruitment from Planted and Natural Oysters. 6th International Conference on Shellfish Restoration. Charleston, SC. November 2002.
- Meritt, D. W., 2002. Use of hatchery seed to restore oysters to Maryland's Chesapeake Bay. Presentation to workshop on Genetic Considerations for Hatchery-Based Restoration of Oyster Reefs held at Virginia Institute of Marine Science.
- Holyoke, R.R., R.I.E. Newell, J.C. Cornwell, M. S. Owens, and D.W. Meritt. 2003. The Role of Microphytobenthos in Denitrification and Nutrient Fluxes at the Sediment-Water Interface in a Shallow, Tidal Tributary of Chesapeake Bay, USA. Estuarine Research Federation, Seattle, WA. September 2003.
- A. Goel, L. L McConnell, A. Torrents, Z. Kuang, D. Meritt, S. Tobash, 2003. Pesticides in the atmosphere over the Choptank River Watershed, Chesapeake Bay, Proceedings Society of Environmental Toxicology and Chemistry, Abstract #PM194, p. 185
- A. Goel, Z. Kuang, L. L. McConnell, A. Torrents, D. Meritt, S. Tobash, 2003. Temporal trends in wet-deposition of pesticides to the Choptank River Watershed, Chesapeake Bay. Proceedings American Chemical Society, AGRO Division Abstract #80.
- “The Aquaculture and Restoration Ecology Center of the University of Maryland's Horn Point Lab”, poster display in coordination with the Oyster Recovery Partnership presented at the East Coast Commercial Fishermen's and Aquaculture Trade Expo, Ocean City, Md. February 2003.

- “Managed Reserves: Producing Oysters in the Face of Disease”, poster display in coordination with the Oyster Recovery Partnership presented at the East Coast Commercial Fishermen’s and Aquaculture Trade Expo, Ocean City, Md. February 2003.
- Meritt, Donald, Donald W. Webster, and Stephanie M. Tobash. 2004. Restoration Aquaculture at the University of Maryland: Helping to Expand a Resource in Trouble. Contributed Paper on the use of the Horn Point Hatchery in assisting with the rebuilding of oyster populations. Meeting of the World Aquaculture Society, Honolulu, HI. Abstract published on p. 398 of conference abstract book. Feb. 2004.
- Webster, D., D. Meritt, G. Shorter and H. Brooks. 2004. “Production, Problems, and Potential: Surveys of Maryland Shellfish Growers across Two Decades of Change”, Contributed paper based on thesis findings (Webster) documenting the decline of the Maryland oyster resource and aquaculture industry. Meeting of the World Aquaculture Society, Honolulu, HI. 51 slides. Abstract published on p. 632 of conference abstract book. World Aquaculture Society, Honolulu, HI. March 2004.
- Paynter, Kennedy T., Don Meritt, Stephanie Tobash, and Jacob Goodwin. 2004. Oyster Restoration in Chesapeake Bay: Success and Limitations”. Restore America’s Estuaries Conference. Seattle, WA. September 2004. Poster.
- Meritt, Donald, Stephanie M. Tobash, Donald W. Webster, Kennedy T. Paynter, Charlie S. Frenz and Mattilde Egge. 2004. Oyster Restoration in Maryland: An Integrated Approach to Address a Catastrophic Resource Decline Restore America’s Estuaries Conference. Seattle, WA. September 2004. Poster.
- Creating Partnerships for Restoring Coastal Bays: A Maryland Experience. Donald Webster, Donald Meritt, and Steve Gordon, 2004. Restore America’s Estuaries Conference. Seattle, WA. September 2004. Poster.
- Tobash, S., and Donald Meritt. 2004. Hatchery-Based Oyster Restoration in Maryland: Using Science to Solve Real World Problems. 7th International Conference on Shellfish Restoration. Nov. 2004. Poster.
- Kennedy T. Paynter, Donald W. Meritt, Standish Allen, Jacob Goodwin and Melissa Chen. 2004. Performance of Triploid *Crassostrea ariakensis* and *Crassostrea virginica* growth at four sites in Chesapeake Bay. 7th International Conference on Shellfish Restoration. Nov. 2004.
- Meritt, Donald, Stephanie Tobash, Clarissa Rounsaville, Melissa Radcliffe, Charles Frenz, Jake Goodwin, Melissa Chin and Ken Paynter. 2004. Managing Around Oyster Disease: Using Hatchery-Produced Oyster Spat for Restoration Efforts. 7th International Conference on Shellfish Restoration. Nov. 2004.

- Rounsaville, C., S. Tobash, and D. Meritt. 2004. How do I tell if my Oysters have set? Methods for Determining Setting Efficiency of Hatchery-Reared Oyster Larvae. 7th International Conference on Shellfish Restoration. Nov. 2004. Poster.
- Meritt, Donald, Stephanie Tobash, Melissa Radcliffe, Clarissa Rounsaville, Charles Frentz, Mathilde Egge, Kennedy Paynter and Jacob Goodwin. 2005. Innovative Approaches to Oyster Restoration Using Hatchery-Reared Oyster Spat. Aquaculture America 2005. Jan 2005
- Paynter, K.T. and D. Meritt. 2005 Oyster Restoration In the Maryland Portion of Chesapeake Bay Estuarine Research Federation. Norfolk, VA. Oct. 2005.
- Webster, D., D. Meritt and A. Lazur. 2006. Using Aquaculture for Restoration and Reaching New Audiences. Invited presentation for Extension Training Session at Aquaculture America '07, Las Vegas, NV, February, 2006.
- Webster, D., A. Lazur & D. Meritt. 2006. "Restoration Aquaculture: Involving New Audience and Changing Attitudes through Innovative Extension Programs." Invited presentation for Non-native Species section, Aquaculture America '07, Las Vegas, NV, Abstract published on p. 347 of conference summary. February 2006.
- Webster, D., A. Lazur and D. Meritt. 2006. Thinking Outside the Tackle Box: Developing Support for Restoration Aquaculture through New Audience Involvement", invited presentation using 20 slide Power Point program in session on Culture of Species in Crisis at the annual meeting of the American Fisheries Society, Lake Placid, NY. Abstract published in Conference summary. September 2006
- Meritt, Donald, S. Alexander, M. Radcliffe, A. Padeletti, C. Markin, B. Carey, K. Paynter, J. Goodwin, M. Chen, L. Kellogg, C. Frentz, E. Walters. 2006. Restoration Aquaculture: Using Hatcheries to Restore Oysters to Chesapeake Bay, invited presentation to special session on the Culture of Species in Crisis at the annual meeting of the American Fisheries Society, Lake Placid, NY, September, 2006.
- Alexander, J., D. Meritt, S. Alexander, D. Stoecker and P. Glibert. 2006. Effects of harmful algae on oyster growth. J. Shellfish Assoc. Annual Meeting. Monterey CA, March 2006.
- Stoecker, D.K., J.E. Adolf, A.R. Place, P.M. Glibert, and D. Meritt. Effects of the dinoflagellates *Karlodinium veneficum* on early life history stages of the Eastern Oyster, *Crassostrea virginica*. Phycological Society of America, Aug 2007
- Glibert, P.M., J. Alexander, D.K. Stoecker and D. Meritt. 2007. Impacts of eutrophication-related *Prorocentrum minimum* and *Karlodinium veneficum* blooms on early life stages

of oysters in Chesapeake Bay. Fourth Symposium on Harmful Algae in the US, October 2007.

Kingsley-Smith, P.R., M.W. Luckenback, K. T. Paynter, D. W. Meritt, H.D.Harwell, and M.L.Kellog. 2007. Evaluating the Potential of a Non-Native Oyster Species (*Crassostrea ariakensis*) to Restore Ecological Function to the Chesapeake Bay, USA. . 10th International Conference on Shellfish Restoration. Vlissingen, The Netherlands. Nov. 2007.

Meritt, D., D. Webster et al. 2008. Using Hatcheries to Restore Oysters to Chesapeake Bay: Combining Politics with Mother Nature to Restore a Depleted Ecosystem. Poster describing the application of hatchery technology in re-establishing oysters in systems where they have declined and chronicling the experiences gained by the UM Horn Point hatchery over three decades of research and extension work. Educator provided information on the outreach activities of the projects. Aquaculture America 2008, Orlando, FL. Abstract on p. 238 of the conference summary.

Meritt, D., 2008. Oyster Gardening: Basic conditions to consider to get started. Presented to Washington College Alumni Association. Chestertown, MD.

Meritt, D., 2008. Getting Started in Oyster Restoration. Presented to Oyster Creek Community Association. Edgewater, MD.

Meritt, D., 2008. Pacific Island Wildlife: A look at coral atolls from the bottom up. Presentation to residents of Londonderry Retirement Community. Easton, MD.

Meritt, D., 2008. Pacific Island Marine Life: The Fishes of Micronesia (and a few other things). Presentation to residents of Londonderry Retirement Community. Easton, MD.

Meritt, D., 2008. Pacific Island Marine-life: Impacts of World War II. Presentation to residents of Londonderry Retirement Community. Easton, MD.

Cheng-I Wei, and M. Varner (presenter). 2009. Presentation: 2009 AgriScience Forum in Yangling, China and hosted by Northwest Agriculture and Forestry University. Abstract: Accelerating attainment of excellence in an extension program. Provided series of slides describing my oyster program. Yangling, China. 2009

Meritt, D., 2009. Oyster Restoration in Chesapeake Bay including the use of Exotics. Presentation to R. Harrell's class ENST 499W/698W (MEES 698W) Current Issues in Fisheries and Wildlife Sciences.

Meritt, D., S. Alexander, C. Abbott, J. Alexander, B. Carey, M. Radcliffe, A. Roache, K. Paynter, S. Allen, S. Able and E. Walters. 2009. Oyster Restoration in Maryland's Chesapeake

- Bay: Production, Problems, and Promise. International Conference on Shellfish Restoration. Charlottetown, PEI, Canada.
- Meritt, D. 2010. Horn Point Hatchery Production 2009. East Coast Commercial Fishermen's and Aquaculture Trade Expo. Ocean City, MD. Jan. (presented by D. Webster)
- Meritt, D. 2010. Participated in meeting of Local Waterman's group, with MDNR, MDE, and local politicians in Southern Dorchester Co. Feb 2010
- Meritt, D. 2010. Maryland Seafood Harvesters Association: Worked to assist with forming plans to work with MDNR on new Oyster Spatial Management Plan. Feb 2010
- Meritt, D. 2010. Maryland Watermen's Association. Worked to assist with forming plans to work with MDNR on new Oyster Spatial Management Plan. March 2010.
- Meritt, D. 2010. Shellfish Financial Assistance Open House: Worked with MDNR, MDA and MARBIDCO on oyster financing. Lusby, MD and Easton, MD. August 2010.
- Meritt, D. 2010. Remote Setting: What is it? What's it good for? How do we do it? Where will it work? Presentation to Barnegat Bay Shellfish Restoration Class. Toms River, NJ June, 2010
- Meritt, D. 2010. Shellfish Production Methods, Larvae & Seed. Maryland Aquaculture Conference. Annapolis, MD. Nov. 2010
- Paynter, K.T., S.Allen, and D. Meritt. 2010. Hatchery-based oyster restoration in Maryland: Assessing success, a survey of projects up to 10 years old. Aquaculture America, San Diego, Ca. March, 2010.
- Alexander, S.T., E. Vlahovich, C. Abbott, J. Baynard, R. Carey, L.M. Guy, M.W. Radcliffe, E.A. Roache, S.M. Weschler, and D.W. Meritt. The Hotness Factor: Recognizing Competency of *Crassostrea virginica* larvae to maximize spat production in a Restoration Hatchery. 13th International Conference on Shellfish Restoration. Charleston, SC. Nov. 2010. Poster.
- Roache, E.A., C. Abbott, S.T. Alexander, J. Baynard, R. Carey, L.M. Guy, M.W. Radcliffe, E. Vlahovich, S.M. Weschler, and D.W. Meritt. Mapping the effects of the Horn Point Oyster Hatchery: Using a Production facility to influence Oyster Production and Restoration. 13th International Conference on Shellfish Restoration. Charleston, SC. Nov. 2010. Poster.
- Radcliffe, M.W. , R. Carey, L.M. Guy, C. Abbott, S.T. Alexander, J. Baynard, E.A. Roache, E. Vlahovich, S.M. Weschler and, D.W. Meritt. Timing is Everything: The Complexities of

- Operating an Oyster Hatchery. 13th International Conference on Shellfish Restoration. Charleston, SC. Nov. 2010. Poster.
- Lane, H.A., V. Politano, S.T. Alexander, E. Vlahovich, H.N. Koopman, D. W. Meritt, and K.T. Paynter. 2010. A Comparison of Relative Fecundity and Egg Quality in Oysters (*Crassostrea virginica*) of Different Ages from Northern Chesapeake Bay. 13th International Conf. on Shellfish Res. Nov. Charleston, SC. Nov. 2010
- Meritt, D. 2010. Shellfish Production Methods, Larvae and Seed. Maryland Aquaculture Conference. Annapolis, MD. November, 2010.
- Meritt, D. 2011. Production at the Horn Point Laboratory Oyster Hatchery. 37th Annual East Coast Commercial Fisherman's & Aquaculture Trade Exposition. January 2011.
- Meritt, D. M. Radcliffe, P. Derry, and J. Alexander. 2011 An automated algal production and feeding system for bivalve hatcheries. Aquaculture America. New Orleans. Feb. 2011.
- Lane, H., Michaelis, A., Politano, V., Alexander, S., Vlahovich, E., Koopman, H., Meritt, D., Miller, Paynter, K., 2011. Having an Egg-ceptional time: Modeling overall fecundity in *Crassostrea virginica* females from the Chesapeake Bay using both egg quality, lipid content and fatty acid composition. The 103rd Annual Meeting of the National Shellfisheries Association. Baltimore, MD March, 2011.
- Vlahovich, E., and D. Meritt., 2011. The use of loss and setting efficiency to maximize spat production of Eastern Oysters (*Crassostrea virginica*) and its application to a production hatchery. The 103rd Annual Meeting of the National Shellfisheries Association. Baltimore, MD March 2011.
- Allen, S., K.T. Paynter Jr., S. Able, D. Meritt. 2011. Large Scale Hatchery Based Oyster Restoration in the Maryland portion of the Chesapeake I: Overview and Goals. International Conference on Shellfish Restoration, Sterling, Scotland. August 2011.
- Paynter, K.T., A. Michaelis, H. Lane, S. Allen, S. Able, & D. Meritt. 2011. Large Scale Hatchery Based Oyster Restoration in the Maryland portion of the Chesapeake II: Results and Progress. International Conference on Shellfish Restoration, Sterling, Scotland. August 2011.
- Meritt, D. 2012. Production at the Horn Point Laboratory Oyster Hatchery. 38th Annual East Coast Commercial Fisherman's & Aquaculture Trade Exposition. January 2012.
- Lane, H., A. Michaels, E. Vlahovich, S. Alexander, H. Koopman, D. Meritt, K. Paynter. 2012. An Ontogenetic Comparison of egg quality of female *Crassostrea Virginia* from the northern Chesapeake Bay. The National Shellfisheries Association Program and Abstracts of the 104th Annual Meeting. . Seattle, WA. March 2012.

- Meritt, D., D. Webster., 2012. Extension, Outreach and Public Relations: Lessons Learned from Talking oysters. The National Shellfisheries Association Program and Abstracts of the 104th Annual Meeting. Seattle, WA. March 2012.
- Vlahovich, E.A., D. W. Meritt., 2012. Size Matters: Differential Setting of Hatchery-Reared Eastern Oyster (*Crassostrea Virginica*) Larvae. The National Shellfisheries Association Program and Abstracts of the 104th Annual Meeting. Seattle, WA. March 2012.
- Webster, D., D. Meritt. 2012. Extension, Outreach and Public Relations: The Difference is the Outcome. The National Shellfisheries Association Program and Abstracts of the 104th Annual Meeting. Seattle, WA. March 2012.
- Meritt, Donald. 2012. Oyster Aquaculture and Restoration at the University of Maryland Center for Environmental Science's Horn Point Laboratory. Presentation to Caroline County Chapter of the Maryland Ornithological Society. Denton, MD. March 2012.
- Meritt, Donald, 2013. Oysters and Chesapeake Bay: 2013. Why are they important to a healthy bay? Dunloggin Middle School field trip to Kentmoor Marina. Feb 2013
- Melissa W. Radcliffe, Lisa Guy, Melissa Grant, Dakota Abbott, Stephanie T. Alexander, Bob Carey, Gregory Radcliffe, E. Alan Roache, Emily Vlahovich, Steven Weschler, Stacey Willey, Donald W. Meritt. 2013. Assessing Oyster Larval Performance Using An Automated Algal Feeding System. 2013 Aquaculture Conference. Nashville, TN. February 2013.
- Stephanie Tobash Alexander, Bob Carey, Melissa Grant, Steven Weschler, Emily Vlahovich, Dakota Abbott, Lisa Guy, Melissa Radcliffe, E. Alan Roache, Stacey Willey, Donald W. Meritt 2013. Innovative Approach to Conditioning Eastern Oyster *Crassostrea virginica* Broodstock for Late Season Hatchery Production. 2013 Aquaculture Conference. Nashville, TN. February 2013.
- Melissa Grant, Stacey Willey, Jeff Alexander, Emily Vlahovich, Stephanie Tobash Alexander, Dakota Abbott, Bob Carey, Lisa Guy, Melissa W. Radcliffe, E. Alan Roache, Steven Weschler, Donald W. Meritt. 2013. Innovative Method to Produce Triploid Eastern Oyster *Crassostrea virginica* Larvae. Aquaculture Conference. Nashville, TN. February 2013.
- Steven Weschler, Alan Roache, Donald Webster, Stephan Abel, Donald W. Meritt. 2013. A Remote Setting Training Program for Maryland; Making Public/Private Partnerships Work to Stimulate Oyster Aquaculture. Aquaculture Conference. Nashville, TN. February 2013.
- Meritt, Donald. 2013. Oyster Restoration and the Horn Point Hatchery. Presented to NOAA

- Environmental Science Training Center Workshop, Cooperative Oxford Laboratory. March 2013.
- Meritt, Donald. 2013. Hatchery-based Oyster Restoration in Chesapeake Bay. Presented to Talbot. Chapter of Maryland Ornithological Society. Easton, MD. March 2013
- Meritt, Donald. 2013. Oyster Restoration in Chesapeake Bay, Presented to the Institute of Retired Persons, Salisbury University. April 2013
- Meritt, Donald. (Keynote Speaker)2013. Oyster Restoration in Maryland, Presented at the 2nd Annual Chesapeake Summit sponsored by Senator Bryan Simonaire. Pasadena MD. Sept 2013.
- Meritt, Donald. 2013. Oyster Restoration and the Horn Point Hatchery. Presented to St. Michaels Men's Breakfast group. December 2013.
- Meritt, Donald. 2014. The Shell Game: Maximizing your bang for the shell buck. Presented to: The Interstate Seafood Seminar. Virginia Beach, VA. April, 2014.
- Willey, Stacey, A. Maynard, A. Gower, J. Parisi, and D. Meritt. 2014. Hatcheries: not the Wal-Mart of the shellfish industry. Presented to: 16th Annual International Conference on Shellfish Restoration. Charleston, SC. December 2014.
- Roache, E.A., S. Weschler, D. Webster, S. Able, D. Meritt. 2014. A Remote Setting Training Program for Maryland; Making Public/Private Partnerships work to Stimulate Oyster Aquaculture. Presented to: 16th Annual International Conference on Shellfish Restoration. Charleston, SC. December 2014.
- Alexander, Stephanie, Alexander, J., Trommatter, J., Roache, E.A., Willey, S.M., Weschler, S.M., Carey, R., Meritt, D. W., 2014. Using a Production Scale Oyster Hatchery as an Educational Tool. Presented to: 16th Annual International Conference on Shellfish Restoration. Charleston, SC. December 2014.
- Carey, B., S.M. Weschler, E.A. Roache, D.D. Abbott, Z.B. Hoisington, D.W. Meritt, 2014 Assessing Oyster Gonadal Development to Maximize Oyster Broodstock Use. Presented to: 16th Annual International Conference on Shellfish Restoration. Charleston, SC. December 2014.
- Trommatter, J., L. Guy, C. Knauss, D. Meritt. What effect does pH have on the growth of *Tetraselmis chuii* (PLY 429)? 2014. Presented to: 16th Annual International Conference on Shellfish Restoration. Charleston, SC. December 2014. Poster.
- Meritt, D. & D. Webster. 2014. Data for Decisions. A 15 page publication describing the need

for data driven decisions for shellfish culture, providing descriptions of taking data and simple analyses for using it for profitable business planning. In press

SYMPOSIA ORGANIZED/CHAired FOR PROFESSIONAL MEETINGS:

Member of Planning Committee for "Aquaculture in the Mid-Atlantic." Fredericksburg, VA. 1994.

Member of Planning Committee for "Aquaculture Expo" and "Aquaculture in the Mid-Atlantic." Washington, DC. 1995.

Member of Planning Committee for the National Aquaculture Extension Conference. Annapolis, MD. 1996.

Member of Planning Committee for Maryland Aquaculture Conference. Annapolis, MD. Nov. 2010, 2011.

Session moderator for Aquaculture Production section at Maryland Aquaculture Conference. Annapolis MD. Nov. 2010.

Served on advisory committee for the organizing of the Maryland Shellfish Aquaculture Conference. 2013, a day-long program that provided information to the industry along with displays of supplies and equipment. Speakers represented four states and Canada as well as state and federal agencies and was attended by 125 in Annapolis MD. April 2013.

ACTIVE MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

American Birding Association

Maryland Ornithological Society: President, Talbot County Chapter 1991-1999; Member of Board of Directors, Talbot County Chapter 1989-1999.

American Association of Underwater Scientists

World Aquaculture Society

TEACHING AND TRAINING:

University System of Maryland Courses Taught

Course No.	Title	Institution	Semester	Enrollment	Credit Hrs.	Primary Instructor	No. Lectures
MEES 698C	Aquaculture	UMCP	Spring '94	7	3	Harrell	2

MEES 698C	Aquaculture	UMCP	Spring '96	19	3	Harrell	2
MEES 698C	Aquaculture	UMCP	Spring '98	19	3	Harrell	2

Short courses/Extension workshops

Shellfish Aquaculture Techniques, Short Course organized and taught in conjunction with 2nd National Aquaculture Extension Conference in Annapolis, MD. April, 1997.
<http://www.mdsg.umd.edu/extensionconf/summary.html#3>

Ecology and Aquaculture, workshop for middle school and high school teachers held at HPL. May 1999.

Master Oyster Gardeners Program, Workshop for oyster gardeners held at HPL. June, 1999.

Oyster Institute: 2001. Workshop for educators. Held at HPL June 2001.

Oyster Institute: 2002. Workshop for oyster gardeners held at Chesapeake Bay Foundation, Annapolis, MD. March 2002.

Teacher Workshop. 2002. Workshop for Maryland teachers on oyster restoration. Held at HPL. June 2002.

Shellfish Culture Workshop. 2002. "Shellfish Culture in the Sea-Side Bays." presentation for training program for shellfish growers. Snow Hill, Maryland. June 2002.

Aquaculture in Action Workshop. Workshop for Maryland Teachers on Aquaculture. 2002. Held at HPL July 2002.

"Shellfish Aquaculture in the Coastal Bays", presentation and field demonstration provided to the Retired Agricultural Faculty Association. 2004. 24 persons attended this 45 minute program held at a commercial production facility on Chincoteague Bay to show methods of nursery and grow-out of hard clams and oysters and the beneficial effects upon the environment. October 2004

"Hard Clam and Oyster Aquaculture. Methods and Techniques", 2005. Program delivered to diverse public audience at Gordon's Shellfish, Snow Hill, MD. Presented descriptions and discussion of production techniques using on-site demonstrations. 80 attendees. Sept. 2005.

Oyster Production Through Remote Setting, workshop for twelve Virginia oyster producers for the Virginia Marine Resources Commission, workshops at Horn Point Lab in January and May 2006.

Design of Hatcheries for Oyster Restoration. Workshop held for North Carolina design team in preparation for construction of oyster hatchery program in N.C.

Hatchery-based Oyster Restoration for Profit. Workshop held for Smith Island Waterman's Association.

Oyster Hatchery Design of a Spat-on-Shell Facility: Presentation to Rutgers University shellfish hatchery team Oct 2010

Participated in the "OAT" program (Oyster Aquaculture Training Program) at VIMS. Trained prospective students in the techniques of a production-scale oyster hatchery.

Regional Remote Setting Workshop. Program held at four locations in Maryland's tidewater counties to a total of 45 individuals to explain techniques of remote setting to potential oyster growers. April 2011.

Oyster Hatchery Short Course for hatchery operators. 2011. Week long hands on course taught to 10 participants at the Horn Point hatchery to potential oyster hatchery operators. June, 2011.

Invited participant in the Ocean Acidification for Shellfish Hatcheries workshop. 2011. Held in Yorktown, VA. October 2011

Oyster Hatchery Short Course for hatchery operators. 2012. Week long hands on course taught to 15 participants at the Horn Point hatchery to potential oyster hatchery operators. June 2012.

Photography workshop at Oyster Setting Pier. 2013. Hosted members of the Tidewater Camera Club for a workshop on wildlife photography. March 2013.

Organized four regional workshops to educate shellfish farmers about current rules and signup procedures for the Remote Setting Training Program, financing programs for growers and related subjects with updates for current programs. April 2013.

Organized a week-long Oyster Hatchery Short Course at the UMCES Horn Point Hatchery. 2013 Program included lecture and hands-on experience at this state-of-the-art hatchery with field trips to commercial operations and on-water experience with natural and hatchery seed. Participants included students from Maryland and Virginia. Training materials included binder with twelve sections of reference material. June 2013.

GRADUATE STUDENTS SUPERVISED: (denotes Major Professor)**

Current Students:

Laura Thomas **	M.S.	Marine Estuarine and Environmental Science	University of Maryland College Park (HPL)
Anna Priester **	M.S.	Marine Estuarine and Environmental Science	University of Maryland College Park (HPL)

Past Students: (Graduated)

Stephanie Reimer	M.S.	Virginia Institute of Marine Science	College of William and Mary
Ben Fertig	Ph.D.	Marine Estuarine and Environmental Science	University of Maryland College Park (HPL)
Emily Vlahovich**	M.S.	Marine Estuarine and Environmental Science	University of Maryland College Park (HPL)
Melissa Grant**	M.S.	Marine Estuarine and Environmental Science	University of Maryland College Park (HPL)
Alaina Hart	M.S.	Dept. of Biology	Virginia Commonwealth Univ.
Michael Congrove	M.S.	Virginia Institute of Marine Science	College of William and Mary
Nicole Harlan	M.S.	Marine Estuarine and Environmental Science	University of Maryland College Park
Coren Milbury	Ph.D.	Marine Bio/BioChem	University of Delaware Graduate College of Marine Studies
Michael Liddell	Ph.D.	Marine Estuarine and Environmental Science	University of Maryland College Park (CBL)
Desmond Johns	Ph.D.	Marine Estuarine and Environmental Science	University of Maryland College Park (HPL)
Nicole Pavlos	M.S.	Marine Estuarine and Environmental Science	University of Maryland College Park
Donald Webster	M.S.	Extension Education	University of Maryland Eastern Shore

Jessica Meiller

Ph.D. Marine Estuarine and
Environmental Science

University of Maryland
Baltimore County

**OUTREACH AND SERVICE:
Public Service**

Extension Presentations/Exhibits

- 1994 Bird study as a means of promoting environmental awareness in secondary school students, Chesapeake Bay Trust Teachers Workshop, Horn Point Environmental Laboratory, Cambridge.
- Oyster Aquaculture in Maryland, Lecture to 6th, 7th, and 8th grade students participating in The Horn Point Laboratory, Environmental Education Program. Cambridge.
- Birds of the Delaware Coastal Marshes. Port Mahon, DE.
- Oyster Aquaculture in Maryland, Lecture to 11th and 12th grade students participating in the Horn Point Environmental Laboratory, Environmental Education program. Cambridge.
- Oyster Aquaculture in Maryland, its Practice and Promise. Denton Women's Club. Denton, MD.
- 1997 With J. Takacs. Adopt-A-Bag. A first-prize-winning poster presented at the National Aquaculture Extension Conference. Annapolis, MD.
- With J. Takacs. Using oysters as an Extension teaching tool: Interactions between Research, Industry and the Public. A prize-winning poster presented at the National Aquaculture Extension Conference. Annapolis, MD.
- With J. Takacs and G. Baptist. Using Oyster Hatcheries in Aquaculture Extension Programs. 2nd National Aquaculture Conference, short course taught at Horn Point Laboratory, Cambridge, MD.
- 1998 With S. Allen, T. Gallivan, D. Webster, and G. DeBrosse. Regional Workshops on Brood Stock Management in the Hatchery. Sponsored by the Sea Grant Oyster Disease Research Program, and the Aquaculture Genetics and Breeding Center at VIMS. Wachapreague, VA, 12 participants. Tuckerton, NJ, 20 participants.
- 1999 With S. Allen, T. Gallivan, D. Webster, and G. DeBrosse. Regional Workshops on Brood Stock Management in the Hatchery. Sponsored by the Sea Grant Oyster Disease Research Program, and the Aquaculture Genetics and Breeding Center at VIMS. Riverhead, NY, 35 participants. Dartmouth, MA, 40 participants.

- 2003 Production of hatchery oyster spat for use in Maryland's oyster gardening and restoration programs. Presentation to Virginia Master Gardeners. July 2003, Gloucester Point, VA.
- 2006 Oyster Hatcheries and Restoration at the Horn Point Laboratory. Display at Chesapeake Bay Maritime Museum's annual Oyster Fest. November, 2006.
- 2007 Oyster Restoration at the University of Maryland Center for Environmental Science Horn Point Laboratory. 2007. Presentation as part of Sailwinds Visitor Center Open House
- 2010 Gave expert testimony for Maryland Senate bill (SB342) (Frosh) Entitled; Natural Resources – Oysters-Hearing for Poaching and Designation of Sanctuaries: March 2010
- Met with Senators to go over new Oyster Spatial Management Plan: March 2010
- Met with Senator Barbara Mikulski and Rep. Frank Kratovil during a visit to Horn Point Lab to discuss oyster restoration. April 2010.
- Conducted program for Congressional Staffers on oyster restoration during cruise on Severn River restoration site: August 2010
- Conducted program for United States Department of Agriculture Secretary Tom Vilsack on Choptank River: Sept 2010
- Toured Department of Budget and Management Department through Oyster Hatchery Facilities: September 2010
- Conducted tour of oyster facilities for Maryland Speaker of the House Busch and new members of the Maryland House of Delegates: December 2010
- 2013 Oyster Restoration & Aquaculture Development Site visit to UMCES Horn Point Hatchery with discussion of industry redevelopment for the Maryland Department of Legislative Services personnel for background information on issues. July 2013.
- Webster, D. and D. Meritt. 2013. Extension, Outreach and Public Relations: The Difference is in the Outcome. Invited presentation at Aquaculture 2013, annual meeting of the World Aquaculture Society. February 2013.
- 2006-2014 Oyster Restoration Activities between the University of Maryland and Oyster Recovery Partnership. Provided information for exhibit at the annual East Coast Commercial Fisherman's and Aquaculture Trade Expo, Ocean City, MD. Demonstrating aquaculture methods featuring remote setting equipment and technology with extension programs to restore oysters to the Chesapeake Bay. Show is attended by over 5,000 people annually.

2013 Great Eastern Shore Tomato Festival. Display and demonstration. Vienna, MD. August.

2012-14 Oyster Restoration at the Horn Point Hatchery. Display and hands-on activities associated with Oyster Week at the Hyatt. Hyatt Regency Chesapeake Bay Resort. November.

2012-14 Mermaid's Kiss. Promotional event for the Oyster Recovery Partnership. National Aquarium, Baltimore, MD. October.

WEB-BASED AND OTHER CREATIVE OUTREACH ACTIVITIES:

Educational/Interactive Sites: (sites where I contributed to material or design)

Oysters & the Chesapeake.

<http://www.mdsg.umd.edu/issues/chesapeake/oysters/>

Portfolio V: Restoring Oysters to The Chesapeake Bay.

Oyster Gardening for Restoration & Education.

<http://www.mdsg.umd.edu/issues/chesapeake/oysters/garden/>

Shellfish Aquaculture & Oysters

<http://www.mdsg.umd.edu/Extension/shellfish.html>

Oyster Institute A workshop for environmental educators concerning the Eastern Oyster

http://www.mdsg.umd.edu/programs/education/msgsnn/msgsnn04_1/oyster_inst/

HPL Oyster Hatchery Home Page.

<http://www.umces.edu/facilities/oysters.html>

Maryland Sea Grant Schools, Online Network News.

<http://www.mdsg.umd.edu/programs/extension/>

Paynter, Kennedy T. Jr. and Donald Meritt. Evaluation of American Oyster Stocks for Resource Rehabilitation: Disease Resistance and Genetics.

http://www.mdsg.umd.edu/Research/R_ODR-03.html

Paynter, Kennedy T., D. W. Meritt, S. K. Allen, Jr., X. Guo, S. E. Ford, and G. DeBrosse.

Cooperative Regional Oyster Selective Breeding (CROSBreed) Project of Potential of Selected Stocks for Restoration and Extensive Planning.

http://www.mdsg.umd.edu/Research/R_ODR-08.html

Selected Web-Sites that feature my work:

Chesapeake Bay Oyster Restoration. Consensus of a Meeting of Scientific Experts, Virginia Institute of Marine Science, Wachapreague, VA. June 1999.

<http://www.vims.edu/vimsnews/CBOysRestor.pdf>

Oyster Restoration in the Chesapeake Bay Posted 3/18/99

<http://thechesapeakebay.com/oysterrestoration.shtml>

Alba Torrents, Laura L. McConnell. Atmospheric Deposition of Currently Used Pesticides to an Eastern Shore Watershed.

<http://water.usgs.gov/wrri/99projects/state/Maryland2.html>

Sea Grant Helping to Restore Oyster Through Hatchery Effort May 1999.

http://www.seagrants.org/news/tips/tip_may99.html

Paynter, Kennedy T. Evaluation of American Oyster Stocks for Resource Rehabilitation: Disease Resistance and Genetics.

http://www.mdsg.umd.edu/programs/research/projects/past/R_ODR-03/

Portfolio V: Restoring Oysters To The Chesapeake.

<http://www.mdsg.umd.edu/programs/research/projects/portfolios/odrp/oyst4achiev/>

Synopsis of the Oyster Ecology Workshop: *Crassostrea gigas*. A Symposium Report

<http://www.mdsg.umd.edu/issues/chesapeake/oysters/non-natives/workshops/gigas91/>

Breeding Disease Resistance in the Hatchery

<http://www.mdsg.umd.edu/issues/chesapeake/oysters/disease/breeding/>

The Oyster Disease Research Program (ODRP)

<http://www.seagrants.noaa.gov/roe/oysterdiseaseresearch.html>

Oyster Habitat Restoration in Severn River by Robert Pfeiffer, Executive Director Oyster Recovery Partnership

<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Fall96/>

Aquaculture and Restoration By Merrill Leffler

<http://www.mdsg.umd.edu/MarineNotes/Jan-Feb98/side1/>

Planting Oysters in the Chesapeake. By Jack Greer

<http://www.mdsg.umd.edu/MarineNotes/Sep-Oct96/side2/>

Oyster Gardening in Chesapeake Bay. By Merrill Leffler

<http://www.mdsg.umd.edu/MarineNotes/Jul-Aug99/side2/>

Prospects for Disease-Free Seed

<http://www.mdsg.umd.edu/issues/chesapeake/oysters/disease/prospects/>

Sea Grant Supports Seafood Industry.

Oyster Restoration in the Chesapeake Bay "Light at the end of the tunnel," for oysters, experts say. Posted 3/18/99.

Oyster Reefs.

<http://chesapeakebay.noaa.gov/oysters/oyster-reefs>

Coastal Bays receives \$10,000 for oyster restoration.

<http://www.mdcoastalbays.org/news/1-7-00.html>

Maryland plants shells for oyster habitat. Wednesday, August 29, 2001. By Environmental News Network.

http://www.enn.com/news/enn-stories/2001/08/08292001/s_44793.asp

Battling Oyster Disease in the Chesapeake. M. Leffler. NOAA Research website.

http://www.oar.noaa.gov/spotlite/archive/spot_oysters.html

Selected Print and Production sites featuring my work:

Bayweekly: Chesapeake Oysters ~ At Century's End, Last Harvest, New Hopes. Issue 7-11,1999

http://www.bayweekly.com/year99/issue7_11/lead7_11.html

Bay Journal. Vol. 9 - Number 6, September 1999. Can Bay's oysters make a comeback?

Restoration depends on recognizing ecological as well as economical role.

<http://www.bayjournal.com/article.cfm?article=1589>

Baltimore City Paper Online: Will the Bay Play Host to a New Breed of Oyster? By Ralph Brave. May 31-June 6, 2000.

<http://www.citypaper.com/2000-05-31/mobs2.html>

The Academy of Natural Sciences Newsletter 2000 (spring) Gifts-In-Kind Help Restore Patuxent River

http://www.anserc.org/newsletter/v5n1sp00/gifts_oysters.html

Washington Post. 2000. An Oyster Garden Grows; Neighbor of Bay Helps Revive It by Raising Water-Cleaning Mollusks. Wednesday, July 19, 2000; Page B01.

http://seattletimes.nwsourc.com/news/nation-world/html98/oyst04_20000804.html

The Christian Science Monitor. 2000. Saving the Chesapeake America's largest estuary makes modest gains despite development.

CBS Worldwide, Inc. 2000. Bringing Oysters Back To Chesapeake.

<http://www.cbsnews.com/now/story/0.1597.228229-412.00.shtml>

Oyster Institute: A workshop for environmental educators concerning the eastern oyster.

http://www.mdsg.umd.edu/Extension/msgsnn/msgsnn04_1/oyster_inst.html

Voice of American. 2001. Oyster Restoration. In Our Ocean World: radio program broadcast worldwide by Voice of America and other media outlets. In Cooperation with NOAA. available in both text and audio form.

<http://www.ouroceanworld.com/2001/archive/2001-01/text0101a/020131.htm>

Chesapeake Quarterly, 2002. The Hatchery Connection. Vol 1. No. 3. Fall 2002.

<http://www.mdsg.umces.edu/CQ/Fall02/side3.html>

Tallahassee Democrat. 2002. Lessons of a true disaster: fight to save northern oyster industry studied here. October 27, 2002.

Baltimore City Paper: October 2002: Shell Game: When it Comes to the Chesapeake Bay's Failing Oyster Fishery, Maryland and Virginia Make Uneasy Bedfellows.

<http://www.citypaper.com/2002-10-16/feature.html>

Chesapeake Quarterly, 2002. A New Oyster for the Bay? Fall 2002

ftp://www.mdsg.umd.edu/MDSG/CQ/CQ01_3.PDF

Horn Point Lab. 2002. UMCES Helps State to fill Memorial Stadium with “Marylanders” Once More.

<http://www.artificialreefs.org/Articles/UMCES%20Helps%20State%20to%20Fill%20Memorial%20Stadium%20with%20Marylanders%20Once%20Morey.htm>

Washington Post. 2002. A Watered-Down Memorial Stadium Rubble to Become Oyster-Growing Reef in Bay.

<http://www.artificialreefs.org/Articles/A%20WateredDown%20Memorial%20Stadium%20washingtonpostcom.htm>

The Cape Codder on TOWNLONLINE.com: Oyster Gardens: Community ocean farming may help resurrect “old” Cape

http://www.townonline.com/brewster/news/local_regional/cc_newcaoygarden09192003

Oyster Restoration in Maryland. E. Campbell, C. Judy Maryland DNR.

<http://www.dnr.state.md.us/fisheries/recreational/articles/oysterrestoration.html>

Nanticoke Watershed Alliance Website: Nanticoke River Oyster Sanctuary:

<http://nanticokeriver.org/project3.html>

- EPA River Corridor and Wetland Restoration website. Fort Carroll Oyster Reef Restoration (NOAA #64).
<http://yosemite.epa.gov/water/restorat.nsf/10451914ae023d7685256a42005f6214/defc99004c18482385256bfa006d0824!OpenDocument>
- UMCES website: “Bar Cleaning” in Oyster Restoration.
<http://www.ca.umces.edu/UMCES%20Bar%20Cleaning%20Consensus.pdf>
- Maryland Aquafarmer.2003. An Asian Oyster for the Chesapeake (update on *Crassostrea ariakensis*)
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer03/index.php#2>
- Maryland Aquafarmer. 2003. Unique Partnership; Horn Point Laboratory and the Oyster Recovery Partnership
<http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Summer03/index.php#2>
- Bay Journal website. 2003. Native oyster projects showing signs of promise, but is it enough?
<http://www.bayjournal.com/article.cfm?article=641>
- The Star Democrat 2003.Up the Creek: Dorchester group deep into reef building project. August 15, 2003
<http://www.artificialreefs.org/Articles/The%20Star%20Democratsept22003.htm>
- NOAA public affairs website. 2004. Trustees Establish Oyster Restoration Sanctuary.
<http://www.publicaffairs.noaa.gov/releases2004/jun04/noaa04-r453.html>
- Maryland Aquafarmer 2004. Oyster Hatchery at Horn Point Lab. Winter/Spring 2004.
http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Winter_Spring04/index.php
- Maryland Aquafarmer. 2004. Is a Non-native the Answer to the Bay’s Oyster Woes? Winter/Spring 2004.
http://www.mdsg.umd.edu/programs/extension/aquaculture/Aquafarmer/Winter_Spring04/index.php
- The Star Democrat 2004. (9/2/2004)
Volunteers make reef balls at Bay environmental center. September 2, 2004
<http://www.artificialreefs.org/Articles/The%20Star%20Democrat%20Grasonville9022004.htm>
- Oyster Restoration in the Maryland Portion of Chesapeake Bay. 2005. Conf. Abstract, ERF website.

http://www.erf.org/cgi-bin/conference05_abstract.pl?conference=erf2005&id=822

The Cambridge Daily Banner. 2006. Oyster crop sets record; 252 million growth for bay restoration. August 31, 2006.
http://ian.umces.edu/pdfs/daily_ba

The Baltimore. 2006. Maryland wades into aquaculture: Clam growers say a fledgling industry promises profits and benefit for the bay. September 24, 2006
http://ian.umces.edu/pdfs/balt_sun_092406.pdf

Chesapeake Bay Maritime Museum Quarterly 2006-2007
Explore and Restore – Horn Point’s Laboratory’s Mission on the Bay
http://www.cbmm.org/news/pdfs/mag_winter06-07.pdf

The Easton Star Democrat. 2006. Record spat grown at Horn Point lab. September 5, 2006.
http://ian.umces.edu/pdfs/star_dem_090506.pdf

The Baltimore Sun. 2006. Seeding the Bay - The Chesapeake's oyster beds once seemed inexhaustible. Now their survival is in doubt. This year, 350 million tiny oysters were bred and sown around the bay as part of a remarkable effort that could . Dec. 17, 2006.
http://ian.umces.edu/pdfs/balt_sun_121706.pdf

The Salisbury Daily Times. 2007. Proposed oyster hatchery expansion in spotlight: With bivalve measures under consideration, state leaders get look at Cambridge operation. March 13, 2007.
http://ian.umces.edu/pdfs/daily_times_031307.pdf

The Cambridge Daily Banner. 2007. O'Malley hears revival efforts. March 13, 2007.
http://ian.umces.edu/pdfs/daily_banner_031307.pdf

The Baltimore Sun. 2007. Officials pledge to shell out funds for oyster hatchery: O'Malley, Busch to seek \$9 million in budget for Horn Point research. March 13, 2007.
http://ian.umces.edu/pdfs/balt_sun_031307.pdf (Also)
http://articles.baltimoresun.com/2007-03-13/news/0703130194_1_asian-oyster-meritt-native-oyster

The Washington Post. 2007. O'Malley Promotes Native Oyster Efforts: Repopulation Would Help Cut Pollution. March 13, 2007
http://ian.umces.edu/pdfs/wash_post_031307.pdf

The Baltimore Sun. 2007. Oystermen reap federal bounty: Bid to revive bivalve benefits watermen more. April 1, 2007.
http://ian.umces.edu/pdfs/balt_sun_040107.pdf

- The Diamondback. 2007. University pivotal in oyster research. July 19, 2007.
http://www.diamondbackonline.com/home/index.cfm?event=displayArticlePrinterFriendly&uStory_id=4e15bfe0-f797-4cd0-8e6d-6c358d5025f6
http://ian.umces.edu/pdfs/diamondback_071907.pdf
- The Associated Press. 2007. Md. Oyster Hatchery Due for A Big Expansion. August 2007.
http://wjz.com/local/local_story_220190603.html (Also)
<http://www.highbeam.com/doc/1P2-10937042.html>
- The Baltimore Chronicle. 2007. Charmed or Harmed? Charmed by the Horn Point Laboratory. August 2007.
<http://baltimorechronicle.com/2007/081307German.html>
- Bay Journal. 2007. MD Oyster Hatchery to expand.
<http://www.bayjournal.com/article.cfm?article=3158>
- The Salisbury Daily Times. 2007. Editorial: Oysters get a boost. August 14, 2007.
<http://www.delmarvanow.com/apps/pbcs.dll/article>
- USA Today. 2007. Across the States: Maryland. August 14, 2007.
<http://www.usatoday.com/news/states/mdmain.htm>
- Southern Maryland Newspapers Online. 2007. Dwindling oyster population calls for new methods. August 3, 2007.
http://ww2.somdnews.com/stories/080307/recmor161412_32120.shtml
- The Washington Times. 2007. Oyster hatchery seeks to spawn boom in Bay. August 12, 2007
<http://www.washingtontimes.com/news/2007/aug/12/oyster-hatchery-seeks-to-spawn-boom-in-bay/>
- Capital News Service. 2007. Horn Point Hatchery Aims to Produce Up To One Billion Oysters Per Year. Sept.21, 2007
<http://www.journalism.umd.edu/cns/wire/2007-editions/09-September-editions/070921>
- Calvert News. 2007. Hatchery to produce one billion oysters per year October, 1, 2007.
<http://www.calvertnews.info/news/575/Calvert-chesapeake-spat-oyster-hatchery-choptank>
- Chesapeake Bay Foundation. 2007. Eastern Bay Oysters Surpass Average Growth Rate In Another Success for Reef Ball Plantings, Oysters Reach 3.6 Inches. October 20, 2007
<http://www.cbf.org/page.aspx?pid=1312ate: October 10, 2007>
- What's Up Eastern Shore Magazine. 2007. Advancing Native Oyster Populations in the Chesapeake Bay. November, 1, 2007.
<http://www.whatsupmag.com/nov07/oysterrestoration.shtm>

http://ian.umces.edu/pdfs/whats_up_110107.pdf

SCIVEE.TV. 2007. Save the Oysters-Introducing Non-native species to the Chesapeake Bay. November 2 2007
<http://www.scivee.tv/node/3519>

The Annapolis Capital. 2008. State's restaurants don't recycle shells. February 2, 2008
<http://www.hometownannapolis.com/news/env/2008/02/02-28/States-restaurants-dont-recycle-shells.html>

The Annapolis Capital. 2008. Lack of fossilized oysters puts crimp on bay restoration. Feb. 2, 2008
<http://www.hometownannapolis.com/news/env/2008/02/02-12/Our-Bay-Lack-of-fossilized-oysters-puts-crimp-on-bay-restoration.html>

Washington College News. 2008. Oyster Restoration Explored at Washington College. March 27, 2008.
<http://washingtoncollegenews.blogspot.com/2008/03/oyster-restoration-explored-at.html>

Attraction Magazine. 2008. Oyster Restoration. April 2008.
http://www.attractionmag.com/articles/oysters_4_2008.html

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http://ian.umces.edu/pdfs/star_dem_072808.pdf

The Bay Journal. 2008. MD hatchery rears record number of oysters. October 2008.
<http://www.bayjournal.com/article.cfm?article=3424>

The Economist: December. 2008. Gem of the ocean: A dozen ocean-cleaners and a pint of Guinness, please. December 18, 2008
http://www.economist.com/node/12795573?story_id=12795573

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<http://www.washingtonpost.com/wp-dyn/content/article/2009/02/14/AR2009021401759>

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<http://www.delmarvanow.com/article/20090305/DCP01/903050352/Oysters-may-yet-thrive-Delaware-Bay>
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<http://www.wboc.com/global/video/flash/popupplayer.asp?vt1=v&clipFormat=flv&clipId=4036984&at1=Promotion%2024&h1=Md.%20Boosts%20Efforts%20to%20Restore%20Bay's%20oyster%20Population&flvUri=&rnd=50531713>
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<http://www.severnriver.org/press/severnriverhomeowners.htm>
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<http://news.washcoll.edu/events/2009/10/chesapeaketravel14/>
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- Voice of America. 2009. Our World: Saving the Chesapeake Bay Oyster. October 17, 2009
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http://ww2.gazette.net/stories/10302009/poline195836_32521.shtml
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<http://www.voanews.com/english/AmericanLife/2009-11-06-voa36.cfm?...>

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<http://www.cbf.org/page.aspx?pid=1526>
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<http://somd.com/news/headlines/2010/11557.shtml>
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<http://www.abc2news.com/news/region/eastern-shore/how-maryland-is-restoring-its-oyster-population>

Federal/State/Local Government:

- 1993-2005 Member, Maryland Oyster Roundtable.
- 1994-1999 Scientific representative, State of Maryland Aquaculture Advisory Committee, gubernatorial appointment.
- 1998-2005 Scientific representative, Chester River Oyster Recovery Area Committee.
- 1998-Present Member, Maryland Oyster Roundtable (Scientific Committee).
- 1999-Present Scientific representative, Cooperative Regional Oyster Selective Breeding Consortium (CROSBreed) with Rutgers, VIMS, UDEL, UMD.
- 2002 Oyster Restoration and Aquaculture in Chesapeake Bay: Developing Partnerships that Make a Difference A briefing held for Congressman Wayne Gilchrest. WREC, March 2002.

2002 Oyster Restoration Activities in Maryland. A briefing for the Eastern Shore Delegation. Annapolis, MD. March 2002.

2002 Judge, Maryland Envirothon. June 2002.

2004 Participant, Propagated Fish in Resource Management. Workshop held by American Fisheries Society, San Antonio, Texas. June, 2004. Resulted in the publication of Considerations for the Use of Propagated Fishes in Resource Management. Mudrak and Carmichael authors American Fisheries Soc. Bethesda MD.

2005- 2006 Member, Technical Advisory Group to Maryland Public Service Commission on the effects of wind-generated energy facilities on avian and bat issues.

2010-Present Member, Maryland Oyster Advisory Commission. Appointed by the Secretary of Natural Resources

2013-Present Member, Maryland Oyster Advisory Commission Substrate Sub-Committee.

2013-Present Member, Maryland Oyster Advisory Commission Enforcement Sub-Committee.

2013-Present Provided individual consultation and site evaluations for over 30 potential applicants for shellfish leases in Maryland. Work included teaching about biological needs of shellfish for good growth, considerations for possible disease epizootics and management of the biomass, potential markets and gear potential for designated areas.

UNIVERSITY SYSTEM OF MARYLAND:

1986-1999 University-wide Aquaculture Task Force Member

1987-1999 Fisheries Curriculum Committee Member

1990-1999 Diving Safety Board Member

1998-Present MEES Graduate Faculty Member

1990-Present Official Photographer (1 of 3) to the Mighty Sound of Maryland/Dance Team.

UMCES AND LABORATORY:

1995-1997 Boat Operations Committee Member

1997 Tour of Horn Point Oyster Hatchery: Visit of Maryland House of Delegates

Appropriations Committee, Cambridge, MD.

1997 Oyster restoration efforts in the Upper Choptank River: A forum organized in conjunction with Congressman Gilchrest's office, and conducted at Horn Point Lab.

1999-2006 Active with Design/Construction Phase of AREL

2000 Chair, Search Committee (Algologist)

2000 Member, Search Committee (Finfish Specialist)

2000 Member, Extension section, Search Committee (Sea Grant Director)

2002-2003 Boat Operations Committee Member

2004-2006 HPL Facilities Committee Member

2005 Member, Search Committee (HPL Assistant Director for Facilities)

2006-2010 HPL Boat Services Committee Member

2006-Present HPL Dive Committee Member (Chair – 2008- 2010, 2012-present)

2010-Present Member, UMCES diving safety board. Certified by AAUS

2013-Present Member of the UMCES Graduate Faculty

2012-13 Member, Search Committee (HPL Population Genetics Faculty Position)

OTHER PROFESSIONAL SERVICE:

1989 – 1999 Scientific consultant to Maryland Public Television, Outdoors Maryland.

2009 Co-panelist (March April 2009) “Changing Patterns, Birding on the Eastern Shore” organized by the Garden Club of the Eastern Shore. March/April 2009.

2013- Present Member, Advisory Committee to New York Harbor School Aquaculture Program of Study.