

DAVID MELLOR

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Profile

A skilled researcher with experience managing complex projects and designing engaging instructional material. Creates measurable goals and seeks broad stakeholder consensus for every project. Reliably measures effectiveness. Enthusiastic approach to learning leads to continual professional improvement.

Core Competencies

- Demonstrated project leadership success.
- Statistical & coding tools: parametric or non-parametric, ordination, multivariable, hypothesis testing, SAS, SPSS, R, Excel, Minitab, HTML
- Demonstrated skill in program evaluation, including assessment creation and analysis.

Professional Experience

Center for Open Science

Project Manager (March 2015 – Present)

- Changed incentives for researchers to publish research plans prior to data collection.

Virginia Polytechnic University, Virginia Master Naturalists

Citizen Science Project Coordinator (May 2013 – March 2015)

- Designed online collaborative spaces to create authentic adaptive management projects.
- Analyzed data from multiple sources to measure program impact and participant learning gains.
- Created effective adaptive management plans using socio-ecological models.
- Managed overall research agenda for six faculty researchers to create a single comprehensive outcome.

Rutgers University, Division of Life Sciences

Director of Advising (January 2011 – May 2013)

- Served large body of biology students through advising and effective problem solving.
- Initiated use of data analytics to measure student outcomes for university accreditation.
- Connected students and faculty by managing research program and evaluated on Honors research.
- Teaching responsibility: “Biology, Society, and Ecological Issues” (85-110 students, evaluations available).
- Left in 2013 because of an opportunity requiring increased research responsibility closer to family.

Rutgers University, Ecology and Evolution Graduate Program

Research Assistant, Program in Science Learning, Ecology and Evolution (August 2005 – May 2011)

- Increased retention by 10% by creating effective mentorship and pedagogical tools using qualitative and quantitative data from original research and primary sources.
- Used experimental design and statistics to study the behavioral ecology of Cichlids.
- Investigated parental investment by Costa Rican cichlids quantitative through field research.

Head Teaching Assistant, General Biology (August 2008 – May 2010)

- Managed 37 teaching assistants on content, administrative responsibilities, and pedagogy.
- Created course materials for General Biology laboratory, including lectures, homework, and lab reports.
- Promoted from Assistant Head TA in 2008 because of effective teaching and management outcomes.

Teaching Assistant, General Biology (August 2005 – May 2007)

- Created course materials to encourage active learning.
- Taught up to 50 students per semester in introductory life sciences course for majors.
- Promoted to Assistant Head TA because of effective teaching outcomes.

Loon Preservation Committee of New Hampshire

Field Biologist (Summer 2005)

- Accurately measured loon breeding in 30 lakes in central New Hampshire during summer season.
- Taught principles of loon conservation through community outreach.

Education

Rutgers University	Ecology, Evolution, and Natural Resources	Ph.D.
<i>Major Advisor:</i> Dr. Rebecca Jordan		
<i>Dissertation:</i> Implications of Intraspecific Behavioral Interactions on the Evolution of the Mbuna Cichlids and the Effect of a Small Class Intervention on a Group of At-Risk Students.		
College of William and Mary	Biology	B.S.

Publications (* indicates undergraduate co-author)

- **Mellor D**, Brooks W, Gray S, Jordan R. (in press) Troubled Transitions Into College and the Effects of a Small Intervention Course. *Journal of College Student Retention: Research, Theory & Practice*.
- Jordan R, Crall A, Gray S, Phillips T, **Mellor D**. (2015) Citizen Science as a Distinct Field of Inquiry. *Bioscience*. DOI: 10.1093/biosci/biu217
- Sorensen A*, **Mellor D**, Jordan R. (2015) Effect of carotenoids on cichlid phenotype and mating behavior. *Ethology, Ecology, and Evolution*. DOI:10.1080/03949370.2015.1018953
- Gray S, **Mellor D**, Jordan R, Crall A, Newman G. (2014) Modeling with citizen scientists: Using community-based modeling tools to develop citizen science projects. In: *Proceedings of the 7th International Congress on Environmental Modeling and Software*, June 15-19, San Diego, California, USA.
- **Mellor D**, Wilt L*, Gershenson D*, Howe D, Jordan R. (2012) Female preference in the context of male-male interactions in *Maylandia zebra* of Lake Malawi. *Journal of Ethology*. 30:1, 181-186.
- **Mellor D**, and Jordan R: (2011) Why are there so many cichlids in Lake Malawi? Investigating the role of sexual selection in the Mbuna. *Buntbarsche*, American Cichlid Association.
- Buckley B, Duncan R, Furtak E, Jordan R, Michael J, **Mellor D**, Model H, Rogat A, Schauble L, Wright A. (2010) *Concept and Skills Progressions, Life Sciences, Biology*. Massachusetts Department Education.
- Jordan R, **Mellor D**, Wilt L*, Gershenson D*, Howe D. (2010) Male Interactions in a Group of Malawi Cichlids. *Ethology, Ecology & Evolution*. 22:4, 359-364.
- **Mellor D**, Tarsiewicz C*, Jordan R. (2010): Female *Maylandia zebra* prefer victorious males. *Journal of Fish Biology*. 78: 680-687.

Awards and Certifications

- Leader in Watershed Education, Virginia Department of Environmental Quality's Watershed Educators Institute, 2014
- Excellence in Undergraduate Teaching, Graduate School of New Brunswick, Rutgers University, 2010
- Pre-tenure faculty award, School of Environmental and Biological Sciences, with Rebecca Jordan, 2009
- Graduate School of New Brunswick student travel award, 2007

Selected Presentations, Webinars, and Workshops

- "The Challenges with Training Outdoor Enthusiasts Online" Citizen Science Association, 2015 (contributed talk)
- "Modeling With Citizen Scientists" Environmental Modeling & Software Society, 2014 (contributed talk)
- "Co-Creating Citizen Science" Citizen Cyberscience Summit, London, 2014 (workshop)
- "Managing Complex Systems with Citizen Science & Models" Virginia Master Naturalists, 2014 (webinar)
- "Collaborative Conservation, Co-Creating Citizen Science and Conservation" Virginia Wildlife Society Annual Meeting, 2014 (contributed talk)
- "Collaborative Science with Citizen Science" Virginia Master Naturalist Conference, 2013 (workshop)
- "Sustaining Ecological Communities through Citizen Science and Online Collaboration." Virginia Environmental Education Conference, 2013 (contributed talk)
- "Academic Probation: The Effects of Small Class Intervention on Student Retention" Animal Behavior Society, Bloomington, IN, 2011 (poster)
- "The role of male behavior on female choice in *Mbuna* cichlids" Ecological Society of America, Albuquerque, NM, 2009 (contributed talk)
- "Using citizen scientists to collect invasive plant data on public lands" Black Rock Forest and Highlands Research Symposium, 2007 (contributed talk)