

Rebecca Ann Howard

Ph.D. Student, Oregon State University
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Education

- 2020 – Present **Ph.D. Ocean Ecology and Biogeochemistry**
Oregon State University, College of Earth, Ocean, and Atmospheric Sciences
Thesis Advisor: Dr. Lorenzo Ciannelli (Fisheries Oceanography Lab)
- 2018 – 2020 **M.S. Marine Resource Management**
Oregon State University, College of Earth, Ocean, and Atmospheric Sciences
Thesis Advisor: Dr. Lorenzo Ciannelli (Fisheries Oceanography Lab)
- 2011 – 2015 **B.S. Aquatic Biology**
University of California Santa Barbara, College of Letters and Science
Thesis Advisor: Dr. Mark Page (Page/Dugan Lab)

Experience

- 2018 – 2020 **M.S. Graduate Student Researcher**
Oregon State University, College of Earth, Ocean, and Atmospheric Sciences
Used statistical models to investigate the effects of oceanography and climate on groundfish long-term distribution and abundance in the northern California Current. Studied the overlap of fishery-independent (NMFS survey) and -dependent (logbook and landings) data sources on the Oregon continental shelf and their potential utility for assessment of nearshore flatfishes. Two manuscripts are in preparation. Analyses completed using R.
- 2016 – 2017 **AmeriCorps Member**
Watershed Stewards Program, place at the NMFS SWFSC
Collected data for population assessment of endangered Central California Coho salmon and threatened steelhead trout by stream surveys, juvenile trapping, and tagging. Created maps using ArcGIS for conference poster and future publications. Archived historical biological samples. Taught watershed curriculum to 3rd grade students and put on restoration event at a state park.
- 2015– 2017 **North Pacific Groundfish Observer**
Alaskan Observers, Inc., contracted for the NMFS AFSC
Collected biological, safety, and effort data aboard commercial bottom trawlers in the Bering Sea. Biological data included maturity scans, otoliths, and salmon genetic samples. Worked with observers, NMFS scientists, fishermen, and processing plants.

- 2014 – 2015 **Undergraduate Research Assistant**
 Marine Science Institute, University of California Santa Barbara (Page/Dugan Lab)
 Tested the swimming duration of *Watersipora subtorquata* to determine potential to spread as invasive species in the Santa Barbara Channel. Participated in SCUBA settlement plate surveys for presence of recently settled *W. subtorquata*. Conducted SCUBA surveys for eelgrass presence.
- Summer 2014 **Undergraduate Research Assistant**
 Earth Research Institute, University of California Santa Barbara (CEIN)
 Development of settlement plate frames and antifouling paint treatments to test effectiveness of zinc and copper on invertebrate fouling communities.
- 2013 – 2014 **Undergraduate Research Assistant**
 EEMB Dept., University of California Santa Barbara (Dr. Peter Collins' Lab)
 Documented the embryonic development of cabezon (*Scorpaenichthys marmoratus*) using photomicroscopy. Assisted in larval rockfish laboratory hypoxia studies.

Posters

RA Howard, L Ciannelli, WW Wakefield, and MR Fewings. Four decades of change in the Oregon nearshore flatfish fishery through the eyes of science and industry. Poster presented at: Oregon American Fisheries Society March 4, 2020; Bend, OR.

RA Howard, L Ciannelli, WW Wakefield, and MR Fewings. Four decades of change in the Oregon nearshore flatfish fishery through the eyes of science and industry. Poster presented at: State of the Coast; November 10, 2019; Gleneden Beach, OR.

RA Howard, and HM Page. Larval swimming duration of *Watersipora subtorquata*. Poster presented at: Undergraduate Research Colloquium; May 19, 2015; Santa Barbara, CA.

RA Howard and PM Collins. Embryonic development of the cabezon (*Scorpaenichthys marmoratus*). Poster presented at: Undergraduate Research Colloquium; May 20, 2014; Santa Barbara, CA.

Fellowships, Scholarships, and Awards

- 2020 Thesis Completion Award, Oregon State University
- 2018 Provost's Distinguished Graduate Fellowship, Oregon State University
- 2017 Segal AmeriCorps Education Award, Corporation for National and Community Service
- 2015 B.S. Aquatic Biology Distinction in Major, University of California Santa Barbara
- 2014 Bradley Paul Nuremberg Memorial Scholarship, UCSB Diving Operations
- 2014 Co-author: "The effect of hypoxia on the early life history stages of larval rockfish (*Sebastes spp.*) and cabezon (*Scorpaenichthys marmoratus*)." Coastal Fund Grant, UCSB

Selected Related Experience

- July 2019 **Volunteer Survey Biologist**
West Coast Groundfish Bottom Trawl Survey (F/V Last Straw)
NMFS NWFSC Fishery Resource Analysis and Monitoring Division
- July 2019 **Mooring and Instrument Deployment Volunteer**
Partnership for the Interdisciplinary Studies of Coastal Oceans (R/V Elakha)
Department of Integrative Biology, Oregon State University
- May 2017 **Volunteer Survey Biologist**
Rockfish Recruitment and Ecosystem Assessment Survey (NOAAS Reuben Lasker)
NMFS SWFSC Fisheries Ecology Division
- March 2017 **Rockfish Specimen Collection Volunteer**
Cordell Bank National Marine Sanctuary rockfish collection (charter vessel)
NMFS SWFSC Fisheries Ecology Division
- 2012 – 2015 **Aquarist** (2015), **Intern** (2013 – 2015), **Volunteer** (2012 – 2013)
Research Experience and Education Facility (REEF)
Marine Science Institute, University of California Santa Barbara

Mentoring and Outreach

- 2019 – 2020 **Academic Mentoring Program (CEOAS AMP), OSU**
Mentor for four undergraduate students in environmental sciences.
- 2019 – 2020 **National Ocean Sciences Bowls**
Salmon Bowl event volunteer.
- 2014 – 2015 **Graduate Biology Mentorship Association (BIOME), UCSB**
Mentor for undergraduate students in biology.
- 2014 – 2015 **Hollister Ranch Tidepool Conservancy, Gaviota, CA**
Outdoor education for 3rd through 7th grade students.