

CURRICULUM VITAE

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I. Education

1969 B.Sc., University of New Hampshire, Botany.

1970 M.S., University of Hawaii, Microbiology.

1979 Ph.D., State University of New York at Stony Brook, Ecology & Evolution.

II. Professional Background

Postdoctoral Scholar W.H.O.I., Woods Hole, MA, 1979-1980

Assistant Scientist, W.H.O.I., Woods Hole, MA, 1980-1984

Associate Scientist, W.H.O.I., Woods Hole, MA, 1984-1991

Associate Professor, CEES, Univ. of Maryland System, 1991-1995

Professor, UMCES 1995-present

Awards and Special Recognition

Fellow, American Association for the Advancement of Science, 1996-present.

University of Maryland, Regents Award for Scholarship, 2005

Luigi Provasoli Award, 2007, The Phycological Society of America

II. Research

A. Areas of professional expertise

Biological oceanography, physiological ecology of microzooplankton and dinoflagellates, trophic dynamics of microzooplankton, mixotrophy in dinoflagellates and ciliates, top down control of harmful algal blooms.

B. Peer-reviewed publications

1. Papers in Refereed Journals (2005-2009)

- Johnson MD, Stoecker DK. 2005. Role of feeding in growth and photophysiology of *Myrionecta rubra*. *Aquatic Microbial Ecology* 39: 303-312
- Stoecker DK, Autio R, Rintala J-M, Kuosa H. 2005. Ecto-cellular enzyme activity associated with filamentous cyanobacteria. *Aquatic Microbial Ecology* 40: 151-161
- Stoecker DK, Long A, Suttles SE, Sanford LP. 2006. Effect of small-scale shear on grazing and growth of the dinoflagellate *Pfiesteria piscicida*. *Harmful Algae* 5: 407-418
- Stoecker DK, Tillman U, Granéli E. 2006. Chapter 18. Phagotrophic Harmful Algae. Pp 177-187 in Granéli E and Turner J (eds) *Ecology of Harmful Algae*, Springer-Verlag, Berlin.
- Adolf JE, Stoecker DK, Harding LW . 2006. The balance of autotrophy and heterotrophy during mixotrophic growth of *Karlodinium micrum* (Dinophyceae). *J Plankton Res* 28: 737-751
- Hood RR, Zhang X, Glibert PM, Roman MR, Stoecker DK. 2006. Modeling the influence of nutrients, turbulence and grazing on *Pfiesteria* population dynamics. *Harmful Algae* 5: 459-479
- Johnson MD, Tengs T, Oldach D, Stoecker DK. 2006. Sequestration, performance and functional control of cryptophyte plastids in the ciliate *Myrionecta rubra* (Ciliophora). *J Phycol* 42: 1235-1246
- Johnson MD, Oldach D, Delwiche CF, Stoecker DK. 2007. Retention of transcriptionally active cryptophyte nuclei by the ciliate *Myrionecta rubra*. *Nature*. 445: 426-428
- Reaugh, ML, Roman MR, Stoecker DK. 2007. Changes in plankton community structure and function in response to variable freshwater flow in two tributaries of the Chesapeake Bay, USA. *Estuaries and Coasts*. 30(3): 403-417.
- Fehling J, Stoecker D, Baldauf SL. 2007. Photosynthesis and the Eukaryote Tree of Life. Pp 76-107 in Falkowski P.G. & Knoll A.H. (eds) *The Evolution of Primary Producers in the Sea*. Elsevier, Academic Press. NY.
- Adolf JE, Place AR, Stoecker DK, Harding Jr, LW. 2007. Modulation of polyunsaturated fatty acids in mixotrophic *Karlodinium veneficum* (Dinophyceae) and prey *Storeatula major* (Cryptophyceae). *J Phycol* 43: 1259-1270.
- Stoecker DK, Adolf JE, Place AR, Glibert PM, Meritt D. 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.
- Thessen AE, Stoecker DK. 2008. Distribution, abundance and domoic acid analysis of the toxic

diatom genus *Pseudo-nitzschia* from the Chesapeake Bay. *Estuaries and Coasts*. 31: 664-672.

Alexander JA, Stoecker DK, Meritt DW, Alexander ST, Padeletti A, Johns D, Van Heukelem L, Glibert PM. 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, DK, Thessen AE, Gustafson, DE. 2008. "Windows of opportunity" for dinoflagellate blooms: Reduced microzooplankton net growth coupled to eutrophication. *Harmful Algae* 8: 158-166.

Heisler J, Glibert P, Burkholder J, Anderson D, Cochlan W, Dennison W, Gobler C, Dortch Q, Heil C, Humphries E, Lewitus A, Magnien R, Marshall H, Sellner K, Stockwell D, Stoecker D, Suddleson M. 2008. Eutrophication and harmful algal blooms: A scientific consensus. *Harmful Algae* 8: 3-13

Salerno M, Stoecker DK. 2009. Ectocellular glucosidase and peptidase activity of the mixotrophic dinoflagellate *Prorocentrum minimum* (Dinophyceae). *J. Phycol.* 45: 34-45.

Thessen AE, Bowers HA, Stoecker DK 2009. Intra- and Interspecies differences in *Pseudo-nitzschia* growth and toxicity while utilizing different nitrogen sources. *Harmful Algae*. 8: 792-810.

Stoecker, DK, Johnson MD, de Vargas C, Not, F. 2009. Acquired phototrophy in aquatic protists. *Aquat Microb Ecol* 57: 279-310 (invited)

2. Technical reports

EPA EcoHab final report "Grazing and Windows of Opportunity for Dinoflagellate Blooms"

NSF Final report "Plastid Sequestration in *Mesodinium rubrum*: Physiological, Molecular, and Ecological Aspects"

BSIERP semi-annual and annual reports

Maryland Seagrass annual report.

Contracts and grants (2005-present)

1. Awarded:

Grazing and Windows of Opportunity for Dinoflagellate Blooms. EcoHAB, EPA. 2001-2005. \$428,184 (PI with Boicourt & Roman, 30%)

Plastid Sequestration in *Mesodinium rubrum*: Physiological, Molecular, and Ecological Aspects. NSF, IBN-EEP. \$320,000. (PI, 12%)

The use of non-native oysters in the restoration of Chesapeake Bay oyster populations and the potential threats posed by harmful algae (co-PIs Glibert & Merritt) \$265,495 NOAA, Chesapeake Bay Studies (co-PI, 10%)

Toxic *Pseudo-nitzschia* in Chesapeake Bay. MD Sea Grant \$6054 (PI, 0%)

Microzooplankton abundance, biomass, and grazing on phytoplankton during summer in the eastern Bering Sea, NPRB, BEST/BSIERP Program \$299,741 (PI, 25%)

Maryland Sea Grant, Cyanobacterial Blooms: A Roadblock to estuarine restoration? (lead PI, co-PI Cornwell). \$162,641

NSF, Collaborative Research: Hypoxia in marine ecosystems: Implications for neritic copepods (lead PI: Peirson, coPIs: Roman, Stoecker, Houde)

B. Seminars and presentations

C. Planctologia 2009, Mexico City 21-24 2009, Plenary Speaker

Invited seminar, National Autonomous University of Mexico (UNAM) and Universidad Autonoma Metropolitana (UAM)

Seminar Speaker, Marine Science, Univ of South Carolina, Columbia, SC, November 9, 2009

F. Active Memberships in Professional Societies

The American Society of Limnology and Oceanography
International Society of Protistologists
Phycological Society of America

III. Teaching and Training

Member UMCES Graduate Faculty

Member MEES and UMS Inter-Institutional Graduate Faculty

A. University System of Maryland Courses Taught

Mees 621 Biological Oceanography cruise	UMCP Fall 05	04	Hood, Koch, Kennedy	5-(10h)+1 d
Mees 621 Biological Oceanography cruise	UMCP Fall 06	04	Hood, Koch, Kennedy	5-(10h) +1 d
Mees 621 Biological Oceanography cruise	UMCP Fall 07	04	Hood, Kennedy	5-(10h) +1 d

Mees 698b Biol. Oc. Methods cruise+lab	UMCP Spr. 02	01	Hood, Koch	2 d –
Mees 741 Plankton Dynamics	UMCP Spr 05	03	Roman, Glibert	1-(2h)
MEES 698E Zooplankton Ecology (10.5h)	UMCP Fall 07	04	Kimmel, Roman	5-
Mees 621 Biological Oceanography cruise	UMCP Fall 08	04	Hood, Kennedy, Koch	5-(10h) +1 d

B. Graduate students supervised as major advisor

1. Degrees completed

Jeffrey R Merrell; M.S., MEES, 1996, UMCP: Effects of spatial scaling and predation by copepods on microzooplankton population dynamics.

Aishao Li; Ph.D, MEES, 1998, UMCP: The feeding physiology and ecology of the mixotrophic dinoflagellate *Gyrodinium galatheanum*.

Gabriela W. Smalley; Ph.D., MEES, 2002. UMCP: Mixotrophy in the red-tide dinoflagellate *Ceratium furca*, with emphasis on feeding biology and ecology.

Matthew D. Johnson; Ph.D., MEES 2005, UMCP: Ecological, physiological and molecular aspects of plastid retention in the ciliate *Mesodinium rubrum*

Monica Salerno: MS, MEES 2005, UMCP: Ectocellular enzyme activities in the mixotrophic dinoflagellate *Prorocentrum minimum*

Anne E. Thessen; Ph.D., MEES 2007, UMCP: The toxic diatom *Pseudo-Nitzschia* and Domoic Acid in Chesapeake Bay

Sean Cooney, MS 2008, MEES, UMCP (co-advisor with Wayne Coats): Mixotrophy in dinoflagellate parasites of fish

Desmond Johns, MS 2009, MEES, UMCP: Effect of pH on phytoplankton and bacteria production.

2. Students Currently Supervised

Yonghui Gao, Ph.D., MEES, UMCP (co-advisor with Jeff Cornwell): preliminary title: *Microcystis* blooms and biogeochemistry

3. Graduate student committee memberships, 2009

Grace Saba (Henderson), PhD, VIMS
Don Schoener, PhD, Univ of Conn.
Dahong Yao, MS, MEES, UMCP
Leo Procise, PhD, ODU
Kevin Meyer, PhD, MEES, UMCP

IV. Outreach and Service

A. Editorships

Subject Editor, Plankton Protists, *Marine Biology Research*
Review Editor, *Aquatic Microbial Ecology*

Public Service

Board Member and member Water Quality Committee, Dorchester Citizens for Planned Growth

Sassafras River Association, advisor and member of SWAP team

B. Federal/State/Local Government

C. International:

Hosted Dr. K-P Chiang from Taiwan at HPL

Invited by Mexican Society of Planktology, Autonomous University of Mexico and Universidad Autonoma Metropolitana to visit and present talks

F. UMCP, UMCES and Laboratory

Member, AL,UMCES PTR committee
Member, COMB,UMBI PTR committee
Member, MEES Program Committee