

Research Associate, 2007-present. Centro de Estudios Avanzados en Zonas Áridas. Facultad de Ciencias del Mar, Universidad Católica del Norte. Coquimbo, Chile

Undergraduate teaching

Invertebrate Zoology (BIO 116) Department of Ecology, Evolution and Marine Biology, University of California. Santa Barbara, California, USA. Teaching Assistant (2003)

Introduction to Biology (BIO 1A) Department of Molecular, Cellular & Developmental Biology, University of California. Santa Barbara, California, USA. Teaching Assistant (2001)

Principios de Ecología y Medio Ambiente. Departamento de Ecología, Pontificia Universidad Católica de Chile. Santiago, Chile. Instructor (1994)

Zoología de Vertebrados. Departamento de Ecología, Pontificia Universidad Católica de Chile. Santiago, Chile. Teaching Assistant (1994)

Zoología de Invertebrados Marinos. Departamento de Ecología, Pontificia Universidad Católica de Chile. Santiago, Chile. Teaching Assistant (1993)

Graduate teaching

Biogeografía Marina (BM9A01) Facultad de Ciencias del Mar, Universidad Católica del Norte. Coquimbo, Chile. Guest Professor (2007)

Taller Biología Computacional, Ecología de Poblaciones y Comunidades (ECEV 423). Instituto de Ecología y Evolución. Ciencias Universidad Austral de Chile. Lecturer (2008)

AWARDS

Graduate Student Award, Coastal Environmental Quality Initiative, 2002-2003

Graduate Student Travel Award. University of California, Santa Barbara, 2004

PROFESSIONAL MEMBERSHIPS

Ecological Society of America (1999-2001)

Sociedad de Ecología de Chile (2001-present)

American Society of Limnology and Oceanography (2005-present)

Society of America Archaeology (2007-present)

PROFESSIONAL SERVICE

Director, Sociedad de Ecología de Chile (2006-2008)

Alternate Research Member, Channel Island National Marine Sanctuary Advisory Council (2007-2009)

Webmaster, 2001-present, Sociedad de Ecología de Chile

REVIEWER

Journals: Revista Chilena de Historia Natural; Oecologia; Global Ecology and Biogeography; Marine Ecology Progress Series; Coastal, Estuarine and Shelf Science; Ecology; Trends in Ecology and Evolution; Journal of Animal Ecology; Journal of Experimental Marine Biology and Ecology; Oikos; Ecography.

National Research Commissions: The National Science Foundation (USA) and Fondo Nacional de Ciencia y Tecnología (Chile).

PUBLICATIONS

1. **B.R. Broitman**, L. Szathmary, K.A.S. Mislan, C.A. Blanchette and B. Helmuth. Predator-prey interactions under climate change: the importance of habitat vs. body temperature. *Oikos* (*in press*)
2. **B.R. Broitman**, N. Mieszkowska, B. Helmuth and C.A. Blanchette. (2008) Assessing climate effects on recruitment of rocky shore intertidal invertebrates in the Eastern North Atlantic. *Ecology* (*in press*)
3. J.R. Wilson, **B.R. Broitman**, J.E. Caselle and D.E. Wendt. (2008) Recruitment of coastal fishes and oceanographic variability in central California. *Estuarine, Coastal and Shelf Science* doi:10.1016/j.ecss.2008.05.001

4. C.A. Blanchette, C.M. Miner, P.T. Raimondi, D. Lohse, K.E.K. Heady and **B.R. Broitman** (2008) Biogeographic patterns of rocky intertidal communities along the Pacific coast of North America. *Journal of Biogeography* 35:1593-1607
5. **B.R. Broitman**, C.A. Blanchette, B.A. Menge, J. Lubchenco, C. Krenz, M. Foley, P.A. Raimondi, D. Lohse and S.D. Gaines. (2008) Spatial and temporal variability in the recruitment of intertidal invertebrates along the west coast of the USA. *Ecological Monographs* 78:403-421
6. S.A. Navarrete, **B.R. Broitman** and B.A. Menge (2008) Interhemispheric comparison of recruitment to rocky intertidal communities: pattern persistence and scales of variation. *Ecology* 89:1302-1322
7. N.A. Lagos, J.C. Castilla and **B.R. Broitman** (2008) Spatial environmental correlates of intertidal recruitment: a test using barnacles along the coast of northern Chile. *Ecological Monographs* 78:245-261
8. T.S. Del Sontro, I. Leifer, B.P. Luyendyk and **B.R. Broitman** (2007). Beach tar accumulation, transport mechanisms, and sources of variability at Coal Oil Point, CA. *Marine Pollution Bulletin* 54:1461-1471
9. **B.R. Broitman** and B.P. Kinlan (2006) Spatial scales of benthic and pelagic producer biomass in a coastal upwelling ecosystem. *Marine Ecology Progress Series* 327:15-25
10. B. Helmuth, **B.R. Broitman**, C.A. Blanchette, S. Gilman, P. Halpin, C.D.G. Harley, M.J. O'Donnell, G.E. Hofmann, B.A. Menge and D. Strickland (2006) Mosaic patterns of thermal stress in the Northeastern Pacific rocky intertidal zone: implications for climate change. *Ecological Monographs* 76:461-479
11. B.S. Halpern, K. Cottenie and **B.R. Broitman** (2006) Top-down vs. bottom-up effects in kelp forests – Response. *Science* 313:1738:1739

12. B.S. Halpern, K. Cottenie and **B.R. Broitman** (2006) Strong top-down control in southern California kelp forest ecosystems. *Science* 312:1230:1232
13. C.A. Blanchette, **B.R. Broitman** and S.D. Gaines (2006) Oceanographic forcing of intertidal community structure around Santa Cruz Island, California, USA. *Marine Biology* 149:689-701
14. S.A. Navarrete, E.A. Wieters, **B.R. Broitman** and J.C. Castilla (2005) Scales of benthic-pelagic coupling and the intensity of species interactions: from recruitment limitation to top down control. *Proceedings of the National Academy of Sciences, USA*. 102:18046-18051
15. **B.R. Broitman**, C.A. Blanchette and S.D. Gaines (2005) Recruitment of intertidal invertebrates and oceanographic variability at Santa Cruz Island, California. *Limnology and Oceanography*. 50:1473-1479
16. E.T. Borer, E.W. Seabloom, J.B. Shurin, K. Anderson, C.A. Blanchette, **B.R. Broitman**, S.D. Cooper and B.S. Halpern (2005) What determines the strength of a trophic cascade? *Ecology*. 86:528–537
17. E.T. Borer, K. Anderson, C.A. Blanchette, **B.R. Broitman**, S.D. Cooper, B.S. Halpern, E.W. Seabloom and J.B. Shurin (2002) Topological approaches to food web analyses: a few modifications may improve our insights. *Oikos*. 99:397-401
18. J.B. Shurin., E.T. Borer, E. W. Seabloom, K. Anderson, C.A. Blanchette, **B.R. Broitman**, S.D. Cooper, B.S. Halpern (2002) A cross-ecosystem comparison of the strength of trophic cascades. *Ecology Letters*. 5:785-791
19. S.A. Navarrete, **B.R. Broitman**, E.A. Wieters, G.R. Finke, R.M. Venegas and A. Sotomayor.(2002) Recruitment of intertidal invertebrates in the Southeast Pacific: Inter-

annual variability and the 1997-1998 El Niño. *Limnology and Oceanography*. 47:791-802

20. **B.R. Broitman**, S.A. Navarrete, F. Smith and S.D. Gaines (2001) Geographic variation of Southeastern Pacific intertidal communities. *Marine Ecology Progress Series*. 224:21-34

21. P.A. Camus, Y.A. Andrade and **B.R. Broitman** (1999) Effects of substratum topography on species diversity and abundance in Chilean rocky intertidal communities. *Revista Chilena de Historia Natural*. 72:377-388

- Conference Proceedings

1. C.A. Blanchette, D.V. Richards, J.M. Engle, **B.R. Broitman** and S.D. Gaines. (2005) Regime shifts, community change and population booms of keystone predators at the Channel Islands. *Proceedings of the 6th California Islands Symposium*. pp. 435-441

2. C.A. Blanchette, P.A. Raimondi and **B.R. Broitman**. (2008) Spatial patterns of intertidal community structure across the California Channel Islands and links to ocean temperature. *Proceedings of the 7th California Islands Symposium in press*

- Book chapters

1. C.F.Flores, **B.R. Broitman**, and P. Rivas (2008) Changes in the subsistence strategy of prehistoric intertidal gathering: The pre-ceramic and ceramic coastal hunter-gatherers of Reloncavíund, Chile. In: **Comparative Perspectives on the Archaeology of Coastal South America**, Robyn Cutright, Enrique López-Hurtado, and Alexander Martin (eds.) University of Pittsburgh Latin American Publications.

- In review

E.A. Wieters, **B.R. Broitman** and G.M. Branch. Benthic community responses to the temporal dynamics of thermal conditions in two upwelling ecosystems: comparisons between South Africa and Chile. At *Limnology and Oceanography*.

F. Bozinovic, J.M. Rojas, **B.R. Broitman** and R. Vasquez. Basal metabolism is correlated with habitat productivity among populations of degus. At *Journal of Comparative Physiology B*

B.R. Broitman, S.A Navarrete, C.A Blanchette, S.D. Gaines, M. Pfaff and G.M Branch. Invertebrate recruitment to intertidal habitats in California, South Africa and Chile: Relationships with satellite ocean temperature. At *Progress in Oceanography*

F.J. Tapia, S.A Navarrete, M. Castillo, Bruce A Menge, J.C. Castilla, J. Largier, E.A Wieters, **B.R. Broitman** and J.A. Barth. Small-scale indices of upwelling-driven thermal variation in inner-shelf environments. At *Progress in Oceanography*

C.A. Blanchette, D.R. Schiel,, E.A.Wieters, B.R. Broitman and B.P. Kinlan. Trophic structure and diversity in rocky intertidal upwelling ecosystems: A comparison of community patterns across California, Chile, South Africa and New Zealand. At *Progress in Oceanography*

- In preparation

C.A. Blanchette, **B.R. Broitman** and P.A. Raimondi. Structure and regulation of rocky intertidal community structure along Western North America. For *Ecology Letters*.

B.R. Broitman, F. Veliz, T. Manzur, E. A. Wieters, G.R. Finke and S.A. Navarrete. Spatial patterns of rocky intertidal diversity of central Chile (29 – 36°S). For *Ecological Monographs*

POSTDOCTORAL TRAINING

2007

Ecoinformatics Training for Ecologists. University of New Mexico. Albuquerque, NM, USA.

2006

Multivariate Analysis of Complex Experimental Designs. National Center for Ecological Analysis and Synthesis. University of California, Santa Barbara. Santa Barbara, CA, USA.

INVITED PRESENTATIONS

2008

Departmental Seminar. **Universidad de La Serena**, La Serena, Chile

Taller Procesos Estocásticos **Universidad de La Serena**, La Serena, Chile

2007

Departmental Seminar. **University of California, Davis**, CA, USA

Departmental Seminar. **Universidad Austral de Chile**, Valdivia, Chile

2006

Departmental Seminar. **University of Connecticut at Avery Point**, CT, USA

Departmental Seminar. **University of Rhode Island**, RI, USA

Departmental Seminar. **Santa Clara University**, CA, USA

2004

Departmental Seminar. **Universidad Austral de Chile**, Valdivia, Chile

SCIENTIFIC CONFERENCES (first author only)

2008 Eastern Boundary Upwelling Symposium, Las Palmas de Gran Canaria, Spain. Dynamics of larval arrival to intertidal habitats in California, Chile and South Africa. Oral presentation.

2008 Society of American Archaeology Annual Meeting, Vancouver, Canada. Spatial distribution of shellfish and shellfish harvesting on Santa Cruz Island: an ecological and archaeological perspective. Oral presentation.

2007 III Reunión Binacional de Ecología, La Serena, Chile. Generación y mantención de patrones ecológicos en sistemas costeros. Oral presentation

- 2007 Society for Conservation Biology Annual Meeting, Port Elizabeth, South Africa. Exotic plants break competition-colonization tradeoffs in California flora. Poster presentation
- 2006 7th International Temperate Reef symposium, Santa Barbara, CA, USA. Recruitment dynamics of intertidal invertebrates in Chile and the US West coast. Oral presentation
- 2006 Ocean Sciences Meeting AGU-TAO-ASLO, Honolulu, Hawaii', USA. Recruitment of intertidal invertebrates along the US west coast and its relationship with AVHRR SST dynamics. Poster presentation.
- 2005 XIV Reunión Anual de la Sociedad de Ecología de Chile, Pucón, Chile. Variabilidad espaciotemporal en el reclutamiento de invertebrados marinos en la costa oeste de EEUU. Oral presentation.
- 2005 XXV Jornadas de las Ciencias del Mar, Coquimbo, Chile. Estructura espacial de la biomasa algal bentónica y pelágica en el sistema de surgencia costera del Oeste de Norteamérica. Oral presentation
- 2004 American Geophysical Union, Portland, Ocean Sciences Meeting, OR, USA. A coupled spatial pattern of benthic and pelagic ecosystem structure in coastal upwelling regions. Oral presentation.
- 2004 II Reunión Binacional de Ecología, Bariloche, Argentina. Patrones de reclutamiento y el forzamiento oceanográfico: comparando Chile central y la costa Oeste de EEUU. Invited Oral presentation
- 2004 Ecological Society of America, Portland, OR, USA Regime shifts, community change and population booms of keystone predators at the California Channel Islands. Oral presentation.
- 2004 XXIV Jornadas de las Ciencias del Mar, Coquimbo, Chile. Estructura espacial de la diversidad en el ensamble intermareal de Chile central. Invited Oral presentation.
- 2003 Eastern Pacific Ocean Conference, Catalina, CA, USA. A coupled spatial model of benthic and pelagic structure in coastal ecosystems. Oral presentation.
- 2003 Eastern Pacific Ocean Conference, Catalina, CA. Recruitment variability at Santa Cruz Island, California USA. Poster presentation.
- 2003 6th International Temperate Reef Symposium, Christchurch, New Zealand. Recruitment dynamics of intertidal invertebrates in the temperate East Pacific. Oral presentation.
- 2003 Western Society of Naturalists, Long Beach, CA, USA. A coupled spatial pattern of benthic and pelagic ecosystem structure in coastal upwelling regions. Oral presentation.
- 2003 Benthic Ecology Meeting, Mystic, CT, USA. Benthic-pelagic coupling and the structure of coastal metapopulations. Oral presentation.
- 2002 XII Reunión Anual de la Sociedad de Ecología de Chile, Puyehue, Chile. Escalas de regulación ambiental en procesos ecológicos. Oral presentation.
- 2002 Eastern Pacific Ocean Conference, Timberline Lodge, OR, USA. Recruitment dynamics in the Eastern Pacific: an interhemispherical comparison. Oral presentation.
- 2000 Western Society of Naturalists, Portland, OR, USA. Patterns of intertidal community structure in central Chile. Oral presentation.
- 2000 I Reunión Binacional de Ecología, Bariloche, Argentina. Estructura geográfica de comunidades intermareales del Pacífico Sureste. Oral presentation.
- 2000 5th International Temperate Reef Symposium, Cape Town, South Africa. Geographic variation of southeastern Pacific intertidal communities. Oral presentation.
- 1995 XXXVIII Reunión anual de la Sociedad de Biología de Chile, Viña del Mar, Chile. Parámetros demográficos en poblaciones de *Emerita analoga*. Poster presentation.

OUTREACH

2008

Tertulias Científicas IEB – CEAZA. Bodegon Cultural Los Vilos, Los Vilos, Chile. ¿A donde van los hijos del Picoroco?