

Julia Anastasia Bingham

PhD Candidate, Marine Science and Conservation
Duke University Nicholas School of the Environment
julia.bingham@duke.edu | www.juliaabingham.com

I. EDUCATION

- Exp. 2023 **PhD., Marine Science and Conservation, Duke University**
Advisor: Dr. Grant Murray
Thesis: *Knowledge and Power in the Governance and Management of West Coast Vancouver Island Salmon Fisheries*
Certificates: College Teaching (exp. 2021)
Primary fields: political ecology, critical human geography, science & technology studies
- 2016 **H.B.S., Biology, summa cum laude, Oregon State University**
Minors: Chemistry, Spanish
Specialty program: Marine Biology, *Hatfield Marine Science Center* (2015)
Research Fellow
Advisor: Dr. Mark Novak.
Thesis: *Sensitive Barnacles: A Case Study for Collaborative Sustainable Fishery Development*
- 2016 **H.B.A., International Studies, summa cum laude, Oregon State University**
Language focus: Spanish
Study abroad: Quito & Galápagos Islands, Ecuador, *Universidad San Francisco de Quito & Galápagos Academic Institute for the Arts and Sciences* (2014)

II. HONORS, AWARDS, & SCHOLARSHIPS

- 2021 **Anne Firor Scott Public Scholars Fellowship** (\$24,750), *Graduate School of Duke University with the Duke Forum for Scholars and Publics (FSP)*
- 2021 **Summer Research Fellowship** (\$6,500), *Graduate School of Duke University through the Gene L. and Alice Stroude Winegardner Endowment Fund*
- 2020 **James B. Duke International Research Travel Fellowship** (\$26,300), *Graduate School of Duke University*
- 2017-2020 **Marine Science and Conservation Academic Award** (\$24,000 + tuition & fees, 3x), *Duke University Nicholas School of the Environment*
- 2015 **Best Undergraduate Poster**, *Western Society of Naturalists 2015 annual meeting*
- 2015 **Honors Experience Scholarship** (\$500), *Oregon State University*
- 2014, 2015 **Alex Riazance Scholarship** (\$8,000, 2x), *Oregon State University College of Science*
- 2014, 2015 **Merrill Family Fund Scholarship** (\$2,400, 2x), *Oregon State University College of Science*
- 2012-2016 **Biology Honor Roll** (11x), *Oregon State University*
- 2012-2016 **Provost Scholarship**, *Oregon State University*
- 2012-2014 **Evergreen Colorado Bootstraps Award** (\$1,000, 3x), *Bootstraps, Inc.*
- 2012 **Discus Award**

III. RESEARCH FUNDING

- 2021 **International Dissertation Research Travel Award** (\$3,000), *Graduate School of Duke University*
- 2020 **Graduate Award for Research & Training** (\$750), *Duke University Center for International & Global Studies (DUCIGS)*
- 2016 **Program Development Grant** (\$10,000), *Oregon Sea Grant*
- 2015 **Science Scholarship** (\$1,000), *OSU College of Science*
- 2015 **Grants-in-Aid of Research Award** (\$1,000), *Sigma Xi Honors Society*
- 2014 **International Degree Research Award** (\$1,200), *Oregon State University*

IV. RESEARCH CONTRIBUTIONS**a. PROJECTS**

- Ongoing **Knowledge and Power in Governance of West Coast Vancouver Island Salmon Fisheries**
Duke University Marine Lab; Doctoral Dissertation research advised by Dr. Grant Murray
Funded by Duke University, Genome British Columbia, Genome Canada
- Ongoing **The Value of Fishing, Farming and Eating: new approaches to understanding coastal community well-being**
Duke University Marine Lab; Graduate student researcher supervised by Dr. Grant Murray
Funded by NC Sea Grant
- 2019-2021 **Enhancing Production in Coho: Culture, Community, Catch (EPIC4)**
Activity 5: Assessing the effectiveness of EPIC4 technologies through GE3LS Research Assignment: Description of Knowledge Mobilization (KM) of Coho through First Nations evaluative and regulatory structures to potential implementation
Duke University Marine Lab; Graduate student researcher supervised by Dr. Grant Murray
Funded by Genome British Columbia, Genome Canada
- 2020 **Gulf of Mexico Ecosystem Service Logic Models & Socio-Economic Indicators (GEMS)**
Assignment: Development of protocols to assess and integrate equity concerns into outcome monitoring of living shorelines and coastal restoration interventions
Duke University, Nicholas Institute for Environmental Policy Solutions
Research Assistantship, supervised by Rachel Karasik and Lydia Olander
- 2018-2019 **Growth and Opportunity for Whom? Aquaculture Narratives in Down East, North Carolina**
Duke University Marine Lab; Research Assistantship supervised by Dr. Grant Murray
Funded by NC Sea Grant
- 2016 **Development of a Sustainable Gooseneck Barnacle Fishery; Initial Investigations**
Oregon Institute for Marine Biology; Research assistantship supervised by Dr. Alan Shanks
Funded by Oregon Sea Grant.
- 2016 **Sensitive Barnacles: Case Study for Collaborative Sustainable Fishery Development**
Oregon State University Dept. of Integrative Biology
Undergraduate Honors Thesis; mentorship by Dr. Mark Novak
Funded by Oregon State University

b. PUBLICATIONS

- Bingham, J.**, Milne, S., Murray, G., and Dorward, T. (2021). Knowledge pluralism in First Nations' Coho salmon fisheries management. *Frontiers in Marine Science*. 8: 405. doi.org/10.3389/fmars.2021.671112
- Campbell, L.M., Fairbanks, L., Murray, G., Stoll, J., D'Anna, L., and **Bingham, J.** (2021). Blue Communities: Reframing the Blue Economy for Wellbeing. *Marine Policy*. 124: 104361. doi.org/10.1016/j.marpol.2020.104361

c. REPORTS & THESES

- Koop, B., Davidson, W., Bernatchez, L., Beacham, T., Bendriem, N., Berseth, V., **Bingham, J.**, Chan, M., Matthews, R., Milne, S., Murray, G., Sumaila, R., Yáñez, J.M. (2021). *Coho Genomics: Conservation, Production, Management & Communities*. (Technical report). EPIC4 – Enhancing Production in Coho: Culture, Community, Catch. <http://www.sfu.ca/epic4/EPIC4SummaryForPolicymakers.pdf>
- Bingham, J.**, Milne, S., and Murray, G. (2020). *Governance and knowledge mobilization in Coho fisheries of Tla-o-qui-aht First Nations and T'aaq-wiihak Fisheries, and consideration of fit for integration of EPIC4 technologies*. EPIC4 Activity 5 project report for Tla-o-qui-aht First Nations Lands Department.
- Bingham, J.** and Masso, S. (2020). *Decision-Making Support Tool and Protocol for Restoration, Enhancement, and Harvest Management of Cúwit (Coho Salmon)*. Tla-o-qui-aht First Nations Lands Department
- Del Angel, D., **Bingham, J.**, Díaz, B.A., Suárez, A.M., Fabián, M.R., and Palacio, G.F. (2018). "Proposed Socio-economic Environmental Health Report Card Indicators for Caguanes National Park, Cuba." Student Contributions in: McLaughlin et al. (ed) 2018. *Development of an Environmental Report Card to Track the Impact and Subsequent Recovery of Hurricane Irma (September 2017) on the Natural and Human Ecosystems in Northern Central Cuba*. SWIMM Student Workshop on International Coastal

and Marine Management 2018 workshop, Hart Research Institute and Texas A&M Corpus Christi.

<https://www.harte.org/sites/default/files/inline-files/SWIMM%202018%20Student%20Contributions%20Report.pdf>

Bingham, J., Thomas, M., and Shanks, A. (2017). Development of a Sustainable Gooseneck Barnacle Fishery; Initial Investigations. (Technical Report) Oregon Sea Grant.

https://seagrant.oregonstate.edu/sites/seagrant.oregonstate.edu/files/sgpubs/onlinepubs/s-17-002_development_of_a_sustainable_gooseneck_barnacle_fishery.pdf

Bingham, J. and Novak, M. (2016). *Sensitive Barnacles: A Case Study for Collaborative Sustainable Fishery Development* (Undergraduate Honors Thesis). Oregon State University.

https://ir.library.oregonstate.edu/concern/honors_college_theses/7w62fb385

d. PAPERS IN PREPARATION OR REVIEW

Choi, J., **Bingham, J.**, Morton, J., and Kamakura, R. (2021) Critically Examining Conservation's Values. *Journal for Nature Conservation*. (in review)

Bingham, J. and Murray, G. (2021). A literature review of efforts to integrate traditional and scientific knowledges in fisheries governance and management. (in prep for submission)

Bingham, J., Murray, G., and Fail, R. (2022). Values mobilized by media to build narratives of growth and opportunity in oyster aquaculture of Down East, North Carolina. (in prep)

Baker, D., **Bingham, J.**, Murray, G., and Fail, R. (2022). Reciprocity and Relational Values in Three Fisheries Case studies. *Ecology and Society* (in prep)

Fairbanks, L. Campbell, L.M., Stoll, J., **Bingham, J.**, Murray, G., and D'Anna, L. (2022). From Blue Economy to Blue Communities: reorienting aquaculture expansion for community wellbeing. (in prep)

Bingham, J., Fail, R. and Karasik, R. (2022). Expanding theoretical frameworks of equity and access for assessment of socioecological systems project outcomes (in prep)

V. PRESENTATIONS

- 2021 Centre for Maritime Research (MARE) biannual conference; remote (presentation)
- 2021 PhD Dissertation Update Seminar; Duke University Marine Lab (presentation)
- 2020 International Marine Conservation Congress sixth annual conference (IMCC6), by the Society for Conservation Biology; remote (presentation)
- 2020 PhD Dissertation Update Seminar; Duke University Marine Lab (presentation)
- 2019 American Association of Geographers annual meeting; Washington, DC (presentation)
- 2019 World Aquaculture Society annual meeting; New Orleans, LA (presentation)
- 2019 PhD Dissertation Update Seminar; Duke University Marine Lab (presentation)
- 2018 MarCuba 2018, XI Congress on Marine Sciences; Havana, Cuba (presentation)
- 2018 Graduate Association of Food Studies annual meeting; UNC Chapel Hill (presentation)
- 2016 Gooseneck Barnacle Fishery Public Seminar; Port Orford, OR (presentation)
- 2016 Gooseneck Barnacle Fishery Public Seminar; Coos Bay, OR (presentation)
- 2016 Western Society of Naturalists annual meeting; Monterey, CA (presentation)
- 2016 Oregon Sea Grant Scholars Symposium; Corvallis, OR (presentation)
- 2016 Gooseneck Barnacle Public Seminar, OSU Port Orford Field Station (presentation)
- 2015 Western Society of Naturalists annual meeting; Sacramento, CA (poster)
- 2015 OSU Center for Genome Research and Bioengineering Conference; Corvallis, OR (poster)
- 2015 OSU Summer Undergraduate Research Experience (SURE) Science Symposium; Corvallis, OR (presentation)

VI. PROFESSIONAL POSITIONS

Graduate Student Researcher, Duke University, Aug 2017 – Present

Designed and implemented dissertation research. Methodologies informed through traditions of sociology political ecology, and indigenous research methodologies. Methods include literature review, case study research, interviews, participant observation, document review, and qualitative analysis of data utilizing grounded theory. Presented at local, regional, and international conferences. Engaged in professional service, community outreach, and research communication. Wrote and applied for fellowships and grants to support research (total awarded: \$5,750 in grants, \$55,550 in fellowships). Wrote manuscripts for

publication. In the process of writing dissertation thesis. Collaborating in additional research projects with other faculty and graduate student researchers, including an interdisciplinary project utilizing Q-method to describe social values and preferences of seafood production in local and regional communities.

Research assistant & intern, Nicholas Institute for Environmental Policy Solutions, May - Aug 2020

Assisted in a multidisciplinary, inter-institutional project to develop coastal ecosystem service logic models. Duties included synthesizing literature concerning equity in environmental management interventions and develop a protocol for incorporating equity concerns into the coastal resilience projects such as coastal restoration and living shoreline development, particularly for the Gulf of Mexico and mid-Atlantic. Protocol is designed to guide practitioners in assessing equity of the process and outcomes of said projects in such a way that equity can be included in the logic models of the broader project.

Graduate Teaching Assistant, Duke University and Duke University Marine Lab, Aug 2017 – Dec 2019

Helped teach and lead students in lectures, field trips, and hands-on classroom assignments. Developed students' skills in critical thinking, problem solving, reading and synthesizing academic literature, conducting qualitative analysis, and scientific and professional writing and editing. Designed and graded student exams and assignments including written reports. Organized field trips. Taught guest lectures. Assisted professors in course design. Individual courses listed below.

Graduate Student Research Assistant, Duke University Marine Lab, May 2018 – Aug 2018

Assisted in qualitative research regarding social environmental values in small coastal communities, focusing on values and preferences regarding local oyster aquaculture. Methods include case study research, interviews, surveys, document review, and thematic analysis of qualitative data.

Education and Outreach Intern, South Slough National Estuarine Research Reserve, Aug - Nov 2016

Led 'Watershed Hikes' with elementary school class groups through the reserve and taught basic lessons about local species and ecosystems along the way. Developed a lesson plan to introduce elementary students to the concept of a watershed. Developed adaptable lesson plans for introducing middle school and high school students to using Excel to collect and analyze data. Assisted in water monitoring and trawl surveys of the estuary. Improved species identification skills.

Research Assistant, Oregon Institute for Marine Biology, June – Nov 2016

Designed a field-based study of *Pollicipes polymerus* for the purpose of informing fishery development and harvest management policy. Co-designed and assisted in experimental trials of onshore mariculture prototypes and assessing how differential feeds and water flow rates affect growth rates of transplanted *P. polymerus*. Gained experience in fieldwork, experimental design, and lab skills. Developed skills in quantitative data management, assessment, and statistics. Coordinated multiple public outreach events and assisted collaborators in gauging stakeholder interest in fishery development. Led writing a summary technical report of the project for funders and fishery managers. Supervised by Dr. Alan Shanks.

URSA Undergraduate Research Ambassador, Oregon State University Office of Undergraduate Research, Scholarship, and the Arts (OSU URSA), Apr 2015 - June 2016

Assisted in connecting other undergraduate students to research opportunities through providing advice and peer mentorship in contacting potential mentors and applying for research positions. Worked at campus tables during campus events to answer questions about the OSU URSA engage program.

Internal Coordinator, Oregon State University Center for Civic Engagement, Sept 2013 – Aug 2014

Planned and organized local volunteer projects with community partners for undergraduate student participation. Coordinated student attendance and led student groups to participate in volunteer projects. Coordinated civic engagement themed campus-based events that connected students to off-campus volunteer opportunities. Matched individual undergraduate students to specific community partners for long-term volunteer engagement. Developed skills in networking, time management, collaboration, group leadership, project management, and inclusivity training.

Undergraduate Research Assistant, Oregon State University, Feb 2013 - June 2016

Supervised by Dr. Mark Novak. Assisted in set up, monitoring, and data collection for intertidal ecology field experiments assessing indirect effects of trophic interactions between intertidal invertebrates. Conducted fieldwork in extreme physical conditions. Assisted in analysis of photographed data by identifying and tallying organisms captured in images. Developed independent research project. Gained experience in experimental design and management. Gained experience in data collection, analysis, statistics, and scientific writing. Assisted in training future research assistants. Wrote and applied for research grants (total awarded \$3,200).

VII. TEACHING EXPERIENCE**a. Instruction**

- 2021 *Indigenous knowledges and Science in Fisheries*, Duke University Marine Lab, Graduate Student Seminar, co-instructed with Dr. Grant Murray
- 2019 *Conservation Biology and Policy*, Duke University Marine Lab, Undergraduate field-based course, co-instructed with Dr. Rachel Gittman

b. Teaching Assistantships

- 2020 *Social Impact Analysis*, Duke University Marine Lab, teaching assistant for Dr. Grant Murray
- 2019 *Marine Policy*, Duke University Marine Lab, teaching assistant for Dr. Grant Murray
- 2019 *MPAs and Marine Spatial Planning*, Duke University Marine Lab, teaching assistant for Dr. David Gill
- 2018 *Marine Megafauna*, Duke University, teaching assistant for Dr. Megan Dunphy-Daly
- 2017 *Ocean and Coastal Law and Policy*, Duke University School of Law, teaching assistant for Professor Steve Roady

c. Guest Lectures

- 2020 *Political Ecology of Marine Sciences*, Duke University Marine Lab (DUML)
- 2020 *Marine Trophic Ecology*; Duke University
- 2019 *Social Environmental Values of Aquaculture Down East*, DUML
- 2019 *Social-ecological Impacts and Trade-offs in Coastal Conservation*, DUML
- 2019 *Social Environmental Values and Discourse in Coastal Conservation Policy*, DUML
- 2019 *Marine Trophic Ecology*; Duke University
- 2019 *Adaptive Management in Marine Spatial Planning*, DUML
- 2018 *Physiology and Ecology of Pinnipeds*; Duke University
- 2018 *Marine Trophic Ecology*; Duke University
- 2018 *Evolutionary Biology of Marine Megafauna*; Duke University
- 2017 *Fisheries and Ocean Ecosystems: ecosystems and policy*; Duke University School of Law
- 2017 *Coastal watersheds: ecosystems and policy*; Duke University School of Law
- 2017 *Gooseneck Barnacle Fishery Development & Research*; Pacific University

d. Certificate In College Teaching Requirements (exp. completion 2022)

- 2019 *College Teaching and Course Design*, Seminar
- 2019 “Teaching Triangles”: 4+ hours college level teaching experience under peer observation, 4+ hours observation of peer teachers, two interviews of professors regarding teaching pedagogy

VIII. MENTORSHIP

- Ongoing Bentley Choi, Undergraduate Student Researcher, Duke University Marine Lab
Mentoring student as an assistant to conducting a historical grey literature and public legal records review and timeline development project for the third chapter of doctoral dissertation.
- Ongoing Ariel Chukwuma, Undergraduate Student Researcher, Duke University Marine Lab
Mentoring student as an assistant to conducting a historical grey literature and public community records review and timeline development project for the third chapter of doctoral dissertation.
- 2020-2021 Sage Riddick, MSc, Graduate Student Researcher, Duke University Marine Lab
Mentored Master’s student as an assistant to conducting a literature review project for the first chapter of doctoral dissertation, particularly sorting of literature and analysis of results

IX. PROFESSIONAL SERVICE & OUTREACH

- 2021 **C-Coast Listening Session Facilitator**, *Collaboratory for Coastal Adaptation over Space & Time (C-Coast)*, (Carteret County, NC)
- 2021 **Mission Statement Development and Event Planning**, *Girls Engaging in Science and Technology (GEST)*, Duke University Marine Lab
- 2020-2021 **Graduate Communications Coordinator**, Duke University Marine Lab
- 2020 **VanDover Inclusivity Travel Award Program Coordinator**, Duke University Marine Lab
- 2019-2020 **Volunteer Educator**, *Community Science Initiative*, Duke University Marine Lab
- 2019 **Activity Leader and Panelist**, *Girls Engaging in Science and Technology (GEST)*, University of North Carolina Institute for Marine Sciences (Morehead City, NC)

- 2018-2019 **Group / Activity Leader**, *Girls Engaging in Science and Technology (GEST)*, Duke University Marine Lab, 2x
- 2018-2019 **Seminar Series Coordinator**, Duke University Marine Lab
- 2018 **Open House participant host**, Duke University Marine Lab
- 2017-2018 **MSC PhD Student Representative**, *Graduate and Professional Student Council General Assembly*, Duke University
- 2013, 2015 **Activity Host**, *Marine Science Day*, OSU Hatfield Marine Science Center, 2x (Newport, OR)

X. COMMUNITY VOLUNTEER SERVICE & STUDENT ENGAGEMENT

- Ongoing **Volunteer**, *Misplaced Mutts* (Beaufort, NC)
- 2018-2021 **Soccer Tournament Coordinator**, *DUML Annual World Cup*, Duke University Marine Lab
- 2018-2020 **Recreational Soccer Coach**, *Seashore Soccer League*, Under-10 co-ed (Carteret County, NC)
- 2019 **Volunteer**, *Carteret County Humane Society* (Newport, NC)
- 2015-2018 **OSU DIVEST Campus Coordinator**, *OSU Divest Student Movement*, Oregon State University
- 2014-2016 **Volunteer Project Lead and Participant**, *Center for Civic Engagement*, Oregon State University
- 2013-2016 **NSCS member**, *National Society of Collegiate Scholars* (NSCS) Oregon State University Chapter
- 2013-2015 **Club Officer and Project Coordinator**, *OSU Food Group*, Oregon State University
- 2013 **Math Tutor**, *College Hill Alternative Learning High School* (Corvallis, OR)
- 2013 **Market Assistant - SNAP Benefits Table**, *Indoor Winter Farmers Market* (Corvallis, OR)
- 2012-2014 **Club Member**, *OSU Organic Growers Club*, Oregon State University
- 2010-2013 **Visitor Assistant**, *Evergreen Nature Center* (Evergreen, CO)
- 2010-2012 **Judge's Assistant** *WJMS Science Fair*, West Jefferson Middle School, 3x (Conifer, CO)
- 2009-2012 **Judge**, *Marshdale Elementary Science Fair*, Marshdale Elementary, 4x (Evergreen, CO)

XI. MEMBERSHIPS

- American Association of Geographers (2018-2020) World Aquaculture Society (2018-2019)
 Graduate Association of Food Studies (2018-2019) Western Society of Naturalists (2015-2017)

XII. OTHER SKILLS

- Workshop facilitation, in person and virtual (using Zoom)
- Systematic literature review using Colandr.
- Figure design in Adobe Illustrator
- Qualitative Analysis in NVivo
- Statistical analysis using R
- PADI Certified Advanced Diver SCUBA Certification
- Technical skills in ethnographic and sociological fieldwork
- Technical skills in marine and coastal ecological fieldwork
- Environmental education and outreach, especially with students ages 7 - 18
- Spanish fluency and basic German language skills
- Strategic Organizing and Action Planning
- Public outreach via presentations, seminars, and social media

XIII. PROFESSIONAL REFERENCES

- Grant Murray: Associate Professor, Duke University Nicholas School of the Environment, Duke University Marine Lab; grant.murray@duke.edu
- Lisa Campbell: Associate Professor, Duke University Nicholas School of the Environment, Duke University Marine Lab; lisa.campbell@duke.edu
- Steve Roady, Professor of the Practice of Law at Duke Law School, Professor of the Practice for Marine Science and Conservation at the Duke Nicholas School of the Environment; steve.roady@duke.edu
- Meagan Dunphy-Daly, Instructor, Duke University Nicholas School of the Environment, Marine Science and Conservation Division; meagan.dunphy-daly@duke.edu