

Amanda S. Kahn

Moss Landing Marine Laboratories
8272 Moss Landing Road, Moss Landing, CA 95039
Phone: (831)771-4426; Email: akahn@mlml.calstate.edu

EDUCATION

- Ph.D. Ecology** May 2016
Department of Biological Sciences, University of Alberta, Edmonton, AB, Canada
Dissertation awarded the Governor General's Gold Medal
- M.S. Marine Science** Dec 2010
Moss Landing Marine Laboratories (MLML), California State University, Monterey Bay, Seaside, CA, USA
- B.S. Biological Sciences, B.A. Chemistry** Jun 2007
California State University, East Bay, Hayward, CA, USA
Graduated Magna Cum Laude

PROFESSIONAL APPOINTMENTS

- Assistant Professor (San Jose State University/MLML) 2019 - present
Postdoctoral fellowship (Monterey Bay Aquarium Research Institute) 2018-2019
Postdoctoral fellowship (University of Alberta) 2016-2018

TEACHING EXPERIENCE

- Full Instructor** (at MLML unless stated otherwise)
- Invertebrate Zoology 2019
Marine Biology (University of Alberta) 2017
- Guest Lecturer in University Courses:**
- Marine Biology (University of Alberta) 2012-2015, 2018
Seminar & paper discussion course (Bamfield Marine Sciences Centre) 2014
Survey of the Invertebrates (University of Alberta) 2011
Marine Ecology (MLML) 2009
Invertebrate Zoology (San Jose State University) 2009
- Teaching assistantships:**
- Marine Biology (University of Alberta) 2014-2015
Invertebrate Zoology (University of Alberta) 2011, 2016
Marine Ecology (MLML) 2009
- Undergraduate Mentoring:**
- Mentored eight undergraduate students while part of the Leys lab 2012-2018

PUBLICATIONS

- Kahn, A.S.**, C.W. Pennelly, and S.P. Leys (submitted). Behaviors of sessile benthic animals in the abyssal Northeast Pacific Ocean. Submitted to *Deep Sea Research Part II: Topical Studies in Oceanography* on June 30, 2019.
- Leys, S.P., J.L. Mah, P.R. McGill, L. Hamonic, and **A.S. Kahn** (in press). Sponge behaviour and the chemical basis of responses: a post-genomic view. *Integrative and Comparative Biology*, icz122, doi: 10.1093/icb/icz122.

- Guillas, K.C., **A.S. Kahn**, N. Grant, S.K. Archer, A. Dunham, S.P. Leys (in press). Settlement of juvenile glass sponges and other invertebrate cryptofauna on the Hecate Strait glass sponge reefs. Submitted to *Invertebrate Biology* on February 14, 2019.
- Grant, N., E. Matveev, **A.S. Kahn**, S.K. Archer, A. Dunham, R. Bannister, D. Eerkes-Medrano, and S.P. Leys (2019). Effect of suspended sediments on the pumping rates of three species of glass sponge *in situ*. *Marine Ecology Progress Series*, 615:79-101.
- Leys, S.P., and **A.S. Kahn** (2018). Oxygen and the energetic requirements of the first multicellular animals. *Integrative and Comparative Biology*, icy051. doi: 10.1093/icb/icy051.
- Kahn, A.S.**, and J.B. Geller (2018). Partial mitochondrial genome sequences of two abyssal sponges (Porifera, Hexactinellida): *Bathydorus laniger* and *Docosaccus maculatus*. *Genome Announcements* 6e:00234-18, doi: 10.1128/genomeA.00234-18.
- Grant, N., E. Matveev, **A.S. Kahn**, S.P. Leys (2018). Suspended sediment causes feeding current arrests *in situ* in the glass sponge *Aphrocallistes vastus*. *Marine Environmental Research*, 137:111-120. doi: 10.1016/j.marenvres.2018.02.020.
- Kahn, A. S.**, J.W.F. Chu, and S.P. Leys (2018). Trophic ecology of glass sponge reefs in the Strait of Georgia, British Columbia. *Scientific Reports* 8:756, doi: 10.1038/s41598-017-19107-x.
- Archer, S.K., **A.S. Kahn**, T. Norgard, F. Girard, C. Du Preez, and A. Dunham (2018). Pyrosome consumption by benthic organisms during blooms in the NE Pacific and Gulf of Mexico. *Ecology*, 99(4):981-984, doi: 10.1002/ecy.2097.
- Leys, S.P., **A.S. Kahn**, J.K.H. Fang, T. Kutti, and R. Bannister (2017). Phagocytosis of microbial symbionts balances the carbon and nitrogen budget for the deep-water boreal sponge *Geodia barretti*. *Limnology and Oceanography*, doi:10.1002/lno.10623.
- Kahn, A.S.**, and S.P. Leys (2017). Spicule and flagellated chamber formation in a growth zone of *Aphrocallistes vastus* (Porifera; Hexactinellida). *Invertebrate Biology*, 136(1): 22-30.
- Kahn, A.S.**, and S.P. Leys (2016). The role of cell replacement in benthic-pelagic coupling by suspension feeders. *Royal Society Open Science* 3(11), 160484, doi: 10.1098/rsos.160484.
- Kahn, A.S.**, L. Vehring, R.R. Brown, and S.P. Leys (2016). Dynamic change, recruitment, and resilience in reef-forming glass sponges. *Journal of the Marine Biological Association of the United Kingdom*, 96(2):429-436.
- Kahn, A.S.**, G. Yahel, V. Tunnicliffe, and S.P. Leys (2015). Benthic grazing by deep-water glass sponge reefs. *Limnology and Oceanography*, 60(1):78-88.

Kahn, A.S., J.B. Geller, H.M. Reiswig, and K. L. Smith, Jr. (2013). *Bathydorus laniger* and *Docosaccus maculatus* (Lyssacinosa; Hexactinellida): Two new species of glass sponges from the abyssal eastern North Pacific Ocean. *Zootaxa*, 3646:386-400.

Kahn, A.S., H.A. Ruhl, and K.L. Smith, Jr. (2012). Temporal changes in plate sponge populations in the abyssal northeast Pacific. *Deep-Sea Research Part I*, 70:36-41.

Kahn, A.S., G.I. Matsumoto, Y.M. Hirano, and A.G. Collins (2010). *Haliclystus californiensis*, a “new” species of stauromedusa (Cnidaria: Staurozoa) from the northeast Pacific, with a key to the species of *Haliclystus*. *Zootaxa*, 2518:49-59.

Patty, C., B. Barnett, B. Mooney, **A. Kahn,** S. Levy, Y. Liu, P. Pianetta, and J. Andrews (2009). Using X-ray microscopy and Hg L₃ XANES to study Hg binding in the rhizosphere of *Spartina* cordgrass. *Environmental Science and Technology*, 43(19):7397-7402.

GRANTS

2019-2021 California Sea Grant (R/MPA-48). Monitoring and evaluation of mid-depth rocky reef ecosystems in the MLPA marine protected area (~\$606,000 to MLML [\$2.4 M total]). Lead PI is Richard Starr (MLML/San Jose State University); Co-PIs Jennifer Caselle (UC Santa Barbara), Andrew Laueremann (Marine Applied Research and Exploration), James Lindholm (CSU Monterey Bay), and Brian Tissot (Humboldt State University).

PRESENTATIONS

Conference Presentations (* indicates presentations that won awards)

2019

Society for Integrative and Comparative Biology (SICB), Tampa, Florida (1 invited symposium talk, 1 poster)

2018

Canadian Meteorological and Oceanographic Society, Halifax, Nova Scotia (poster)
Association for the Sciences of Limnology and Oceanography summer meeting, Victoria, British Columbia (poster)

Ocean Sciences Meeting, Portland, Oregon (oral presentation)

SICB, San Francisco, California (2 talks)

2017

Institute of Geophysical Research Symposium, Edmonton, Alberta (talk)

World Sponge Conference, Galway, Ireland (speed talk, 2 posters)

SICB, New Orleans, Louisiana (poster)

R.E. Peter Biology Conference, Edmonton, Alberta (talk*)

2016

SICB, Portland, Oregon (talk, poster)

2015

Canadian Society of Zoologists, Calgary, Alberta (talk)

SICB, West Palm Beach, Florida (talk*, poster)

2014

Ocean Sciences Meeting, Honolulu, Hawaii (poster)

2013

World Sponge Conference, Fremantle, Australia (talk*, poster)

Northwest Developmental Biology Meeting, Friday Harbor, Washington (talk)

SICB, San Francisco, California (talk)

2012

Graduate Residence Research Conference, Edmonton, Alberta (poster*)

Northwest Developmental Biology Meeting, Friday Harbor, Washington (poster)

2010

World Sponge Conference, Girona, Spain (talk)

Deep-Sea Biology Symposium, Reykjavik, Iceland (poster)

Monterey Bay National Marine Sanctuary Currents Symposium (poster)

2008

Monterey Bay National Marine Sanctuary Currents Symposium (poster*)

Ocean Sciences Meeting, Orlando, Florida (talk)

2007

Society of Wetland Scientists annual meeting, Sacramento, California (talk)

2006

American Chemical Society National Conference, San Francisco, California (poster)

Other Presentations

Kahn, A.S. (2019). Energy flow in ecosystems from a suspension feeder's perspective. Invited departmental seminar at California State University, Monterey Bay. (May 6, 2019).

Kahn, A.S. (2019). Sustainability and the Deep Ocean. Invited TED-style lecture at GreenTalks'19, San Jose State University, San Jose, California. (April 29, 2019).

Kahn, A.S. (2019). Life, turmoil, and abundance in Monterey Bay: how we study it and what sponges have to do with it. Distinguished Lecturer oral presentation at the International Reliability Physics Symposium in Monterey, California.

Leys, S.P. and A.S. Kahn (2018). Invited team seminar at Bamfield Marine Sciences Centre.

Kahn, A.S. (2018). Sessile animals and the cost of living on the deep seafloor. Invited presentation to the Board of Directors of the Monterey Bay Aquarium Research Institute.

Kahn, A.S. (2014). Invited seminar at Bamfield Marine Sciences Centre.

Kahn, A.S. (2013). Ecosystem services provided by glass sponge reefs. Invited presentation at a workshop led by the BC chapter of the Canadian Parks and Wilderness Society (CPAWS-BC).

Kahn, A.S. (2009). Expanding the toolset for studying the ecology of deep-sea sponges. Invited seminar at California State University, East Bay.

AWARDS & HONORS

Faculty of Science Students' Choice Honor Roll, University of Alberta	2018
Governor General's Gold Medal for PhD dissertation, University of Alberta	2016
Graduate Student Teaching Award, FGSR, University of Alberta	2016
R.E. Peter Biology Conference "Best Student Oral Presentation", 2 nd place	2016
American Microscopical Society Best Student Contributed Presentation	2015
Adrian M. Wenner Strong Inference Award, SICB annual meeting	2015
SICB annual meeting, Runner-up, DIZ "Best Student Talk"	2015

Bank of Montreal Graduate Student Scholarship	2014
World Sponge Conference “Best student talk” award	2013
Department of Biological Sciences Travel Award	2013
Graduate Students Association Professional Development Award	2013
Bamfield Marine Sciences Centre Scholarship	2012
Donald M. Ross Graduate Student Scholarship	2011
President’s Doctoral Prize of Distinction, University of Alberta	2011
Vanier Canada Graduate Scholarship	2011 – 2014
Provost Doctoral Entrance Award, University of Alberta	2010
FS Chia Doctoral Scholarship, University of Alberta	2010
David and Lucille Packard Research and Travel Grant	2009
Dr. James Nybakken Scholarship, MLML	2008
Marine Technology Society Graduate Student Scholarship	2008
Monterey Bay National Marine Sanctuary Currents Symposium “Best Graduate Poster”	2008
CSU East Bay Presidential Scholarship	2003-2007
Dean’s List all four years throughout college	2003-2007
National Association of Intercollegiate Athletics All-American Scholar-Athlete in Women’s Cross-Country	2006
Recognized for over 500 volunteer hours at the Don Edwards San Francisco Bay National Wildlife Refuge	2003

RELEVANT SKILLS

- AAUS Scientific Diver (NAUI Master Scuba Diver, PADI Rescue Diver):
 - 147 dives logged: from Central California, Lake Tahoe, British Columbia.
 - 120 of those dives were logged as research dives
- Ship time: 84 days at sea.
 - Cruises took place in Monterey Bay, Point Conception, Norwegian fjords, the Strait of Georgia and Hecate Strait, British Columbia, and the Weddell Sea.

COMMUNITY INVOLVEMENT

Service

- Journal article reviewer for: Canadian Field Naturalist, Deep-Sea Research I, Deep-Sea Research II, Journal of Coastal Development, Journal of the Marine Biological Association of the United Kingdom, Limnology and Oceanography, Marine Ecology Progress Series, PLoS One, Progress in Oceanography, Scientific Reports, Sea Research, Systematics and Biodiversity.
- Co-organizer of the special session “Food Web Interactions and Trophic Linkages” at the Association for the Sciences of Limnology and Oceanography (ASLO) meeting, 2018.
- Student/Postdoc Representative for the Evolutionary and Developmental Biology division in the Society for Integrative and Comparative Biology (SICB). September 2014 – January 2017.
- Elections co-officer, Postdoctoral Fellows Association, University of Alberta. November 2016 – January 2017.
- Vice President, External and Steering Committee for Canadian Ocean Awareness Student Network (COAStNet), a network of ocean sciences students in Canada, June 2013 – 2016.

- Treasurer for the Moss Landing Marine Laboratories student body government in 2008.
- Member on the Institutional Animal Care and Use Committee (IACUC) three years at CSU East Bay.
- Vice-President and president of Hayward Environmental Awareness Team (HEAT) environmental club at CSU East Bay.

Outreach

- Science mentor for the Monterey Bay Aquarium’s Watsonville Area Teens Conserving Habitats (WATCH) program August 2018 – May 2019.
- Invited speaker to speak about topics outside of my research:
 - University of Guelph science communication course, January 23, 2019.
 - Career panel at MLML, December 6, 2018.
 - Monterey Peninsula College Women in STEM club, November 15, 2018.
- Workshop organizer: “Fantastic Deep-Sea Beasts and Where to Find Them” at the Expanding Your Horizons STEM conference for middle-school aged girls interested in STEM careers. November 17, 2018.
- Public seminars given at the Monterey Bay Aquarium Research Institute’s Open House 2018. “The Secret Lives of Sponges: Not Just For Your Dirty Dishes!”
- “Ask a Marine Biologist” Organizer. Initiated contact with TELUS World of Science Edmonton, then organized, coordinated, led, and participated in outreach and public education in organized activities, beginning June 2013. Contact person: Vince Avery.
- Co-Founder and Administrator of “The Madrepomite”, a student-run blog for students from BMSC (<http://bmscblog.wordpress.com/>), June 2012 – May 2016.
- Volunteer with WISEST Choices conference. Encouraging 6th grade girls to pursue interests in science and technology. February 21-22, 2012.
- Wrote daily science outreach entries from an Antarctic cruise (<http://www.mbari.org/expeditions/Antarctic09/>).