

KARINA JOHANNE NIELSEN

EMAIL: KARINA.NIELSEN@SONOMA.EDU
MOBILE: 707.479.0999
VOICEMAIL: 707.664.2962
FAX: 707.664.4046

SONOMA STATE UNIVERSITY
DEPARTMENT OF BIOLOGY
1801 E COTATI AVE
ROHNERT PARK, CA 94928

EDUCATION

Ph.D., Oregon State University 1998. Dissertation: Bottom-up and top-down forces in tidepools: the influence of nutrients, herbivores, and wave exposure on community structure. Advisors: Jane Lubchenco & Bruce Menge

B.S., *Summa Cum Laude*, with honors in Biology, Brooklyn College - City University of New York 1992. Honors Thesis: Patterns of mussel (*Guekensia demissa*) recruitment to a *Spartina alterniflora* salt marsh. Advisor: Dave Franz

Hampshire College 1979 – 1982

PROFESSIONAL EXPERIENCE

2008 – present **Associate Professor**, Department of Biology, Sonoma State University

2003 – 2008 **Assistant Professor**, Department of Biology, Sonoma State University

2007 – present **Senior Research Associate**, Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)

2008 – present **Courtesy Associate Professor**, Department of Zoology, Oregon State University

2003 – 2008 **Courtesy Assistant Professor**, Department of Zoology, Oregon State University

2000 **Instructor**, Hatfield Marine Science Center, Oregon State University

1992 – 1995; 1997 – 1998 **Teaching Assistant**, Departments of Zoology & Biology, Oregon State University

1993 – 1998 **Research Assistant**, Department of Biology, Oregon State University

1992 – 1993 **Research Assistant**, Department of Biology, Brooklyn College, City University of New York

POSTDOCTORAL RESEARCH EXPERIENCE

2000 – 2003 **Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)**
Postdoctoral Research Associate, Department of Zoology, Oregon State University.

1998 – 2000 **National Science Foundation International Postdoctoral Fellowship**, Estación Costera de Investigaciones Marinas (ECIM), Universidad Católica de Chile.

GRANTS AND FELLOWSHIPS

- 2008 – 2011 **National Oceanographic and Atmospheric Administration** \$80,000
 (Subcontract to K.J. Nielsen; total awarded \$2,281,529 through 2010).
 CeNCOOS: Long-term monitoring of environmental conditions in support of protected marine area management in central and northern California. PI: Steven Ramp (Monterey Bay Aquarium Research Institute (MBARI)); Co-PIs: Francisco Chavez (MBARI), Frank Shaughnessy & Greg Crawford (Humboldt State University), Toby Garfield (San Francisco State University), Mitchell Craig (CSU – East Bay), Mark Moline (California Polytechnic State University), Kenneth Coale (Moss Landing Marine Lab), Raphael Kudela (UC- Santa Cruz), John Largier (UC-Davis, Bodega Marine Lab), et al.
- 2007 – 2010 **National Science Foundation** \$678,398 (\$188,511 to SSU); Collaborative Research: Scaling up from community to meta-ecosystem dynamics in the rocky intertidal - a comparative-experimental approach; PIs: Karina Nielsen (Sonoma State University) & Bruce Menge (Oregon State University); Co-PIs: Sally Hacker (Oregon State University) & Francis Chan (Oregon State University)
- 2006 – 2009 **California Sea Grant** \$128,000; Collecting Sea Palms: planning for sustainable use in a variable environment; Co-PI: Carol Blanchette (University of California, Santa Barbara)
- 2006 – 2007 **Center for Integrative Coastal Observation, Research and Education (CICORE)** \$50,000; Sonoma State University intertidal zone water quality monitoring; Co-PI: Dan Crocker (Sonoma State University)
- 2002 – 2003 **National Science Foundation** SGER (Co PI): \$100,000
 A shoaling hypoxic zone on the Oregon coast: genesis and mechanisms; PI: Bruce Menge (Oregon State University) Co-PIs: Karina Nielsen, Francis Chan & Jane Lubchenco (Oregon State University)
- 1998 – 2000 **National Science Foundation** International Postdoctoral Fellowship: \$92,900
 Upwelling patterns and marine plant-herbivore interactions: Linking benthic and pelagic processes.

- 1997 – 1998 **American Association of University Women** Dissertation Fellowship: \$14,500
The relative importance of nutrients, herbivory and wave exposure in structuring tidepool communities.
- 1997 **National Science Foundation** International Planning Grant: \$4,900
Marine macrophytes and grazers: Linking coastal oceanography and rocky intertidal community ecology.
- 1995 – 1996 **University Club Foundation** Graduate Fellowship: \$5,000
- 1995 ***Sigma Xi* Grant-in-Aid of Research**: \$1,000
Bottom up forces in marine microcosms: An experimental manipulation of nutrients in tidepool communities.

HONORS, SCHOLARSHIPS AND AWARDS

- 1999 David and Lucile Packard Foundation, Hopkins Marine Station Scholarship
- 1997 Western Society of Naturalists, Best Paper Award, honorable mention
- 1994 – 1997 OSU - Department of Zoology, Research Fund Awards
- 1993 Phycological Society of America, Croasdale Fellowship
- 1993 University of Washington, Friday Harbor Labs Scholarship
- 1992 ***Sigma Xi***
- 1991 ***Phi Beta Kappa***
- 1991 Merck Summer Research Scholars Fellowship
- 1991 Philip Gisses Memorial Scholarship
- 1990 – 1992 Libby Kohl Banks Scholarship
- 1990 Rose Weinstein Scholarship
- 1990 Saul Lyons Scholarship

PUBLICATIONS (PEER-REVIEWED)

- Kavanaugh, M.T., K. J. Nielsen, B.A. Menge, F.T. Chan, R.M. Letelier, L. M. Goodrich. 2009. Experimental assessment of the effects of shade on an intertidal kelp: do phytoplankton blooms inhibit growth of open coast macroalgae? **Limnology & Oceanography** 54:276-288.
- Nielsen, K. J. Algae, overview. *in* M. Denny and M. S. Gaines, editors. **Encyclopedia of the Rocky Intertidal**. 2007. The University of California Press, Berkeley.
- Barth, J.A., B. A. Menge, J. Lubchenco, F. Chan, J. M. Bane, A. R. Kirincich, M. A. McManus, K. J. Nielsen, S. D. Pierce & L. Washburn. 2007. Delayed upwelling alters nearshore coastal ocean ecosystems in the northern California Current. **Proceedings of the National Academy of Sciences** 104:3791-3794.
- Nielsen, K.J., C.A. Blanchette, B.A. Menge & J. Lubchenco 2006. Physiological snapshots reflect ecological performance of the sea palm, *Postesia palmaeformis*, (Phaeophyceae) across intertidal elevation and exposure gradients. **Journal of Phycology** 42, 548–559.

Bracken, M. & K.J. Nielsen 2004. Nitrogen loading by invertebrates increases diversity of intertidal seaweeds. **Ecology** 85(10):2828-2836

Grantham*, B.A., F. Chan*, K. J. Nielsen*, D. Fox, J.A. Barth, A. Huyer, J. Lubchenco, and B.A. Menge 2004. Nearshore upwelling-driven hypoxia signals ecosystem and oceanographic changes in the NE Pacific. **Nature** 429:479-754

* These authors contributed equally to this work.

Nielsen, K.J. & S.A. Navarrete 2004. Mesoscale regulation comes from the bottom-up: intertidal interactions between consumers and upwelling. **Ecology Letters** 7(1):31-41.

Nielsen, K.J. 2003. Nutrient loading and consumers: agents of change in open-coast macrophyte assemblages. **Proceedings of the National Academy of Sciences** 100: 7660-7665.

Wieters, E., D. M. Kaplan, A. Sotomayor, S. A. Navarrete, J. Largier, K.J. Nielsen & F. Véliz. 2003. Spatial and temporal variation in chlorophyll-a with respect to local upwelling intensity in central Chile. **Marine Ecology Progress Series** 249:93-105.

Nielsen, K. J. 2001. Bottom-up and top-down forces in tidepools: test of a simple food-chain model in an intertidal community. **Ecological Monographs** 71(2): 187-217.

Nielsen, K. J. & D. R. Franz 1995. The influence of adult conspecifics and shore level on recruitment of the ribbed mussel *Geukensia demissa* (Dillwyn). **Journal of Experimental Marine Biology and Ecology** 188:89-98.

IN PRESS

Menge, B.A., F. Chan, K.J. Nielsen, E.D. Lorenzo & J. Lubchenco. *In Press*. Climatic variation alters supply side ecology: impact of climate patterns on phytoplankton and mussel recruitment. **Ecological Monographs**.

Sanford, E., M.E. Wood, K.J. Nielsen. *In Press*. A non-lethal method for estimation of gonad and pyloric caecum indices in sea stars. **Invertebrate Biology**.

IN REVISION

Thompson, S.A. , K.J. Nielsen & C.A. Blanchette. Balancing conservation with commercial use: an experiment to guide sustainable exploitation of an ecologically vulnerable kelp. (for Marine Ecology Progress Series).

IN PREPARATION

Nielsen, K.J., B.A. Menge, B.A. Grantham & J. Lubchenco. Light attenuation, upwelling, and community structure on rocky shores: can persistent phytoplankton blooms limit macrophytes? (for Limnology and Oceanography)

Chan, F., B.A. Menge, K.J. Nielsen & J. Lubchenco. Nutrient use efficiency in coastal upwelling ecosystems: cross system patterns and consequences. (for Limnology and Oceanography)

Nielsen, K.J., P. Halpin, T. Freidenberg, B. A. Menge, & J. Lubchenco. Comparative ecology of rocky intertidal plant-herbivore interactions in temperate ecosystems of the Pacific Ocean. (for Ecology)

PUBLICATIONS (OTHER)

May 1, 2008, Op-Ed, Nielsen, K.J., Don't let sea palms go the way of salmon, **The Mendocino Beacon**, Mendocino, CA

Nutrients Supply Affects Seaweed Diversity. 2005. PISCO Coastal Connections 4:12-13. An annual publication of the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO). <http://www.piscoweb.org/outreach/pubs/PCC4.html>

Sunlight Shapes Shoreline Ecology. 2005. PISCO Coastal Connections 4:12-13. An annual publication of the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO). <http://www.piscoweb.org/outreach/pubs/PCC4.html>

April 29, 2004, Op-Ed, Nielsen, K.J., Don't miss chance to save our oceans, **The Press Democrat**, Santa Rosa, CA

December 15, 2008, Op-Ed, Nielsen, K.J., A bailout plan for ocean ecosystems, **The Ukiah Daily Journal**, Ukiah, CA

MEDIA COVERAGE OF RESEARCH ACTIVITIES

June 17, 2009. Radio interview by Christina Aanistad, **Mendocino Public Radio (KZYX &Z)**, Evening Local News, segment on conflict between north coast seaweed harvesters and the Marine Life Protection Act.

October 7, 2005. Could you please pass the Sea Palm? West coast seaweed popular gourmet snack; harvesting regulations limited, by Bob Norberg, **Santa Rosa Press Democrat**.

March 2003, interview appearance on, **Oregon Public Broadcasting: Oregon Field Guide**, segment on Oregon's marine hypoxic zone.

August 7, 2002. Dead marine life signals a sea change, by Jonathon Brinkman, **The Oregonian**.

August 1, 2002. Researchers puzzle over seawater, by Susan Palmer, **The Register-Guard**.

July 31, 2002,. Dead Zone' May Explain Crab Die-Off, by Alison Frost, **Oregon Public Broadcasting (Oregon Considered)**.

July 31, 2002. Dead sea life afflicts coastal zone, by Jonathon Brinkman, **The Oregonian**.

July 31, 2002. Researchers find cause of coastal crab and fish die off, by Joel Gallob, **The Newport News-Times**.

TEACHING EXPERIENCE

UNDERGRADUATE COURSES

Sonoma State University, Department of Biology, Rohnert Park, CA

- **Marine Ecology** (Spring 2004 – 2008)
- **Invertebrate Biology** (Fall semesters 2003 – 2008)
- **Diversity, Structure & Function** (Fall 2003 – 2008; co-taught with Dr. Nathan Rank, Sonoma State University, Department of Biology)
- **Biological Oceanography** (Spring 2005, 2006)
- **Ocean Science Literacy for School & Society** (Spring 2006, 2007; co-taught with Dr. Paula Lane, Sonoma State University, School of Education)
- **Special Studies & Senior Research**; Supervised research experiences for biology majors (Spring 2004 – present; 2-7 students every semester)

Hatfield Marine Science Center & Biology Program, Oregon State University, Newport, OR.

- **Marine Ecology** (Spring 2000)

GRADUATE COURSES

Sonoma State University, Department of Biology, Rohnert Park, CA

- **Applied Data Analysis using SAS** (Spring 2009); Graduate Seminar
- **Professional Skills** (Fall 2008); Graduate Seminar
- **Philosophy of Science** (Fall 2006); Graduate Seminar
- **Sound Science and Sound Bites: Ecology in the News** (Fall 2004); Graduate Seminar

GRADUATE STUDENT ADVISEES

Meg Eastwood (**NSF Research Assistantship**); MS pending Spring 2011 (Biology, Sonoma State University); TBD

Heather Knoll (**CA Sea Grant Trainee**); MS pending Spring 2009 (Biology, Sonoma State University); *Postelsia* in the face of human exploitation: mechanisms of population persistence

Marian Parker; MS pending Spring 2009 (Biology, Sonoma State University); Reproductive output of *Balanus glandula* and *Chthamalus dalli*: can oceanography trump the effects of competitive exclusion?

Megan Wood (**EPA STAR Fellow**); MS Fall 2008 (Biology, Sonoma State University); Reproductive output of a keystone predator and its preferred prey: the differential influence of oceanographic regime and local habitat

Sarah Ann Thompson (**CA Sea Grant Trainee**); MS Fall 2007 (Biology, Sonoma State University); Balancing conservation with commercial use: an experiment to guide sustainable exploitation of an ecologically vulnerable kelp

GRADUATE STUDENT COMMITTEES

Betsy Kelso; MS pending Spring 2010 (Biology, Sonoma State University); Sex differences in fuel use and metabolism during development in fasting northern elephant seals (MS Committee member; Advisor: Dan Crocker)

Michele Early; MS pending Fall 2009 (Biology, Sonoma State University); Evaluating the influence of biotic and abiotic factors on valley oak distributions in the Santa Rosa Plain, California (MS Committee member; Advisor: Caroline Christian)

Meghan Skaer; MS pending Fall 2009; (Biology, Sonoma State University); Evaluating the influence of cattle grazing on a coastal prairie in central California (MS Committee member; Advisor: Hall Cushman)

Catherine Hare; MS pending Spring 2009 (Biology, Sonoma State University); Algal culturing using wastewater and potential for production of biodiesel. (MS Committee member; Advisor: Michael Cohen)

Dawn Graydon; MS pending Spring 2009 (Biology, Sonoma State University); Ecology and management of an endangered butterfly: the importance of host plant characteristics, exotic plants and interactions with ants (MS Committee member; Advisor: Hall Cushman)

Lovissa Sonnerstedt; MS Fall 2008 (Biology, Sonoma State University); Physiological ecology of Elephant Seals (MS Committee member; Advisor: Dan Crocker).

Emi Yamamoto; MS Spring 2008 (Biology, Sonoma State University); Characterization of Mycophagous Amoebae Strain ANN04-395 and its Potential for Biocontrol of *Phytophthora ramorum* (MS Committee member; Advisor: Michael Cohen)

Michelle Cooper; MS Summer 2006 (Biology, Sonoma State University); The effects of recreation on the dispersal of an exotic forest pathogen (MS Committee member; Advisor: Hall Cushman).

Joan Schwann; MS Spring 2006 (Biology, Sonoma State University); Influence of goat grazing on invasive species in vernal pools (MS Committee member; Advisor: Hall Cushman).

Rich Hunter; MS Spring 2006 (Biology, Sonoma State University); Development and evaluation of a model incorporating spatial and temporal variability in a plant-pathogen invasion: Spread of *Phytophthora ramorum* in California landscapes (MS Committee member; Advisor: Ross Meentemeyer, Geography).

Kristina Stanton; MS Spring 2006 (Institute of Interdisciplinary Studies, Sonoma State University); Ecology education: a case study of a fourth grade tide pool and

conservation experience (MS Committee member; Advisor: Paula Lane, School of Education).

Maria Kavanaugh; MS Fall 2005 (Zoology, Oregon State University); Phytoplankton shading of Benthic Macrophytes: Implications for Community Structure (MS Committee member; Advisor: Bruce Menge).

Melissa Fowley; PhD pending Spring 2009 (Ecology & Evolutionary Biology, University of California, Santa Cruz) Effect of terrestrial inputs on marine communities (Qualifying Exam Committee Member; Advisor: Pete Raimondi).

TEACHING ASSISTANT EXPERIENCE

Hatfield Marine Science Center & Biology Program, Oregon State University, Newport, OR.

- **Marine Ecology** (1994, 1997, 1998; *Bruce Menge*, instructor)
- **Invertebrate Zoology** (1994, 1997; *Sylvia Yamada*, instructor)
- **Marine Phycology** (Full responsibility for lab exercises; 1995, *Carol Blanchette*, instructor; 1997, *Kathy Van Alstyne*, instructor)

Biology Program and Department of Zoology, Oregon State University, Corvallis, OR

- **General Biology** (1992-1993)
- **Human Anatomy and Physiology** (1993-1994)

OTHER TEACHING EXPERIENCE

Supervisor, undergraduate research assistants, Department of Zoology, Oregon State University, Corvallis, OR (September 1993- June 1998)

Biology Tutor, Peer Tutoring Program, Brooklyn College - City University of New York (September 1990 - June 1992)

Exhibitor and Software Demonstrator, PC-ORD: Multivariate Analysis of Ecological Data (Ver. 2.0), MjM Software, Ecological Society of America, August 1995, Snowbird, Utah.

Assistant to the Director of Public Programs and Nature Walk Guide, The Brooklyn Center for the Urban Environment, Prospect Park, Brooklyn, NY (March 1987- June 1992).

INVITED PRESENTATIONS

SCIENTIFIC MEETINGS

Nielsen, K.J. 2008. Low Recruitment Success From A Large, Competent Larval Pool: Is Negative Selection Or Habitat Choice To Blame? **Western Society of Naturalists, Presidential Symposium: Women in Marine Biology: Personal Perspectives from the Field** (Kathy-Ann Miller, organizer), Vancouver, British Columbia, Canada, 6-9 November 2008.

- Nielsen, K.J. 2007. Intercepting light: the key to understanding interactions among, and the contributions of, benthic and pelagic photosynthesizers in highly productive, nearshore ecosystems. **PISCO Scientific Symposium**, Corvallis, OR 10-13 December 2007.
- Nielsen, K.J. 2006. Macroalgae reveal the underappreciated role of resources in structuring benthic marine communities **Phycological Society of America**, mini-symposium: **The Experimental Ecology - Macroalgae Connection** (Robert Paine, organizer), Juneau AK, 7-12 July 2006.
- Nielsen, K.J., P. Halpin, T. Freidenberg, B. A. Menge & J. Lubchenco. 2004. Grazer-alga interactions: Glimpses of generality across temperate rocky shores. **Geographical Ecology: Variation in and Control of Species Interaction Intensity over Regional and Global Scales, Symposium** (Bruce Menge, organizer), **Ecological Society of America Annual Meeting**, Portland, OR August 2004.
- Grantham, B., K.J. Nielsen, & F. Chan 2002. Hypoxia and enrichment of inshore waters at 44.3N. **U.S. GLOBEC NEP-CCS SI Meeting**, Oregon State University, Corvallis, OR. 19-21 November, 2002.
- Nielsen, K.J., P. Halpin, T. Freidenberg & B. A. Menge 2000. Upwelling, macrophytes, and herbivory in Oregon, New Zealand and Chile. **PISCO - Mellon Symposium: Dynamics of Pacific Coastal Upwelling Ecosystems**, Oregon State University, Corvallis, OR, 14-20 December 2000.
- Blanchette, C., T. Freidenburg, K. Nielsen & P. Halpin 2000. Bottom-up effects on macrophyte assemblages in relation to upwelling intensity. **PISCO - Mellon Symposium: Dynamics of Pacific Coastal Upwelling Ecosystems**, Oregon State University, Corvallis, OR, 14-20 December 2000.
- Sotomayor, A., E. Wieters, D. Kaplan, S. Navarrete & K. J. Nielsen 2000. Spatial and temporal variation in chlorophyll-a on the central coast of Chile. **PISCO - Mellon Symposium: Dynamics of Pacific Coastal Upwelling Ecosystems**, Oregon State University, Corvallis, OR, 14-20 December 2000.
- Nielsen, K.J. & K.L. Van Alstyne, 1997. Ecological effects of harmful algal blooms on benthic marine communities. **Red Tides and Harmful Algal Blooms: Evidence of Ecosystem Reorganization Symposium** (Michelle Wood, organizer), **Society for Conservation Biology Annual Meeting**, Victoria, B. C., Canada, June 1997.

UNIVERSITY SEMINARS

- Nielsen, K.J. 2006. Macroalgae reveal the underappreciated role of resources in structuring benthic marine communities. **Romberg-Tiburon Center, San Francisco State University**, October 2006.
- Nielsen, K.J. 2005. Making a life from marine ecology and conservation; or how I got an office with an ocean view. **Santa Rosa Junior College Biology Forum**. May 2005.

- Nielsen, K.J., F. Chan, B. Grantham, J. Barth, A. Huyer, D. Fox, B. Menge & J. Lubchenco
2005. Upwelling-driven Hypoxia and Ecological Perturbation in the California Current.
Bodega Marina Laboratory, University of California, Davis, University of California,
February 2005
- Nielsen, K.J., S.A. Thompson*, M. Parker*, K. Lehmann*, R. Kalmoni* & A. White. 2005. Sea
palms and barnacles: Research on slimy and spineless seashore denizens enlivens student
learning. Faculty Exposition of Scholarship & Sponsored Research, **Sonoma State
University**, Rohnert Park, CA. April 2005.
- Nielsen, K.J. 2004. Nutrients, upwelling and herbivory on temperate rocky shores: Disentangling
bottom-up from top-down in a marine ecosystem. **Humboldt State University** Biology
Seminar Series. October 2004.
- Nielsen, K.J. 2003. Capturing the light fantastic: tidal and oceanographic influences on intertidal
algae.
- **Bodega Marine Laboratory, University of California, Davis**, September 2003
 - **Sonoma State University**, Department of Biology, October 2003.
- Nielsen, K.J. 2002. Environmental context sets the stage: role reversals by invertebrate
consumers in marine ecosystems. **Sonoma State University**, Department of Biology,
December 2002.
- Nielsen, K.J., B. Grantham & F. Chan. 2002. Hypoxia, anoxia and marine 'dead zones': what's
natural and what's not? **Western Oregon University**, Department of Biology,
November 2002.
- Nielsen, K.J. 2002. Seaweeds, sunshine and shades: micro- and meso- scale influences on
intertidal plants. **Oregon Institute of Marine Biology, University of Oregon**,
November 2002.
- Nielsen, K.J. 2001. From tide pools to rocky reefs nutrient supply influences community
structure in upwelling ecosystems.
- **State University of New York, Stony Brook**, December 2001
 - **Brooklyn College, City University of New York**, December 2001
- Nielsen, K.J. 2001. Bottom-up forces shape the abundance and diversity of intertidal macroalgae
in upwelling ecosystems of North and South America. **San Diego State University**,
Department of Biology, March, 2001.
- Nielsen, K.J. 2000. Upwelling, herbivory, and algal productivity: the influence of bottom-up
forces on rocky shores in central Chile. **Departamento de Ecología, Universidad
Católica de Chile**, Santiago, Chile, August 2000 .
- Nielsen, K.J., 1999. Producción Primaria en el Oceano (Primary Production in the Ocean;
delivered in Spanish). *Guest lectures for Marine Ecology course* (Miriam Fernandez,
Instructor), **Departamento de Ecología, Universidad Católica de Chile**, Santiago,
Chile, July 1999.

PUBLIC LECTURES

- Nielsen, K.J. 2007. Shifting Seascapes. **Library Lecture Series: Citizens Of The World: On Common Ground? Schulz Information Center, Sonoma State University**, May 2007.
- Nielsen, K.J. 2002. The mysterious hypoxic zone off Oregon's coast. **15th Annual Coast Conference, Oregon Shores Conservation Coalition and Coast Watch**, Newport, OR, October 2002.
- Nielsen, K.J. 2000. Ecology of intertidal seaweeds. **13th Annual Coast Conference, Oregon Shores Conservation Coalition and Coast Watch, Hatfield Marine Science Center**, Newport, OR, October 2000.
- Nielsen, K.J. 1997. Women doing science: past and present. Keynote Address, **South Coast Saturday Academy of the South-Western Oregon Youth Association Boys' and Girls' Club's 7th Annual Women in Science Careers Day, Oregon Institute of Marine Biology**, Charleston, OR, February 1997.

CONTRIBUTED PRESENTATIONS**SCIENTIFIC MEETINGS**

- Nielsen, K.J., S. A. Thompson , C. A. Blanchette & H. Knoll. Save the seaweeds: Applying ecological insights to avoid "boom and bust" commercial exploitation of wild populations. **Internation Temperate Reef Symposium**, Adelaide, Australia, January 2009.
- Thompson, S.A., K.J. Nielsen, C.A. Blanchette, B. Brockbank & H. Knoll. Effects of commercial collection on growth and reproductive output of *Postelsia palmaeformis*. **Ecological Society of America**, San Jose, CA August 2007.
- Lubchenco, J., F. Chan, J. Barth, B. Menge, J. Bane, D.Fox, A. Kirincich, M. McManus, K.J Nielsen, C. Peterson, J. Pierce, L. Washburn, and H. Weeks. Arrhythmias in the coastal ocean off the west coast of the US. **Ecological Society of America**, San Jose, CA August 2007.
- Nielsen, K.J., S.A. Thompson & C.A. Blanchette. Deficits in biological knowledge and literacy impede management and protection of the Sea Palm, *Postelsia palmaeformis*. **International Temperate Reef Symposium**, Santa Barbara, CA 2006.
- Thompson, S. A. & K.J. Nielsen. Assessing the impact of commercial collecting on *Postelsia palmaeformis*. **Western Society of Naturalists 86th Annual Meeting**, Monterey Bay, CA, November 2005.
- Nielsen, K. J., P. Halpin, T. Freidenberg, B.A. Menge and J. Lubchenco. 2004. A biogeographic meta-analysis of herbivore effects on intertidal macroalgae. **Western Society of Naturalists 85th Annual Meeting**, Rohnert Park, CA, November 2004.

- Kavanaugh, M.T., K.J. Nielsen and B.A. Menge. Phytoplankton shading of marine benthic macrophytes: implications for community structure. **Western Society of Naturalists 85th Annual Meeting**, Rohnert Park, CA, November 2004.
- Nielsen, K.J., C.A. Blanchette, B.A. Menge, B. Grantham & J. Lubchenco. Capturing the light fantastic: oceanographic and tidal influences on intertidal algae. **Phycological Society of America**, Gleneden, OR 2003.
- Bracken, M. E. & K. J. Nielsen. Nitrogen loading by invertebrates increases growth and diversity of intertidal seaweeds. **Phycological Society of America**, Gleneden, OR 2003.
- Chan, F., B. A. Menge, K. J. Nielsen, and J. Lubchenco. Nutrient use efficiency and coastal productivity: comparative perspectives on ecosystem structure and mechanisms of control. **Phycological Society of America**, Gleneden, OR 2003.
- Menge, B. A., G. Allison, T. Freidenburg, M. Kavanaugh, J. Lubchenco, K.J. Nielsen, C. Schoch, and S. Wood. Local to coastal-scale macrophyte community structure: surprising patterns and possible mechanisms. **Phycological Society of America**, Gleneden, OR 2003.
- Nielsen, K.J., B.A. Menge, B. Grantham & J. Lubchenco. Macrophytes, phytoplankton, and upwelling: light limitation in the intertidal zone? **International Temperate Reef Symposium**, Christchurch, New Zealand January 2003.
- Nielsen, K.J., C.A. Blanchette, B.A. Menge & J. Lubchenco. Fluorescing sea palm fronds: do snapshots of physiological state reflect ecological performance? **Western Society of Naturalists**, Monterey, CA November 2002.
- Nielsen, K.J., F. Chan, B.A. Grantham, D. Fox, M. Amend, R. Davis-Born, J. Lubchenco & B. A. Menge. Unusual Die-Off off Oregon's Coast Associated with a Persistent Low-Oxygen Zone.
- **Ecological Society of America**, Tucson, AZ August 2002.
 - **International Temperate Reef Symposium**, Christchurch, New Zealand January 2003.
- Nielsen, K.J., B.A. Menge, B. A. Grantham, & J. Lubchenco. Light attenuation, upwelling, and community structure on rocky shores: can persistent phytoplankton blooms limit macrophytes? **Ecological Society of America**, Tucson, AZ August 2002.
- Nielsen, K.J., B.A. Menge, & J. Lubchenco. Fluorescing fronds: Snapshots of the physiological state of intertidal macrophytes. **Society for Integrative and Comparative Biology**, Anaheim, CA. 2002.
- Nielsen, K.J., B.A. Grantham, B.A. Menge & J. Lubchenco. Rocky Intertidal Oceanography: Local Scale Modification of a Large Scale Template. **Western Society of Naturalists**, Venture, CA 2001.

Nielsen, K.J. & S.A. Navarrete 2000. Do bottom-up factors drive variation in algal assemblages on rocky shores? Upwelling and herbivory along the central Chilean coast. **Ecological Society of America**, Snowbird, UT, August 2000.

Nielsen, K.J. 1997. Nutrients and grazing in tidepools: bottom-up and top-down forces generate structure in a marine community.

- **International Temperate Reef Symposium**, Santiago, Chile, July 1997.
- **Western Society of Naturalists**, La Paz, Mexico, January 1997.
- **Ecological Society of America**, Providence, RI, August 1996.

Van Alstyne, K.L. & K.J. Nielsen, 1996. The use of randomization methods to analyze data from multiple-choice feeding-preference experiments. **Ecological Society of America**, Providence, RI, August 1996.

Nielsen, K.J. 1996. Nutrients and grazing in tidepools: an experimental evaluation of bottom-up and top-down forces in a marine community. **Biology Graduate Student Symposium**, Hatfield Marine Science Center, South Beach, OR, March 1996.

Nielsen, K.J. 1993. The role of adult conspecifics and recruitment variability on the horizontal distribution of ribbed mussels in Jamaica Bay, NY. **Western Society of Naturalists**, Otter Crest, Newport, OR January 1993.

Nielsen, K.J. 1992. Ribbed mussel (*Geukensia demissa*) recruitment in Jamaica Bay, NY. **New England Estuarine Research Society**, May 1992.

Franz, D.R. , P. Ficara, K.J. Nielsen, & J.T. Tanacredi 1991. Can ribbed mussels be used to monitor environmental quality in Jamaica Bay (Gateway National Recreation Area)? Preliminary results. **2nd National Park Service Conference on Science and Natural Resource Management in the North Atlantic Region**, November 1991.

WORKSHOPS

Communicating Ocean Science 3-Day Workshop (funded by the National Science Foundation), **California Center for Ocean Sciences Education Excellence (COSEE) and The Lawrence Hall of Science, University of California – Berkeley**; June 6-8, 2005; Invited participant together with Dr. Paula Lane, SSU School of Education

Los Fondos de Estudios Avanzados en Areas Prioritarias (FONDAP) - Comisión Nacional de Investigación Científica y Tecnológica (CONICYT) Workshop on Marine Primary Productivity, ECIM, Universidad Católica de Chile, Las Cruces, Chile, May 1999. Presentation: Nielsen K.J. 1999. Growth and abundance patterns of marine phototrophs along the central Chilean coast.

Andrew J. Mellon Foundation Working Group, ECIM, Universidad Católica de Chile, Las Cruces, Chile, December 1998. Presentation: Nielsen, K.J. 1998. Temporal and spatial

variation in patterns of upwelled nutrients: How might oceanographic climate play a role in structuring algal assemblages in temperate upwelling ecosystems?

SERVICE

PROFESSIONAL SERVICE

January 2009, symposium organizer, “Marine Ecological Theory in Practice: Informing Marine Conservation Strategies in the 21st Century”, **International Temperate Reef Symposium**, Adelaide, Australia

February 2008 – present, Science Advisory Team member, **California Ocean Protection Council**.

July 2007 – September 2008, Science Advisory Team member, **California Marine Life Protection Act Initiative** (North Central Coast phase).

October, 2006. **Northern California Forum for Diversity in Graduate Education**. Invited panelist. Mills College, Oakland, CA.

June 2003, symposium organizer, “Linking Algae, Oceanography and Marine Ecology”, **Phycological Society of America**, Glendon Beach, OR.

February 2003, scientific reviewer, “Life in a Tide Pool” by Steven Otfinosko, **Newbridge Educational Publishing**, New York, NY.

October 2002, invited speaker, **Understanding Marine Protected Areas (MPAs) and Marine Reserves: Scientific Realities and Public Perceptions**, A Workshop for Oregon Media, sponsored by **Communication Partnership for Science and the Sea (COMPASS)**, **Ocean Wilderness Network**, **SeaWeb**, **Oregon State University & PISCO**. The Oregon Ocean: A Nature Tour. LeSells Stewart Center, Corvallis, OR

September 2000 -2002, scientific advisory panel, **Oregon State Department of Parks and Recreation**, Monitoring protocol for the first permit issued for the commercial collection of seaweeds in Oregon.

November 2000, co-instructor (with Gary Allison), **SAS Workshop: Elementary Statistics and Data Manipulation using SAS Software**, training workshop for graduate students and lab technicians, Lubchenco - Menge lab group, Oregon State University.

June 1997, played role of ‘Intertidal Ecologist’ for **Math in the Middle of Nature** (educational video funded by **NSF** and **South Carolina Educational Television**)

October 1996 & 1995, Panelist, **Life in Graduate School, Symposium on Graduate Study in Science for Undergraduate Women**, Oregon State University, Corvallis, OR

February 1995, Symposium Organizer, “Science and Society,” **Pacific Ecology Conference**, Oregon Institute of Marine Biology, Charleston, OR

UNIVERSITY COMMITTEES

Current

September 2006- present, **Faculty Subcommittee on Sponsored Programs (Chair 2007-present)**, Sonoma State University.

August 2004-present, **Biology Department Graduate Committee**.

September 2005 – present, **Budget Committee (Chair 2006-present)**, Department of Biology, Sonoma State University.

Past

March 2005 –May 2005, Sonoma State University **Information Technology Strategic Planning Committee**.

August 2004-May 2007, **School of Science & Technology Elections Committee (Chair 2004, 2005)**, Sonoma State University.

August 2004-May 2007, **Biology Department Computer Committee (Chair 2005)**.

February 2004, **International Programs**, Faculty interviewer for CSU's statewide study abroad program; selection of SSU students to advance to state-wide selection process.

September 1995- June 1996, Graduate Student Representative, **Graduate Council, Oregon State University**, Corvallis, OR

September 1993- present, **Graduate Student Welfare Committee**, Department of Zoology, Oregon State University, Corvallis, OR

June 1994-February 1995, Chair of Steering Committee, **Pacific Ecology Conference**, Oregon Institute of Marine Biology, Charleston, OR

COMMUNITY SERVICE

Spring 2009, Fall 2008, 2007, Squid Anatomy & Biology (one-day classroom science activity with SSU Department of Biology MS students), **Austin Creek Elementary School**, Santa Rosa, CA

August 2008, March 2006, Tidepool Life Activity, **The Living Room: A Daytime Shelter for Homeless Women & Children**, Santa Rosa, CA

July 2007, Tidepool Life Activity, **Excel: A Unique Enrichment Program for Grades 4-9**, Sonoma State University, Rohnert Park, CA

Spring 2007, Supervision, training & placement of 14 Sonoma State University students into 7 **Sonoma County Public Elementary Schools** to teach Ocean Science Lessons.

Spring 2006, Supervision, training & placement of 12 Sonoma State University students into 6 **Sonoma County Public Elementary Schools** to teach Ocean Science Lessons.

December 2002, volunteer presentation and lab activity, "Intertidal Zone Ecology and Field Experiments," for Marine Science class, **Corvallis High School**, Corvallis, OR

October 2002, invited speaker, **Oregon Sea Grant, Scientist and Fishermen Exchange (SAFE)**. Review of onshore, subtidal and nearshore research in progress by PISCO. Englund's Marine Supply, Newport, OR.

November 2000, presenter, **The 24th Annual Science and Engineering Workshop for Middle School Girls**, organized by the **Association for Women in Science**. Lab tour and hands-on demonstration of methods used to sample phytoplankton abundance in the nearshore environment

1995- 2002, Job Shadow and Mentor, **School-to-Career Program, Corvallis School District 509J**, Corvallis, OR

REVIEWER

California Sea Grant
Deep Sea Research
Ecology
Ecological Monographs
Ecology Letters
Inter-American Institute for Global Change Research
Journal of Phycology
Journal of Experimental Marine Biology and Ecology
Limnology and Oceanography
Limnology and Oceanography Methods
Marine Ecology Progress Series
National Science Foundation
National Estuarine Research Reserve
Revista Chilena de Historia Natural

PROFESSIONAL SOCIETIES

Ecological Society of America
Western Society of Naturalists
Phycological Society of America
American Institute of Biological Science
Sigma Xi

ADVANCED COURSES

Biomechanics and Ecological Physiology of Intertidal Communities, Mark Denny and George Somero, instructors, Hopkins Marine Station, Stanford University, 14 June - 13 July 1999

LANGUAGES

English

Spanish