CURRICULUM VITAE

Allen F. Mensinger

**PRESENT POSITION** Professor

University of Minnesota Duluth

Department of Biology

Duluth, MN 55811

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http://www.d.umn.edu/~amensing/toadfish.htm

**AREAS OF SPECIALIZATION** Teleost sensory physiology, neural mechanisms of behavior, invasive species, aquatic habitats

**EDUCATION**

1983 B.S. – Biology, Duke University, Durham, North Carolina

1989 Neurobiology Course, Univ. of Washington, Friday Harbor Marine Lab

1991 Ph.D. University of California, Santa Barbara

**RESEARCH EXPERIENCE**

1982 Lab technician, Beecham Pharmaceuticals, Piscataway, NJ.

1983-84 Forensic chemist, New Jersey State Police. Equine Testing Bureau. Meadowlands Racetrack, E. Rutherford, NJ.

1985-91 Ph.D. dissertation research UCSB.

1991-94 Post-doctoral fellow, Vanderbilt University Nashville, TN.

1992 Grass Fellow in Neuroscience, Friday Harbor, Washington.

1993-96 Research Associate, Marine Biological Lab, Woods Hole, MA.

1994 Research Associate, Washington University School of Medicine, St. Louis, MO.

1996-99 Research Instructor, Washington University School of Medicine, St. Louis, MO.

1997-98 NASA Life Sciences Fellow, Marine Biological Lab, Woods Hole, MA

2000-05 Assistant Professor, University of Minnesota Duluth

2005-09 Associate Professor, University of Minnesota Duluth

# 2000-05,09- Adjunct Scientist, Marine Biological Lab, Woods Hole, MA

2005-06 Director of Graduate Studies, Department of Biology, University of Minnesota Duluth

2010- Professor, University of Minnesota Duluth

2010- Director NSF-REU Biological Discovery in Woods Hole

**ACADEMIC HONORS**

1983 Graduated *cum laude*, Duke University

1979 New Jersey State Teachers Biology Award

**AWARDS SUMMARY**

1. *Current extramural support*

NSF [1354745](https://www.fastlane.nsf.gov/researchadmin/viewProposalStatusDetails.do?propId=1354745&performOrg=U%20of%20Minnesota%20Duluth) Mensinger (PI) 8/1/2014 to 7/31/2018

Sound localization in free swimming fish: multimodal sensory integration $340K

NSF 1359230 Mensinger (PI) 5/1/2017 to 4/30/2019

REU: Biological Discovery in Woods Hole $360K

Minnesota Environmental Trust Fund Mensinger (PI) 7/1/2014 to 6/30/2018

Bioacoustics to Detect, Deter and Eliminate Flying Carp $260K

USGS cooperative agreement Mensinger (PI) 1/1/2017 –

Acoustic deterrence of bigheaded carp ~100K /year

MN DNR Mensinger (PI) 9/1/2017 to 12/31/2018

Evaluation of acoustic barriers $160K

1. *Previous extramural Support*

MN Sea Grant Mensinger (Co-PI) 1/2012 to 12/2013

Low Light, Eyesight and Deepwater Foraging Success ~$50K

NSF 0843735 Mensinger (PI) 4/2009 to 3/2014

Collaborative Research: Multisensory guidance of marine animal navigation and prey capture

Collaboration with J. Atema, P. Motta, R. Hueter $137K

NSF 1005378 Mensinger (PI) 7/2010 to 6/2014

REU Site: Biological Discovery in Woods Hole $361K

Minnesota Environmental Trust Fund Mensinger (PI) 7/2010 to 6/2013

Bioacoustic Traps for Management of Round Goby $175K

Minnesota Environmental Trust Fund Mensinger (co-PI) 7/2009 to 6/2012

Controlling the Movement of Invasive Fish Species $300K

NSF 0316130 Mensinger (PI) 2003 to 2007

RUI Acoustic detection in free-swimming toadfish $382K

Minnesota Sea Grant Mensinger (PI) 2003 to 2005

Olfactory recording from free swimming steelhead trout $66K

Minnesota Sea Grant Mensinger (PI) 2001 to 2003

In-situ biosensors for monitoring fish physiology and behavior $66K

R21 National Institute of Health Mensinger (PI) 1997 to 1999

Acoustical telemetry device for chronic electrodes $150K

NIH NSRA F32-EY06348 Mensinger (PI) 1991 to 1994

Retinal Regeneration $57K

1. *Intramural support/fellowships*

Biology Department (ICR) 12/14 to 5/15

Anthropogenic noise on fishes in New Zealand ($5K)

International Studies (UM) 12/2014 to 5/2015

Travel grant for New Zealand ($1K)

Sabbatical Supplement VCAA ($10K) 9/2014 to 5/2015

Sabbatical 9/2014 to 5/2015

MN Grant in Aid 2013

Sound localization in teleost fish: the role of the lateral line ($30K)

Univ Minnesota Duluth Single Semester Leave 2004

UMD Center of Molecular and Cell Biology Research Award ($4k) 2003

University of Minnesota Grant in Aid ($25K) 2000-01

Chronic neural recording via acoustical telemetry from free swimming fish

McDonnell Neuroscience Fellowship 1994-96

Washington University School of Medicine

Grass Foundation – Grass Fellowship in Neuroscience 1992

Friday Harbor Laboratories

Post-doctoral training grant 1991

Vanderbilt University

Friday Harbor Laboratory Fellowship for neurophysiology course 1989

1. *Teaching grants*

UMD - Chancellors small grant for field trip to Shedd Aquarium 2009

UMD – Technology fee - Osmometer for Animal Physiology Laboratory ($7K) 2008

UMD – Technology fee – Monochromatic light system for Animal Physiology ($10K) 2006

UMD- Technology Fee - Automatic monitoring for fish physiology laboratories ($7K) 2002

NSF-RET supplement grants 2005,08,10,13

Beth Guiffrida Wareham Middle School, Wareham MA. (~$25 K total)

UMD Visualization and Digital Imaging Laboratory Grant ($2K) 2001

UMD - Technology Fee Data Acquisition and analysis units for Life 2000

Science Laboratories $36K

**PROFESSIONAL MEMBERSHIPS**

American Fisheries Society

American Association for the Advancement of Science

J. B. Johnston Society

Society for Neuroscience

International Society for Neuroethology

**PROFESSIONAL ACTIVITIES:**

1. *Presentations at professional meetings*

|  |  |
| --- | --- |
| Date | Organization and location |
| 2018  2017  2013  2012  2011 | Society of Integrative and Comparative Biology, San Francisco, CA  Society of Integrative and Comparative Biology, New Orleans, LA  Society for Neuroscience, San Diego, CA.  Upper Midwest Invasive Species Conference Lacrosse, WI.  Acoustical Society of America Seattle, Washington. |
| 2011 | International Association of Great Lakes Research. Duluth, MN |
| 2010 | International Society for Neuroethology. Salamanca, Spain |
| 2009 | Acoustical Society of America meeting. Portland, OR |
| 2008 | MN invasive Species Conference. Duluth, MN |
| 2007 | Minnesota Chapter of American Fisheries Society. St. Cloud, MN |
| 2007 | Society of Integrative and Comparative Biology. Phoenix, AR |
| 2007 | Society for Neuroscience. San Diego. CA |
| 2007 | International Society for Neuroethology. Vancouver, Canada |
| 2005 | Society for Integrative and Comparative Biology, San Diego CA |
| 2005 | American Fisheries Society Meeting. Anchorage, AK |
| 2005 | Minnesota Chapter of American Fisheries Society. Grand Rapids, MN |
| 2004 | International Society for Neuroethology. Nyborg, Denmark |
| 2004 | Minnesota Chapter of the American Fisheries Society. St. Cloud, MN |
| 2003 | Society for Neuroscience, New Orleans. LA |
| 2003 | American Society of Ichthyologists and Herpetologists. Manuas, Brazil |
| 2003 | Society for Integrative and Comparative Biology. Toronto, Canada |
| 2002 | LiMNology meeting. Deerwood, MN |
| 2002 | Minnesota Chapter of the American Fisheries Society. Duluth, MN |
| 2001 | General Scientific meetings - Marine Biological Lab. Woods Hole, MA |
| 2001 | Society for Neuroscience. San Diego, CA |
| 2001 | Fish Bioacoustics: Sensory Biology, Behavior and Practical Application. Chicago, IL |
| 1999 | International conference on Sensory Processing of the Aquatic Environment. Heron Island, Australia |
| 1998 | Society for Neuroscience. Los Angeles, CA |

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1. *Recent invited talks*

2018 University of Puerto Rico

2017 Truman State University, Kirksville, MO

2017 Louisiana State University, Baton Rogue, LA

2014 Duke University, Durham, NC

Carleton College, Northfield, MN

St. Olaf College, Northfield, MN

St. Johns College, Collegeville, MN

2013 St. Catherines College, St. Paul, MN

2012 Legislative-Citizen Commission on Minnesota Resources

2011 Acoustical Society of America meeting, Seattle, WA.

2009 Legislative-Citizen Commission on Minnesota Resources

Colorado College Department of Biology

|  |  |
| --- | --- |
|  | Acoustical Society of America meeting, Portland OR. |

2008 St. Catherines College, St. Paul, MN

2006 Grass Fellows in Neuroscience, MBL, Woods Hole, MA

Department of Biology, St. Cloud State University, St. Cloud, MN

2005 Recent advances in physiological monitoring Symposium, American Fisheries Society Meeting, Anchorage Alaska

2004 Biology Department, St. Olaf College, Northfield, MN

Department of Psychology, Hunter College, New York City, NY

Aquavet Program, Marine Biological Laboratory, Woods Hole, MA

Summer Program in Neuroscience and Ethics, MBL, Woods Hole, MA

Fish symposium, Minnesota Chapter of the American Fisheries Society, St. Cloud, MN

2003 Biology Department University of South Dakota, Vermillion SD

Summer Program in Neuroscience and Ethics, MBL, Woods Hole, MA

2002 Department of Fisheries, Wildlife and Conservation Biology ,Univ. of Minnesota,

2001 Fish Bioacoustics: Sensory Biology, Behavior and Practical Application, Chicago IL

Marine Models in Biological Research Program, Marine Biological Laboratory, Woods Hole, MA

2000 School of Medicine, University of Minnesota-Duluth, Duluth, MN

1999 International conference on Sensory Processing of the Aquatic Environment, Heron Island, Australia

Biology Department, California Polytechnical Institute, San Luis Obispo, CA

Biology Department, University of Minnesota, Duluth

1998 Developments in Multichannel Extracellular Recording Symposium,

Los Angeles, CA

Biology Department, University of Nebraska, Omaha

Biology Department Mississippi State University, Starkville, MS

Biology Department William Patterson University, Wayne, NJ

1997 Biology Department Southwestern Louisiana University, Lafayette, LA

Department of Psychology, Vanderbilt University, Nashville, TN

3. *Teaching experience*

1. University of Minnesota Duluth

|  |  |  |
| --- | --- | --- |
| **Year** | **Fall** | **Spring** |
| 2017-18  2016-17  2015-16  2013-14  2012-13  2011-12 | Animal Physiology (32)  Communication in Biology (11)  Animal Physiology (46)  Animal Physiology (75)  Animal Physiology (78)  Animal Physiology (60)  Animal Physiology (78)  Oceans and Human Health Seminar (9) | IBS Animal Physiology (5)  Marine Biology (48)  Communication in Biology (14)  Marine Biology (40)  Neural Systems and Behavior (12)  Field Studies in Marine Biology (20)  Neural Mechanisms of Behavior (15)  Field Studies in Marine Biology (20)  Marine Biology (50) |
| 2010-11 | Animal Physiology (78) | Comparative Animal Physiology (15) |
| 2009-10 | Animal Physiology (80) | Marine biology (50) |
| 2008-09 | Medical Leave | Comparative Animal Physiology (13) |
| 2007-08 | Animal Physiology (80) | Neural Mechanisms of Behavior (15) |
| 2006-07 | Animal Physiology (61) | Bio I† (298)  Comparative Animal Physiology† (10) |
| 2005-06 | Animal Physiology (61) | Bio I†(250)  Physiology of fishes (7) |
| 2004-05 | Animal Physiology (62) | Bio I† (279)  Neural mechanisms of Behavior (13) |
| 2003-04 | Animal Physiology (37) | Single semester leave |
| 2002-03 | Animal Physiology (31) | Bio I† (235)  Physiology of Fishes (7) |
| 2001-02 | Animal Physiology (29)  Seminar II (11) | Bio I† (213)  Neural mechanisms of Behavior (16)  Current Topics in Neurophysiology (5) |
| 2000-01 | Animal Physiology  (17) | Bio I (250)  Seminar II (12) |
| 1999-2000 |  | Bio I (257)  Seminar I (33) |

Number of students enrolled in parentheses

† course co-taught

b) Marine Biological Laboratory, Woods Hole, MA

2010- Program director – NSF-REU Biological Discovery in Woods Hole Program.

2002-11 Faculty and laboratory instructor. Neurophysiology Laboratory. Summer Program in Neuroscience and Ethics.

1998-2003 Faculty NSF-REU Marine Models in Biological Research.

c) other

1993 Faculty. Molecular Neurobiology. Friday Harbor Laboratories, University of Washington

1990-91 Course Instructor. Human Anatomy. Santa Barbara City College

1988-89 Course Instructor. BioMed 2. Human Anatomy and Physiology. Santa Barbara City College

1986-90 Teaching Assistant. Biology of the Channel Islands. UCSB

1986-89 Teaching Assistant. Human Anatomy. UCSB

1985 Teaching Assistant. Plant Physiology. UCSB

4) *Student mentoring and supervision*

a) Post-doctoral Fellows

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Fellow (co-advisor) | PhD Institution | Location of training |
| 2018  2012 | Ros Putland  Craig Radford | Univ. Auckland  Univ. of Otago | UMD  MBL (Grass Fellow) |
| 2011  2010 | Liz Whitchurch  Rodney O’Connor (Atema) | Univ. Washington  Univ. of Cambridge | MBL (Grass Fellow)  MBL |
| 2010 | Jon Svedson (Sorensen) | Technical University of Denmark | Univ Minnesota |
| 2009 | Coen Elemans (Rome) | Wageningen Univ. | MBL (Grass Fellow) |
| 2008 | Karen Maruska | Univ. of Hawaii | UMD and MBL (Grass Fellow) |
| 2007 | Wayne Korzan | Univ. South Dakota | MBL (Grass Fellow) |
| 2006 | Eva Enders | Univ. de Montréal | MBL |
| 2004 | Rachel Berquist | Univ. of Otago | UMD and MBL (Grass Fellow) |
| 1999 | Melina Hale (Zotolli) |  | MBL (Grass Fellow) |

Year

2007 b) Master’s students

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dates | Student | Undergraduate degree | Master’s thesis | Current position |
| 2017  2017-  2016-  2014-17  2014-16  2012-14 | Noland Michels  Loranzie Rogers  Andy Nissen  Emily Cardinal  Kelsie Murchy  Trevor Keyler | Hobart  UMD  UMD  St. Catherine’s  UWS  St. Olaf | Round goby behavior  Toadfish physiology  Invasive carp  Sensory physiology  Invasive carp  Fish visual ecology | Graduate student  Graduate Student  Graduate Student  Graduate student  USGS  PhD student |
| 2011-14 | Kelly Harrington | Bridgewater State | Fish visual ecology |  |
| 2010-14 | Jared Leino | UW-Superior | Round goby behavior |  |
| 2009- | Elise Cordo | Carleton | Bioacoustics of the round goby | Graduate student |
| 2007-11 | Michael Lynch | Gustavus | Round goby site fidelity | National Forest Service |
|  |  |  |  |  |
| 2007-11 | Jamie Sloan | Hawaii Pacific | Carp sound localization |  |
|  |  |  |  |  |
| 2004-07 | Margot Bergstrom | UMD | Sensory physiology of the round goby | Lake Forest College,  Asst prof |
| 2004-06 | Ben Thwaits  (UM EEB program) | St. Olaf | Olfactory sensitivity in the steelhead trout |  |
| 2001-03 | Hazel Richmond | Univ. Massachusetts | Foraging mechanisms of the age 0 yellow perch |  |
| 2001-03 | Lucy Palmer | Univ. Melbourne | Touch at a distance, the mechansensory lateral line | Univ Melbourne  Asst Prof |
| 2000-03 | Michael Callahan | Florida Institute of Technology | Optic nerve regeneration in the sunfish | Laboratory Coordinator, Univ of Southern Maine |

c) PhD Students

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2011-16 | Brooke Vetter | Saint Catherine | Bioacoustics | Post-doc Univ of Washington |

d) Undergraduate students

Over 40 undergraduate students have been mentored in my laboratory with over half pursuing advanced degrees. Ten of the undergraduates were authors on peer reviewed papers.

5*) service*

*a)* Committees

*Biology Department @ UMD*

2017- Associate Department head

2013-14 Merit Committee (chair)

2012-13 Merit Committee

2011-12 IBS graduate admissions committee (chair)

IBS Executive Committee

Safety Committee

2010 -11 Technology Fee Committee (chair)

IBS graduate admissions committee (chair)

IBS Executive Committee

2009 -10 Merit Review Committee (chair)

IBS graduate admissions committee (chair)

IBS Executive Committee

2008-09 Developmental Biologist Search Committee (chair)

Curriculum committee

Associate Department Head

2007-08 Developmental biologist search committee (chair)

Cell Biology Instructor search committee (chair)

Curriculum committee

Associate Department Head

2006-07 Curriculum committee

2005-06 Geneticist and plant biologist search committees

2005-06 Graduate student committee (chair)

2004-05 Curriculum Committee

2003 Social Committee

2002-03 Safety Committee

Technology fee and equipment committee

2000-02 Graduate Student Committee

2000-01 Seminar Committee (chair)

*College of Science and Engineering*

2012-13 Undergraduate Research Opportunity grant reviewer

2007-11 CSE Executive committee

2002-03 Undergraduate Research Opportunity selection committee

*Campus/University of Minnesota System*

2013 Athletic Director Search Committee

2012-13 Men’s Basketball Coach Search Committee

2012-13 Compliance Director Search Committee (Chair)

2009-11 SCSE Executive Committee

2008-14 Faculty Athletic Representative to the NCAA

2004-06, 08- Campus Assembly

2004-06, 08- UMD athletic committee

2007 Blehart award Review Committee

2004-06 Alternate member of the Institutional Animal Care and Use Committee

2001-02 Neurobiologist Search Committee-UMD School of Medicine 2001-2002

*Other*

2011-13 MBL Science Council

2012-13 WCHA Executive committee (chair)

2011-12 WCHA Executive committee

2010- Co-organizer and chair of MBL undergraduate research symposium

2007 MBL Grass Fellows Faculty Advisor

2001-11 MBL Housing, food service and child care committee

b) Manuscripts reviewed

*Biological Bulletin, Brain Research, Comparative Biochemistry and Physiology, Current Zoology, Deep Sea Research ,Fish Physiology and Biochemistry, General Physiology and Biophysics, Hydrobiologia, Journal of Comparative Neurology, Journal of Comparative Physiology, Journal of Experimental Biology, Journal of Fish Biology, Journal of Great Lakes Research, Journal of Neurophysiology, Journal of the Royal Society interface, Journal of Veterinary Pharmacology and Therapeutics, Naturwissenschaften, Revista de Biología Marina y Oceanografía, Visual Neuroscience, Zoology*

c) Grants reviewed

2014 National Science Foundation. Graduate Research Fellowship Program

National Science Foundation. Review Panel for Activation in the Neural Systems Cluster (preliminary proposals)

National Science Foundation. Review Panel for Activation in the Neural Systems Cluster (full proposals)

2013 National Science Foundation. Graduate Research Fellowship Program

2012 National Science Foundation. Graduate Research Fellowship Program

2011 National Science Foundation. Review Panel for Activation in the Neural Systems Cluster

2009 ` National Science Foundation. Ad hoc reviewer for Neural Systems

2007 National Science Foundation. Ad hoc reviewer for Neural Systems

2006 National Science Foundation. Animal sensation and movement panel. Arlington, VA

National Science Foundation. The Perception, Action, and Cognition Advisory Panel ad-hoc reviewer

2005 National Science Foundation. Animal sensation and movement panel. Arlington, VA

2004 National Science Foundation. Centers for Research Excellence and Technology Program (CREST). Ad-hoc reviewer

2002 National Institute on Deafness and other communication disorders. CDRC- Communication Disorders Review Committee .

Hunter College, Dept of Psychology, External reviewer for PSC-CUNY research award.

National Institute on Deafness and other communication disorders Special Emphasis Panel to review NIDCD R03 applications, Washington, DC.

2001 National Institute on Deafness and other communication disorders Special Emphasis Panel ZDC1SRB-A, Bethesda Maryland.

National Institute on Deafness and other communication disorders. CDRC- Communication Disorders Review Committee (ad-hoc reviewer)

*6) Publications*

1. Vetter, B. J., Calfee, R. D. and **Mensinger, A. F.** (2017). Management implications of broadband sound in modulating wild silver carp (*Hypophthalmichthys molitrix*) behavior. *Management of Biological Invasions* **8**, 371-376.
2. Rogers, L. S., Van Wert, J. C. and **Mensinger, A. F.** (2017). An implantable two axis micromanipulator made with a 3D printer for recording neural activity in free-swimming fish. *Journal of Neuroscience Methods* **288**, 29-33
3. Vetter, B. J., Casper, A. F. and **Mensinger, A. F.** (2017). Characterization and management implications of silver carp (Hypophthalmichthys molitrix) jumping behavior in response to motorized watercraft. *Management of Biological Invasions* **8**, 113-124.
4. Murchy, K. A., Cupp, A. R., Amberg, J. J., Vetter, B. J., Fredricks, K. T., Gaikowski, M. P. and **Mensinger, A. F.** (2017). Potential implications of acoustic stimuli as a non-physical barrier to silver carp and bighead carp. *Fisheries Management and Ecology* **24**, 208-216.
5. Vetter, B. J., Murchy, K. A., Cupp, A. R., Amberg, J. J., Gaikowski, M. P. and **Mensinger, A. F.** (2017). Acoustic deterrence of bighead carp (Hypophthalmichthys nobilis) to a broadband sound stimulus. *Journal of Great Lakes Research* **43**, 163-171.
6. Leino, J. R. and **Mensinger, A. F.** (2017). Interspecific competition between the round goby, Neogobius melanostomus, and the logperch, Percina caprodes, in the Duluth-Superior Harbour. *Ecology of Freshwater Fish* **26**, 34-41.
7. Leino, J. R. and **Mensinger, A. F.** (2016). The benthic fish assemblage of the soft-bottom community of the Duluth-Superior Harbor before and after round goby invasion (1989-2011). *Journal of Great Lakes Research* **42**, 829-836.
8. **Mensinger, A. F.** (2016). Multimodal Sensory Input in the Utricle and Lateral Line of the Toadfish, Opsanus tau. In *Fish Hearing and Bioacoustics: an Anthology in Honor of Arthur N. Popper and Richard R. Fay*, vol. 877 (ed. J. A. Sisneros), pp. 271-289.
9. Keyler, T. D., Hrabik, T. R., Austin, C. L., Gorman, O. T. and **Mensinger, A. F.** (2015). Foraging mechanisms of siscowet lake trout (Salvelinus namaycush siscowet) on pelagic prey. *Journal of Great Lakes Research* **41**, 1162-1171.
10. Vetter, B. J., Cupp, A. R., Fredricks, K. T., Gaikowski, M. P. and **Mensinger, A. F**. (2015). Acoustical deterrence of Silver Carp (Hypophthalmichthys molitrix). Biological Invasions 17, 3383-3392.
11. Maruska, K.P. & **Mensinger, A.F.** 2015. Directional sound sensitivity in utricular afferents in the toadfish, *Opsanus tau*. *Journal of Experimental Biology*. 218: 1759-1766.
12. **Mensinger, A.F**. 2015. Multimodal sensory input in the utricle and lateral line of the toadfish, *Opsanus tau*. Invited peer reviewed book chapter. Fish Hearing and Bioacoustics: An anthology in honor of Arthur N. Popper and Richard R. Fay. *Advances in Experimental Medicine and Biology* Sisneros, J. editor. In press
13. Harrington, K.A., Hrabik, T.R. & **Mensinger, A.F**. 2015. Visual sensitivity of deepwater fishes of Lake Superior. *PLoS ONE* 10(2): e0116173.
14. Zielinski, D.P., Voller, V.R., Svendsen, J.C., Hondzo, M., **Mensinger, A.F.** & Sorensen, P. 2014. Laboratory experiments demonstrate that bubble curtains can effectively inhibit movement of common carp. *Ecological Engineering* 67: 95-103.
15. Radford, C.A. & **Mensinger, A.F.** 2014. Anterior lateral line nerve encoding to tones and play-back vocalisations in free-swimming oyster toadfish, *Opsanus tau*. *Journal of Experimental Biology* 217: 1570-1579.
16. **Mensinger, A.F.** 2014. Disruptive communication: stealth signaling in the toadfish. *Journal of Experimental Biology* 217: 344-350.
17. Elemans, C.P.H., **Mensinger, A.F.** & Rome, L.C. 2014. Vocal production complexity correlates with neural instructions in the oyster toadfish (*Opsanus tau*). *Journal of Experimental Biology* 217: 1887-1893.
18. Sloan, J. L., Cordo, E. B. and **Mensinger, A. F**. 2013. Acoustical conditioning and retention in the common carp (*Cyprinus carpio*). *Journal of Great Lakes Research*. 39:507-512
19. Holbrook, B. V., Hrabik, T. R., Branstrator, D. K. and **Mensinger, A. F**. 2013. Foraging mechanisms of age-0 lake trout (*Salvelinus namaycush*). Journal of Great Lakes Research. 39:128-137.
20. Lynch, M and **Mensinger A. F**. 2013.Temporal patterns in growth and survival of the round goby *Neogobius melanostomus* over a 13 month period in the Duluth-Superior Harbour. Journal of Fish Biology. 82:111-124.
21. Lynch, M and **Mensinger A. F**. 2012. Seasonal abundance and movement of the invasive round goby (*Neogobius melanostomus*) on rocky substrate in the Duluth-Superior Harbor of Lake Superior. *Ecology of Freshwater Fishes*. 21:64-74.
22. Bergstrom M. A. and **Mensinger A. F**. 2009. [Interspecific Resource Competition between the Invasive Round Goby and Three Native Species: Logperch, Slimy Sculpin, and Spoonhead Sculpin](http://apps.isiknowledge.com.libpdb.d.umn.edu:2048/full_record.do?product=WOS&search_mode=GeneralSearch&qid=7&SID=T19LPjOMaLEdJ@7o@Im&page=1&doc=1). *Transactions of the American Fisheries Society*. 138:1009-1017.
23. Maruska K.P., Korzan W.J., and **Mensinger A. F.** 2009. [Individual, temporal, and population-level variations in circulating 11-ketotestosterone and 17 beta-estradiol concentrations in the oyster toadfish *Opsanus tau*](http://apps.isiknowledge.com.libpdb.d.umn.edu:2048/full_record.do?product=WOS&search_mode=GeneralSearch&qid=7&SID=T19LPjOMaLEdJ@7o@Im&page=1&doc=2). *Comparative Biochemistry and Physiology A – Molecular & Integrative Physiology*. 152:569-578.
24. Maruska K.P., and **Mensinger A. F**. 2009. [Acoustic characteristics and variations in grunt vocalizations in the oyster toadfish *Opsanus tau*](http://apps.isiknowledge.com.libpdb.d.umn.edu:2048/full_record.do?product=WOS&search_mode=GeneralSearch&qid=7&SID=T19LPjOMaLEdJ@7o@Im&page=1&doc=3). *Environmental Biology of Fishes*. 84: 325-337.
25. Bergstrom, M. A., L. M. Evard and **A. F. Mensinger**. 2008. Distribution, abundance, and range expansion of the round goby, *Apollonia melanostoma*, in the Duluth-Superior Harbor and St. Louis River Estuary, 1998-2004. *Journal of Great Lakes Research*. 34:535-543
26. **Mensinger, A. F.** and M. K. Powers. 2007. Visual function in regenerating teleost retina following surgical lesioning**.** *Visual Neuroscience*. 24:299-307
27. Callahan, M.P. and **A. F. Mensinger**. 2007. Restoration of visual function following optic nerve regeneration in bluegill (*Lepomis machrochirus*) X pumpkinseed (*Lepomis gibbosus*) hybrid sunfish. *Visual Neuroscience.* 24:309-317.
28. **Mensinger, A.F.** and M.E. Tubbs. 2006. The effects of temperature and diet on the growth rate of year 0 oyster toadfish, *Opsanus tau.. Biological Bulletin.* 210:64-71.

## Palmer, L. M., M. Deffenbaugh and A. F. Mensinger. 2005. Sensitivity of the anterior lateral line to natural stimuli in the oyster toadfish, *Opsanus tau* (Linnaeus). *Journal of Experiment Biology*. 208:3441-3450.

# Mensinger, A. F., P. J. Walsh, and R. T. Hanlon. 2005. Blood biochemistry of the toadfish Opsanus tau. Journal of Aquatic Animal Health. 17:170-176.

1. Palmer, L. M. and **A. F. Mensinger.** 2004**.** **Effect of the anesthetic tricaine (MS-222) on nerve activity in the anterior lateral line of the oyster toadfish, *Opsanus tau.*** *Journal of Neurophysiology*, 92: 1034-1041.
2. Richmond, H. E., T.R. Hrabik and **A. F. Mensinger**. 2004. **Light intensity, prey detection and foraging mechanisms of age 0 year yellow perch.** *Journal of Fish Biology* 65:195-205*.*
3. **Mensinger, A.F**., N. N. Price, H. E. Richmond, J.W. Forsythe and R. T. Hanlon, 2003. Mariculture of the oyster toadfish, *Opsanus tau*: juvenile growth and survival. *North American Journal of Aquaculture,* 65:289-299.
4. Palmer, L.M., B.A. Giuffrida and **A.F. Mensinger**, 2003. Neural recordings from the lateral line in free swimming toadfish, *Opsanus tau*. *Biological Bulletin*, 205:216-218.
5. **Mensinger, A. F.** and M. Deffenbaugh. 2002. Acoustical neural telemetry from free-swimming fish. *Bioacoustics*, 12:333-334.
6. Boyle, R., **A. F. Mensinger**, K. Yoshida, S. Usui, A. Intravaia, T. Tricas and S. M. Highstein. 2001. Neural readaptation to earth’s gravity following return from space. *Journal of Neurophysiology*. 86:2118-2122.
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**ABSTRACTS**:

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