

JOEL W. SNODGRASS
DEPARTMENT HEAD AND

WORK:

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EDUCATION

1985	B.S.	Guilford College; Biology
1990	M.S.	University of Central Florida; Zoology
1996	Ph.D.	University of Georgia; Ecology

RESEARCH, TEACHING, AND ADMINISTRATION POSITIONS

Aug 2014 – present:	Department Head and Professor, Department of Fish and Wildlife Conservation, Virginia Tech
Aug 2011 – Aug 2014:	Chairperson, Department of Biological Sciences, Towson University
Aug 1999 – Aug 2014:	Assistant, Associate, Full Professor, Department of Biological Sciences, Towson University
Aug 1996–May 1999	Lecturer, Department of Biology and Geology, University of South Carolina-Aiken
Jun 1996 – Aug 1999	Postdoctoral Research Associate, Division of Life Sciences and Environmental and Occupational Health Sciences Institute, Rutgers University
Jun 1993 - Jun 1996	DOE Graduate Laboratory Fellow, University of Georgia
Sept. 1992–Jun. 1993	Graduate Research Assistant, Graduate Teaching Assistant, Department of Biology and Savannah River Ecology Laboratory, University of Georgia
Sept. 1985 - Sept 1992	Environmental Resources Technician; Environmental Resources Specialist; Supervisor, Research, Management and Planning Section, Office of Natural Resources Management, Brevard County, Florida

ADMINISTRATIVE EXPERIENCE

Graduate Program Co-Direct (with Dr. Gail Gasparich)/Direct (Towson University, Department of Biological Sciences)

- Executed program growth including moving from 8 to 25 students on assistantships; increases in mean GRE and GPA of accepted students; increase in publication rates of thesis students to an average of 2.1 papers per graduate in the thesis track.
- Designed and implemented assessment plans and reports that received recognition as “Best Practice” on campus.
- Coordinated the admission and awarding of teaching assistantships.
- Built class schedules and planned long-term offerings.
- Managed new graduate course proposals and review at the departmental level.
- Directed graduate faculty applications and monitored graduate faculty status within the department.

- Arbitrated student-faculty disputes and student grievances.
- Created and managed content on the graduate portion of the departmental website.

Chairperson (Towson University, Department of Biological Sciences)

- Coordinated from 41 to 44 fulltime faculty (including 33 tenure/tenure track faculty), from 20 to 25 adjunct faculty, and six staff members (including three office staff, two laboratory managers and a veterinary technician).
- Directed and managed the merit, promotion, and tenure evaluation process for all faculty.
- Programmed and administered a department budget of approximately \$640,000 of operating funds and approximately \$6 million total (inclusive of salaries).
- Enhanced resources, including nearly \$450,000 in equipment acquisition and replacement over two years and an increase in graduate student summer stipends.
- Improved and planned for the maintenance and use of approximately 130,000 ft² of classroom, office, and laboratory space.
- Represented the Department in the planning stages of a \$140 million building renovation.
- Built and executed scheduling of approximately 26,000 to 29,000 student credit hours annually (~ 300 sections of 24 students).
- Hired six tenure track faculty and six Lecturers.
- Mediated and resolved conflicts of faculty, staff, and students.
- Developed six-year program assessment reports for the undergraduate and graduate program as part of the University of Maryland System program review requirements.
- Coordinated and authored the departmental seven-year self-study and external review as part of the university assessment process.
- Coordinated development of, and launched, a new departmental website.
- Established and maintained relationships with other academic and administrative departments outside the college including working with the Financial Aid Office, the Registrar's Office, and the Graduate School to implement policies and procedures for thesis and assistantship credits and engaging the College of Health Professions in anatomy and physiology course redesign.
- Planned and conducted annual one-day departmental retreats.
- Initiated course redesign efforts within the department including involvement of four courses and \$35,000 in external funding.
- Initiated junior faculty meetings to increase communication with, and involvement of junior faculty in departmental activities.
- Initiated development of a Next Generation Sequencing Center, ultimately funded by NSF after my departure.

Department Head (Virginia Tech, Department of Fish and Wildlife Conservation)

- Coordinated the activities of from 14 to 22 tenure/tenure-track faculty, 4 to 7 federal scientists (including the Virginia Cooperative Research Unit), 10 to 37 research scientists/post doctoral associates, and 6 university staff members.
- Coordinated the promotion and tenure process.
- Conducted all merit reviews and recommendations for faculty and staff.
- Planned and maintain annual department budgets ranging from approximately \$6.9 million to \$14.9 million (including grant spending)
- Coordinated average increases in new grant dollars and research spending of over 10% annually between the 2015 and 2023 academic years.
- Facilitated a significant increase in National Science Foundation Funding and overall diversification of federal agency funding.

- Expanded faculty and staff including four new tenure-track positions, one collegiate faculty position, two new federal scientist appointments, and a new technician position for the department.
- Oversaw development of a new webpage and updating of content.
- Initiated, developed, and maintained relationships with federal, state, and public stakeholders including the US Fish and Wildlife Service, the US Forest Service, US Geological Survey, the National Fish and Wildlife Foundation, and the Virginia Department of Wildlife Resources.
- Coordinated development and recruiting efforts with the college's development team and recruiters.
- Administered 10-year enrollment increases of 34% and 53% for undergraduate and graduate students, respectively.
- Stewarded current donors and established relationships with perspective donors.
- Established Department Advisory Council including prominent alumni and friends of the department.
- Significantly increased philanthropic support for research.
- Planned and executed efforts to increase diversity and promote inclusion within the department, including the development of a department diversity and inclusion plan, creation of department DEI committee, and incorporation of DEI considerations into departmental promotion and tenure policy.
- Oversaw and managed facilities and space use in all or portions of seven buildings (including aquaculture facilities, wet and dry laboratory space, an aviary, a bear facility, outdoor experimental areas, and BSL 2 facilities).
- Initiated and managed the renovation of over 2000 square feet of office and laboratory space.
- Planned for and promoted facilities expansion including placement of a \$11 million plus project on the university's capital planning list that just received planning funding in fall 2023.
- Conducted and authored 5-year program review for State Council of Higher Education for Virginia (twice).
- Managed, maintained, and assigned a fleet of ~ 35 trucks and 15 boats (15 to 37 ft in size), including acquisition of new vehicles and boats on nearly an annual basis.
- Spearheaded curricular development to focus organismal biology course work within the department.
- Directed curriculum development and program creation in the areas of human dimensions and urban natural resources.
- Managed and enhanced a biological teaching collection of approximately 5,000 wet and dry specimens.
- Promoted faculty and student recognition including recent awards to faculty of an endowed professorship and State Council of Higher Education for Virginia outstanding faculty award, among others.

TEACHING EXPERIENCE**CLASSROOM:**

Classes taught: Introduction to Ecology, Evolution and Behavior; Conservation Biology; Landscape Ecology; Advance Data Analysis and Presentation for Biologist; Human Anatomy; Ichthyology; Zoology; and non-majors introductory biology labs.

DIRECTION OF STUDENT RESEARCH:

Mentor for 19 undergraduate projects
Co-authored 13 papers with undergraduates

Mentor for 18 MS and 1 PhD student
Co-authored 29 papers with graduate students

RESEARCH INTERESTS

I am an aquatic ecologist interested in the effects of human induced landscape change on the physical and biotic environment of aquatic systems, and the biology and evolution of aquatic organisms. I am particularly interested in fish and amphibians that inhabit streams and freshwater wetlands. My most recent research focuses on the influence of stormwater management practices on wetland landscapes in urban systems; assessment of wildlife habitat value of stormwater ponds; the influence of watershed urbanization on streams and the evolution of stream fishes; and aquatic toxicology of amphibian embryos and larvae. My research has used geographic information systems to quantify landscape structure and change. To investigate the effects of human-induced landscape change on the ecology of streams and freshwater wetlands, we have used analyses of pollutant levels (trace elements and nitrogen) in water, sediments, and tissues; surveys of stream and wetland geomorphology and community structure; analyses of stream fish and pond breeding amphibian life histories; and mesocosm and microcosm laboratory experiments. Collaborations have also allowed the use of molecular techniques in understanding movement patterns and population structure of headwater fishes and salamanders.

GRANTS AND FELLOWSHIPS (GREATER THAN \$5 MILLION TOTAL)

- 2022-2027: Designing Monitoring to Support Aquatic Resources Management. US Forest Service. PI-Joel Snodgrass. \$218,122
- 2019-2025: Assessing the use of grazing and other management practices to improve or maintain habitat for bog turtles. USDA Natural Resources Conservation Service. PI-Carola Haas, Co-PIs Emmanuel A. Frimpong, Joseph D. Buckwalter, Joel W. Snodgrass. \$ 897,067.
- 2015-2018: Development of a Powell River, VA Natural Resource Damage Assessment and Restoration. U.S. Fish and Wildlife Service. PI-Joel W. Snodgrass, Co-PI Serena Ciparis. \$131,602.83.
- 2010-2013: Renovation and Expansion of Core Facilities for Interdisciplinary Urban Biogeochemistry Research at Towson University. NSF ARI-R2. David Vanko PI; Co-PIs Steven Lev, Joel Snodgrass, Ryan Casey, and David Ownby; Project Manager Jack Nye. \$1,395,000.
- 2010-2012: MRI-R2: Acquisition of an Inductively Coupled Plasma-Time of Flight-Mass Spectrometer (ICP-TOF-MS) for Multidisciplinary Research and Training at Towson University. NSF. PI-S.M. Lev, Co-PIs- E. Hondrogiannis, J.W. Snodgrass, R.E. Casey. \$257,546.
- 2008-2010: Integration of Stormwater Management Ponds into Urban Communities: Long-term Water Quality Protection, Wildlife, and Environmental Awareness. USGS. PI-J.W. Snodgrass, Co-PIs-S.M. Lev, R.E. Casey, and E.R. Landa. \$274,948
- 2006: Chemical and Biological Impacts of Zinc and Road Salt from Road Runoff Entering Stormwater Retention Ponds. USGS. PI-R.E. Casey, Co-PIs-S.M. Lev, J.W. Snodgrass, and E.R. Landa. \$7,560
- 2004-2005: Physical Analysis of Water, Sediment and Soil from a Stormwater Pond. USGS. PI- S.M. Lev, Co-PIs-R.E. Casey, and J.W. Snodgrass. \$11,000
- 2005: Chemical and Biological Availability of Zinc in Road Runoff Entering Stormwater Retention Ponds. USGS. PI-R.E. Casey, Co-PIs-S.M. Lev, J.W. Snodgrass, and E.R. Landa. \$15,000
- 2004-2006: Acquisition of Instrumentation for an Urban Environmental Biogeochemistry Laboratory at Towson University. NSF. PI-Ryan Casey, Co-PIs Steve Lev, Joel Snodgrass and Susan Gresens. \$208,316.
- 2004: Supplement: C-RUI: Cellular, Physiological and Life-History Responses of a Stream Fish, Blacknose Dace (*Rhinichthys atratulus*), to Urbanization. NSF. PI-Joel W. Snodgrass, Co-PIs Jay Nelson and Gail Gasparich. \$9,850.

- 2003: Phase IV: Development of an Impervious Surface Map of the Chesapeake Bay and Maryland Coastal Bays Watershed Using Landsat 7 ETM+ Imagery. PI-John Morgan, III, Co-PIs-Kent Barnes, Martin Roberge, and Joel Snodgrass. Raytheon Corporation, NASA. \$422,209
- 2002-2007: C-RUI: Cellular, Physiological and Life-History Responses of a Stream Fish, Blacknose Dace (*Rhinichthys atratulus*), to Urbanization. NSF. PI-Joel W. Snodgrass, Co-PIs Jay Nelson and Gail Gasparich. \$295,982.
- 2002-2004: Use of Stormwater Retention Ponds by Breeding Amphibians and Investigations of the Bioavailability of Metals to Larvae and Higher Trophic Levels. USGS. PI-J.W. Snodgrass, Co-PIs—R.E. Casey and D. Sparling. \$19,000
- 2002: Phase III: Development of an Impervious Surface Map of the Chesapeake Bay and Maryland Coastal Bays Watershed Using Landsat 7 ETM+ Imagery. PI-John Morgan, III, Co-PIs-Kent Barnes, Martin Roberge, and Joel Snodgrass. Raytheon Corporation, NASA. \$620,000
- 2001: Phase II: Development of an Impervious Surface Map of the Chesapeake Bay and Maryland Coastal Bays Watershed Using Landsat 7 ETM+ Imagery. PI-John Morgan, III, Co-PIs-Kent Barnes, Martin Roberge, and Joel Snodgrass. Raytheon Corporation, NASA. \$639,336
- 2001: Spatial modeling of receptor species for ecological risk assessment activities at the SRS. Department of Energy – ER, Savannah River Site. PI and co-PI on two areas (out of eight PI's). \$8,000.
- 2001-2002: Consortium for Risk Evaluation with Stakeholder Participation II. Department of Energy. Subcontractor at ~ \$20,000 to \$30,000 annually through 2002.
- 2001: Investigation of the Relative Roles of Evolution and Plasticity in Producing Differences Among Stream Fish Populations Across an Urban-Rural Gradient. Towson University Faculty Development and Research Committee. J.W. Snodgrass. \$1,168
- 1998-2001: Enhancing Amphibian and Reptile Biodiversity on Golf Courses Through Use of Seasonal Wetlands. National Fish and Wildlife Foundation/U.S. Golf Association. J.W. Gibbons, J.W. Snodgrass, D. E. Scott, T. J. Ryan, K. A. Buhlman co-investigators. ~ \$60,000 for 3 yr.
- 1998: Studies of Urban-runoff Pollutants in Aquatic Systems of the Sand River Drainage of Hitchcock Woods. The Hitchcock Foundation. J.W. Snodgrass and C. J. Jagoe co- investigators. \$2,000
- 1996: Continued Monitoring of Fishes in Isolated Wetlands and Test of an Empirical Model to Predict Their Presence or Absence. Savannah River Ecology Laboratory set aside grant. J.W. Snodgrass, A.L. Bryan, Jr., and G.K. Meffe co-investigators. \$3,350
- 1995: Investigation of Fishes in Isolated Wetlands. Savannah River Ecology Laboratory set aside grant. J.W. Snodgrass, A.L. Bryan, Jr., and G.K. Meffe co- investigators. \$3,000
- 1994-1996: DOE Laboratory Graduate Fellowship
- 1994: Diversity Patterns of Fishes in Isolated Wetlands. Savannah River Ecology Laboratory set aside grant. J.W. Snodgrass, A.L. Bryan, Jr., and R. F. Lide co- investigators \$3,000
- 1993: Savannah River Ecology Laboratory Short-term Research Program Participant
- 1990: Marine Sanitation Device Use Patterns and Their Possible Effects on Water Quality in the Indian River Lagoon. Florida Department of Environmental Regulation, Office of Coastal Zone Management. J.W. Snodgrass investigator. \$26,400

BOOK CHAPTERS AND PEER REVIEWED PUBLICATIONS (* undergraduate students; ** graduate students)

h-factor = 40 4861 citations

(GOOGLE SCHOLAR, 16 FEB 2024, [HTTPS://SCHOLAR.GOOGLE.COM/CITATIONS?USER=NTIIGS0AAAAJ&HL=EN](https://scholar.google.com/citations?user=NTIIGS0AAAAJ&hl=en))

78. Izzo**, G., D. Ownby, and J.W. Snodgrass. 2022. Stream salamanders are relatively tolerant of salty streams. Archives of Environmental Toxicology and Chemistry. [DOI: 10.1007/s00244-021-00875-7](https://doi.org/10.1007/s00244-021-00875-7)

77. Simpson**, D.S., D.C. Forester, and J.W. Snodgrass. **2021**. Relationships among amphibian assemblage structure, wetland pH, and forest cover. *The Journal of Wildlife Management* 85:569–581. DOI: [10.1002/jwmg.22016](https://doi.org/10.1002/jwmg.22016)
76. Jennette**, M.A., J.W. Snodgrass, and D.C. Forester. **2019**. Variation in age, body size, and reproductive traits among urban and rural amphibian populations. *Urban Ecosystems* 22:137–147. DOI: [10.1007/s11252-018-0801-7](https://doi.org/10.1007/s11252-018-0801-7)
75. Zelt**, J., R.L. DeLeon, A. Arab, S. Droege, K. Laurent, and J.W. Snodgrass. **2017**. Long-term trends in avian migration timing for the state of New York. *The Wilson Journal of Ornithology* 129:271–282. DOI: [10.1676/16-026.1](https://doi.org/10.1676/16-026.1)
74. Snodgrass, J.W., J. Moore, S.M. Lev, R.E. Casey, D.R. Ownby, R.F. Flora** and G. Izzo**. **2017**. Influence of modern stormwater management practices on transport of road salt to surface waters. *Environmental Science and Technology* 51:4165–4172. DOI: [10.1021/acs.est.6b03107](https://doi.org/10.1021/acs.est.6b03107)
73. Miller**, W.L., J.W. Snodgrass, and G.E. Gasparich. **2015**. The importance of terrestrial dispersal for connectivity among headwater salamander populations. *Ecosphere* 6(10). DOI: [10.1890/ES15-00302.1](https://doi.org/10.1890/ES15-00302.1)
72. Jones*, B., J.W. Snodgrass, and D.R. Ownby. **2015**. Relative toxicity of NaCl and road de-icing salt to developing amphibians. *Copeia* 103:72-77. DOI: [10.1643/CP-13-082](https://doi.org/10.1643/CP-13-082)
71. Price, S.J., J.W. Snodgrass, and M.E. Dorcus. 2014. Managing aquatic and semi-aquatic wildlife in urban and suburban environments. Pages 361-388 in R. A. McCleery, C. E. Moorman, and M. N. Peterson (eds). *Urban Wildlife Science: Theory and Practice*. Springer, New York. DOI: [10.1007/978-1-4899-7500-3_16](https://doi.org/10.1007/978-1-4899-7500-3_16)
70. Bryan, A.L., Jr, J.W. Snodgrass, H.A. Brant, C.S. Romanek, C.H. Jagoe, G.L. Mills, and I.L. Brisbin, Jr. **2014**. Precipitation influences on uptake of a global pollutant by a coastal avian species. *Environmental Toxicology & Chemistry* 33:2711-2715. DOI: [10.1002/etc.2752](https://doi.org/10.1002/etc.2752)
69. Gallagher**, M., J. Snodgrass, A. Brand**, R. Casey, S. Lev, and R. Van Meter**. **2014**. The role of pollutant accumulation in determining the use of stormwater ponds by amphibians. *Wetlands Ecology and Management* 22:551-564. DOI: [10.1007/s11273-014-9351-9](https://doi.org/10.1007/s11273-014-9351-9)
68. Carroll**, W., J.W. Snodgrass, K. Szlavecz, E.R. Landa, R.E. Casey, and S.M. Lev. **2014**. The effects of earthworms on roadway-derived Zn deposited as a surface layer in stormwater retention basin soils. *Urban Ecosystems* 17:825-838. DOI: [10.1007/s11252-014-0355-2](https://doi.org/10.1007/s11252-014-0355-2)
67. Beck, H., J.W. Snodgrass, and P. Thebpanya. **2013**. Long-term enclosure of large terrestrial vertebrates: Implications of defaunation for seedling demographics in the Amazon rainforest. *Biological Conservation* 163:115-121. DOI: [10.1016/j.biocon.2013.03.012](https://doi.org/10.1016/j.biocon.2013.03.012)
66. Casey, R.E., S.M. Lev, and J.W. Snodgrass. **2013**. Stormwater ponds as a source of long-term surface and ground water salinization. *Urban Water Journal* 3:145-153. DOI: [10.1080/1573062X.2012.716070](https://doi.org/10.1080/1573062X.2012.716070)
65. Brown*, M. G., E. K. Dobbs*, J.W. Snodgrass, and D.R. Ownby. **2012**. Ameliorative effects of sodium chloride on acute copper toxicity among gray tree frog (*Hyla chrysoscelis*) and green frog (*Rana clamitans*) embryos. *Environmental Toxicology and Chemistry* 31:836-842. DOI: [10.1002/etc.1751](https://doi.org/10.1002/etc.1751)
64. Dobbs*, E. K., M. G. Brown*, J.W. Snodgrass, and D.R. Ownby. **2012**. Salt toxicity to treefrogs (*Hyla chrysoscelis*) depends on depth. *Herpetologica* 68:22-30. DOI: [10.1655/HERPETOLOGICA-D-11-00035.1](https://doi.org/10.1655/HERPETOLOGICA-D-11-00035.1)
63. Van Meter**, R. J., C. M. Swan and J.W. Snodgrass. **2011**. Salinization alters ecosystem structure in urban stormwater detention ponds. *Urban Ecosystems* 14:723-726. DOI: [10.1007/s11252-011-0180-9](https://doi.org/10.1007/s11252-011-0180-9)
62. Van Meter**, R. J., C. M. Swan, J. Leips, and J.W. Snodgrass. **2011**. Road salt stress induces novel food web structure and interactions. *Wetlands* 31:843-851. DOI: [10.1007/s13157-011-0199-y](https://doi.org/10.1007/s13157-011-0199-y)
61. Gallagher**, M.T., J.W. Snodgrass, D.R. Ownby, Adrienne B. Brand**, Ryan E. Casey, and S.M. Lev. **2011**. Watershed-scale analysis of pollutant distributions in stormwater management ponds. *Urban Ecosystems* 14:469-484. DOI: [10.1007/s11252-011-0162-y](https://doi.org/10.1007/s11252-011-0162-y)

60. Rodgers**, D., S. Lev, J. Snodgrass, D. Ownby, L. Prince, and R. Casey. 2011. Development of an enriched stable isotope tracer technique to estimate the soil Zn pool available to *Lumbricus terrestris* (L.) across a salinization gradient. *Environmental Toxicology and Chemistry* 30:607-615. DOI: [10.1002/etc.421](https://doi.org/10.1002/etc.421)
59. Gray*, E.P., S. Nunizata*, J.W. Snodgrass, D.R. Ownby, and J.E. Havel. 2010. Predation on Green Frog (*Rana clamitans*) eggs by ostracods. *Copeia* 2010:452-456. DOI: [10.1643/CH-09-074](https://doi.org/10.1643/CH-09-074)
58. Camponelli**, K.M., S.M. Lev, J.W. Snodgrass, E.R. Landa, and R.E. Casey. 2010. Chemical fractionation of Cu and Zn in stormwater, roadway dust and stormwater pond sediments. *Environmental Pollution* 158:2143-2149. DOI: [10.1016/j.envpol.2010.02.024](https://doi.org/10.1016/j.envpol.2010.02.024)
57. Lev, S.M., N. Matthies, J.W. Snodgrass, R.E. Casey, and D.R. Ownby. 2010. Effects of zinc exposure on earthworms, *Lumbricus terrestris*, in an artificial soil. *Bulletin of Environmental Contamination and Toxicology* 84:687-691. DOI: [10.1007/s00128-010-0002-4](https://doi.org/10.1007/s00128-010-0002-4)
56. Brand**, A.B., J.W. Snodgrass, M.T. Gallagher**, R.E. Casey, and R. Van Meter**. 2010. Lethal and sublethal effects of embryonic and larval exposure of *Hyla versicolor* to stormwater pond sediments. *Archives of Environmental Contamination and Toxicology* 58:325-331. DOI: [10.1007/s00244-009-9373-0](https://doi.org/10.1007/s00244-009-9373-0)
55. Brand**, A.B., and J.W. Snodgrass. 2010. Value of artificial habitats for amphibian reproduction in altered landscapes. *Conservation Biology* 24:295-301. DOI: [10.1111/j.1523-1739.2009.01301.x](https://doi.org/10.1111/j.1523-1739.2009.01301.x)
54. Simon**, J.A., J.W. Snodgrass, R.E. Casey, and D. W. Sparling. 2009. Spatial correlates of amphibian use of constructed wetlands in an urban landscape. *Landscape Ecology* 24:361-373. DOI: [10.1007/s10980-008-9311-y](https://doi.org/10.1007/s10980-008-9311-y)
53. Camponelli**, K. M., R.E. Casey, J.W. Snodgrass, S.M. Lev, and E.R. Landa. 2009. Impacts of weathered Tire debris on the development of *Rana sylvatica* larvae. *Chemosphere* 74:717-722. DOI: [10.1016/j.chemosphere.2008.09.056](https://doi.org/10.1016/j.chemosphere.2008.09.056)
52. Snodgrass, J.W., R.E. Casey, J.A. Simon, and K. Gangapura. 2008. Ecotoxicology of Amphibians and Reptiles in Urban Environments: An Overview of Potential Exposure Routes and Bioaccumulation. Pages 177-196 in J.C. Mitchell, R.E. Jung Brown and Breck Bartholomew, editors. *Urban Herpetology. Herpetological Conservation*. Number 3. Society for the Study of Amphibians and Reptiles, Salt Lake City, Utah.
51. Snodgrass, J.W., R.E. Casey, D. Joseph, and J.A. Simon**. 2008. Microcosm investigations of stormwater pond sediment toxicity to embryonic and larval amphibians: Variation in sensitivity among species. *Environmental Pollution* 154:291-297. DOI: [10.1016/j.envpol.2007.10.003](https://doi.org/10.1016/j.envpol.2007.10.003)
50. Lev, S.M., E.R. Landa, K. Szlavecz, R. Casey, and J. Snodgrass. 2008. Application of synchrotron methods to assess the uptake of roadway-derived Zn by earthworms in an urban soil. *Mineralogical Magazine* 72:33-37. DOI: [10.1180/minmag.2008.072.1.191](https://doi.org/10.1180/minmag.2008.072.1.191)
49. Nelson, J.A., P. S. Gotwalt**, C. A. Simonetti*, and J.W. Snodgrass. 2008. Environmental correlates, plasticity and repeatability of differences in performance of blacknose dace (*Rhinichthys atratulus*) across a gradient of urbanization. *Physiological and Biochemical Zoology* 81:25-42. DOI: [10.1086/523304](https://doi.org/10.1086/523304)
48. Chattin**, E., D.C. Forester, and J.W. Snodgrass. 2007. Distribution of a rare salamander, *Eurycea junaluska*: Implications for past impacts of river channelization and impoundment. *Copeia* 2007:952-958. DOI: [10.1643/0045-8511\(2007\)7\[952:DOARSE\]2.0.CO;2](https://doi.org/10.1643/0045-8511(2007)7[952:DOARSE]2.0.CO;2)
47. Snodgrass, J.W., D.C. Forester, M. Lahti*, and M. Lehman*. 2007. Dusky salamander (*Desmognathus fuscus*) nest-site selection over multiple spatial scales. *Herpetologica* 63:441-449. DOI: [10.1655/0018-0831\(2007\)63\[441:DSDFNS\]2.0.CO;2](https://doi.org/10.1655/0018-0831(2007)63[441:DSDFNS]2.0.CO;2)
46. Otto**, C. R. V., J.W. Snodgrass, D.C. Forester, J.C. Mitchell, and R. W. Miller. 2007. Climatic variation and the distribution of an anuran polyploid complex. *Journal of Animal Ecology* 76:1053-1061. DOI: [10.1111/j.1365-2656.2007.01300.x](https://doi.org/10.1111/j.1365-2656.2007.01300.x)

45. Hopkins, W.A., L.B. Hopkins, J. Unrine, J.W. Snodgrass, and J.D. Elliot. **2007**. Mercury concentrations in tissues of Osprey from the Carolinas, USA. *Journal of Wildlife Management* 71:1819–1829. [DOI: 10.2193/2006-016](https://doi.org/10.2193/2006-016)
44. Jakes**, A.J., J.W. Snodgrass, and J. Burger. **2007**. Beaver (*Castor canadensis*) impoundment associated with geomorphology of southeastern streams. *Southeastern Naturalist* 6:271-282. [DOI: 10.1656/1528-7092\(2007\)6\[271:CCBIAW\]2.0.CO;2](https://doi.org/10.1656/1528-7092(2007)6[271:CCBIAW]2.0.CO;2)
43. Otto**, C.R.V., D.C. Forester, and J.W. Snodgrass. **2007**. Influences of wetland and landscape characteristics on the distribution of carpenter frogs. *Wetlands* 27:261-269. [DOI: 10.1672/0277-5212\(2007\)27\[261:IOWALC\]2.0.CO;2](https://doi.org/10.1672/0277-5212(2007)27[261:IOWALC]2.0.CO;2)
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3. Snodgrass, J.W. **1992**. Comparison of fishes occurring in algae and seagrass beds on the east coast of Florida. *Northeast Gulf Science* 12:119-128. [DOI: 10.18785/negs.1202.05](https://doi.org/10.18785/negs.1202.05)
2. Snodgrass, J.W. **1991**. Winter Kills of *Tilapia melanotheron* in coastal southeast, Florida, 1989. *Florida Scientist* 54:85-86. <https://www.jstor.org/stable/24320438>
1. White, C., and J.W. Snodgrass. **1990**. Recent changes in the distribution of *Caulerpa prolifera* in the Indian River Lagoon, Florida. *Florida Scientist* 53:85-88. <https://www.jstor.org/stable/24320385>

INVITED SEMINARS AND PRESENTATIONS

Road Salt Toxicity to Amphibians: Variation in Sensitivity Among Species and Environmental Gradients in Exposure, Road Salt Usage and Environmental Impacts Workshop hosted by Maryland Water Monitoring Council Patuxent National Wildlife Visitor's Center, Maryland, 13 April 2016.

Biological Diversity and North American Landscapes. Symposium: Encountering Nature, Towson

- University, 4-5 April 2013.
- Road Deicers: From the Road to the Chesapeake Bay. Maryland Water Monitoring Council Annual Conference, Linthicum, Maryland, 6 Dec 2012.
- Potential population level consequences of network structure for headwater fishes. Organized session on Conservation of Organisms in Dendritic Networks. American Fisheries Society Annual Meeting, Seattle, Washington, 4-8 September 2011.
- Unintended Consequences of Storm Water Management Practices: Benefits and Opportunities. Roads and Wildlife in Maryland: Assessing and Mitigating Impacts. Hanover, Maryland, 16 March 2010.
- Unintended Consequences of Storm Water Management Practices: Benefits and Opportunities. The Maryland Water Monitoring Council 15th Annual Conference, Maritime Institute, North Linthicum, MD, 3 December 2009.
- Road salts in the Suburban Landscape: Transport, direct effects, and Interactions with Other Pollutants. Toxics in Maryland Waters, Maryland Water Resources Research Center, College Park, Maryland, 6 Nov 2009.
- Impacts of fine sediments on the biota of aquatic habitats: pollutant sources and habitat modification. Fine Sediment and the Chesapeake Bay Watershed. Maritime Institute, Baltimore, Maryland, 16 September 2008.
- Residential Development: Threats to Appalachian Salamanders. Appalachian Salamander Workshop, Smithsonian Institute, Front Royal, Virginia, 30-31 May 2008.
- Amphibian Communities in Urban Wetlands: Composition and Structuring Factors. Baltimore Ecosystem Study Quarterly Research Meeting, University of Maryland Baltimore County, Baltimore, Maryland, 23 January 2008.
- Potential Adaptations of a Minnow to Changes in the Stream Habitat Template Across a Rural-Urban Gradient. Fall Seminar Series, Center for Urban Environmental Research and Education, University of Maryland Baltimore County, Baltimore, Maryland, 20 October 2006.
- Stormwater Management Ponds as Wildlife Habitat: Benefits, Drawbacks and Tradeoffs. Evening Lecture Series, Smithsonian Environmental Research Center, Edgewater, Maryland, 14 June 2006.
- Changes in Habitat Templates and the Biology of a Stream Minnow Across a Rural-Urban Gradient. Fall 2004 Seminar Series, Department of Geography and Environmental Systems, University of Maryland-Baltimore County. Baltimore, Maryland, 29 September 2004.
- Potential for incorporating hydrological and ecological reference conditions into assessment of stream restoration. Manta Noon Seminars and Environmental Design Presentations, Maryland Department of Natural Resources, Annapolis, Maryland, 18 March 2004.
- Effects of urbanization on blacknose dace (*Rhinichthys atratulus*) biology. Army Corps of Engineers Economic and Environmental Analysis Conference 2002: Balancing Economy and Environment. New Orleans, Louisiana, 15-19 July 2002.
- Quantifying fish community response to urbanization: multivariate and multimetric approaches. Army Corps of Engineers Economic and Environmental Analysis Conference 2002: Balancing Economy and Environment. New Orleans, Louisiana, 15-19 July 2002.
- Viewing Aquatic Systems as Landscapes. Towson University, Department of Biological Sciences, Tri Beta Seminar Series, Towson, Maryland, 8 May 2001.
- Wetlands, Wildlife and Regulations: Connections or Disconnects? Severn River Association, Monthly Meeting, Annapolis, Maryland, 20 February 2001.
- Models of Animal Community Structure, Biological Monitoring, and Wetland Regulations: Developing the Connections. Science Seminar Series, Smithsonian Environmental Research Center, Edgewater, Maryland, 11 January 2001.

- Models of Wetland Community Structure and Their Implications for Biological Monitoring and Wetland Regulations. Frank Family Science Center Dedication, Guilford College, Greensboro North Carolina, 27 October 2000.
- Viewing aquatic systems as landscapes. Division of Forestry and Wildlife, West Virginia University, Morgantown, West Virginia, 23 March 2000.
- Predicting Risk to Wading Birds from Consuming Mercury-Contaminated Fish: A Spatial Perspective. Department of Biological Sciences, Towson University, Towson, Maryland, 15 March 1999.
- Predicting Risk to Wading Birds from Consuming Mercury-Contaminated Fish: A Spatial Perspective. Department of Biology, Southeast Missouri State University, Cape Girardeau, Missouri, 5 February 1999.
- Influence of Wetland Hydroperiod on Fish Distribution and Ecotoxicology. School of Biological Sciences, Louisiana Tech University, Ruston, Louisiana, 14 January 1999.
- Relationship Among Hydroperiod, Fish Presence, and Reproductive Characteristics of Amphibians in Southeastern Depression Wetlands. Effects of Fisheries Management on the Amphibians and Other Biota of Wilderness Lakes, Flathead Lake Biological Station, Polson, Montana, 16-18 October 1998.
- Communities as receptors: Detecting change and identifying sources. Integrating Risk, Restoration and Future Use of the Savannah River Site, Savannah River Ecology Laboratory Conference Center at SRS, Aiken, South Carolina, 10-11 September 1997.
- Comparison of multimetric and multivariate methods in the assessment of stream ecosystem integrity using fish assemblages. Department of Ecology and Evolution, Spring Seminar Series, Rutgers University, New Brunswick, New Jersey, 14 March 1997.
- Incorporating the index of biological integrity into ecological risk assessment: a general approach. Consortium for Risk Assessment with Stakeholder Participation, Environmental and Occupational Health Science Institute, Rutgers University, Piscataway, New Jersey, 13 March 1997.
- The influence of beaver ponds on the temporal and spatial dynamics of southeastern stream fish assemblages. Savannah River Ecology Laboratory Summer Seminar Series, Aiken, South Carolina, 1 August 1996.

CO-AUTHORED RESEARCH PRESENTATIONS

- Moore, J., B. Sandosky, M. McGuire, R. Casey, J. Snodgrass, and S.M. Lev. Salt overload: How quickly does road salt move from road to groundwater to stream in Baltimore County, MD and what are the effects on soil, groundwater, and stream chemistry? American Geophysical Union, Fall Meeting, San Francisco, California, 9–13 December 2013.
- Bryan, L., J. Snodgrass, H. Brant, C. Romanek, C. Jagoe, and G. Mills. Climatic Influences on Avian Uptake of Mercury. North America 34th Annual Meeting, Society of Environmental Toxicology and Chemistry, Nashville, Tennessee 17–21 November 2013.
- Ownby, D., R.E. Casey, J.W. Snodgrass, and S.M. Lev. Stable isotopes for micronutrient metal bioavailability to earthworms. 6th SETAC World Congress, Berlin, Germany, 20-24 May 2012.
- Casey, R.E., S.M. Lev, J.W. Snodgrass, J. J. New, and M. Gallagher. Changes in hydraulic conductivity in stormwater pond soils as a function of road salt exposure. 91st Annual Meeting of the Transportation Research Board. Washington, D.C., January 22-26, 2012. (Invited Talk)
- Casey, R.E., M. Gallagher, J. J. New, K. Linford, J.W. Snodgrass, and S.M. Lev. 2011. Effects of Road Salt on Hydraulic Conductivity in Stormwater Retention Ponds, Owings Mills, MD. 32nd Annual Meeting of the Society of Environmental Toxicology and Chemistry. Boston, Massachusetts, 13-18 November 2011.

- Ownby, D., Casey, R.E., S.M. Lev, and J. Snodgrass. Environmental impacts and biogeochemical evaluation of stormwater retention ponds: Red Run watershed, MD case study. 237th American Chemical Society National Meeting, Salt Lake City, UT, March 22-26, 2009. (Invited Talk)
- Ownby, D.R., M.T. Gallagher, A.B. Brand, and J.W. Snodgrass. Land use impact on stormwater retention pond contaminants: A case study on the Red Run watershed, MD. Society for Environmental Toxicology and Chemistry, North America, 29th Annual Meeting, Tampa, Florida, 16-19 Nov 2008.
- Lev, S.M., E.R. Landa, K. Szlavecz, J.W. Snodgrass. Application of synchrotron methods to assess the uptake of roadway-derived Zn by earthworms in a storm water retention basin soil. Society for Environmental Toxicology and Chemistry, North America, 29th Annual Meeting, Tampa, Florida, 16-19 Nov 2008.
- Snodgrass, J.W.; A. Richardson, and B. Trushel. Relationships between Lateral-fin Sexual Dimorphism and Environmental Conditions among Populations of Blacknose Dace (*Rhinichthys atratulus*). Joint Meeting of Ichthyologists and Herpetologists, St Louis, Missouri, 12-16 July 2007.
- Snodgrass, J.W., And A.L. Bryan, Jr. Modeling Hydrology and Fish Occurrence in Isolated Wetlands to Identify Wetland Complexes for Management. The Geological Society of America Southeastern Section, 56th Annual Meeting, Savannah, Georgia, 29–30 March 2007.
- Casey R.E., S.M. Lev, and J.W. Snodgrass. Retention Ponds as a Key to Long-Term Salinization of Shallow Groundwater. Maryland Department of the Environment, Maryland Ground Water Symposium, Sparks, Maryland, 12 September 2007.
- Lev, S.M., R.E. Casey, E.R. Landa, J.W. Snodgrass. 2006. Chemical and biological impacts of roadway derived contaminants entering stormwater retention systems. 9th Annual Meeting of the Baltimore Ecosystem Study, Baltimore, Maryland, 18-19 October 2006.
- Snodgrass, J.W., and A.L. Bryan Jr. Modeling hydrology and fish occurrence in isolated wetlands to identify wetland complexes for management. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana, 12-17 July 2006.
- Snodgrass, J.W., Joseph, D. and Casey, R.E. Toxicity of stormwater pond sediments for embryo and larval amphibians. Society of Environmental Toxicology and Chemistry North America 26th Annual Meeting, Baltimore, Maryland, 13 - 17 November 2005.
- Snodgrass, J.W. Implications of wetland landscape modification resulting from storm water retention ponds. Joint Meeting of Ichthyologists and Herpetologists, Tampa, Florida, 6-11 July 2005.
- Snodgrass, J.W. A stochastic simulation model for investigating effects of stream network structure on stream fishes. Joint Meeting of Ichthyologists and Herpetologists, Norman, Oklahoma, 26-31 May 2004.
- Forester, D., J.W. Snodgrass, M. Lahti, and E. Lehman. Nest site selection by the Northern Dusky Salamander (*Desmognathus fuscus*) over multiple spatial scales. Joint Meeting of Ichthyologists and Herpetologists, Norman, Oklahoma, 26-31 May 2004.
- Roberge, M., J. Snodgrass, and J. Morgan III. Empirical Relationships between Impervious Surface Cover and Stream Hydrology and Geomorphology in the Baltimore Metropolitan Region. TUGis04, Planning, Prevention, and Response: GIS and Homeland Security, Towson University, Towson, Maryland, 22-23 March 2004.
- Martin R., J.W. Snodgrass, J.M. Morgan III. Empirical relationships between impervious surface cover, stream hydrology, and channel morphology. Annual Meeting of the Association of American Geographers. Philadelphia, Pennsylvania, 16 March 2004.
- Snodgrass, J.W., J. Morgan III, and M. Roberge. Empirical relationships between impervious surface cover and stream hydrology. Mid-Atlantic Land Use/ Land Cover Conference, Towson University, Towson, Maryland, 8-9 January 2004.

- Bryan, A.L., H.A. Brant, C.S. Romanek, C.H. Jagoe, J.C. Gariboldi, J.W. Snodgrass. Annual patterns of mercury concentrations in nestling Wood Storks in Georgia, USA: 1997-2003. Society of Environmental Toxicology and Chemistry, 24th Annual Meeting in North America, Austin Convention Center, Austin, Texas, 9-13 November 2003.
- Hopkins, W.A., J.W. Snodgrass, J. Broughton, D.C. Gwinn, J.A. Baionno, and J. Burger. Effects of coal combustion waste on survival and development of larval anurans. Society of Integrative and Comparative Biology Annual Meeting, Toronto, Ontario, 4-8 January 2003.
- Hopkins, W.A., J.W. Snodgrass, J. Broughton, D.C. Gwinn, J.A. Baionno, and J. Burger. Effects of coal combustion waste on survival and development of larval anurans. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting in North America, Salt Lake City, Utah, November 16-20, 2002.
- Snodgrass, J.W., W.A. Hopkins. Effects of developmental stage and season of metamorphosis on trace elements in an anuran. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting in North America, Salt Lake City, Utah, 16-20 November 2002.
- Snodgrass, J.W., and K. Lohnas. Ecological effects of differences in predator avoidance behavior between populations of blacknose dace (*Rhinichthys atromaculatus*) from rural and urban areas. Joint Meeting of Ichthyologists and Herpetologists, Kansas City, Missouri, 3-8 July 2002.
- Hopkins, W.A., J.H. Roe, J.W. Snodgrass, B.P. Staub, B.P. Jackson, J.D. Congdon. Effects of chronic trace elements exposure on banded water snakes. Society of Environmental Toxicology and Chemistry 22nd Annual Meeting, Baltimore, Maryland, 11-15 November 2001.
- Snodgrass, J.W., A.L. Bryan Jr., J. Burger. Hydroperiod, landscape position and the occurrence of top predators in temporary habitats. American Society of Limnology and Oceanography, Special Session on "Temporary Aquatic Habitats: Here Today, Gone Tomorrow (Spatial and Temporal Connections), 2001 Aquatic Sciences Meeting, Albuquerque, New Mexico, 12-16 February 2001.
- Burger, J., K.F. Gains, C.S. Boring, W. Stephens, J. Snodgrass, and M. Gochfeld. Risk from consuming fish from the Savannah River: Ethnicity affects consumption and risk from mercury. 21st Annual Meeting of the Society of Environmental Toxicology and Chemistry, Nashville, Tennessee, 12-16 November 2000.
- Hopkins, W., J. Roe, B. Jackson, J. Snodgrass, L. Rania, and J. Congdon. Snakes in the aquatic landscape: Useful models for addressing ecotoxicological problems. 21st Annual Meeting of the Society of Environmental Toxicology and Chemistry, Nashville, Tennessee, 12-16 November 2000.
- Snodgrass, J.W., C.H. Jagoe, A.L. Bryan Jr. and J. Burger. Wetland morphology, hydrology, and landscape position: Implications for constructed wetlands. Wetlands & Remediation: An International Conference. Salt Lake City, Utah, 16-17 November 1999.
- Jagoe, C.H., H.A. Brant, J.C. Gariboldi, A.L. Bryan Jr. and J.W. Snodgrass. Factors affecting mercury bioaccumulation in Carolina bays in the southeastern United States. (Poster) Society of Environmental Toxicology and Chemistry, 20th Annual Meeting, Philadelphia, Pennsylvania, 14-18 November 1999.
- Burger, J., M. Gochfeld, and J.W. Snodgrass. Oral deformities in several species of frogs from Wetlands on the Savannah River Site. (Poster) Society of Environmental Toxicology and Chemistry, 20th Annual Meeting, Philadelphia, Pennsylvania, 14-18 November 1999.
- Snodgrass, J.W., C.H. Jagoe, and J. Burger. Relative role of habitat alteration and metal pollution in degrading southeastern streams. Baltimore Ecosystem Study 2nd Annual Scientific Meeting, Baltimore, Maryland, 14-15 October 1999.
- Jagoe, C.H., H.A. Brant, J.C. Gariboldi, A.L. Bryan Jr., and J.W. Snodgrass. Mercury in Carolina bays in the southeastern United States. Mercury as a Global Pollutant, 5th International Conference, Rio de Janeiro, Brazil, 23-28 May 1999.

- Snodgrass, J.W., J.M. Aho, and J. Burger. Fish assemblage structure in a headwater stream 15 years after thermal effluent removal. Annual Meeting of the American Society of Ichthyologists and Herpetologists, Seattle, Washington, 26 June -2 July 1997.
- Snodgrass, J.W. The influence of beavers on spatial patterns of fish species diversity in streams: Do contemporary patterns reflect historical conditions. Annual Meeting, Ecological Society of America, Providence, Rhode Island, 10-14 August 1996.
- Snodgrass, J.W. Effects of pond age and watershed position on beaver pond fish assemblage structure. Annual Meeting, American Society of Ichthyologists and Herpetologists, New Orleans, Louisiana, 13-19 June 1996.
- Snodgrass, J.W. Factors affecting the occurrence and assemblage structure of fishes in isolated wetlands of the Upper Coastal Plain, USA. Annual Meeting, American Society of Ichthyologists and Herpetologists, Edmonton, Alberta, Canada, 15-19 June 1995.
- Snodgrass, J.W. Effect of beaver on stream fish diversity. Annual Meeting, Society for Conservation Biology, Fort Collins, Colorado, 7-11 June 1995.
- Snodgrass, J.W. A conceptual view of the effects of beaver ponds on North American streams. Annual Meeting, Ecological Society of America, Knoxville, Tennessee, 7-11 August 1994.
- White, C., and J.W. Snodgrass. Recent changes in the distribution of *Caulerpa prolifera* in the Indian River Lagoon, Florida. Annual Meeting, Florida Academy of Science, Melbourne, Florida, 22-24 March 1990.
- Snodgrass, J.W. Comparison of fishes occurring in monotypic stands of algae and seagrass. Annual Meeting, Florida Academy of Science, Melbourne, Florida, 22-24 March 1990.
- Snodgrass, J.W. *Caulerpa prolifera* versus seagrass in the Indian River Lagoon: a comparison of fish faunas. The Second Indian River Research Symposium, Melbourne, Florida, 12-13 Sept. 1988.

PRESENTATIONS BY STUDENTS

International/national meetings

- Miller, W.L., J.W. Snodgrass, and G.E. Gasparich. The importance of terrestrial dispersal for connectivity among headwater salamander populations. Ecological Society of America Annual Meeting. Baltimore, Maryland. August 2015.
- Sandosky, B.M., S. Lev, R. Casey, J. Snodgrass, M. McGuire, and J. Moore. Increased chemical fluxes to the critical zone due to road salt (Halite) addition. The Geological Society of America - Northeastern Section - 49th Annual Meeting, Lancaster, Pennsylvania, 23-25 March 2014.
- Schulze, M., R.E. Casey, S.M. Lev, D.R. Ownby, and J. Snodgrass. A Comparison of uptake and elimination rates of bulk ZnO powder, ZnCl₂, and ZnO nanoparticles by *Eisenia fetida* using a stable isotope tracer. North America 35th Annual Meeting, Society of Environmental Toxicology and Chemistry, Vancouver, British Columbia, 9-13 November 2014.
- Copper, B., and J. Snodgrass. Relative Influence of Predator Populations on Amphibian Assemblages in Urban Environments. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico, 10-15 July 2013.
- Iulucci, D., and J. Snodgrass. Amphibian Productivity in a Restored Wetland Landscape in Maryland, USA. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico, 10-15 July 2013.
- Izzo, G., and J. Snodgrass. Investigating the Potential of Adaptations in Stream Salamanders to Road Salt in Urban Watersheds: The Role of Storm-Water Management Practices. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico, 10-15 July 2013.
- Miller, W., J. Snodgrass, and G. Gasparich. The Effects of Urbanization on Gene Flow and Genetic Population Structure in a Headwater Salamander, *Desmognathus fuscus*, Over Multiple Spatial

- Scales. Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, New Mexico, 10-15 July 2013.
- Copper, B., and J. Snodgrass. Relative Influence of Predator Populations on Amphibian Assemblages in Urban Environments. 26th International Congress for Conservation Biology, Baltimore, Maryland, 21-25 July 2013.
- Iuliucci, D., and J. Snodgrass. Amphibian productivity in a restored wetland landscape in Maryland, USA. 26th International Congress for Conservation Biology, Baltimore, Maryland, 21-25 July 2013.
- Miller, W., J. Snodgrass, and G. Gasparich. The Effects of Urbanization on Gene Flow and the Genetic Structure of a Headwater Salamander, *Desmognathus fuscus*, over Multiple Spatial Scales. 26th International Congress for Conservation Biology, Baltimore, Maryland, 21-25 July 2013.
- Marcanceli, A., G. Gasparich, and J. Snodgrass. The impact of urbanization and spatial scale on genetic diversity of blacknose dace (*Rhinichthys atratulus*) populations. World Congress of Herpetology, Vancouver, Canada, 8-14 August 2012.
- New, J.J., J.W. Snodgrass, D.R. Ownby, R.E. Casey and S.M. Lev. A stable isotope approach to investigating zinc toxicity and internal transport in barley (*Hordeum vulgare* L.). North American Meeting of the Society of Environmental Toxicology and Chemistry, Boston, Massachusetts, 13-18 November 2011.
- Fitzpatrick, B., and J.W. Snodgrass. Habitat factors influence bird communities in artificial urban wetlands. 95th Annual Meeting of the Ecological Society of America, Pittsburgh, Pennsylvania, 1-6 August 2010.
- Jennett, M., and J.W. Snodgrass. Effects of urbanization on life history traits in two anurans. 95th Annual Meeting of the Ecological Society of America, Pittsburgh, Pennsylvania, 1-6 August 2010.
- Rodgers D.W., S.M. Lev, D.R. Ownby, J.W. Snodgrass, and R.E. Casey. Application of a stable isotope tracer to estimate the soil Zn pool available to *Lumbricus terrestris* (L.) across a salinization gradient. 31st Annual Meeting of the Society of Environmental Toxicology and Chemistry, Portland, Oregon, November 7-11, 2010.
- Brand, A., M. Gallagher, J. Snodgrass. Salt in Aquatic Ecosystems: Effects of Water Hardness on Toxicity. Joint Meeting of Ichthyologists and Herpetologists, Portland, Oregon, 22-27 July 2009.
- Rollins, J., J. Snodgrass. Growth of Juvenile Blacknose Dace (*Rhinichthys atratulus*) Along an Urban to Rural Gradient. Joint Meeting of Ichthyologists and Herpetologists, Portland, Oregon, 22-27 July 2009.
- Van Meter, R., J. Snodgrass, C. Swan. Road Deicers and Gray Treefrogs: Unexpected Interactions in Pond Food Webs. Joint Meeting of Ichthyologists and Herpetologists, Portland, Oregon, 22-27 July 2009.
- Rodgers, D.W., R.E. Casey, S.M. Lev, D.R. Ownby, and J.W. Snodgrass. 2009. Salinized stormwater pond soils: effects on soil chemistry and *Lumbricus terrestris*. 30th Annual Meeting of the Society of Environmental Toxicology and Chemistry, New Orleans, Louisiana, 19-24 September 2009.
- Flora, R., S.M. Lev, R.E. Casey, and J.W. Snodgrass. 2009. Investigating the storage and transport of roadway salt to surface waters in a second order suburban watershed, Owings Mills, Maryland. 30th Annual Meeting of the Society of Environmental Toxicology and Chemistry, New Orleans, Louisiana, 19-24 September 2009.
- Rodgers, D.W., R.E. Casey, S.M. Lev, J.W. Snodgrass. Influence of major cation distribution on Zn uptake in *Lumbricus terrestris* in OECD artificial soil. Society for Environmental Toxicology and Chemistry, North America, 29th Annual Meeting, Tampa, Florida, 16-19 November 2008.
- Flora, R., S.M. Lev, R. Casey, E. Landa, J.W. Snodgrass. Investigating the storage and transport of road salt to surface waters in an urban watershed. Society for Environmental Toxicology and Chemistry, North America, 29th Annual Meeting, Tampa, Florida, 16-19 November 2008.

- Gallagher, M.T., A.B. Brand, and J.W. Snodgrass. Stormwater ponds as amphibian habitat: Implications for Design and Management. Society for Environmental Toxicology and Chemistry, North America, 29th Annual Meeting, Tampa, Florida, 16-19 November 2008.
- Brand, A.B., M.T. Gallagher, and J.W. Snodgrass. Amphibian reproduction in a suburban landscape: the value of manmade habitats. Joint Meeting of Ichthyologists and Herpetologists, Montreal, Canada, 23-28 July 2008.
- Gallagher, M.T., A.B. Brand, and J.W. Snodgrass. Stormwater ponds as amphibian habitat: Implications for Design and Management. Joint Meeting of Ichthyologists and Herpetologists, Montreal, Canada, 23-28 July 2008.
- Plenderleith, T.L., D.C. Forester, and J.W. Snodgrass. The distribution and movement of the Northern Dusky Salamander (*Desmognathus fuscus*) within a third-order stream system. Joint Meeting of Ichthyologists and Herpetologists, Montreal, Canada, 23-28 July 2008.
- Simpson, D., D.C. Forester, and J.W. Snodgrass. Factors affecting anuran community structure within Delmarva bays: implications for conservation and management. Joint Meeting of Ichthyologists and Herpetologists, Montreal, Canada, July 23-28, 2008.
- Wright, M.E., K.L. Jackson, J.W. Snodgrass, R.E. Casey. Biofilm vs. sediment: relative contributions to accumulation of trace elements in *Rana sylvatica* larvae. Society of Environmental Toxicology and Chemistry 27rd Annual Meeting in North America, November 5-9, 2006, Montreal, Quebec, Canada. (Poster)
- Camponelli, K.M., J.W. Snodgrass, S.M. Lev, E.R. Landa, R.E. Casey. Toxicity of zinc and tire amended aged soils to *Rana sylvatica*. Society of Environmental Toxicology and Chemistry 27rd Annual Meeting in North America, November 5-9, 2006, Montreal, Quebec, Canada. (Poster)
- Carroll W., S.M. Lev, K. Szlavecz, E.R. Landa, R. Casey and J. Snodgrass. Investigating the extent of earthworm-driven physical and chemical alteration of roadway-derived dust in urban soils. Society of Environmental Toxicology and Chemistry 27th Annual Meeting in North America, November 5-9, 2006, Montreal, Quebec, Canada. (Poster)
- Camponelli, K.M., R.E. Casey, M.E. Wright, S.M. Lev, E.R. Landa. Transportation and bioavailability of copper and zinc in a stormwater retention pond. Joint Assembly (American Geophysical Union, Geochemical Society, Mineralogical Society of America, Society of Exploration Geophysicists), Baltimore, Maryland, 23-26 May 2006. (Oral Presentation)
- Carroll W., S.M. Lev, K. Szlavecz, E.R. Landa, R. Casey and J. Snodgrass. Tires, Worms and Weathering: Investigating the Role of Earthworm Processes in Urban Soils Receiving Roadway Derived Contaminants. Joint Assembly (American Geophysical Union, Geochemical Society, Mineralogical Society of America, Society of Exploration Geophysicists), Baltimore, Maryland, 23-26 May 2006. (Poster)
- Otto, C.R.V., D. Forester, J.W. Snodgrass. Influences of wetland and landscape characteristics on the distribution of carpenter frogs in the northern extent of their range. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana, 12-17 July 2006. (Presentation)
- Basler, A., J.W. Snodgrass, and A. Richardson. Comparison of female reproductive cycles between urban, suburban, and rural Blacknose Dace (*Rhinichthys atratulus*) populations. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, Louisiana, 12-17 July 2006. (Poster)
- Basler, A. Comparison of Female Reproductive Cycles Between Urban, Suburban, and Rural Blacknose Dace (*Rhinichthys atratulus*) Populations. 20th National Conference on Undergraduate Research, Ashville, North Carolina, 6-8 April 2006. (Poster)
- Jackson, K.L., R.E. Casey, and J.W. Snodgrass. Effect of uptake route on bioaccumulation of trace elements in larval amphibians. Society of Environmental Toxicology and Chemistry North America 26th Annual Meeting, Baltimore, Maryland, 13 - 17 November 2005. (Poster)

- Camponelli, K.M., R.E. Casey, S.M. Lev, E.R. Landa and J. Snodgrass. 2005. Determining the Chemical and Biological Availability of Zinc in Urban Stormwater Retention Ponds. American Geophysical Union Fall Meeting, San Francisco, California, 5–9 December 2005. (Poster)
- Otto, C.R.V.; J.W. Snodgrass, D.C. Forester, J.C. Mitchell, and R. Miller. Climatic variation and the distribution of the gray treefrog complex. Joint Meeting of Ichthyologists and Herpetologists, Tampa, Florida, 6-11 July 2005. (Presentation)
- Trushel, B.E., A.L. Richardson, J.W. Snodgrass. Variation in stream fish sexual dimorphism across a rural-urban gradient. Joint Meeting of Ichthyologists and Herpetologists, Tampa, Florida, 6-11 July 2005. (Poster)
- Richardson, A.L., J.W. Snodgrass, and B.E. Trushel. Lipid cycling in blacknose dace (*Rhinichthys atratulus*) populations along a rural-urban gradient. Joint Meeting of Ichthyologists and Herpetologists, Tampa, Florida, 6-11 July 2005. (Presentation)
- Atueyi, S., J. Simon, J. Snodgrass, and R. Casey. Temporal trends of trace element levels in macroinvertebrates from stormwater retention ponds. The Society of Environmental Toxicology and Chemistry, 25th Annual Meeting in North America, Portland, Oregon, 14-18 November 2004. (Poster)
- Simon, J., J. Snodgrass, and R. Casey. Land use effects on amphibian use of retention ponds and larval metal concentrations. The Society of Environmental Toxicology and Chemistry, 25th Annual Meeting in North America, Portland, Oregon, 14-18 November 2004. (Poster)
- Simon, J.A., J.W. Snodgrass, and R.E. Casey. Land use effects on amphibian use of retention ponds and larval metal concentrations. Joint Meeting of Ichthyologists and Herpetologists, Norman, Oklahoma, 26-31 May 2004. (Presentation)
- Bay, C., and J.W. Snodgrass. Effects of Stream Network Landscape Structure on Small Stream Fish Communities. Seventeenth Annual Meeting of the Society for Conservation Biology, Duluth, Minnesota, 28 June - 2 July 2003. (Poster)
- Shaw A.N., L.R. Massal, J.W. Snodgrass, and R.E. Casey. Evaluation of trace metal levels in storm water retention ponds. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting in North America, Salt Lake City, Utah, 16-20 November 2002. (Poster)
- Massal, L.R., R. Casey, and J.W. Snodgrass. Nitrate concentrations of stormwater retention basins in Maryland. Society of Environmental Toxicology and Chemistry 23rd Annual Meeting in North America, Salt Lake City, Utah, 16-20 November 2002. (Poster)
- Shaw, A.N., L.R. Massal, J.W. Snodgrass, R.E. Casey. Evaluation of trace metal levels in storm water retention ponds. Twelfth Annual Meeting of the Society of Environmental Journalists, Baltimore, Maryland, 9-13 October 2002. (Poster)
- Massal, L.R., and J.W. Snodgrass. The use of stormwater retention basins by breeding amphibians: effect of age, hydroperiod, and adjacent land use. Joint Meeting of Ichthyologists and Herpetologists, 3-8 July 2002, Kansas City, Missouri. (Presentation)
- Chattin (Raulerson), L.D.C. Forester, and J.W. Snodgrass. Habitat preferences of *Eurycea junaluska* on multiple spatial scales. Joint Meeting of Ichthyologists and Herpetologists, 3-8 July 2002, Kansas City, Missouri. (Presentation)
- Broughton, J., J.W. Snodgrass, W.A. Hopkins, and J. Burger. Effects of coal ash exposure on the development of green frog (*Rana clamitans*) larvae. Joint Meeting of Ichthyologists and Herpetologists, 3-8 July 2002, Kansas City, Missouri. (Poster)
- Gotwalt, P.S., J.A. Nelson, and J.W. Snodgrass. Watershed urbanization: Effects on swimming performance of blacknose dace (*Rhinichthys atratulus*). Joint Annual Meeting of The American Society of Ichthyologists and Herpetologists and American Elasmobranch Society, 5-10 July 2001, State College, Pennsylvania. (Poster)

Jakes, A.J., J.W. Snodgrass, and J. Burger. A local habitat preference model for Beaver *Castor canadensis* on the southeastern Coastal Plain, USA. American Society of Mammologists 81st Annual Meeting, 20-26 June 2001, University of Montana, Missoula, Montana.

Regional Meetings

- Miller, W.L., J.W. Snodgrass, and G.E. Gasparich. The importance of terrestrial dispersal for genetic connectivity among headwater salamander populations. Pennsylvania Chapter of The Wildlife Society Annual Conference & Workshop. State College, Pennsylvania, 21 March 2015. (won best student presentation)
- New, J.J., J.W. Snodgrass, D.R. Ownby, R.E. Casey, S.M. Lev. Zinc toxicity and transport in barley. Joint Chesapeake-Potomac/Hudson-Delaware regional chapter meeting of the Society of Environmental Toxicology and Chemistry. Wilmington, DE.
- Brown, M.G., E.K. Dobbs, J.W. Snodgrass, and D.R. Ownby. Combined effects of sodium chloride and copper to the amphibian species, Cope's Gray Tree Frog (*Hyla chrysoscelis*) and Green Frog (*Rana clamitans*). Pacific Northwest regional SETAC Meeting, Fort Worden State Park Conference Center, Port Townsend, WA, 15-17 April 2010.
- Rodgers, D.W., S.M. Lev, D.R. Ownby, J.W. Snodgrass, and R.E. Casey. 2010. Application of a stable isotope tracer to estimate the soil Zn pool available to *Lumbricus terrestris* (L.) across a salinization gradient. Spring Meeting of the Chesapeake Potomac Region Chapter of the Society of Environmental Toxicology and Chemistry, Towson, MD.
- Fitzpatrick, B., and J. Snodgrass. Fall 2009. Breeding bird use of stormwater ponds The Fall Meeting of the Wildlife Society-Maryland and Delaware Chapter, Patuxent Research Refuge, Laurel, Maryland, 30 Oct 2009. (Poster)
- Salmon, J.E. A Controlled Method of Raising Blacknose Dace, *Rhinichthys atratulus*, in the Laboratory. 11th Annual Student Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, Baltimore, Maryland, 11 October 2008. (Poster)
- Rollins, J. Effects of Urbanization on the Growth of Blacknose Dace (*Rhinichthys atratulus*). Posters on the Hill, Annapolis, Maryland, 20 April 2008. (Poster)
- Rollins, J.L. Use of Otolith Dimensions to Predict Age of Blacknose Dace (*Rhinichthys atratulus*). 10th Annual Student Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, Baltimore, Maryland, 13 October 2007. (Poster)
- Wright, M.E., K.L. Jackson, J.W. Snodgrass, R.E. Casey. Biofilm vs. sediment: relative contributions to accumulation of trace elements in *Rana sylvatica* larvae. 9th Annual Meeting of the Baltimore Ecosystem Study, Baltimore, Maryland, 18-19 October 2006. (Poster)
- Camponelli, K.M., J.W. Snodgrass, S.M. Lev, E.R. Landa, R.E. Casey. 2006. Toxicity of zinc and tire amended aged soils to *Rana sylvatica*. 9th Annual Meeting of the Baltimore Ecosystem Study, Baltimore, Maryland, 18-19 October 2006. (Poster)
- Carroll, W., S.M. Lev, K. Szlavecz, E.R. Landa, J.W. Snodgrass, R.E. Casey. 2006. Investigating the extent of earthworm-driven physical and chemical alteration of roadway-derived dust in urban soils. 9th Annual Meeting of the Baltimore Ecosystem Study, Baltimore, Maryland, 18-19 October 2006. (Poster)
- Basler, A. Comparison of female reproductive cycles between urban, suburban, and rural Blacknose Dace (*Rhinichthys atratulus*) populations. 4th Annual Colonial Academic Alliance Undergraduate Research Conference, Harrisonburg, Virginia 31 March - 1 April 2006. (Poster)
- Basler, A. Comparison of female reproductive cycles between urban, suburban, and rural Blacknose Dace (*Rhinichthys atratulus*) populations. University System of Maryland Student Research Days, Annapolis, Maryland, 15-16 February 2006. (Poster)

- Basler, A. Comparison of female reproductive cycles between urban, suburban, and rural Blacknose Dace (*Rhinichthys atratulus*) populations. 8th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, October 15, 2005. (Poster)
- Jackson, K.L., R.E. Casey, J.W. Snodgrass. 2005. Effect of uptake route on bioaccumulation of trace elements in larval amphibians. 8th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, October 15, 2005. (Poster)
- Trushel, B.E., A.L. Richardson, J.W. Snodgrass. Variation in stream fish sexual dimorphism across a rural-urban gradient. 3rd Annual Northeast Ecology and Evolution Conference, Pennsylvania State University, University Park, 18-20 March 2005. (Poster)
- Richardson, A.L., J.W. Snodgrass, and B.E. Trushel. Lipid cycling in blacknose dace (*Rhinichthys atratulus*) populations along a rural-urban gradient. 3rd Annual Northeast Ecology and Evolution Conference, Pennsylvania State University, University Park, 18-20 March 2005. (Poster)
- Simon, J.A., J.W. Snodgrass, and R.E. Casey. Land use effects on amphibian use of retention ponds and larval metal concentrations. 3rd Annual Northeast Ecology and Evolution Conference, Pennsylvania State University, University Park, 18-20 March 2005. (Poster)
- Otto, C. R. V., J.W. Snodgrass, D.C. Forester, J.C. Mitchell, R. Miller. Climatic variation and the distribution of the gray treefrog polyploidy complex. 3rd Annual Northeast Ecology and Evolution Conference, Pennsylvania State University, University Park, 18-20 March 2005. (Poster)
- Simon, J.A., J.W. Snodgrass, and R.E. Casey. Land-use effects on amphibian use of retention ponds and larval metal concentrations. Mid-Atlantic Ecology Conference: Urban Landscapes. University of Maryland-Baltimore County, 12-13 March, 2005. (Presentation)
- Richardson, A.L., J.W. Snodgrass, and B.E. Trushel. Lipid cycling in blacknose dace (*Rhinichthys atratulus*) populations along a rural-urban gradient. Mid-Atlantic Ecology Conference: Urban Landscapes. University of Maryland-Baltimore County, 12-13 March, 2005. (Presentation)
- Trushel, B.E., A.L. Richardson, J.W. Snodgrass. Variation in stream fish sexual dimorphism across a rural-urban gradient. Mid-Atlantic Ecology Conference: Urban Landscapes. University of Maryland-Baltimore County, 12-13 March, 2005. (Presentation)
- Broughton, J. and J.W. Snodgrass. How are storm water retention ponds affecting the aquatic landscape? CAA Undergraduate Research Conference, University of Delaware, Newark, Delaware, 28 February 2004. (Poster)
- Atueyi, S., J. Simon, J.W. Snodgrass, R.E. Casey. Temporal trends in trace element levels in macroinvertebrates from stormwater retention ponds. 7th Annual Meeting of the Baltimore Ecosystem Study, Catonsville, Maryland, 21-22 October 2004. (Poster)
- Atueyi, S., J. Simon, J.W. Snodgrass, R.E. Casey. Temporal trends in trace element levels in macroinvertebrates from stormwater retention ponds. 7th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, Baltimore, Maryland, 16 October 2004. (Poster)
- Simon, J.A., J.W. Snodgrass, R.E. Casey. 2004. Land use effects on amphibian use of retention ponds and larval metal concentrations. ESA Mid-Atlantic Ecology Conference, Franklin & Marshall College in Lancaster, Pennsylvania, 27-28 March 2004. (Poster)
- Pfister, Jennifer L., M.C. Roberge, J.W. Snodgrass. Mapping Forest Fragmentation in Maryland. Association of American Geographers Middle Atlantic Division Student Research Day. Frostburg University, Frostburg, Maryland, 21 November 2003. (Poster)
- Atueyi, S., J.W. Snodgrass, and R. Casey. Trace metal in aquatic invertebrates in stormwater retention ponds in suburban Maryland. Sixth Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, 1 November 2003. (Poster)

- McAfee, E. M., J.W. Snodgrass. Comparison of fecundity-size relationships between urban and rural Blacknose dace (*Rhinichthys atratulus*) populations. Sixth Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, 1 November 2003. (Poster)
- Pfister, J. Mapping Forest Fragmentation in Maryland Using Landscape Indices. Sixteenth Annual Geographic Information Sciences Conference, Towson University, Towson, Maryland, 31 May-1 June 2003. (Poster)
- Bay, C., and J.W. Snodgrass. Effects of Stream Network Landscapes on Abundances of Small Stream Fish. Colonial Student Annual Research Symposium, George Mason University, Washington DC, 1 March 2003. (Poster)
- Shaw, A.N., L.R. Massal, J.W. Snodgrass, R.E. Casey. 2002. Evaluation of trace metal levels in storm water retention ponds. Fifth Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, Baltimore, Maryland, 19 October 2002. (Poster)
- Broughton, J., and J.W. Snodgrass. Dose Response of Green Frog (*Rana clamitans*) larvae to Solid Coal Combustion Waste. Fifth Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, Baltimore, Maryland, 19 October 2002. (Poster)
- McAfee, E., T. Watkins, and J.W. Snodgrass. Estimating the Effects of Coal Combustion Waste on Larval Amphibians: The Role of Using Clean Sand as a Control. Fifth Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland Baltimore County, Baltimore, Maryland, 19 October 2002. (Poster)
- Lohnas, K. B., and J.W. Snodgrass. Differences in anti-predator behavior between blacknose dace (*Rhinichthys atratulus*) from urbanized and rural watersheds. Sigma Xi Annual Meeting, 29 May-2 June 2002, San Antonio, Texas. (Poster)
- Lohnas, K. B., and J.W. Snodgrass. Differences in anti-predator behavior between blacknose dace (*Rhinichthys atratulus*) from urbanized and rural watersheds. 16th National Conference on Undergraduate Research, University of Wisconsin-Whitewater, 25-27 April 2002. (Poster)
- Broughton, J., (Joel W. Snodgrass). Effects of coal ash exposure on the development of green frog (*Rana clamitans*) tadpoles. Fourth Annual Undergraduate Research Symposium, University of Maryland Baltimore County, October 2001, Baltimore, Maryland. (Poster—Second Place Award in category)
- Morgan, F., M. Fraker, and J.W. Snodgrass. Differences in Growth and Maturation of Blacknose Dace (*Rhinichthys atratulus*) Across a Rural-Urban Gradient. 15th National Conference on Undergraduate Research, 15-17 March 2001, University of Kentucky, Lexington, Kentucky.

Local meetings

- Huber, A. Groundwater Contamination of Road Salts on Towson University's Campus. Student Research Expo, Towson University, Towson, Maryland 18 April 2012.
- Marcangeli, A. The Impacts of Urbanization and Spatial Scale on Genetic Diversity of Blacknose Dace (*Rhinichthys atratulus*) Populations. Student Research Expo, Towson University, Towson, Maryland 18 April 2012.
- Fitzpatrick, B. Habitat Factors Influence Bird Communities in Artificial Urban Wetlands. 11th Annual Student Research and Scholarship Expo, April 21, 2010. (Oral presentation)
- Jennette, M. Urbanization and amphibians: Variations in life history traits in response to habitat degradation. 11th Annual Student Research and Scholarship Expo, April 21, 2010.
- Rollins, J. Growth of Juvenile Blacknose Dace (*Rhinichthys atratulus*) Along an Urban to Rural Gradient. 10th Annual Student Research and Scholarship Expo, May 5, 2009. (Poster)

- Nunziata, S. Impact of Road Salt on Stream Salamanders. 10th Annual Student Research and Scholarship Expo, May 5, 2009. (Poster)
- Rollins, J. Effects of Urbanization on the growth of blacknose dace (*Rhinichthys atratulus*). 9th Annual Student Research and Scholarship Expo, Towson University, April 24, 2008
- Salmon, J. A controlled method of raising blacknose dace, *Rhinichthys atratulus*, in the laboratory. 9th Annual Student Research and Scholarship Expo, Towson University, April 24, 2008
- Simon, J. Bias and Precision in site occupancy estimates using three amphibian survey techniques. 7th Annual Student Research and Scholarship Expo, Towson University, April 26, 2006.
- Richardson, A. and A. Basler. Annual lipid cycling in female blacknose dace (*Rhinichthys atratulus*) populations along a rural-urban gradient. 7th Annual Student Research and Scholarship Expo, Towson University, April 26, 2006.
- Basler, A. Comparison of female reproductive cycles between urban, suburban, and rural Blacknose Dace (*Rhinichthys atratulus*) populations. 7th Annual Student Research and Scholarship Expo, Towson University, April 26, 2006.
- Trushel, B.E., and A.L. Richardson. Variation in stream fish sexual dimorphism across a rural-urban gradient. Sixth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 28 April 2005. (Poster)
- Richardson, A.L., and B.E. Trushel. Lipid cycling in blacknose dace (*Rhinichthys atratulus*) populations along a rural-urban gradient. Sixth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 28 April 2005. (Poster)
- Simon, J.A. (with R.E. Casey). Land use effects on amphibian use of retention ponds and larval metal concentrations. Sixth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 28 April 2005. (Poster)
- Spencer, K., A. Richardson, and A. Lamartin. Determination of clutch size and number of clutches in blacknose dace (*Rhinichthys atratulus*) populations in the Baltimore Metropolitan region. Sixth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 28 April 2005. (Poster)
- Atueyi, S.N. (with R.E. Casey). Temporal trends of trace element levels in macroinvertebrates from stormwater retention ponds. Sixth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 28 April 2005. (Poster)
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- Richardson, A., and J. Snodgrass. Comparison of lipid storage among urban and rural fish populations. Fifth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 22 April 2004. (Poster)
- Broughton, J., and J.W. Snodgrass. How are storm water retention ponds affecting the aquatic landscape? Fifth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 22 April 2004. (Poster)
- McAfee, E.M., and J. Snodgrass. Comparison study of fecundity and size between urban and rural blacknose dace (*Rhinichthys atratulus*) populations. Fifth Annual Student Research and Scholarship Expo, Towson University, Towson, Maryland, 22 April 2004. (Poster)
- Rauch, R., and J.W. Snodgrass. Bioavailability of Metals to Larval Amphibians in Stormwater Ponds and Their Potential Transfer to Higher Trophic Levels. Fourth Annual Student Research Expo, Towson University, Towson, Maryland, 22 April 2003. (Presentation)
- Massal, L., and J.W. Snodgrass. Nitrate Concentrations of Stormwater Basins in Maryland. Forth Annual Student Research Expo, Towson University, Towson, Maryland, 22 April 2003. (Presentation)

- Broughton, J., and J.W. Snodgrass. Does Response of Green Frog (*Rana clamitans*) larvae to coal combustion waste show a dose response? Fourth Annual Student Research Expo, Towson University, Towson, Maryland, 22 April 2003. (Poster)
- Bay, C., and J.W. Snodgrass. Effects of Stream Network Landscapes on Species Richness and Community Structure of Small Stream Fish. Fourth Annual Student Research Expo, Towson University, Towson, Maryland, 22 April 2003. (Poster)
- Pfister, J., M. Roberge, and J.W. Snodgrass. Creating an Index of Forest Fragmentation for Maryland. Fourth Annual Student Research Expo, Towson University, Towson, Maryland, 22 April 2003. (Poster)
- Shaw, A.N., L.R. Massal, J.W. Snodgrass, R.E. Casey. Evaluation of trace metal levels in storm water retention ponds. Fifth Annual Meeting of the Baltimore Ecosystem Study, Baltimore, Maryland, 2002. (Poster)
- Pfister, Jennifer L., J.W. Snodgrass, M.C. Roberge. 2002. Patterns of Forest Fragmentation in the Baltimore Metropolitan Region. Third Annual Student Research Expo, Towson University, Towson, Maryland, 18 April 2002. (Poster)
- Lohnas, K.B., and J.W. Snodgrass. Differences in anit-predator behavior between blacknose dace (*Rhinichthys atratulus*) from urban and rural watersheds. Third Annual Student Research Expo, Towson University, Towson, Maryland, 18 April 2002. (Poster)
- Broughton, J., and J.W. Snodgrass. Effects of coal ash exposure on the development of green frog (*Rana clamitans*) larvae. Third Annual Student Research Expo, Towson University, Towson, Maryland, 18 April 2002. (Poster)
- Massal, L., and J.W. Snodgrass. The use of stormwater retention basins by breeding amphibians: Effects of age, hydroperiod, and adjacent land use. Third Annual Student Research Expo, Towson University, Towson, Maryland, 18 April 2002. (Presentation)
- Gwinn, D., D. Forester, and J.W. Snodgrass. Use of cover boards to monitor terrestrial salamander populations: Problems and potential solutions. Third Annual Student Research Expo, Towson University, Towson, Maryland, 18 April 2002. (Presentation)
- Watkins, C., and J.W. Snodgrass. Effects of urbanization on life history characteristics of blacknose dace. Second Annual Student Research Expo, Towson University, Towson, Maryland, 18 April 2001. (Poster)
- Jakes, A.J., J.W. Snodgrass, and J. Burger. A local habitat preference model for Beaver *Castor canadensis* on the southeastern Coastal Plain, USA. Second Annual Student Research Expo, 18 April 2001, Towson University, Towson, Maryland.

SERVICE

Manuscript reviews:

1. *American Journal of Public Health*
2. *Amphibia-Reptilia*
3. *Applied Ecology*
4. *Applied Herpetology*
5. *Aquatic Toxicology*
6. *Archives of Environmental Contamination and Toxicology*
7. *Behavioral Ecology and Sociobiology*
8. *Biological Conservation*
9. *Biotropica*
10. *Bulletin of the Ecological Society of America*
11. *Bulletin of Environmental Contamination and Toxicology*
12. *Canadian Journal of Fisheries and Aquatic Sciences*
13. *Chemosphere*
14. *Cities and the Environment*
15. *Climate Change*
16. *Comparative Biochemistry and Physiology*
17. *Conservation Biology*
18. *Copeia*
19. *Diversity*
20. *Ecological Applications*
21. *Ecological Engineering*
22. *Ecological Modeling*
23. *Ecological Research*
24. *Ecology*
25. *Economic Alternatives*
26. *Ecosphere*
27. *Ecotoxicology*
28. *Ecotoxicology and Environmental Safety*
29. *Environmental Conservation*
30. *Environmental Modeling and Assessment*
31. *Environmental Monitoring and Assessment*
32. *Environmental Pollution*
33. *Environmental Science & Technology*
34. *Environmental Toxicology & Chemistry*
35. *Frontiers in Ecology and the Environment*
36. *Herpetologica*
37. *Herpetological Review*
38. *Human and Ecological Risk Assessment*
39. *Hydrobiologia*
40. *Journal of Animal Ecology*
41. *Journal of Applied Ecology*
42. *Journal of Environmental Management*
43. *Journal of Hazardous Materials*
44. *Journal of Herpetology*
45. *Journal of Insect Conservation*
46. *Journal of Risk Research*
47. *Journal of the American Water Resources Association*
48. *Journal of Toxicology and Environmental Health*
49. *Journal of Wetland Ecology and Management*
50. *Landscape and Urban Planning*
51. *Landscape Ecology*
52. *Membrane Water Treatment*
53. *National Wildlife*
54. *Naturwissenschaften*
55. *Northeastern Naturalist*
56. *Oecologia*
57. *Oikos*
58. *PeerJ*
59. *PLOS One*
60. *Research in Social Problems and Public Policy*
61. *Royal Society Open Science*
62. *Science of the Total Environment*
63. *Southeastern Naturalist*
64. *Studies in Avian Biology*
65. *The Herpetology Journal*
66. *The Wilson Bulletin*
67. *Transactions of the American Fisheries Society*
68. *Urban Ecosystems*
69. *Urban Naturalist*
70. *Wetlands*
71. *Wetlands Ecology and Management*
72. *Wildlife Research*
73. *Wildlife Society Bulletin*
74. *Zoological Sciences*

Editorial Assignments:

- Associate Editor, *Wetlands* (2008-2012)
- Associate Editor, *Copeia* (2006-present)
- Editorial Board, *Copeia* (2003-2006)
- Managing Editor, *The Maryland Naturalist* (2002-2010)
- Ad hoc assigning editor, *Conservation Biology* (2002, 2006, 2008)
- Guest Editor, *Urban Naturalist* (2015, 2016)

External Reviews of Proposals, Manuscripts and Reports:

- U.S. Environmental Protective Agency (EPA) Office of Water-criteria report review
- University of West Virginia-proposal reviewer for internal grants program
- University of Montana- reviewer for internal grant program
- Maryland Department of Natural Resources, Monitoring and Non-tidal Assessment Division-report reviewer
- STAR Fellowships, EPA Aquatic Ecology-proposal reviewer and panel participant
- STAR Fellowships, EPA Oceanography and Coastal Processes-reviewer and panel participant
- US Geological Survey-external review of manuscripts and proposals
- Wisconsin Sea Grant-proposal review
- National Health and Environmental Effects Laboratory, EPA-proposal review
- US Geological Survey, ARMI (Amphibian Research and Monitoring Initiative)-proposal review
- USGS Patuxent Wildlife Research Center-proposal and manuscript review
- USGS National Institute of Water Resources, National Competitive Grants Program-proposal review
- National Science Foundation-proposal reviewer and panel participant
- Israeli Ministry of Science and Technology-proposal reviewer
- U.S. Civilian Research & Development Foundation (CRDF)-proposal review
- Maryland/Washington DC Chapter of the Nature Conservancy-proposal review
- Biodiversity Conservation Research Funds Grants Program-proposal review

Member:

- American Society of Ichthyologists and Herpetologists
- Society for Conservation Biology
- American Fisheries Society
- The Wildlife Society

Departmental committees Service:

- Member, Towson University, Departmental Tenure Committee (2006-2011)
- Member, Towson University, Botany Faculty Search Committee (2006-2007)
- Member, Towson University Departmental Promotion and Merit Committee (2006-2007)
- Member, Towson University, Biological Sciences Chair Search Committee (2000-2001)
- Member, Towson University, Science Education Faculty Search Committee (1999-2000)
- Chair, Towson University, Departmental Scholarship Committee (1999-2011)

College Committees:

- Chair, Virginia Tech, Urban Natural Resources degree feasibility committee (2020-present)
- Chair, Ad Hoc College of Natural Resources Promotion and Tenure Committee (2023)
- Member, College Communication Specialist Search Committee (2023)
- Member, Virginia Tech, College P&T Committee (2014-2023)
- Chair, Virginia Tech FREC Department Head Search Committee (2015)

- Member, Towson University, CSM Construction Planning Committee (2010-2011)
- Member, Towson University, CSM Honors Convocation Committee (1999- 2011)
- Member, Towson University Environmental Science and Studies MS Program Advisory Committee (1999-2001)

University Committee Service:

- Member, Faculty Workload Equity Committee (2022)
- Member, Principal Investigator Eligibility Working Group (2022)
- Member, Advisory Board, Center for International Research, Education, and Development, Virginia Tech (2020 to 2022)
- Member, Virginia Tech Cluster Operations and Hiring Committee (2017-2019)
- Member, Virginia Tech Global Systems Science Building Planning Committee (2017-2019)
- Member, Virginia Tech Vice Provost for Enrollment Services Search Committee (2016-2017)
- Member, Virginia Tech Faculty Advisory Group for Assessment (2016-2021)
- Co-Chair, Virginia Tech Department Heads Executive Council (2016)
- Member, Virginia Tech Department Heads Executive Council (2015-2016, 20019-2020,2023-present)
- Member, Towson University Graduate Studies Committee (2010-2011)
- Member, Towson University Graduate Assessment Committee (2005-2011)

University System Committees

- Member, USM Wildlife Education Committee (1999-2003)

Governmental Advisory Committees:

- Wildlife Diversity, Maryland Department of Natural Resources (2006-2011)

Disciplinary/Leadership Activities:

- President Elect (2020-2021, President (2022-2023), National Association of University Fish and Wildlife Programs
- President Elect, President, and Past President, Virginia Chapter of the Wildlife Society (2020)
- ACC Academic Leaders Network (2019-2020)
- White Allies as Transformational Leadership Program (2020-present)