# **Suzanne Spitzer**

Curriculum vitae

PhD Candidate
Integration & Application Network
University of Maryland Center for Environmental Science

429 4<sup>th</sup> Street, Annapolis, MD 21403 sspitzer@umces.edu (630) 877-0324

### **SUMMARY STATEMENT**

My goal is to pursue a career in environmental management with focuses in science communication, citizen science, and community engagement. I am interested in exploring the interface of cultural anthropology and ecology and conducting applied research in order to solve transdisciplinary problems related to ecosystem management and ecological restoration.

#### **EDUCATION**

### 2015-present University of Maryland Center for Environmental Science (UMCES)

PhD student in Environment and Society

Marine Estuarine Environmental Science (MEES) Graduate Program

Advisor: William C. Dennison

Committee members: Michael Paolisso, Andrea Wiggins, Judith O'Neil, Astrid Caldas

# **2013** University of Notre Dame

Bachelor of Science in Biology and Anthropology

#### RELEVANT RESEARCH AND WORK EXPERIENCE

Knauss Marine Policy Fellowship Finalist – Upcoming in 2021

### **Integration & Application Network (IAN) – UMCES**

### 2015-present Graduate Assistant

- Collaborate with partners in the Chesapeake Monitoring Cooperative to integrate citizen scientists and their data into the Chesapeake Bay Program Partnership
- Assist with science communication projects, including environmental report cards
- Developed and tested a submerged aquatic vegetation monitoring protocol and training program for citizen scientists in the Chesapeake Bay
- Assisted UMCES faculty with the Maryland Legislative Session (2018, 2019)

### **2014** Science Communication Intern

• Collaborated with partners and clients to develop science communication products, including report cards, conference posters, conceptual diagrams, and professional reports

### Marine Biological Laboratory - Ecosystems Center

### 2013-2014 Field and Research Assistant – Landscape Management and Restoration Ecology

- Conducted ecological field experiments and behavioral observations to examine effects of cattle grazing and mechanical mowing in structuring coastal vegetation patterns
- Engineered an organizational system for hundreds of raw data files, digitized data from field notebooks, identified and corrected inconsistencies, and inventoried all data
- Conducted a literature review and co-authored a scientific paper (*In prep.*)

### **University of Notre Dame Department of Biological Sciences**

# 2011-2013 Undergraduate Research Assistant – Behavioral Ecology and Disease Ecology

- Researched parasite diversity/abundance and social dominance in wild male baboons
- Expert in standard parasitological techniques (i.e., fecal flotation and sedimentation)

### **SERVICE**

# 2018-present MEES Environment and Society Foundation Program Committee

Currently serving as a student representative on a committee alongside faculty from UMCES and University of Maryland College of Behavioral and Social Sciences developing curriculum, admission, and examination policies and procedures.

# **2019-present** IAN Connections Committee

Currently serving on a committee that is responsible for improving communication between staff at multiple offices and planning the annual staff retreat.

# 2019-present UMCES Self-Study Working Group

Currently a member of a working group focused on UMCES governance, leadership, and administration as part of a self-study for accreditation with the Middle State's Commission on Higher Education.

# 2019 UMCES Committee for Mental Health Awareness

Compiled an informational guide on the mental healthcare options near each UMCES lab and co-developed specific recommendations for institutional improvements.

# 2016 MEES Colloquium in Annapolis Program Committee

\$600 for conference travel

Assisted in planning an annual conference for MEES students and faculty by developing informational materials, helping with logistics, and organizing a social activity.

# 2013 University of Notre Dame "Climate Change & the Common Good" Committee

Served as the Logistics Coordinator and Organizational Assistant, and the sole student representative, on a committee to organize a multidisciplinary national conference

#### **AWARDS**

2020	Ann G. Wylie Dissertation Fellowship – University of Maryland Graduate School \$15,000 stipend and tuition to support one semester of focused dissertation writing
2020	Outstanding Teaching Assistant – University of Maryland Graduate School Annual award, represents the top 2% of all graduate assistants
2019	Jacob K. Goldhaber Travel Grant – University of Maryland Graduate School \$400 for conference travel
2018	Outstanding Graduate Assistant – University of Maryland Graduate School Annual award, represents the top 2% of all graduate assistants
2017	Debbie Morrin-Nordlund Memorial Travel Award – MEES Graduate Program

2017 Dean's Fellowship – University of Maryland College Park College of Computer,

Mathematical, & Natural Sciences \$5000 to support dissertation research

2013 Dean's List – University of Notre Dame College of Science

### **TEACHING EXPERIENCE**

2019, 2018	Environment and Society Co-designed this course; Instructors: M. Paolisso and W.C. Dennison; MEES
2017	Healthy Rivers for All: Setting the course for sustainability with river basin health report cards Instructors: S. Costanzo, R.H. Kelsey, and W.C. Dennison; IAN
2017	Science for Environmental Management Instructors: D. Boesch and W.C. Dennison; UMCES
2016	Principles of Biology II Lab Supervisor: H. Lemke; University of Maryland Biological Science Program

2013, 2012 Animal Behavior

Instructor: E. Archie; University of Notre Dame Department of Biological Sciences

2012 Biological Sciences I Lab

Instructor: T.M. Olsen; University of Notre Dame Department of Biological Sciences

## **CERTIFICATIONS AND TRAININGS**

2019	Brooke Tully "Making Moves: Creating Conservation Movements" outreach and social marketing course	
2015	IAN "Communicating Science Effectively" science communication course	
2013	SCUBA Open Water Diver certification (PADI)	



### **CONFERENCE ACTIVITY**

# **Organized Sessions and Workshops**

Spitzer, S. (2019, Nov). "Using citizen science to address complex environmental problems." Session convened for the Coastal & Estuarine Research Federation conference, Mobile, AL.

Spitzer, S. (2019, Jun). "Transdisciplinary research approaches in Chesapeake Bay." Session convened for the inaugural Chesapeake Studies conference, Salisbury, MD.

- Spitzer, S. (2019, Mar). "Transdisciplinary approaches for researching socio-environmental systems." Session convened for the Society for Applied Anthropology conference, Portland, OR.
- Fries, A., Donovan, E.C., & **Spitzer, S.** (2019, Mar). "Best practices in Science Communication." Workshop facilitated at the Citizen Science Association conference, Raleigh, NC.
- Spitzer, S., Taillie, D., & Vargas-Nguyen, V. (2017, Nov). "Collaboration in Practice: Tools for Engagement." Session convened for the Chesapeake Watershed Forum, Shepherdstown, WV.

### **Invited Talks**

- Spitzer, S. (2020, May). "Tips for Young Scientists... from a young(ish) scientist." Talk presented for the Young Scientist Academy, online via zoom.
- Spitzer, S. & Laumann, K.M (2018, Dec). "Chesapeake Bay SAV Watchers: Highlights from the new volunteer monitoring program." Talk presented at Maryland Water Monitoring Conference, North Linthicum, MD.

### **Presentations**

- Spitzer, S. & Dennison, W.C. (2020, June). "Co-developing and evaluating a volunteer monitoring program for Chesapeake Bay" Lightning talk presented at the Science of Team Science conference, virtual on zoom.
- Spitzer, S., Landry, J.B., Swanson, S., Laumann, K.M., & Dennison, W.C. (2019, Dec). "Collaborative development of a volunteer monitoring program for Chesapeake Bay submerged aquatic vegetation." Poster presented at the Maryland Water Monitoring Conference, North Linthicum, MD.

Also presented at:

- (2019, Nov). Chesapeake Watershed Forum, Shepherdstown, WV.
- (2019, Oct). Marine Estuarine and Environmental Science Colloquium, Baltimore, MD.
- Spitzer, S., Landry, J.B., Dennison, W.C., Laumann, K.M., & Swanson, S. (2019, Nov). "Designing a citizen science program for monitoring Chesapeake Bay grasses." Talk presented Coastal & Estuarine Research Federation conference, Mobile, AL.
- Spitzer, S. (2019, Jun). "Co-designing a citizen science program for monitoring submerged aquatic vegetation in the Chesapeake Bay." Talk presented at the inaugural Chesapeake Studies conference, Salisbury, MD.
- Spitzer, S. (2019, Mar). "How are citizen scientists advancing Chesapeake Bay environmental science?" Talk presented at the Society for Applied Anthropology conference, Portland, OR.
- Spitzer, S. (2019, Mar). "Collaborative development of a seagrass monitoring program for Chesapeake Bay citizen scientists." Lightening talk presented at the Citizen Science Association conference, Raleigh, NC.
- Spitzer, S., Donovan, E.C., Fries, A., & Dennison, W.C. (2018, Jun). "Citizen science to support more inclusive Chesapeake Bay research." Poster presented at the Association for Environmental Studies and Sciences Conference, Washington, D.C.

Also presented at:

- (2018, Dec). Maryland Water Monitoring Conference, North Linthicum, MD.
- (2018, Nov). Chesapeake Watershed Forum, Shepherdstown, WV.
- (2018, Oct). Marine Estuarine and Environmental Science Colloquium, Frostburg, MD.

- Spitzer, S. (2018, Jun). "Designing a citizen science program that promotes collaborative knowledge production." Lightening talk presented at the National Socio-Environmental Synthesis Center (SESYNC) Symposium— Boundary Spanning: Advances in Socio-Environmental Systems Research, Annapolis, MD.
- Spitzer, S., Dennison, W.C., & Donovan, E.C. (2018, May). "Collaborative team science supports integrative research in the Chesapeake Bay." Talk presented at the Science of Team Science Conference, Galveston, TX.
- Spitzer, S. (2017, Nov). "Assessing the priorities of citizen scientists and resource managers for environmental monitoring." Talk presented at the Coastal & Estuarine Research Federation conference, Providence, RI.
- Spitzer, S., Donovan, E.C., & Dennison, W.C. (2017, May). "Exploring the goals and motivations of citizen scientists in the Chesapeake Bay watershed." Talk presented at the Citizen Science Association conference, Saint Paul, MN.
- Spitzer, S. (2013, Mar). "A Hierarchy of Health: Dominance Rank and Parasite Burden in Wild Male Baboons." Poster presented at the Midwest Ecology and Evolution Conference, South Bend, IN.

  Also presented at:

  (2012, May) University of Notre Dame College of Science Joint Annual Meeting, South Bend.
  - (2012, May). University of Notre Dame College of Science Joint Annual Meeting, South Bend, IN.
  - (2013, May). University of Notre Dame College of Science Joint Annual Meeting, South Bend, IN.

### **Departmental Talks**

- Spitzer, S. (2019, Jun). "Chesapeake Bay SAV Watchers: Introducing the Bay's newest citizen science program." Talk presented at the Horn Point Student Seminar Series, Cambridge, MD.
- Spitzer, S. (2018, Mar). "Understanding and engaging volunteer scientists in the Chesapeake Bay watershed." Talk presented at the Horn Point Student Seminar Series, Cambridge, MD.
- Downard, S., Richards, C., Rivera, P., & **Spitzer, S.** (2017, Mar). "International Students at the Table: A Qualitative Study of Food Access, Knowledge, and Support." Talk presented at the annual Practicing Anthropology Student Association AnthroPlus Student Conference, College Park, MD.
- Spitzer, S. & Dennison, W.C. (2016, Nov). "Tools for Integrating Traditional Environmental Science and Local Knowledge: Promoting Collaborative Learning with Conceptual Diagrams, Report Cards, and Citizen Science." Talk presented at the University of Maryland Department of Anthropology E-lunch series, College Park, MD.
- Spitzer, S., Siemek, S., Hagedorn, J., & Vargas-Nguyen, V. (2015, Dec). "Upper Potomac Headwaters Report Card 2015." Talk presented at the UMCES Appalachian Lab Watershed Moments Community Learning Series, Frostburg, MD.

#### **PUBLICATIONS**

### **Peer-reviewed journal articles**

Laumann, K.M., Nastase, E.A., Vargas-Nguyen, V., Kelsey, R.H., Carew, A., Donovan, E.C., Fries, A.S., **Spitzer, S.E.**, & Dennison, W.C. (2019). <u>Moving beyond the ecosystem in ecosystem health report cards</u>. *Environmental Practice*, 21(4), 216-229.

- Testa, J.M., Clark, J.B., Dennison, W.C., Donovan, E.C., Fisher, A.W., Ni, W., Parker, M., Scavia, D., **Spitzer, S.E.**, Waldrop, A.M., & Vargas, V.M. (2017). Ecological forecasting and the science of hypoxia in Chesapeake Bay. *Bioscience*, 67(7), 614-626.
- Douglas, M.M., Dennison, W.C., Kelsey, R.H., Setterfield, S.A., **Spitzer, S.E.**, & Vargas, V.M.D. (*In preparation*) "Transdisciplinary Science for Environmental Problem Solving."
- Neill, C., **Spitzer, S.E.**, Macedo, M.N., Riskin, S.H., Krusche, A.V., Nunez, D., & Coe, M.T. (*In preparation*) "Land Use and Impoundment Effects on Temperature and Water Chemistry of Lowland Amazonian Headwater Streams."

# **Science communication products**

- Integration and Application Network. (2019). <u>Guide to the Introductory Monitoring Program (Tier 1)</u>. IAN Press, Cambridge, MD.
- Integration and Application Network. (2019). <u>Chesapeake Bay SAV Watchers Pocket Field Guide</u>. IAN Press, Cambridge, MD.
- Integration and Application Network. (2019). <u>Chesapeake Bay SAV Watchers Methods Manual</u>. IAN Press, Cambridge, MD.
- Integration and Application Network. (2017). <u>Tidal water quality indicator factsheets</u>. IAN Press, Cambridge, MD.
- Costanzo, S.D., Lookingbill, T., Walsh, B., Fries, A., **Spitzer, S.**, Hawkey, J., Vargas, V., Webb, B., Easby, S., Goelst, C., & Rouch, M. (2016) <u>Shenandoah National Park Natural Resource Condition Assessment</u>. IAN Press, Cambridge, MD.
- Donovan, E.C., Raabe, S., Wetzel, K., Fries, A., Lehmer, N., **Spitzer, S.**, Testa, J., & Vargas, V. (2015) <u>Chesapeake Bay Trust: Expansion of a survey tool to measure behavior change and impacts</u> within watersheds. IAN Press, Cambridge, MD.
- Integration and Application Network. (2015). Chesapeake Bay Story website.
- Integration and Application Network. (2015). <u>Upper Potomac Headwaters Report Card 2015</u>. IAN Press, Cambridge, MD.
- Integration and Application Network. (2015). <u>Long Island Sound Report Card</u>. IAN Press, Cambridge, MD.
- Spitzer, S., Kelsey, R.H., Dennison, W.C., Costanzo, S., Thieme, M., & Freeman, S. (2015). Report Card Review: A survey of report cards available through the world wide web. IAN Press, Cambridge, MD.

### **Blog posts**

- Spitzer, S. (2019, Dec). "Reflecting on water monitoring and citizen science at the Maryland Water Monitoring Council conference" IAN-UMCES blog.
- Spitzer, S. (2019, Oct). "Making connections to ensure a clean and healthy Chesapeake Bay" IAN-UMCES blog.
- Spitzer, S. (2019, Oct). "Eyes on the prize: Looking beyond graduate school during the 2019 MEES Colloquium." IAN-UMCES blog.
- Spitzer, S. (2019, Sep). "Kicking off another semester of Environment and Society." IAN-UMCES blog

- Spitzer, S. (2019, June). "All about the Bay: Exploring history, heritage, and habitat at the Chesapeake Studies conference." IAN-UMCES blog.
- Spitzer, S. (2019, May). "Teaching and Learning with Technology." IAN-UMCES blog.
- Spitzer, S. (2019, May). "<u>Discussing Discussions: How to facilitate engaging and inclusive group discussions.</u>" IAN-UMCES blog.
- Spitzer, S. (2019, Apr). "Supporting collaborative learning: Teaching tips for facilitating group work." IAN-UMCES blog.
- Spitzer, S. (2019, Apr). "Uncovering five values of citizen science at CitSci2019." IAN-UMCES blog.
- Spitzer, S. (2019, Apr). "Chesapeake Bay SAV Watchers: A new citizen science program for monitoring Bay grasses." IAN-UMCES blog.
- Spitzer, S. (2019, Apr). "Spanning boundaries at the Society for Applied Anthropology conference." IAN-UMCES blog.
- Spitzer, S. (2019, Jan). "Thinking Big: How UMCES can increase its capacity to produce actionable science that serves society." IAN-UMCES blog.
- Spitzer, S. (2018, Sep). "It's game time! Board games that can help people 'level up' their capacity for transdisciplinary work." IAN-UMCES blog.
- Spitzer, S. (2018, Jul). "How can we include and legitimize other voices in science?" IAN-UMCES blog.
- Spitzer, S. (2018, Jul). "A polemic against coupled human and natural systems, boundary spanning, and transdisciplinarity: An existential appeal to "Shake things up!" in socioecological systems research." IAN-UMCES blog.
- Spitzer, S. (2018, May). "How to improve interdisciplinary collaborations: lessons learned from scientists studying team science." IAN-UMCES blog.
  - Versions also published on:
  - (2018, Jul). "What can interdisciplinary collaborations learn from the science of team science?" London School of Economics Impact Blog.
  - (2018, Jun). "What can interdisciplinary collaborations learn from the science of team science?" Integration and Implementation Insights blog.
- Spitzer, S. (2018, May). <u>Ten teaching tips from the Teaching & Learning Transformation Center at the University of Maryland</u>. IAN-UMCES blog.
- Spitzer, S. (2017, Dec). Five principles of holistic science communication. IAN-UMCES blog.
  - Versions also published on:
  - (2018, Fall). ""<u>Five principles of holistic science communication</u>." In *CERF's Up!* quarterly newsletter. Vol 44.3: 10-12.
  - (2018, Apr). "Five Principles of Science Communication." Social Science Space blog.
  - (2018, Apr). "Five principles of holistic science communication." London School of Economics Impact blog.
  - (2018, Feb). "Five principles of holistic science communication." Integration and Implementation Insights blog.
- Spitzer, S. (2017, Dec). Sharing tools for stakeholder engagement and collaboration at the Chesapeake Watershed Forum. IAN-UMCES blog.

- Spitzer, S. (2017, May). "Up close and personal" Community engagement at the Citizen Science conference (part 2). IAN-UMCES blog.
- Spitzer, S. (2017, Feb). "In this room, it's playtime!" Creative inspiration at the Citizen Science conference (part 1). IAN-UMCES blog.
- Spitzer, S. & Olsen, N. (2017, Feb). <u>Greater than the sum of its parts: What is a coupled human and natural system?</u>. IAN-UMCES blog.
- Spitzer, S. (2016, Jan). Over the river and through the woods to release the Upper Potomac Headwaters Report Card, we go!. IAN-UMCES blog.
- Spitzer, S. (2015, Nov). A look at the "Earth in Perspective" with Ricky Arnold. IAN-UMCES blog.
- Spitzer, S. (2015, Jun). <u>Long Island Sound Report Card release in Westport, Connecticut</u>. IAN-UMCES blog.
- Spitzer, S., Zhang, F., & Scweitzer, C. (2015, Apr). Who ya gonna call? Recommendations for scientists who are called to action in a state of environmental emergency. IAN-UMCES blog.

### **OTHER SKILLS**

Adobe Creative Suite—including Illustrator, InDesign, Acrobat, and Photoshop.

Microsoft Office Suite—including Excel, PowerPoint, and Word.