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EDUCATION

Grinnell College, Grinnell Iowa	Biology	BA- 2006
University of Southern California	Marine Environmental Biology	Ph. D- 2014

PUBLICATIONS

- Cram, J.A., T.S. Weber, S.W. Leung, A. McDonnell, J-H. Liang, C. Deutsch. 2018. The role of particle size, ballast, temperature and oxygen in the sinking flux to the deep sea. *Global Biogeochemical Cycles*.
- Cram, J.A., K.W. Hager, J.G. Kublin. 2018. Utilizing gnotobiotic models to inform the role of the microbiome in vaccine response heterogeneity. *Current Opinion in HIV AIDS*.
- Weber, T.S., J.A. Cram, S.W. Leung, T. Devries, C. Deutsch. 2016. Deep ocean nutrients imply large latitudinal variation in particle transfer efficiency. *PNAS*.
- Cram, J.A., A.E. Parada, J.A. Fuhrman. 2016. Dilution reveals how viral lysis and grazing shape microbial communities. *Limnology and Oceanography*.
- Cram, J.A. 2015. New insights into relationships between active and dormant organisms, phylogenetic diversity and ecosystem productivity. *News and Views: Molecular Ecology*
- Fuhrman, J.A., J.A. Cram, D.M. Needham. 2015. Marine microbial community dynamics and their ecological interpretation. *Nature Reviews Microbiology*.
- Cram, J.A. L. C. Xia, D.M. Needham, R. Sachdeva, F. Sun J.A. Fuhrman. 2015. Cross depth analysis of marine bacterial networks suggests downward propagation of temporal changes. *ISME*.
- Cram, J.A., C. T. Chow, R. Sachdeva, D.M. Needham, A. E. Parada, J.A. Steele, J.A. Fuhrman. 2015. Seasonal and interannual variability of the marine bacterioplankton community throughout the water column over ten years. *ISME*.
- Cram, J.A., F. Sun, J. Fuhrman. 2014. Marine bacterial, archaeal and protistan association networks. *Encyclopedia of Metagenomics*.
- Needham, D.M, C-E Chow, J.A. Cram, R. Sachdeva, A.E. Parada, J.A. Fuhrman. 2013 Short-term observations of marine bacterial and viral communities: patterns, connections and resilience. *ISME*.
- Chow, C, R. Sachdeva, J.A. Cram, J.A. Steele, D.M. Needham, A. Patel, A.E. Parada, J.A. Fuhrman. 2013. Temporal variability and coherence of euphotic zone bacterial communities over two decades in the Southern California Bight. *ISME*.
- Xia, L.C., D. Ai, J. Cram, J.A. Fuhrman, F. Sun. 2013. Efficient statistical significance approximation for local association analysis of high-throughput time series data. *Bioinformatics*.
- Xia, L.C, J.A. Steele, J. Cram, Z.G. Cardon, S.L. Simmons, J.J Vallino, J.A. Fuhrman, F. Sun. 2011. Extended local similarity analysis (eLSA) of microbial community and other time series data with replicates. *BMC Systems Biology*.
- Xia, L.C. J.A. Cram, T. Chen, J.A. Fuhrman, F. Sun. 2011. Accurate genome relative abundance estimation based on shotgun metagenomic reads. *PLOS One*.

PRESENTATIONS AND REPORTS

- Cram, J.A., T.S. Weber S.W. Leung, C. Deutsch. 2016. Particle size, composition and ocean temperature govern the global distribution of particle transfer efficiency to the mesopelagic. Association for the Sciences of Limnology and Oceanography's Ocean Sciences Meeting. New Orleans, LA.
- Cram, J.A. June 2014. Seasonal and interannual dynamics of microbial heterotrophic productivity and community structure throughout the water column. Marine Microbes Gordon Research Conference. Waltham, MA.
- Cram, J.A. February 2014. Dilution reveals how viral lysis and grazing shape microbial communities. Talk. Association for the Sciences of Limnology and Oceanography's Ocean Sciences Meeting. Honolulu, HI.
- Cram, JA. June 2013. Inter-depth associations between marine bacterial communities in a ten year time series. Poster. American Society for Microbiology General Meeting. Denver CO
- Cram, JA. November 2012. Seasonal and long term changes in San Pedro channel bacterioplankton communities. Student Seminar Series at University of Southern California.

- Cram, JA. April 2012. Bacterial community variability across ten years and five depths at the San Pedro Ocean Time Series (SPOTS). Student Seminar Series at University of Southern California.
- Cram, JA., R. Sachdeva, C. Chow, L. Xia, J. Steele, D. Needham, A. Parada, J. Fuhrman. August 2012. Bacterial community variability across ten years and five depths at the San Pedro Ocean Time Series (SPOT). International Society for Microbial Ecology Poster Session. Copenhagen, Denmark.
- Cram, JA. October 2010. Dilution of microbes changes marine bacterial community structure. Student Seminar Series at University of Southern California.
- Cram, JA. October 2010. Influence of decreased viral, bacterial and protistan abundance and community recovery on marine bacterial community structure. Presentation and report to Wrigley Institute for Environmental Studies.
- Cram, JA. August 2010. Microbial associations across the North Pacific Gyre and Amazon River Plume. International Society for Microbial Ecology Poster Session. Seattle, WA.
- Cram, JA. August 2010. Influence of density on marine bacterial community structure. Wrigley Institute for Environmental Studies Fellowship Seminar, University of Southern California.
- Cram, JA. 2010. Variation in bacterial community structure across the Pacific and Atlantic Oceans. Student Seminar Series at University of Southern California.
- Cram, JA. 2009. Effects of a kelp forest on planktonic marine bacterial communities. Presentation and Report: Wrigley Institute for Environmental Studies Fellowship Seminar, University of Southern California.
- Cram, JA. 2005. Natural Selection on two flower-color polymorphisms in *Clarkia xantiana* ssp. *parviflora*. Advanced Undergraduate Biology Seminar Series, Grinnell College.
- Hauser, J., M. Thabiso-Edkins, JA. Cram. 2004. Rocky slopes and size protect baobab trees from elephant impacts. Presentation and Report to Kruger National Park, South Africa.
- Cram, JA. 2005. Natural Selection on two flower-color polymorphisms in *Clarkia xantiana* ssp. *parviflora*. Summer Research Poster Session and Report, Grinnell College.

PROFESSIONAL AND TEACHING EXPERIENCE

- Assistant Professor, Horn Point Laboratory, University of Maryland Center for Environmental Science, August 2018 - Present
- Post-doctoral Fellow, Kublin Lab, Fred Hutchinson Cancer Research Institute, 2017-2018
- Post-doctoral Researcher, Deutsch Group, University of Washington, 2014-2017.
- Graduate Student Researcher, Fuhrman Lab, University of Southern California, 2008-2014
- Teaching Assistant, Strategies and Techniques for Analyzing Microbial Population Structure, Marine Biological Laboratory, Woods Hole, Summer 2011
- Teaching Assistant, Methods in Marine Biology and Biological Oceanography. Catalina Semester Course, University of Southern California. Spring 2011
- Teaching Assistant, Molecular Biology. University of Southern California. Spring 2009
- Research Associate, KineMed Inc., Emeryville CA 2006-2008
- Research Assistant, Kruger National Park/Organization for Tropical Studies, Summer 2005
- Assistant Field Station Manager, Conard Environmental Research Area/Grinnell College, 2005
- Mentored Advanced Project Intern, Grinnell College, Summer 2004
- Forestry Aid, United States Forest Service, White River National Forest. Summer 2003

FELLOWSHIPS/AWARDS

- Katrina Edwards Memorial Dissertation Award. University of Southern California. 2016.
- Idelle Maddox Graduate Fellow, University of Southern California, 2008-Present
- Outstanding Student Poster Award, American Society of Microbiology, June 2013
- Travel Award, American Society of Microbiology, June 2013
- Del Amo Fellow, USC Del Amo Foundation. University of Southern California and Institut de Ciencies del Mar, Barcelona Spain. Summer 2011
- Wrigley Summer Fellow, Wrigley Institute for Environmental Studies Summers 2009-2011
- Sea Grant Trainee, USC Sea Grant Program, 2010-2011
- Honorable Mention, National Science Foundation Graduate Research Fellowship Program, 2010
- Travel Award, International Society for Microbial Ecology, Seattle WA. 2009

OUTSIDE TRAINING

- Metagenomic Approaches: Frontiers of Annotation and Assembly, Networking and Discovery, American Society of Microbiology General Meeting Workshop, Denver CO, June 2013
- Strategies and Techniques for Analyzing Microbial Population Structures, Marine Biological Laboratory, Woods Hole MA
- Microbial Genomics and Metagenomics Workshop, Joint Genome Institute, Walnut Creek CA., February 2009

SYNERGISTIC ACTIVITIES

National Ocean Science Bowl, Moderator 2012, 2013, 2014, Science Judge, 2010, 2011

QuikScience Challenge, Judge, Middle School, 2011, 2012, Team Mentor, Huntington Middle School 2010

Community Outreach Volunteer, Wrigley Institute for Environmental Studies, 2009-2011

Edison Challenge, Judge, 2010

STUDENTS MENTORED

Anna Bakker, Undergraduate Student, Spring 2017

Ian Wroobel, Undergraduate Student, Spring 2012 – Spring 2013

Lin Chang, Undergraduate Student, Spatial distribution of microorganisms in the Amazon River Plume. Spring 2012 – Spring 2013

Sean McCalester, Undergraduate Student, Effects of ocean swell on Bacteroides contamination in the California Coast, Fall 2010