


MICHAEL SPECTOR “PIKE”

Marine Scientist

NOAA Olympic Coast National Marine Sanctuary

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<https://lowercasescience.weebly.com/>

EDUCATION

- August 2015 – December 2018 **Master of Science in Biology; GPA: 3.71**
San Diego State University
Advisor: Dr. Matthew Edwards
Thesis: *Speaking for the Understory: Quantifying the Loss of Benthic Production on Temperate Rocky Reefs*
- September 2008 – June 2012 **Bachelor of Science in Marine Biology; GPA: 3.4 (Major GPA: 3.8)**
University of California, Santa Cruz

PEER-REVIEWED PUBLICATIONS

- 2022 **Spector M.**, Clevestine A., Caldow C., Cajandig M., Duncan, L., Peavy-Reeves L., and Freedman R. *Network analysis reveals aggregation behaviour of a historically overfished predator at an offshore island*. <https://doi.org/10.1111/jfb.15181>
- 2021 **Spector M.**, Best B., Raganathan J., Murray T., Caldow C., Brown J., Canonico G., and DeVogelaere A. *Webenizing Condition Reports: communicating data-driven ecosystem indicators in a visually engaging and interactive online platform*. Sanctuary Conservation Series
- 2020 **Spector M.** and M Edwards. *Modeling the impacts of kelp deforestation on benthic primary production*. *Algae* 2020; 35(3): 237-252. <https://doi.org/10.4490/algae.2020.35.8.19>
- 2020 Edwards M., Konar B., Kim J-H., Gabara S., Sullaway G., McHugh T., **Spector M.**, and S Small. *Marine deforestation leads to widespread loss of ecosystem function*. *PLoS ONE* 15(3): e0226173. <https://doi.org/10.1371/journal.pone.0226173>
- In review* Cullings K., Stott, M., Bhardwaj, S., and **M. Spector**. *Phylum-level Variation in the Microbiomes of the Basidiomycete Fungi Scleroderma citrinum (Pers.) and Pisolithus arhizus (Pers.): a tale of two saprotrophs*. *Canadian Journal of Microbiology*

MANUSCRIPTS IN PREPARATION

- McHugh T., **Spector M.**, and Edwards M. *Ecophysiological differences among understory algae; a model for benthic productivity*.

SCIENCE COMMUNICATION AND TECHINCAL REPORTS

- February 2020 [*A safe haven in a changing world: Can Channel Islands National Marine Sanctuary Serve as a Local Refuge Against Ocean Acidification?*](#)
Office of National Marine Sanctuaries Webstory
- September 2019 [*Dis-Aleutianed: Where the Wild Winds Blow.*](#)
TheXylom.com
- May 2019 [*We're gonna need a bigger boat: Gentle giants return to Channel Islands National Marine Sanctuary.*](#)
Office of National Marine Sanctuaries Webstory

Experience

- January 2022 –
present
- Marine Scientist** – Full Time Equivalent (80hrs/biweekly)
NOAA Olympic Coast National Marine Sanctuary
- Facilitate and support moorings operations within Olympic Islands NMS
 - Facilitate and support other sanctuary research initiatives
 - Support sanctuary planning and logistics
 - Technical report writing
 - Data collection, curation, visualization, and database management
 - Creation and curation of Web-enabled Condition Reports
- March 2020 –
November 2021
- Research Operations Specialist** – Contractor (40hrs/week)
NOAA Channel Islands National Marine Sanctuary
Cardinal Point Captains Inc.
- Facilitate and support research operations within Channel Islands NMS
 - Technical report writing
 - Contribute to the publication of scientific papers
 - Data collection, curation, and database management
 - Creation and curation of Web-enabled Condition Reports
- March 2019 –
March 2020
- California Sea Grant State Fellow** (40hrs/week)
NOAA Channel Islands National Marine Sanctuary
California Sea Grant
- Supported Sanctuary outreach and education
 - Supported and facilitate the Sanctuary Advisory Council
 - Preliminary drafting of sanctuary management plans
- January 2018 –
June 2018
- Research Assistant** (20hrs/week)
San Diego State University
- Contributed to the analysis of data collected from an NSF supported grant
 - Contributed to the publication of an NSF-supported study
- August 2015 –
December 2018
- Teaching Assistant** (20hrs/week)
San Diego State University
- Provided instruction to undergraduate science majors
 - Wrote, administered, and graded exams and coursework
- May 2015 –
August 2015
- National Park Service Intern** (40hrs/week)
Our World Underwater Scholarship Society®
- Participated on research projects across the National Park Service system
 - Served as a liaison between the public and Park Service staff
- September 2015 –
November 2015
- Kelp Forest Restoration Intern** (30hrs/week)
The Bay Foundation
- Supported a NOAA/NMFS-funded kelp restoration project
 - Participated on urchin-culling SCUBA dives
 - Conducted gonadosomatic index dissections
- April 2013 –
April 2014
- NOAA Catch-Share Observer** (40+hrs/week)
Alaskan Observers Inc.
- Identified, counted, and enumerated bycatch at sea on commercial fishing vessels
 - Monitored dockside offload of retained fishes

FELLOWSHIPS AND AWARDS

2019 – 2020	California Sea Grant State Fellowship <ul style="list-style-type: none"> • Post-graduate agency management and policy fellowship
2015 - 2018	San Diego State University graduate fellowships (various, internal) <ul style="list-style-type: none"> • Graduate research support
2016	The Meyers Trust Grant <ul style="list-style-type: none"> • Graduate research support
2016	The Explorers Club Young Explorers Grant <ul style="list-style-type: none"> • Graduate research support
2016	ACE Maritime University (United States Fellow) <ul style="list-style-type: none"> • One of six graduate students selected to represent the United States on an international, interdisciplinary research cruise

PROFESSIONAL PRESENTATIONS

July 2021	Spector M. , McHugh T., Edwards M. <i>Hello darkness: red algal patch dynamics on temperate rocky reefs.</i> Phycological Society of America – Oral presentation
November 2020	Spector M. , Caldow, C., Clevestine, A., Cajandig, M., Peavey-Reeves, L., Freedman, R. <i>Return of the King: what can acoustic telemetry tell us about the recovery of giant sea bass (Stereolepis gigas).</i> Western Society of Naturalists – Oral presentation
January 2018	Edwards M., Konar B., Gabara S., Spector M. , Sullaway G., Kim J., McHugh T., Small S. <i>Does canopy matter? Characterizing patterns of net community production across the Aleutian Archipelago.</i> Alaska Marine Science Symposium – Poster presentation
November 2018	Spector M. , Edwards M. <i>Speaking for the understory: quantifying the loss of benthic production in kelp forests.</i> Western Society of Naturalists – Oral presentation
November 2017	Spector M. , Edwards M. <i>Characterizing how the loss of canopy forming algae affects patterns of diversity and net community production on temperate rocky reefs.</i> Western Society of Naturalists – Oral presentation
November 2016	Spector M. , Edwards M. <i>Differences in seawater dissolved oxygen on rocky reefs.</i> 2016 Western Society of Naturalists – Contributed poster
May 2016	Spector M. , Saldaña P. <i>2015 National Park Service internship in review.</i> Our World Underwater Scholarship Society® – Oral presentation
November 2015	Spector M. , Conlin D, Seymour B. <i>9 parks in 3 months - 100 days before the arrowhead.</i> Western Society of Naturalists – Poster presentation
June 2012	Spector M. , Hoban M. <i>Sand scour affects the distribution of subtidal barnacle on rocky reefs at Hopkins Marine Station.</i> UC Santa Cruz Undergraduate Student Symposium Presentation – Poster presentation
June 2011	Spector M. , Peebles T. <i>Chemosensory perception in common cuttlefish (Sepia officinalis) in a Mediterranean seagrass meadow.</i> UC Santa Cruz Undergraduate Student Symposium Presentation – Poster presentation

MEMBERSHIPS AND ASSOCIATIONS

April 2017 – December 2018	Project <i>Pegasus</i> <ul style="list-style-type: none">• Founder, project lead• Lead a team of high school interns in the construction of a remotely operated vehicle (ROV)• Served as a mentor, guided professional development
August 2015 – December 2018	Marine Ecology and Biology Student Association (MEBSA) (SDSU) <ul style="list-style-type: none">• Seminar series coordinator (2016 – 2018)• Outreach and education
August 2017 – August 2018	The Natural History Club (SDSU) <ul style="list-style-type: none">• Secretary• Outreach and education
June 2017 – December 2018	Smartfin® Surfrider Foundation, San Diego Chapter <ul style="list-style-type: none">• Outreach and education
May 2015 – <i>Present</i>	The Explorers Club <ul style="list-style-type: none">• Member

RELEVANT SKILLS

- Project management
- Leadership; lead undergraduate volunteers for laboratory and field-based projects
- Mentorship; serves as a mentor to high school interns and undergraduates
- Science communication (formal and informal)
- Review for publication (peer reviewed journals and internal documentation)
- Grant writing and review
- Synthesizing, developing, and delivering outreach and education programs/materials
- Statistical design, data analysis, and visualization
- Proficient with GitHub functionality; Markdown (YAML); R®; SQL; Git; BASH; Primer7®; SYSTAT
 - Website content creation and management. Ex: findinghal.org
 - Github repo: <https://github.com/mspector13/>
- Interfacing with marine stakeholders and resource users
- Basic proficiency in Spanish (non-technical)
- HAZWOPER training and certification
- Subtidal and intertidal species identification and data collection
- Extensive scientific SCUBA experience (~900 dives, NOAA divemaster, AAUS, PADI divemaster)
- Small boat handling (25' LOA)
- ROV Pilot / technician (Sofar Ocean® “Trident” ROV)
- Research experience in the Aleutian Archipelago; the Monterey Bay; the Channel Islands; Santa Catalina Island, Palos Verdes; San Diego; Baja California, Mexico.

PROFESSIONAL REFERENCES

Mr. Michael Murray, Deputy Superintendent
Channel Islands National Marine Sanctuary
805.893.6418 | Michael.murray@noaa.gov

Dr. Matthew Edwards, Professor of Biology
San Diego State University
619.594.7049 | medwards@sdsu.edu

Mr. Chris Caldow, Research Coordinator
Channel Islands National Marine Sanctuary
805.893.6419 | Chris.caldow@noaa.gov