

# Amy Vanessa Uhrin

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## National Oceanic and Atmospheric Administration

National Ocean Service  
Office of Response and Restoration  
Marine Debris Division  
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Silver Spring, MD 20910 USA  
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-and-

## University of Wisconsin Madison

Department of Zoology  
Ecosystem and Landscape Ecology Lab  
430 Lincoln Drive  
Madison, WI 53706 USA

## EDUCATION

2012 – present

**Ph.D. Zoology (candidate)** - University of Wisconsin Madison

*“Disturbance dynamics in coastal seascapes: the role of spatial heterogeneity, hydrodynamics, bioturbation, derelict fishing gear, and a changing climate”*

Advisor: Dr. Monica Turner

1997 - 2001

**M.S. Biological Oceanography** - University of Puerto Rico Mayagüez

*“Propeller scarring in a seagrass assemblage: effects on seagrass, physical processes, and response of associated fauna”*

Advisor: Dr. Jeff Holmquist

1988 – 1992

**B.S. Biology, Mass Communication minor** - St. Bonaventure University, *cum laude*

## PROFESSIONAL APPOINTMENTS

2015 – present

*Chief Scientist*, **National Oceanic and Atmospheric Administration**

Marine Debris Division, Silver Spring, MD

2004 - 2015

*Research Ecologist*, **National Oceanic and Atmospheric Administration**

Center for Coastal Fisheries and Habitat Research, Beaufort, NC

2000 - 2004

*Biological Science Technician*, **National Oceanic and Atmospheric Administration**

Center for Coastal Fisheries and Habitat Research, Beaufort, NC

## AWARDS

**2017 NOAA Certificate of Recognition**, for valuable contributions to the damage and assessment and restoration planning associated with the *Deepwater Horizon* oil spill

**2014 John Jefferson Davis Travel Award**, Department of Zoology, University of Wisconsin, Madison

**2014 Best Graduate Student Poster Presentation**, Southeastern Estuarine Research Society Fall Meeting

**2013-2014 Federal Employee Education Assistance Scholarship**, merit-based scholarship for federal employees, their spouses and dependents in a degree-granting program

**2013 John Jefferson Davis Travel Award**, Department of Zoology, University of Wisconsin, Madison

**2012 3-3 Poster Award**, for poster demonstrating highest clarity of presentation - Southeastern Estuarine Research Society Spring Meeting

**2011 NCCOS People Committee EEO/Diversity Peer Recognition Award**, received by CCFHR Employee Association for enhancing office morale by conducting team building/diversity activities

**2011 Fifth International Marine Debris Conference Travel Award**, NOAA Marine Debris Program

**2010, '08, '07, '06, '05, '03, '01 NOAA Special Act Awards**, for achievements beyond normal scope of duties

**2001 Laura J. Grierson Memorial Award**, Duke University Marine Laboratory Summer Session Scholarship

**2001 Student Oral Presentation Runner Up**, Estuarine Research Federation 16<sup>th</sup> Biennial Conference

## RESEARCH FUNDING

- 2012-2015 “Shifts in Seagrass Species Composition: A Sentinel Indicator for Sea Level Rise and Climate Change”, with D. Field. National Ocean Service Coastal Science Board, \$281,000
- 2009-2010 “Derelict Spiny Lobster Traps in Florida Keys National Marine Sanctuary: Trap Degradation Rates, Habitat Impacts, and Lobster Mortality”, with T.R. Matthews. NOAA Marine Debris Program, \$100,000.
- 2007-2008 “Derelict Traps and Casita Debris in the Florida Keys National Marine Sanctuary: Distribution, Habitat Impacts, and Bycatch Mortality”, with T.R. Matthews. NOAA Marine Debris Program, \$82,955.
- 2007-2008 “Debris Accumulation, Removal, and Impact Assessment”, with P.W. Whitfield, T.S. Viehman, NOAA Marine Debris Program, \$93,250.
- 1999 “The Effect of Propeller Scarring in Seagrass Beds”. PADI AWARE Foundation, \$500.

## PUBLICATIONS

- Uhrin, A. V.** 2016. Tropical cyclones, fishing gear, and the future of the south Florida commercial lobster fishery. *Marine Policy* 69:84-91.
- Uhrin, A. V.** and Townsend, P. A. 2016. Improved seagrass classification using linear spectral unmixing. *Estuarine, Coastal and Shelf Science* 171:11-22.
- Uhrin, A. V.,** T. R. Matthews, and C. Lewis. 2014. Lobster trap debris in Florida Keys National Marine Sanctuary: distribution, abundance, density, and patterns of accumulation. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 6:20-32.
- Uhrin, A. V.** and J. Schellinger. 2011. Marine debris impacts to a fringing salt marsh in North Carolina. *Marine Pollution Bulletin* 62:2605-2610.
- Uhrin, A. V.,** W. J. Kenworthy, and M. S. Fonseca. 2011. Understanding uncertainty in seagrass injury recovery: an information-theoretic approach. *Ecological Applications* 21(4):1365-1379.
- Uhrin, A. V.,** W. J. Kenworthy, and M. S. Fonseca. 2011. Seagrass injury recovery. *Bulletin of the Ecological Society of America* 92(1):97-100.
- Fonseca, M. S. and **A. V. Uhrin.** 2009. The status of eelgrass, *Zostera marina*, as bay scallop habitat: consequences for the fishery in the western Atlantic. In: Bay scallops in eastern North America: Part II. *Marine Fisheries Review* 71(3):20-33.
- Uhrin, A. V.,** M. O. Hall, M. F. Merello, M. S. Fonseca. 2009. Evaluation of the success of mechanized transplanting of two tropical seagrasses. *Restoration Ecology* 17(3):359-368.
- Uhrin, A. V.,** C. L. Slade, and J. G. Holmquist. 2005. Self righting in the free-living coral *Manicina areolata* (Cnidaria: Scleractinia): morphological constraints. *Caribbean Journal of Science* 41:277-282.
- Uhrin, A. V.,** M. S. Fonseca, and G. P. DiDomenico. 2005. Effect of Caribbean spiny lobster traps on seagrass beds of the Florida Keys National Marine Sanctuary: damage assessment and evaluation of recovery. Pages 579-588 in P. W. Barnes, and J. P. Thomas, editors. Benthic habitats and the effects of fishing. *American Fisheries Society Symposium* 41, Bethesda, Maryland, USA.
- Uhrin, A. V.** and J. G. Holmquist. 2003. Effects of propeller scarring on macrofaunal use of the seagrass *Thalassia testudinum*. *Marine Ecology Progress Series* 250:61-70.
- Ho, M., **A. Uhrin,** and M. Huang. 1994. An ether-based peptide analog as cAMP-dependent protein kinase inhibitor/substrate. *Bioorganic & Medicinal Chemistry Letters* 4(4):553-556.

## Technical Reports / Trade Publications

- Uhrin, A. V.** and K. Kirsch. 2011. Prioritizing seagrass restoration sites. Pages 49-54 in: GIS for the Oceans. Esri, Redlands, California.

- Uhrin, A. V.**, M. S. Fonseca, and W. J. Kenworthy. 2009. Preliminary Comparison of Natural Versus Model-predicted Recovery of Vessel-generated Seagrass Injuries in Florida Keys National Marine Sanctuary. *Marine Sanctuaries Conservation Series NMSP-09-03*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 13 pp.
- Uhrin, A. V.** and K. Kirsch. 2008. Prioritizing seagrass restoration sites. *ArcUser* 11(3):26-29.
- Piniak, G. P., C. M. Addison, B. P. Degan, **A. V. Uhrin**, and T. S. Viehman. 2006. Characterization of Navassa National Wildlife Refuge: A Preliminary Report for NF-06-05 (NOAA ship *Nancy Foster*, April 18-30, 2006). *NOAA Technical Memorandum NOS NCCOS* 38. 48pp.
- Fonseca, M. S., **A. V. Uhrin**, C. A. Currin, J. S. Burke, D. W. Field, C. M. Addison, L. L. Wood, G. A. Piniak, T. S. Viehman, C. S. Bonn. 2006. Ongoing monitoring of Tortugas Ecological Reserve: assessing the consequences of reserve designation. *NOAA Technical Memorandum NOS NCCOS* 22. 49pp.
- Burke, J. S., M. L. Burton, C. A. Currin, D. W. Field, M. S. Fonseca, J. A. Hare, W. J. Kenworthy, and **A. V. Uhrin**. 2004. Biogeographic analysis of Tortugas Ecological Reserve: examining the refuge effect following reserve establishment. *Marine Conservation Series MSD-04-01*. U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Marine Sanctuaries Division, Silver Spring, MD. 28pp.

#### **PRESENTATIONS** (as presenting author only)

- 2016 **OneNOAA Science Seminar** - "Tropical Cyclones, Derelict Traps, and the Future of the Florida Keys Commercial Spiny Lobster Fishery" – Silver Spring, MD
- 2016 **Ocean Sciences Meeting** - "Hurricanes, Derelict Traps, and the Future of the Florida Keys Commercial Spiny Lobster Fishery" - New Orleans, LA
- 2015 **44<sup>th</sup> Annual Benthic Ecology Meeting** - "Improved Seagrass Classification Using Linear Spectral Unmixing" - Quebec City, Quebec Canada (poster)
- 2014 **Southeastern Estuarine Research Society Fall Meeting** - "Improved Seagrass Classification Using Linear Spectral Unmixing" - Carolina Beach, NC (poster)
- 2013 **98<sup>th</sup> Annual Meeting of the Ecological Society of America** - "Improved seagrass change detection using linear spectral unmixing" - Minneapolis, MN (poster)
- 2013 **UW Madison Joint Graduate Student Recruitment Poster Session** – "Lobster Trap Debris in Florida Keys National Marine Sanctuary" - Madison, WI (poster)
- 2012 **Southeastern Estuarine Research Society Spring Meeting** - "Marine Debris Impacts to a Tidal-fringing Marsh in North Carolina" - Morehead City, NC (poster)
- 2012 **North Carolina Coastal Reserve & National Estuarine Research Reserve Research Symposium** – "Marine Debris Impacts to a Tidal-fringing Marsh in North Carolina" - Beaufort, NC (poster)
- 2011 **5<sup>th</sup> International Marine Debris Conference** - "Towed-diver Derelict Spiny Lobster Trap Surveys in Florida Keys National Marine Sanctuary" - Honolulu, HI
- 2011 **5<sup>th</sup> International Marine Debris Conference** - "Distribution and Abundance of Trap Debris in Florida Keys National Marine Sanctuary" - Honolulu, HI (poster)
- 2011 **NC Science and Education Diver Symposium** - "Towed-diver Derelict Spiny Lobster Trap Surveys in Florida Keys National Marine Sanctuary" - Pine Knoll Shores, NC
- 2010 **39<sup>th</sup> Annual Benthic Ecology Meeting** - "Understanding Uncertainty in Seagrass Injury Recovery: An Information-theoretic Approach - Wilmington, NC
- 2009 **NOAA Submerged Derelict Trap Methods Detection Workshop** - "Towed-Diver Surveys for Assessing Derelict Spiny Lobster Traps in Florida Keys National Marine Sanctuary" - Silver Spring, MD (invited)
- 2008 **61<sup>st</sup> Annual Gulf and Caribbean Fisheries Institute** - "Distribution and Abundance of Trap Debris in Florida Keys National Marine Sanctuary" - Gosier, French Guadeloupe (poster)
- 2008 **8<sup>th</sup> International Seagrass Biology Workshop** - "Factors Influencing Natural Recovery of Seagrass Beds Physically Disturbed by Motorized Vessels" - Vancouver Island, Canada

- 2007 **92<sup>nd</sup> Annual Meeting of the Ecological Society of America** - "Can Seagrass Beds Heal Themselves after Physical Disturbance? Implications for Restoration." - San Jose, CA
- 2005 **Estuarine Research Federation 18<sup>th</sup> Biennial Conference** - "Evaluation of Mechanized Transplanting of Two Tropical Seagrasses in Sarasota Bay, Florida" - Norfolk, VA (poster)
- 2004 **6<sup>th</sup> International Seagrass Biology Workshop** - "Propeller Scarring in a Seagrass Assemblage: Effects on Seagrass and Response of Associated Fauna" - Townsville, Australia
- 2004 **6<sup>th</sup> International Seagrass Biology Workshop** - "Spatially Explicit Models for Describing the Response of Seagrass and other Benthic Resources to Disturbance" - Townsville, Australia
- 2003 **Estuarine Research Federation 17<sup>th</sup> Biennial Conference** - "Effect of Spiny Lobster Traps on Seagrass Beds of the Florida Keys National Marine Sanctuary: Damage Assessment and Evaluation of Recovery" - Seattle, WA
- 2003 **Estuarine Research Federation 17<sup>th</sup> Biennial Conference** - "Spatially Explicit Models for Describing the Response of Seagrass and other Benthic Resources to Disturbance" - Seattle, WA
- 2003 **NOAA Beaufort Lab Seminar Series** - "Human Disturbances to Seagrass Communities: Recreational and Commercial Impacts" - Beaufort, NC
- 2002 **American Fisheries Society Symposium on Effects of Fishing Activities on Benthic Habitats** - "Effect of Spiny Lobster Traps on Seagrass Beds of the Florida Keys National Marine Sanctuary: Damage Assessment and Evaluation of Recovery" - Tampa, FL (poster)
- 2001 **Estuarine Research Federation 16<sup>th</sup> Biennial Conference** - "Propeller Scarring in a Seagrass Assemblage: Effects on Seagrass and Response of Associated Fauna" - St. Petersburg Beach, FL

#### SYNERGISTIC ACTIVITIES

- **Strategic Planning Team, 2016**  
NOAA Office of Response and Restoration  
 Support the development of the 2017-2020 OR&R Strategic Plan
- **Conference Session Co-chair, 2016** (with Thomas R. Matthews)  
Annual Meeting of the Gulf and Caribbean Fisheries Institute, Grand Cayman, 7-11 November  
 "Identifying, Understanding, and Reducing Marine Debris in the Gulf and Caribbean"
- **Invited workshop participant, 2016**  
Marine Floating Macro Litter, European Commission, Barcelona, 27-28 October
- **Conference Session Co-chair, 2016** (with Kara Lavendar Law, Jenna Jambeck, Hillary Burgess)  
Ocean Sciences Meeting, New Orleans, 21-26 February  
 "The Emerging Science of Marine Debris: From Assessment to Knowledge that Informs Solutions"
- **Invited workshop participant, 2016**  
Expert Workshop on the G7 Action Plan to Combat Marine Litter, Japan Ministry of Environment, Tokyo  
 25-26 January
- **Lead Reviewer, 2014-2015**  
United Nations First World Ocean Assessment  
 Coordinate and guide team of subject matter experts to provide critical evaluation of the scientific credibility and prescriptivism of Chapter 48: Kelps and Seagrasses of the WOA
- **Trustee Representative, 2010-2012**  
NOAA Natural Resource Damage Assessment Submerged Aquatic Vegetation Technical Working Group  
 Support Oil Spill NRDA Activities associated with the Deepwater Horizon oil spill. Develop and implement Work Plans as part of NRDA to identify the extent of injuries to Submerged Aquatic Vegetation, the

amount and type of restoration required to restore those resources to baseline conditions and compensate the public for interim losses.

- **Journal Reviewer, on-going**  
Journal of Experimental Marine Biology & Ecology, Marine Ecology Progress Series, Restoration Ecology, Estuaries, Estuarine Coastal & Shelf Science, Marine & Freshwater Research, Journal of Environmental Management, Fisheries Science, Marine Pollution Bulletin
- **Society Membership, on-going**  
Ecological Society of America, Coastal and Estuarine Research Federation, Southeastern Estuarine Research Society, International Association of Landscape Ecology, Association for Women in Science, Wisconsin Ecology, UW Madison Graduate Students in Science