KRISTEN MARIE GREEN

EDUCATION

PhD Candidate: Stanford University Emmett Interdisciplinary Program in Environment and Resources

My proposed dissertation seeks to understand 1) how climate-related warming in the Northwest Arctic Alaska will affect access to coastal subsistence resources, 2) how managers and indigenous subsistence users can collaborate in developing proactive management solutions that 3) utilize indigenous and Western knowledge.

2010 M.S. Moss Landing Marine Labs. Emphasis: Ichthyology
Thesis: Movements of Black Rockfish in Carmel Bay, California

2003 B.S. University of California, Santa Barbara, High Honors. Emphasis: Aquatic Biology

PROFESSIONAL EXPERIENCE

2010-2016 Groundfish Project Leader, Alaska Department of Fish & Game

Plan, direct and supervise groundfish research and management activities in SE Alaska.

- Manage a team of seven staff with annual budget of $1.5 million
- Write and manage state and federal grants
- Serve as PI on resource assessment cruises
- Analyze data, make harvest decisions, write scientific publications
- Communicate policy decisions to fishing industry, collaborate with fishing community to develop policy alternatives
- Serve on North Pacific Fishery Management Council's Groundfish Plan Team
- Recommend and present policy alternatives to Alaska Board of Fisheries
- Collaborate with university, federal, and international scientists on fisheries issues

2009-2010 Research Technician, National Geographic Ocean Now Expedition

Work with a team of international scientists to evaluate potential marine protected areas in Costa Rica using a manned submersible.

- Manage project data, create GIS maps, plan surveys, analyze video data
- Collaborate with taxonomists worldwide to identify unknown species
- Co-author peer-reviewed publications, communicate results to Costa Rica Park Service

2005-2009 Research Assistant, Moss Landing Marine Labs

Conduct collaborative fisheries research: Duxbury Reef Collaborative Fisheries Tagging Project, and the California Collaborative Fisheries Research Program.

- Collaborate with scientists and fishermen to create MPA monitoring plan
- Train hundreds of volunteer fishermen in research protocols, catch >10,000 fishes
- Communicate scientific and conservation concepts to fishing community
- Manage project data, create GIS maps, conduct statistical analyses, co-author reports

2008-2009 Antarctic Field Biologist, NOAA Antarctic Marine Living Resources

Work with a four-person field team at a remote Antarctic field station to study the demography, reproductive success, and foraging behavior of penguins, raptors, and marine mammals

- Conduct standardized surveys in inclement conditions, field camp and equipment maintenance, resource conservation

2007 Research Assistant, NOAA Antarctic Marine Living Resources

Work with a team of international scientists on a 40-day research cruise in the Antarctic

- Assist with at-sea collection of field data
- Identify and enumerate zooplankton species, and maintain database

2004-2005 West Coast Groundfish Program Fisheries Observer

Work at sea on 30–100' commercial trawl and longline fishing vessels in ports of California, Oregon, and Washington to collect information on fishing effort, catches and discard.

- Measure discard and catch of commercially-caught species
- Identifying hundreds of marine species
- Maintain diplomatic communication with fishermen, conduct vessel inspections

2003 Research Assistant, Palmer Station, Antarctica

Scuba dive to collect krill and assist with krill biology research as part of the Palmer Long Term Ecological Research Network

RESEARCH CRUISE EXPERIENCE

- Co-PI on USGS-ADFG Habitat mapping survey in the Gulf of Alaska (2015)
- Lead PI for three ROV research cruises in the Gulf of Alaska (2012– 2015)
- Lead PI for large scale mark-recapture experiment Alaska (2012– 2015)
- Lead PI for 10 longline surveys (relative abundance of sablefish) Alaska (2011– 2015)
- Submersible research: 2 research cruises (California, Costa Rica) (2007– 2009)
- Research assistant on 40-day NOAA Antarctic Zooplankton Research cruise (2006)
- 100+ day trips for tagging fish (telemetry and T-bar anchor tags) (2005– 2010)
- 150+ days at sea on commercial longline and trawl vessel as fisheries observer (2003– 2004)
- Researcher/blue water SCUBA 30-day U of Texas Phytoplankton research cruise (2002)
- SCUBA Research: 10 years' experience in field research in California, Hawaii, and Antarctica.

PEER REVIEWED PUBLICATIONS

In Review:

Oestreich, WK, Frawley, TH, Mansfield, EJ, **Green, KM**, Green, SJ, Naggea, J, Selgrath, JC, Swanson, SS, Urteaga, J, White, TD, and Crowder, LB. (In review) The impact of environmental change on small-scale fishing communities: Moving beyond adaptive capacity to community response in Cisneros-Montemayor, AM, Cheung, W, and Ota, Y (ed). Predicting future oceans: Sustainability of social-ecological systems under climate change. Elsevier. New York, NY

Ehresmann, R., Beaudreau, A, and **K. Green.** 2018. Movement Patterns of Juvenile Sablefish within a Nursery Area in Southeast Alaska. Transactions of the American Fisheries Society. https://rdcu.be/5XWg

Greenley A., **Green K.**, and R. Starr. 2016. Seasonal and Ontogenetic Movements of Lingcod (Ophiodon Elongatus) in Central California. CalCOFI Report 57: 1
http://calcofi.org/publications/calcofireports/v57/Vol57-Greenley_pages.71-88.pdf

Green K., Greenley A., and R. Starr. 2014. Movements of Blue Rockfish (*Sebastes mystinus*) off Central California with Comparisons to Similar Species. PLoS ONE 9(6): e98976
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0098976

Starr, R.M., **K. Green,** and E. Sala. 2012. Deepwater fish assemblages at Isla del Coco National Park and Las Gemelas Seamount, Costa Rica. Int. J. Trop. Biol. 60(3): 347-362.
http://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S0034-77442012000800023

Starr, R.M., J. Cortes, C. Barnes, **K. Green**, and O. Breedy. 2012. Characterization of deepwater invertebrates at Isla del Coco National Park and Las Gemelas Seamount, Costa Rica. RInt. J. Trop. Biol. 60(3): 303-319 http://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S0034-77442012000800020

Green, K., Starr, R. 2011. Movements of small adult black rockfish: implications for the design of MPAs. Mar Ecol Prog Ser 436:219-230 http://www.int-res.com/abstracts/meps/v436/p219-230/

SELECTED TECHNICAL PUBLICATIONS

Green, K., K. Van Kirk, J. Stahl, M. Jaenicke, S. Meyer. Chapter 14: Assessment of the demersal shelf rockfish stock complex in the Southeast Outside District of the Gulf of Alaska. *in* Stock Assessment and Fishery Evaluation Report for 2015. North Pacific Fishery Management Council, Anchorage, AK
https://www.afsc.noaa.gov/REFM/docs/2014/GOAdsr.pdf

Green, K., M. Byerly, B. Chadwick, H. Fitch, B. Failor, K. Goldman, L. Hulbert, M. Jaenicke, K. McNeel, S. Meyer, J. Rumble, E. Russ, G. Smith, M. Stichert, and C. Worton, 2014. State of Alaska Groundfish Fisheries Associated Investigations in 2013, Prepared for the Fifty-fourth Annual Meeting of the Technical Sub-committee of the Canada-United States Groundfish Committee. April, 2014
www.psmfc.org/tsc2

Green, K., L. Yamanaka, and D. Lowry. 2014, April 8-9. Proceedings of the Visual Survey Workshop. Alaska Fisheries Science Center, Seattle, Washington. Technical Sub Committee of the US-Canada Groundfish Committee, Pacific States Marine Fisheries Commission.
(http://www.psmfc.org/tsc2/TSC_Visual_Survey_Methods_Workshop_2014.html)

Stahl, J., **K. Green,** and M. Vaughn. 2014. Examination of lingcod, Ophiodon elongatus, movements in Southeast Alaska using traditional tagging methods. Alaska Department of Fish and Game, Fishery Data Series No. 14-28, Anchorage http://www.adfg.alaska.gov/FedAidpdfs/FDS14-28.pdf

Green, K., J. Stahl, M. Vaughn, K. Carroll, and A. Baldwin. 2014. Annual management report for the Southeast Alaska and Yakutat groundfish fisheries, 2014. Alaska Department of Fish and Game, Fishery Management Report No. 14– 57, Anchorage http://www.adfg.alaska.gov/FedAidPDFs/FMR14-57.pdf

Green, K., J. Stahl, and M. Kallenberger. 2013. 2013 Demersal shelf rockfish remotely operated vehicle survey. Alaska Department of Fish and Game, Regional Operational Plan ROP.CF.1J.2013.09, Anchorage http://www.sf.adfg.state.ak.us/FedAidpdfs/ROP.CF.1J.2013.09.pdf

Green, K., K. Carroll, M. Vaughn, J. Stahl, M. Kallenberger and D. Holum. 2011. 2012 Report to the Alaska Board of Fisheries, groundfish fisheries: Southeast Alaska and Yakutat. Alaska Department of Fish and Game, Fishery Management Report No. 11–70, Anchorage http://www.adfg.alaska.gov/FedAidpdfs/FMR11-70.pdf

Starr, R.M., and **K. Green**. 2007. Species Composition, Relative Abundance, and Movements of Important Nearshore Fish Species Along the North Central California Coast. Final Report to Pacific States Marine Fisheries Commission https://seagrant.mlml.calstate.edu/wp-content/uploads/2009/04/duxburyreef.pdf

TEACHING

- ***In the Age of the Anthropocene: Coupled Human-Natural Systems of Southeast Alaska: Stanford University EESS 10SC:*** This field-based course introduces students to the global questions of land use change and sustainable resource management in the American West through the place-based exploration of Southeast Alaska. Focused on four key social-ecological challenges -- fisheries, forestry, tourism, and energy -- the coupled human-natural systems of Southeast Alaska provide a unique lens for students to interpret broader resource management and conservation issues. The curriculum balances field explorations and classroom lectures with community exploration in which students will engage with fishermen, hatchery workers, forest managers, loggers, mill owners, tour operators, tourists, city officials, citizens, and Alaska Native residents. Students will leave this course ready to apply what they have learned to the global challenges of sustainability and conservation that pervade systems far beyond Alaska.

- ***The Social Ocean: Ocean Conservation, Management, and Policy Stanford University ENVRES 220:*** This interdisciplinary seminar addresses current coastal and marine topics through a series of readings, discussions, and guest lecturer presentations. Through classic and contemporary scientific literature, news articles, and multimedia sources, students will examine the challenges of coastal and marine policy and management and investigate the human dimensions of potential solutions. The course will begin with global scale topics and conclude with the individual stories of human connection to the ocean. This seminar is open to advanced undergraduate and graduate students.

- ***"Written and Unwritten Law for Subsistence Harvesting in Alaska":*** I co-developed this curriculum to meet State of Alaska teaching standards for middle school and high school students. This lesson communicates Inupiaq hunting and harvesting approaches facilitates discussion between students and experienced hunters/harvesters. I have presented this lesson plan to 100 students in remote villages in Alaska, including 27 middle school and 7 high school students in Kotzebue, Alaska and 39 middle school and 25 high school students in Kivalina, Alaska.

CONFERENCES AND INVITED TALKS

Green, K. February 2019. *Shared Values in Subsistence Harvesting: Applying the Community Voice Method in the Northwest Arctic*. Alaska Anthropology Conference. Nome, Alaska.
***Green, K.** January 2019. *Drivers and Mediating Factors: Access to Subsistence Resources in Arctic Alaska.* Alaska Marine Science Symposium. Anchorage, Alaska*(Received Student Award for Talk)

Green, K. December 2018. *Climate Change and Access to Subsistence Resources in Arctic Alaska.* Emmett Interdisciplinary Program in Environment and Resources lunch talk. Palo Alto, California.

Green, K. November 2018. *Shared Values in Subsistence Harvesting: Applying the Community Voice Method in the Northwest Arctic.* Social Ecology Lab, Palo Alto, California.

Green, K. October 2018. *Subsistence Access and Climate Change in Northwest Arctic National Parks: Voice from Kotzebue.* National Park Service Lecture, Kotzebue, Alaska.

Green, K. April 2018. *Northwest Arctic Alaska: Access Challenges in Subsistence Harvest.* Stanford SE3 Research Review, Palo Alto, California.

Green, K. November 2017. *Shared Indigenous (Inupiaq) Values in Subsistence Harvest.* Stanford Young Environmental Scholars Conference, Palo Alto, California.

Green, K., J. Stahl, and M. Byerly. February 2014. *Estimating Yelloweye Rockfish biomass in the Gulf of Alaska: A tale of two vehicles.* Western Groundfish Conference, Victoria, British Columbia.

Green, K. November 2013. **"***Groundfish Management and Research Overview*.**"** University of Alaska Southeast, Sitka, Alaska

Green, K. October 2012. "Tagging and Tracking Rockfish". University of Alaska. Sitka, Alaska

Green, K. M. Vaughn, and K. Carroll. April 2011. *"An Overview on the Southeast Alaska Groundfish Project's Research, Management, and Collaborative Studies.*" ADF&G Statewide Groundfish Conference. Anchorage, Alaska

Green, K. and J. Stahl. September 2010. *"Assessment of Yelloweye Rockfish using a Submersible and Distance Sampling".* American Fisheries Society. Seattle, Washington

***Green, K**. Movement Patterns of Black Rockfish in Carmel Bay, CA. May 2010. Western Groundfish Conference, Juneau, AK.*(Received Student Award for Talk)

Green, K. Movement Patterns of Black Rockfish from an Acoustic Telemetry Study. May 2008. Monterey Bay National Sanctuary Currents Symposium, Seaside, California

Green, K., R.M. Starr, and R. Thomas. Results from a Three-Year Tag-Recapture Study at Duxbury Reef, California. April 2008. Pt. Reyes National Seashore, Point Reyes, California

Green, K., R.M. Starr, A. Greenley, and R. Thomas. Species Composition, Size-Structure, and Movements of Nearshore Fishes Along the North Central California Coast. February 2008. Western Groundfish Conference, Santa Cruz, California

Green, K., R.M. Starr, A. Greenley, and R. Thomas. Collaborative Fishing Project, Species Composition and Movements of Nearshore Fishes Determined from a Tag-Recapture Study near Bolinas, California. September 2006. California and the World's Oceans Conference, Long Beach, California

Green, K., R.M. Starr, A. Greenley, and R. Thomas. Species Composition and Movements of Nearshore Fishes Determined from a Tag-Recapture Study near Bolinas, California, February 2006. Western Groundfish Conference, Newport, Oregon

MEDIA

- Respect the Land (Kamaksriḷiq Nunam Irrusianik): Iñupiaq Values and Subsistence Management in Western Arctic National Parklands **https://www.youtube.com/watch?v=ofHJa3L2yCE**

  As part of a research project, this 13 minute documentary was co-created with my University colleagues and Alaska Natives in Northwest Alaska using the Community Voice Method to describe how indigenous knowledge can be a foundation for how subsistence resources are managed for generations to come.

RESEARCH GRANTS

- Stanford Collaboration Grant: Land Use Policy in Arctic National Parks 2017-2018 ($10,000)
- National Park Service: Effects of Climate Change on Subsistence Harvest in the NW Arctic 2017-2019 ($69,000)
- USGS-ADFG Southeast Alaska Seafloor Characterization FY 2015–2020 ($194,500)
- NOAA Cooperative Agreement Extended Jurisdiction FY 2010–2014 ($533,350)
- NOAA Cooperative Agreement Extended Jurisdiction FY 2015 –2016 ($256,427)
- USGS Cooperative Agreement GFAC00012 FY 2015–2019 ($194,500)
- NOAA Cooperative Agreement Interjurisdictional Fisheries FY 2008–2012 ($660,881)
- NOAA Cooperative Agreement Interjurisdictional Fisheries FY 2014–2018 ($723,953)
- NOAA Alaska Fisheries Information Network (AKFIN) combined FY 2011–2016 ($2,408,963)
- Packard Grant Moss Landing Marine Labs 2008 ($1,000)
- Dr. Earl H. and Ethel Myers Oceanographic and Marine Biology Trust 2008 ($1,500)

MISCELLANEOUS ACTIVITIES

- 2017 Alaska Marine Conservation Council Science Advisory Committee
- University of Alaska, Fairbanks, External thesis committee member (Master's student conducting sablefish acoustic telemetry work). 2014–2018
- Lead Facilitator-West Coast Interagency Groundfish Visual Survey Workshop April 2014
- Sitka Sound Science Center Board Member 2011–2014

PRACTICAL SKILLS

- Wilderness First Responder (80-hour course), CPR, O2, and First Aid certifications
- Operating small boats
- AAUS Scientific diver (Blue-water, Ice, Dry-suit, Nitrox, Rescue certifications)
- Avalanche Level 1 Certification