

CURRICULUM VITAE

Edwin DeHaven Grosholz

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EDUCATION:

1990 University of California, Berkeley, Ph.D. (Zoology)
1982 Brown University, A.B. (Biology)

RESEARCH AND TEACHING INTERESTS:

Interactions of fundamental ecological processes and human impacts on coastal ecosystems; consequences of invasive species and vector management on ecosystem function, human economies and biosecurity; effects of global climate change on coastal systems; restoration and management of estuarine habitats

EMPLOYMENT:

2008- Professor, Department of Environmental Science and Policy,
University of California, Davis
2007- Alexander and Elizabeth Swantz Endowed Specialist in
Cooperative Extension, Department of Environmental Science and
Policy, University of California, Davis
2006-2007 Specialist in Cooperative Extension, Department of Environmental
Science and Policy, University of California, Davis
2002-2006 Associate Specialist in Cooperative Extension, Department of
Environmental Science and Policy, University of California, Davis
1998-2001 Assistant Specialist in Cooperative Extension, Department of
Environmental Science and Policy, University of California, Davis
1996-1998 Assistant Professor, Department of Zoology, University of New
Hampshire, Durham, NH
1993-95 Postdoctoral Fellow, Center for Population Biology, University of
California, Davis, CA.
1992 Postdoctoral Fellow, Smithsonian Environmental Research Center,
Edgewater, MD.
1991 Postdoctoral Fellow, Friday Harbor Laboratories, University of
Washington, Friday Harbor, WA.

PROFESSIONAL MEMBERSHIPS:

American Society of Limnology and Oceanography
Ecological Society of America
Coastal and Estuarine Research Foundation
Western Society of Naturalists

PUBLICATIONS:

- Wasson, K. L., B. B. Hughes, J. S. Berriman, A. L. Chang, A. K. Deck, P. A. Dinnel, C. Endris, S. Dudas, M. C. Ferner, **E. D. Grosholz**, D. Kimbro, J. L. Ruesink, A. C. Trimble, D. Vander Schaaf, C. J. Zabin, D. C. Zacherl. 2016. Coast-wide recruitment patterns of *Olympia* oysters reveal local synchrony and predictors of failure. *Ecology* 97: 3505-3516.
- Early, R., B. A. Bradley, J. S. Dukes, J. J. Lawler, J. D. Olden, D. M. Blumenthal, C. M. D'Antonio, P. Gonzalez, **E. D. Grosholz**, I. Ibanez, L. P. Miller, C. J. B. Sorte and A. J. Tatem. 2016. Invasive species in the 21st century: Global threats and national response capabilities. *Nature Communications* DOI:10.1038/ncomms12485
- Cheng, B. S., L. M. Komoroske and **E. D. Grosholz**. 2016. Invasive predator and native prey response under climate change: integrating physiological and environmental data. *Functional Ecology* DOI:10.1111/1365-2435.12759.
- Blakeslee, A. M. H., A. E. Fowler, J. L. Couture, **E. D. Grosholz**, G. M. Ruiz and A. W. Miller. 2016. Vector management reduces marine organisms transferred with live saltwater bait. *Management of Biological Invasions* 7: 389-398.
- Cheng, B.S. and **E.D. Grosholz**. 2016. Environmental stress mediates trophic cascade strength and resistance to invasion. *Ecosphere* 7(4):e01247. DOI:10.1002/ecs2.1247
- Grosholz, E. D.** and E. H. Wells. 2016. Evolutionary novelty and the behavior of introduced predators in benthic marine systems. In: Weis, J. S. and D. Sol, eds. *Behavior and Invasions*, pp. 199-217, Cambridge University Press, Cambridge, U.K.
- Turner, B. C., C. E. deRivera, **E. D. Grosholz** and G. M. Ruiz. 2016. Assessing population increase as a possible outcome to management of invasive species. *Biological Invasions* 18: 533-548.
- Cloern, J. E., P. Barnard, E. Beller, J. Callaway, L. Grenier, **E. D. Grosholz**, R. Grossinger, K. Hieb, J. T. Hollibaugh, N. Knowles, M. Sutula, S. Veloz, K. Wasson and A. Whipple. 2016. Estuaries: Life on the Edge. In: E. Zavaleta and H. Mooney, eds. *Ecosystems of California*, pp. 359-387, University of California Press, Berkeley, CA.
- Boyer, K., C. Zabin, S. De La Cruz, **E. D. Grosholz**, M. Orr, J. Lowe, M. Latta, J. Miller, S. Kiriakopolos, C. Pinnell, D. Kunz, J. Moderan, K. Stockmann, G. Ayala, R. Abbott, and R. Obernolte. 2016. **San Francisco Bay living shorelines: restoring eelgrass and *Olympia* oysters for habitat and shore protection**. In: D. Bilkovic, M. Mitchell, M. La Peyre and J. Toft, eds. *Living shorelines: the Science and Management of Nature-Based Coastal Protection*. CRC Press, Boca Raton, FL (*in press*), 488 pp.
- Cheng, B. S., J. M. Bible, A. L. Chang, M. C. Ferner, K. Wasson, C. J. Zabin, M. Latta, A.K. Deck, A. E. Todgham, and **E. D. Grosholz**. 2015. Testing local and global stressor impacts on a coastal foundation species using an ecologically realistic framework. *Global Change Biology* 21: 24880-2499.
- Baggett, L. P., S. P. Powers, R. Brumbaugh, L. Coen, B. DeAngelis, J. Greene, B. Hancock, S. Moreland, B. Allen, D. Breitburg, D. Bushek, J. Grabowski, R. Grizzle, **E. D. Grosholz**, M. La Peyre, M. Luckenbach, K. McGraw, M.

- Piehler, S. Westby and P. Zu Ermgassen. 2015. Setting guidelines for monitoring and evaluating the performance of oyster habitat restoration projects. *Restoration Ecology* 23: 737-745.
- Kelley, A. L., C. E. deRivera, **E. D. Grosholz**, G. M. Ruiz, S. B. Yamada and G. Gillespie. 2015. Thermogeographic variation in body size of *Carcinus maenas*, the European green crab. *Marine Biology* 162: 1625-1635.
- Long, H. A. and **E. D. Grosholz**. 2015. Overgrowth of eelgrass by the invasive colonial tunicate *Didemnum vexillum*: consequences for tunicate and eelgrass growth and epifauna abundance. *Journal of Experimental Marine Biology and Ecology* 473: 188-194.
- Lampert, A., A. Hastings, **E. D. Grosholz**, S. L. Jardine and J. N. Sanchirico. 2014. Optimal approaches for balancing invasive species eradication and endangered species management. *Science* 344: 1028-103.
- Williams, S. L., R. E. Crafton, R. E. Fontana, **E. D. Grosholz**, G. Ha, J. R. Pasari and C. J. Zabin. 2014. A vector analysis of marine ornamental species in California. *Management of Biological Invasions* 6: 13-29.
- Grosholz, E. D.**, R. E. Crafton, R. E. Fontana, J. R. Pasari, S. L. Williams and C. J. Zabin. 2014. Aquaculture as a vector for marine invasions in California. *Biological Invasions* 17: 1471-1484.
- Kimbro, D.L., B. S. Cheng, and **E. D. Grosholz**. 2013. Biotic resistance in coastal environments. *Ecology Letters* 16: 821-833.
- Williams, S. L., I. C. Davidson, J. R. Pasari, G. V. Ashton, J. T. Carlton, R. E. Crafton, R. E. Fontana, **E. D. Grosholz**, A. W. Miller, G. M. Ruiz, and C. J. Zabin. 2013. Managing multiple vectors for marine invasions in an increasingly connected world. *Bioscience* 63: 952-966.
- Wonham, M., J. E. Byers, **E. D. Grosholz**, and B. Leung. 2013. Modeling the relationship between risk and propagule pressure. *Ecological Applications* 23: 1691-1706.
- Hwang, H. M., R. S. Carr, G. N. Cherr, P. G. Green, E. D. Grosholz, L. Judah, S. G. Morgan, S. Ogle, V. K. Rashbrook, W. L. Rose, S. J. The, C. A. Vines and S. L. Anderson. 2013. Sediment quality assessment in tidal salt marshes in northern California, USA: an evaluation of multiple lines of evidence approach. *Science of the Total Environment* 454: 189-198.
- Sorte, C., I. Ibanez, D. Blumenthal, N. Molinari, L. Miller, **E. Grosholz**, J. Diez, C. D'Antonio, J. Olden, S. Jones, J. Dukes. 2012. Poised to prosper? A cross-system comparison of climate change effects on native and non-native species performance. *Ecology Letters* 16: 261-270.
- Diez, J. M., C. M. D'Antonio, J. S. Dukes, **E. D. Grosholz**, J. D. Olden, C. J. B. Sorte, D. M. Blumenthal, B. A. Bradley, R. Early, I. Ibáñez, S. Jones, J. Lawler and L. P. Miller. 2012. Will extreme climatic events facilitate biological invasions? *Frontiers in Ecology and the Environment* 10: 249-257.
- Bradley, B. A., D. M. Blumenthal, R. I. Early, **E. D. Grosholz**, J. J. Lawler, L. P. Miller, C. J. B. Sorte, C. M. D'Antonio, J. M. Diez, J. S. Dukes, I. Ibanez and Julian D. Olden. 2012. Global change, global trade, and the next wave of plant invasions. *Frontiers in Ecology and the Environment* 10: 20-28.
- Estelle, V. and E. D. Grosholz. 2012. Experimental test of the effects of a non-

- native invasive species on a wintering shorebird. *Conservation Biology* 26: 472-481.
- Grosholz, E. D., S. Lovell, E. Besedin and M. Katz. 2011. Modeling the impacts of the European Green Crab on commercial shellfisheries. *Ecological Applications* 21: 915-924.
- deRivera, C., E. D. Grosholz, G. M. Ruiz and P. Fofonoff. 2011. Persistent, non-numeric impacts of an introduced invertebrate predator. *Marine Ecology Progress Series* 429: 145-155.
- Grosholz, E. D. 2010. "Crabs." In: *Encyclopedia of Invasive Introduced Species*. D. Simberloff and M. Rejmánek, eds., pp. 125-128. Berkeley, CA. University of California Press, Berkeley.
- Grosholz, E. D. 2010. "Seas and Oceans." In: *Encyclopedia of Invasive Introduced Species*. D. Simberloff and M. Rejmánek, eds., pp. 623-627. Berkeley, CA. University of California Press, Berkeley.
- Grosholz, E. D. 2010. Avoidance by grazers facilitates spread of an invasive hybrid plant. *Ecology Letters* 13: 145-153.
- Tepolt, C. K., J. A. Darling, M. J. Bagley, J. B. Geller, M. J. Blum and E. D. Grosholz. 2009. European green crabs (*Carcinus maenas*) in the northeastern Pacific: genetic evidence for high population connectivity and current-mediated expansion from a single introduced source population. *Diversity and Distributions* 15: 997-1009.
- Kimbro, D.L., J.L. Largier and E.D. Grosholz. 2009. Coastal oceanographic processes influence the growth and size of a key estuarine species, the Olympia oyster. *Limnology and Oceanography* 54: 1425–1437.
- Kimbro, D.L., E.D. Grosholz, A.J. Baukus, N.J. Nesbitt, N.M. Travis, S. Attoe and C. Coleman-Hulbert. 2009. Invasive species cause large-scale loss of native California oysters by disrupting trophic cascades. *Oecologia* 160: 563-575.
- Chang, A. L., Grossman, J. D., Spezio, T. S., Weiskel, H. W., Blum, J. C., Burt, J. W., Muir, A. A., Piovio-Scott, J., Veblen, K. E. and E. D. Grosholz. 2009. Tackling aquatic invasions: risks and opportunities for the aquarium industry. *Biological Invasions* 11: 773-785.
- Brusati, E. D. and E. D. Grosholz. 2009. Does invasion of hybrid cordgrass change estuarine food webs? *Biological Invasions* 11: 917-926.
- Grosholz, E. D. and G. M. Ruiz. 2009. Multitrophic effects of invasions in marine and estuarine systems. In: G. Rilov and J. Crooks, eds. *Marine Bioinvasions: Ecology, Conservation and Management Perspectives*. Springer-Verlag, New York, pp. 305-324.
- Silliman, B. R., E. D. Grosholz and M. D. Bertness. 2009. *Human Impacts on Salt Marshes: A Global Perspective*. University of California Press, Berkeley, CA, 413 pp.
- Silliman, B. R., E. D. Grosholz and M. D. Bertness. 2009. Salt marshes under global siege. In: B. R. Silliman, E. D. Grosholz, and M. D. Bertness, eds. *Human Impacts on Salt Marshes: A Global Perspective*. University of California Press, Berkeley, CA, pp. 391-398.
- Silliman, B. R., E. D. Grosholz, and M. D. Bertness. 2009. An introduction to human impacts on salt marshes: Are marshes at risk? In: B. R. Silliman, E. D. Grosholz, and M. D. Bertness, eds. *Human Impacts on Salt*

- Marshes: A Global Perspective. University of California Press, Berkeley, CA, pp. xi-xv.
- Grosholz, E. D., L. A. Levin, A. C. Tyler, and C. Neira. 2009. Changes in community structure and ecosystem function following *Spartina alterniflora* invasion of Pacific estuaries. In: B. R. Silliman, E. D. Grosholz and M. D. Bertness, eds. Human Impacts on Salt Marshes: A Global Perspective. University of California Press, Berkeley, CA, pp. 23-40.
- Williams, S. L. and E. D. Grosholz. 2008. The invasive species challenge in estuarine and coastal environments: marrying management and science. Estuaries and Coasts. The H.T. Odum Synthesis Essay (invited) 31: 3-20.
- Tyler, A. C., J. G. Lambrinos and E. D. Grosholz. 2007. Nitrogen inputs promote the spread of an invasive marsh grass. Ecological Applications 17: 1886-1898.
- Neira, C., L. A. Levin, E. D. Grosholz, and C. Mendoza. 2007. The influence of invasive *Spartina* growth phases on associated macrofaunal communities. Biological Invasions 9: 975-993.
- Brusati, E. D. and E. D. Grosholz. 2007. Effect of native and invasive cordgrass on *Macoma petalum* density, growth, and isotopic signatures. Estuarine, Coastal and Shelf Science 71: 517-522.
- Moore, J. D., C. I. Juhasz, T. T. Robbins, E. D. Grosholz. 2007. The introduced sabellid polychaete *Terebrasabella heterouncinata* in California: transmission, methods of control and survey for presence in native gastropod populations. Journal of Shellfish Research 26: 869-876.
- Kimbro, D. L. and E. D. Grosholz. 2006. Disturbance influences richness, evenness, but not diversity in a native California oyster community. Ecology 87: 2378-2388.
- Levin, L. A., C. Neira, and E. D. Grosholz. 2006. Invasive cordgrass modifies wetland trophic function. Ecology 87: 419-432.
- Neira, C., E. D. Grosholz, L. A. Levin, and R. Blake. 2006. Mechanisms generating modification of benthos following tidal flat invasion by a *Spartina* hybrid. Ecological Applications 16: 1391-1404.
- Morgan, S. G., S. A. Spilseth, A. J. Brooks, H. M. Page and E. D. Grosholz. 2006. Spatial and temporal movement of the lined shore crab (*Pachygrapsus crassipes*) in salt marshes and its utility as an indicator of habitat condition. Marine Ecology Progress Series 314: 271-281.
- Brusati, E. D. and E. D. Grosholz. 2006. Native and introduced ecosystem engineers produce contrasting effects on estuarine infaunal communities. Biological Invasions 8: 683-695.
- Grosholz, E. D. and E. L. Gallo. 2006. Factors regulating invertebrate production on a restored California floodplain. Hydrobiologia 568: 91-109.
- Grosholz, E. D. 2005. Recent biological invasion may hasten invasional meltdown by accelerating historical introductions. Proceedings of the National Academy of Sciences U.S.A. 102: 1088-1091.

- Neira, C., L. Levin and E. D. Grosholz. 2005. Benthic macrofaunal communities of three *Spartina*-hybrid invaded sites in San Francisco Bay, with comparison to uninvaded habitats. *Marine Ecology Progress Series* 292: 111-126.
- Grosholz, E. D. and G. M. Ruiz. 2003. Biological invasions drive size increases in marine and estuarine invertebrates. *Ecology Letters* 6: 705-710.
- Williams, S. L. and E. D. Grosholz. 2002. Preliminary reports for the *Caulerpa taxifolia* invasion in Southern California. *Marine Ecology Progress Series* 233: 307-310.
- Grosholz, E. D. 2002. Ecological and evolutionary consequences of coastal invasions. *Trends in Ecology and Evolution* 17: 22-27.
- Stachowicz, J. J. and E. D. Grosholz. 2002. Marine community ecology. *Limnology and Oceanography* 47: 332.
- Grosholz, E. D., P. G. Olin, B. Williams, and R. Tinsman. 2001. Reducing predation on Manila clams by nonindigenous European green crabs. *Journal of Shellfish Research* 20: 913-919.
- Grosholz, E. D. 2001. Small spatial scale differentiation among populations of an introduced colonial invertebrate. *Oecologia* 129: 58-64.
- Grosholz, E. D., G. M. Ruiz, C. A. Dean, K. A. Shirley, J. L. Maron, and P. G. Connors. 2000. The impacts of a nonindigenous marine predator in a California bay. *Ecology* 81: 1206-1224.
- Ruiz, G. M., P. Fofonoff, A. H. Hines, and E. D. Grosholz. 1999. Nonindigenous species as stressors in estuarine and marine communities: assessing invasion impacts and interactions. *Limnology and Oceanography* 44: 950-972.
- Jamieson, G. S., D. A. Armstrong, E. D. Grosholz, and R. W. Elner. 1998. Potential ecological implications from the introduction of the European green crab, *Carcinus maenas*, to British Columbia, Canada, and Washington, USA. *Journal of Natural History* 32: 1587-1598.
- Ruiz, G. M., J. T. Carlton, E. D. Grosholz, and A. H. Hines. 1997. Global invasions of marine and estuarine habitats by non-indigenous species: mechanisms, extent, and consequences. *American Zoologist* 37: 619-630.
- Geller, J. B., E. D. Walton, E. D. Grosholz, and G. M. Ruiz. 1997. Cryptic invasion of *Carcinus* detected by molecular phylogeography. *Molecular Ecology* 6: 901-906.
- Grosholz, E. D. and G. M. Ruiz. 1997. Evidence for regional adaptation of Black Band Disease at Carrie Bow Cay, Belize. *Proceedings of the 8th International Coral Reef Symposium* 1: 579-581.
- Grosholz, E. D., and G. M. Ruiz. 1996. Predicting the impact of introduced marine species: lessons from the multiple invasions of the European green crab. *Biological Conservation* 78: 59-66.
- Grosholz, E. D. 1996. Contrasting rates of spread for introduced species in terrestrial and marine systems. *Ecology* 77: 1680-1686.
- Grosholz, E. D. 1996. Diseases, atfoxes, examodels, and zeptodata. Book review: "Ecology of Infectious Diseases" by B.T. Grenfell and A. P. Dobson. *Ecology* 77: 2577-2578.

- Jamieson, G. S., E. D. Grosholz, and R. W. Elner. 1996. Potential ecological implications from the introduction of the European green crab, *Carcinus maenas*, to British Columbia, Canada. Colloquium Crustacea Decapoda Mediterranea, Florence, Italy.
- Grosholz, E. D., and G. M. Ruiz. 1995. The spread and potential impact of the recently introduced European green crab, *Carcinus maenas*, in central California. *Marine Biology* 122: 239-247.
- Grosholz, E. D., and G. M. Ruiz. 1995. Does spatial heterogeneity and genetic variation in populations of the xanthid crab *Rhithropanopeus harrisi* (Gould) influence the prevalence of an introduced parasitic castrator? *Journal of Experimental Marine Biology and Ecology* 187: 129-145.
- Grosholz, E. D. 1994. The effects of host genotype and spatial distribution on trematode parasitism in a bivalve population. *Evolution* 48: 1514-1524.
- Grosholz, E. D. 1993. The influence of habitat heterogeneity on host-pathogen population dynamics. *Oecologia* 96: 347-353.
- Grosholz, E. D. 1992. Interactions of intraspecific, interspecific, and apparent competition with host-pathogen population dynamics. *Ecology* 73: 507-514.
- Sousa, W. P. and E. D. Grosholz. 1990. The influence of habitat structure on the transmission of parasites. In: *Habitat Structure: The Physical Arrangement of Objects in Space*, S. S. Bell, E. D. McCoy, and H. R. Mushinsky, editors. Chapman and Hall, London, pp. 300-324.
- Grosholz, E. D. 1990. The population dynamics of terrestrial isopods and an iridescent virus. Ph.D. Thesis. University of California, Berkeley.
- Ching, H. L. and E. D. Grosholz. 1987. Occurrence of the metacercaria of *Parvatrema obscurum* (Gymnophallidae) in the digestive gland of limpets, *Lottia digitalis*. *Proc. Helm. Soc. Wash.* 53: 104-105.
- Bertness, M.D. and E. D. Grosholz. 1985. Population dynamics of the ribbed mussel, *Gukensia demissa*: the costs and benefits of an aggregated distribution. *Oecologia* 67: 192-204.

GRANTS AWARDED:

- 2016-2018 California Sea Grant Delta Science. \$197,903. Mechanisms for the Effective Biological Control of the Invasive Water Hyacinth, *Eichhornia crassipes*, in the Sacramento-San Joaquin River Delta, California”
- 2015-2016 National Science Foundation. \$199,187. RAPID: A rare opportunity to examine overcompensation resulting from intensive harvest of an introduced predator. E. Grosholz, C. deRiverva (PSU), G. Ruiz (SERC) (co-PIs).
- 2014-2016 California Sea Grant. \$264,261. The Importance of Estuarine Acidification (EA) for Commercial Oyster Production and Native Oyster Restoration. E. Grosholz, A. Russell (co-PIs).
- 2011-2014 National Oceanographic and Oceanic Administration, NERR Science Collaborative. \$278,912. Managing for resilience in the face of climate change: a scientific approach to targeted oyster

- restoration in San Francisco Bay and Elkhorn Slough, CA. Co-P.I.s E. Grosholz, M. Ferner (SFSU), K. Wasson (Elkhorn Slough NERR), C. Zabin (SERC), A. Chang (SFSU), M. Latta (CCC).
- 2010-2014 National Science Foundation. \$1,495,487 (CNH-1009957) Removal and Restoration: Social, Economic and Ecological Dynamics of Invasive *Spartina* in San Francisco Bay. Co-P.I.s A. Hastings, J. Sanchirico, M. Lubell, C. Feldman.
- 2011-2012 Maryland Sea Grant. \$25,060. Importation of Baitworms and their Live Algal Packing Materials to the Mid-Atlantic: Vector Characterization and Management. Co-PI A.W. Miller.
- 2011-2012 California Ocean Science Trust. \$201,178 Invaders for sale: a vector analysis of commercial aquaculture and the aquarium and aquascape Trades. Co-P.I.s E. Grosholz and S. Williams.
- 2009 California Department of Fish and Game. \$23,000. Examination of sublethal impacts of the 2007 Cosco Busan oil spill on the native oyster *Ostrea lurida* in San Francisco Bay. Nutrients and Benthic Invasion Dynamics. Co-P.I.s E. Grosholz and C. Zabin.
- 2008-2009 National Oceanic and Atmospheric Administration and Pacific States Marine Fishery Commission. \$27,313. Green crab control methods: Expanding capacity to control European Green crab populations in the northeast Pacific. Co-P.I.s E. Grosholz, C. de Rivera (Portland State), G. Ruiz (Smithsonian), M. Sytsma (Portland State).
- 2008-2012 US Fish and Wildlife Service. \$9,775. Master Gardener's prevent aquatic plant invasions through community education and outreach California Sea Grant College Program. Co-P.I.s E. Grosholz and H. Crosson
- 2008-2009 Association of Bay Area Governments \$15,000. Subtidal native oyster restoration. Co-P.I.s E. Grosholz and C. Zabin.
- 2008 California Department of Fish and Game. \$7,500. Train the trainer: Master Gardeners prevent aquatic invasive plant introductions through community education and outreach. C-P.I.s E. Grosholz and H. Crosson.
- 2007-2010 CALFED and CA Sea Grant. \$107,696. Nutrients and benthic invasion dynamics. P.I. E. Grosholz
- 2007-2010 California Sea Grant College Program. \$219,564. Investigating the limits of native oyster recovery and restoration. P.I. E. Grosholz
- 2006-2008 University of California Exotic/Invasive Pests and Disease Research Program. \$102,525. Assessment and control of the impact of non-native oyster drills on the restoration of native oysters. P.I. E. Grosholz.
- 2006-2008 University of California Marine Council. \$225,000. Establishing connectivity of invasive populations: a precursor to prioritization and implementation of eradication efforts. Co-P.I. E. Grosholz, S. Williams, S. Morgan, L. Levin, A. Kuris.
- 2006-2007 National Oceanic and Atmospheric Administration and Pacific States Marine Fishery Commission, \$249,375. Green crab control methods: Evaluating factors important for eradication of *Carcinus*

- maenas*. Co-P.I.s E. Grosholz, C. de Rivera (PSU), G. Ruiz (SERC), M. Sytsma (PSU)
- 2006-2007 California Ocean Protection Council. \$149,827. Documenting the status of Native Oysters in San Francisco Bay, CA. P. I. E. Grosholz
- 2005-2006 Pacific States Marine Fishery Commission, \$32,565, Monitoring the European Green Crab Invasion in California. P.I. E. Grosholz.
- 2004-2005 National Park Service California Cooperative Ecosystem Studies, \$57,150. *Restoration of native oysters in Tomales Bay, California*. P.I. E. Grosholz.
- 2003-2006 University of California Center for Invasive Species Research, \$88,387. *Sabellid polychaete detection in native gastropod populations and control at abalone culture facilities*. P.I.'s E. Grosholz and J. Moore.
- 2002-2005 University of California Center for Invasive Species Research, \$115,656. *Managing the impacts of the introduced European green crab (*Carcinus maenas*) in coastal estuaries*. P.I., E. Grosholz
- 2004-2005 California Sea Grant Program, \$9,986. Increasing Graduate Student Participation: Sea Grant Trainee Session at the Western Society of Naturalists (WSN). P.I. E. Grosholz
- 2004-2005 California Sea Grant Program, \$6,300. International Invasive *Spartina* Conference: Research, Management and Outreach. P.I. E. Grosholz.
- 2003-2006 National Science Foundation IGERT Program. \$2,596,186. Biological invasions: from genes to ecosystems, from science to society. P.I. R. Grosberg, Co-P.I.s: H. Doremus, K. Rice, S. Strauss, S. Usting, others Collaborators: E. Grosholz and others.
- 2002-2004 National Oceanic and Atmospheric Administration, \$59,998. *Community Based Restoration of Native Oysters in Central California*. E. Grosholz, P.I.
- 2002-2004 U.S. Fish and Wildlife Service, \$97,545. *Evaluating nonindigenous aquatic species in the Sacramento-San Joaquin river system*. P.I.'s E. Grosholz and P. Moyle.
- 2002-2004 California Department of Fish and Game, \$40,000. *California aquatic nuisances species management plan*. P.I. E. Grosholz.
- 2002- 2004 Pacific States Marine Fisheries Commission, \$29,671. *California green crab monitoring program*. P.I., E. Grosholz.
- 2002-2004 CALFED Bay/Delta Program, \$179,783. Reducing the introduction and damage of aquatic nonindigenous species through outreach and education, Part II. P.I. E. Grosholz.
- 2002-2005 CALFED Bay/Delta Program, \$2,521,236. *The influence of flood regimes, vegetative and geomorphic structures on the links between aquatic and terrestrial systems*. P.I.s J. Quinn, G. Fogg, E. Grosholz, K. T. Paw, M. Schwartz, M. Power (UCB), W. Rainey (UCB), N. Nur (PRBO).
- 2000-2005 National Science Foundation (DEB-0083583), \$3,799,621. *Dynamics of an invasive non-native species and its biological, physical, and human impacts: *Spartina alterniflora* on the Pacific*

- coast. P.I.'s A. Hastings, E. Grosholz, D. Layton, D. Strong, S. Ustin, L. Levin (UCSD), A. Cohen (SFEI).
- 2000-2005 U.S. Environmental Protection Agency EaGLES Program, \$4,118,221. *Environmental indicators in the estuarine environment research program*. P.I. S. Anderson, S. Morgan, G. Cherr, R. Nisbet (UCSB), collaborator Edwin Grosholz with others. 3/01/01-2/28/05
- 2002 California Department of Fish and Game \$50,002 *Caulerpa taxifolia Outreach*. E. Grosholz, P.I.
- 2002 United States Fish and Wildlife Service \$10,000. *International Caulerpa taxifolia Conference*. E. Grosholz, P.I.
- 2002 California Sea Grant College Program. \$9,998. *International Caulerpa taxifolia Conference*. E. Grosholz, P.I.
- 2000-2002 CALFED Bay /Delta Program, \$556,000. *McCormack-Williamson Tract restoration planning, design, and monitoring program I*. J. Mount, E. Grosholz, P. Moyle, G. Pasternack, J. Quinn, G. Schladow.
- 1999-2002 CALFED Bay/Delta Program, \$1,946,167. *Linked hydrogeomorphic-ecosystem models to support adaptive management: Cosumnes-Mokelumne paired basin project*. P.I.'s J. Mount, E. Grosholz, P. Moyle, J. Quinn, L. Kavvas, G. Fogg, G. Pasternak, G. Schladow, Randy Dahlgren.
- 1999-2001 CALFED Bay/Delta Program, \$105,463. Reducing the risk of importation and distribution of non-native invasive species through outreach and education. P.I. E. Grosholz.
- 1999-2001 California Sea Grant, \$133,642. *Post-invasion genetic structure of European green crab populations on the US west coast and its implications for the control*. P.I. J. Geller, Co-P.I. E. Grosholz, M. Bagley.
- 1998-2000 United States Department of Agriculture, Hatch Program, \$22,000. *The impact of a recently introduced fouling species on commercial oysters*. P.I. E. Grosholz
- 1998-2000 Sea Grant (New Hampshire/Maine)-NOAA Partnership Program, \$28,350. *Quantifying the range expansion and ecological impact of the nonindigenous European green crab in western North America*. P.I. E. Grosholz.
- 1997-1999 Washington State Sea Grant, \$154,217. *Potential impacts of a nonindigenous crab on selected west coast commercial invertebrates*. P.I. D. Armstrong, Co-P.I. G. Jensen, E. Grosholz, G. Ruiz, and G. Jamieson.
- 1996-1997 Smithsonian Institution Biodiversity Programs. Caribbean Coral Reef Ecosystems (CCRE), \$1,500. *Climatic and biotic factors influencing the distribution of black band disease at Carrie Bow Cay*. P.I.'s E. Grosholz, G. Ruiz, and A. Hines.
- 1996-1998 United States Department of Agriculture, Hatch Program (NH00385), \$25,000. *Predicting the rate of range expansion of introduced species in the Gulf of Maine*. P.I. E. Grosholz.
- 1996 National Science Foundation, Research Experience for

- 1995 Undergraduates (REU), Supplement to DEB-9322797, \$5,000. National Science Foundation, Research Experience for Undergraduates (REU) Supplement to DEB-9322797, \$5,000.
- 1994-96 National Science Foundation, Conservation and Restoration Biology (DEB-9322797), \$185,000. *Ecological and evolutionary consequences of the recent introduction of green crabs to the Pacific coast of North America*. P.I. E. Grosholz; Co-P.I.'s, D. Hedgecock and G. Ruiz.
- 1994-95 Smithsonian Institution Biodiversity Programs. Caribbean Coral Reef Ecosystems (CCRE), \$1,500. *Assessing the distribution of black band disease at Carrie Bow Cay*. P.I.'s E. Grosholz and G. Ruiz.
- 1993-1994 National Science Foundation, Biological Oceanography, Rapid Response (OCE-9400706), \$19,792. *Impact of the recently introduced green crab on invertebrate and shorebird populations in Bodega Harbor*. P.I. E. Grosholz; Co-P.I. G. Ruiz.
- 1993-1994 California Sea Grant, Rapid Response, \$9,999. *Invasion of California estuaries by the non-indigenous green crab *Carcinus maenas*: Assessment of its impact and geographic spread*. P.I. A. Kuris; Co-P.I.'s K. Lafferty, E. Grosholz, and G. Ruiz.
- 1992-1994 National Science Foundation, Postdoctoral Fellowship in Environmental Biology (DEB-9203217), \$69,600. *The influence of dispersal, predation, and spatial complexity on the population dynamics of a plant-vector-pathogen system*. (Awarded, but declined). P.I. P. Kareiva; Co-P.I. E. Grosholz.
- 1988-1990 National Science Foundation, Dissertation Improvement Grant (BSR-8800962), \$6,000. *The effects of habitat structure on mortality due to virus infection in field populations of the terrestrial isopod *Porcellio scaber**. P.I. W. Sousa; Co-P.I. E. Grosholz.

REPORTS AND LIMITED DISTRIBUTION PUBLICATIONS:

- Wasson, K., C. Zabin, J. Bible, E. Ceballos, A. Chang, B. Cheng, A. Deck, T. Grosholz, M. Latta and M. Ferner. A guide to *Olympia* oyster restoration and conservation. Environmental conditions and sites that support sustainable populations in central California. 43 pp.
- Wasson, K., C. Zabin, J. Bible, S. Briley, E. Ceballos, A. Chang, B. Cheng, A. Deck, T. Grosholz, A. Helms, M. Latta, B. Yednock, D. Zacherl, and M. Ferner. A guide to *Olympia* oyster restoration and conservation. Environmental conditions and sites that support sustainable populations. 47 pp.
- Grosholz, E. D., R. E. Crafton, R. E. Fontana, J. Pasari, S. L. Williams and C. Zabin. 2012. An analysis of aquaculture as a vector for introduced marine and estuarine species in California. Report to the California Ocean Science Trust (Contract # 201017597), 77 pp.
- Williams, S. L., R. E. Crafton, R. E. Fontana, Grosholz, E. D., J. Pasari and C. Zabin. 2012. A vector analysis of the aquarium and aquascape

- (‘Ornamental Species’) trades in California. Report to the California Ocean Science Trust (Contract # 201017597), 87 pp.
- Carlton, J. T., G. M. Ruiz, J. E. Byers, F. C. Dobbs, E. D. Grosholz, B. Leung, H. Maclsaac, M. J. Wonham. 2011. Assessing the relationship between propagule pressure and invasion risk in ballast water. Committee on Assessing Numeric Limits for Living Organisms in Ballast Water. Water Science and Technology Board, Division on Earth and Life Studies. The National Academies Press, Washington, D.C., 123 pp.
- Konzak, M., A. Praetzelis, E. D. Grosholz and C. Zabin. 2011. Archaeology of *Ostrea lurida* in Drakes Estero, Point Reyes National Seashore. Cooperative Agreement No. H8537070194, Task Agreement No. J8537102387, United States Department of the Interior, National Park Service, Point Reyes National Seashore, Point Reyes Station, CA, 61 pp.
- Zabin, C.J., V. Guerra, E.D. Grosholz, K. Lesyna and J. McGowan. 2011. The Asian kelp *Undaria pinnatifida* in San Francisco and Half Moon bays: extent of current population, and update on removal and outreach efforts to date. Final Report to the San Francisco Regional Water Quality Control Board, 32 pp.
- Grosholz, E. D. and B. Breen. 2010. Estuarine Habitat. In: J. Largier, B. Cheng and K. Higgason, eds. Climate change impacts – Report of a Joint Working Group of the Gulf of the Farallones and Cordell Bank National Marine Sanctuaries Advisory Councils, 121 pp.
- Grosholz, E. D. 2010. Invasive Species. In: J. Largier, B. Cheng and K. Higgason, eds. Climate change impacts – Report of a Joint Working Group of the Gulf of the Farallones and Cordell Bank National Marine Sanctuaries Advisory Councils, 121 pp.
- Tyler, A. C. and E. D. Grosholz. 2010. *Spartina* invasion changes intertidal ecosystem metabolism in San Francisco Bay. In: Proceedings of the Third International Conference on Invasive *Spartina*, D. R. Ayres, D. W. Kerr, S. D. Ericson and P. R. Olofson, eds. California State Coastal Conservancy, pp. 135-139.
- Mahl, U. M., A. C. Tyler and E. D. Grosholz. 2010. The impact of benthic invertebrates on sediment biogeochemistry: consequences for *Spartina* seedling growth. In: Proceedings of the Third International Conference on Invasive *Spartina*, D. R. Ayres, D. W. Kerr, S. D. Ericson and P. R. Olofson, eds. California State Coastal Conservancy, pp. 165-170.
- Christiansen, N., E. D. Grosholz and P. Rosso. 2010. Quantifying the potential impact of the *Spartina* invasion on invertebrate food resources for foraging shorebirds in San Francisco Bay. In: Proceedings of the Third International Conference on Invasive *Spartina*, D. R. Ayres, D. W. Kerr, S. D. Ericson and P. R. Olofson, eds. California State Coastal Conservancy, pp. 171-174.
- Grosholz, E. D. and R. E. Blake. 2010. The effects of grazing geese on hybrid and native *Spartina* in San Francisco Bay. In: Proceedings of the Third International Conference on Invasive *Spartina*, D. R. Ayres, D. W. Kerr, S. D. Ericson and P. R. Olofson, eds. California State Coastal Conservancy, pp. 191-196.
- Brusati, E. D. and E. D. Grosholz. 2010. Contrasting effects of *S. foliosa* and

- hybrid *Spartina* on benthic invertebrates. In: Proceedings of the Third International Conference on Invasive *Spartina*, D. R. Ayres, D. W. Kerr, S. D. Ericson and P. R. Olofson, eds. California State Coastal Conservancy, pp. 161-164.
- Neira, C., E. D. Grosholz and L. A. Levin. 2010. Mechanistic processes driving shifts in benthic infaunal communities following *Spartina* hybrid tidal flat Invasion. In: Proceedings of the Third International Conference on Invasive *Spartina*, D. R. Ayres, D. W. Kerr, S. D. Ericson and P. R. Olofson, eds. California State Coastal Conservancy, pp. 141-146.
- Zabin, C. J., S. Attoe, E. D. Grosholz and C. Coleman-Hulbert. 2009. Shellfish Restoration Goals: Final Report for the Subtidal Goals Committee, 107 pp.
- Tezak, S., K. Reyna, M. Brown, B. Carmen, B. Brostoff, Bowser, B., G. Bennett, R. Camiccia, J. Collins, R. Ferris, E. Grosholz, G. Heistand, D. Kamieniecki, B. Ketcham, B. Mace, T. Moore, C. Morton, N. Nidzieko, G. Page. 2008. Bolinas Lagoon Restoration Ecosystem Project. Gulf of the Farallones National Marine Sanctuary.
- Kimbro, D. L., S. Phillips and E. D. Grosholz. 2007. Proceedings: Workshop on Alternative Ballast Water Exchange Areas: Physical and Biological Oceanographic Considerations. Pacific States Marine Fisheries Commission, 22 pp.
- Lovell, S., E. Besedin and E. D. Grosholz. 2007. Modeling economic impacts of European green crabs. Selected paper for presentation at the American Agricultural Economics Association Meetings, Portland, OR.
- Grosholz, E. D., H. Crosson and K. Torres. 2006. Chinese (Mandarin) language version of "Introduced Aquatic Plants and Animals Cost Californians Millions! Preventing non-ballast water introduction of aquatic pests in the San Francisco Bay-Delta Region. Wall Poster (www.ridnis.ucdavis.edu)
- Grosholz, E. D., H. Crosson and K. Torres. 2006. Chinese language (Cantonese voice, Mandarin subtitles) version The Great Escape: Preventing Aquatic Species Invasions. Video produced by DANR Publications (on DVD) (www.ridnis.ucdavis.edu).
- Grosholz, E. D. and H. Crosson. 2005. Workshop recommendations: aquarium industry strategies for consumer awareness and education about introduced aquatic species (www.ridnis.ucdavis.edu)
- Crosson, H. and E. D. Grosholz. 2005. Workshop recommendations: aquatic horticulture industry strategies for consumer awareness and education about introduced aquatic species (www.ridnis.ucdavis.edu)
- Grosholz, E.D. and H. Crosson. 2005. Invasores de la Bahia. Spanish language printed pamphlet (www.ridnis.ucdavis.edu)
- Crosson, H. and E. D. Grosholz. 2005. English language version of "Introduced Aquatic Plants and Animals Cost Californians Millions!" Preventing non-ballast water introduction of aquatic pests in the San Francisco Bay-Delta Region. Wall Poster (www.ridnis.ucdavis.edu)
- Harris, L., G. Lambert, W. Fields, D. Cadien, J. Chapman, V. Coelho, E. D. Grosholz, B. Becker. 2005. Estuarine and Marine Invertebrates of Tomales Bay. National Park Service
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- Light, T., E. D. Grosholz and P. B. Moyle. 2004. Delta ecological survey (Phase I): nonindigenous aquatic species in the Sacramento-San Joaquin Delta, a Literature Review. Draft final report for agreement # DCN 1113322J011. U.S. Fish and Wildlife Service, Stockton, CA.
- Light, T., E. D. Grosholz and P. B. Moyle. 2004. Introduced aquatic species database for the Sacramento-San Joaquin Delta (database on CD).
- Crosson, H. and Grosholz, E. D. 2003. California Invasive Species Management Plan. Submitted to California Department Fish and Game.
- Mount, J., Kavvas, L., Fogg, G., Florsheim, J. L., Pasternak, G., Dahlgren, R., Moyle, R., Grosholz, E. D. and Quinn, J. 2003. Cosumnes-Mokelumne Paired Basin Project: Linked Hydrogeomorphic-Ecosystem Models to Support Adaptive Management. Published by CALFED Bay-Delta Program (Project #99-N06). (copy included).
- Moyle, P. B. and Grosholz, E. D. 2003. Aquatic Resource Program Report. Published by CALFED Bay-Delta Program (Project #99-N06). (copy included).
- Grosholz, E. D. and E. Gallo. 2003. Aquatic Resource Survey of the Upper Cosumnes and Mokelumne Rivers: Invertebrates. Published by CALFED Bay-Delta Program (Project #99-N06). (copy included).
- Grosholz, E. D. and E. Gallo. 2003. Impact of Seasonal Flooding on Native and Non-Native Species, Cosumnes and Mokelumne Rivers. Published by CALFED Bay-Delta Program (Project #99-N06). (copy included).
- Grosholz, E. D. and E. Gallo. 2003. Floodplain Management to Enhance Primary Productivity and Native Invertebrates. Published by CALFED Bay-Delta Program (Project #99-N06).
- Grosholz, E. D. 2003. Floodplain Management Alternatives for Reduction in Invasive Aquatic Species. Published by CALFED Bay-Delta Program (Project #99-N06).
- Grosholz, E. D. 2003. Long-term Monitoring Recommendations for Aquatic Invertebrates in the Cosumnes and Mokelumne River Basins. Published by CALFED Bay-Delta Program (Project #99-N06).
- Grosholz, E. D. and E. Gallo. 2003. Aquatic Resource Survey of the Lower Mokelumne River and McCormack-Williamson Tract. Published by CALFED Bay-Delta Program.
- Williams, E. and Grosholz, E. D. 2002. *Caulerpa taxifolia* Watch. Watch card (both laminated waterproof and regular) produced by DANR Publications.
- Grosholz, E.D. and E. Williams. 2002. The Great Escape: Preventing Aquatic Species Invasions. Video produced by DANR Publications (on VHS tape).
- Grosholz, E.D. and P. Olin. 2001. Reducing Losses of Manila Clams to the European Green Crab. Funded by California Sea Grant
- Grosholz, E.D. and E. Williams. 2001. International *Caulerpa taxifolia* Conference Proceedings. Published by California Sea Grant Program (on CD).
- Grosholz, E. D. and G. M. Ruiz. 2000. The impacts of the European green crab *Carcinus maenas* in central California. *Dreissena: The Digest of the National Aquatic Nuisance Species Clearing House*, Vol. 11(3) pp. 1-6.

- Grosholz, E. D. and G. M. Ruiz. 2000. European Green Crab Management Plan. Draft management plan submitted to the federal inter-agency Aquatic Nuisance Species Task Force, Green Crab Steering Committee.
- Grosholz, E. D. 1999. The Threat of Nonindigenous Aquatic Species to California Agriculture. Supplemental report to the UC Agricultural Issues Center, Exotic Pests and Diseases: Biology, Economics, Public Policy.
- Estelle, R. and E. D. Grosholz. 1999. The effects of introduced marine predators on shorebirds. Contribution to the 1999 National Shorebird Conservation Plan, Manomet Bird Observatory.

FELLOWSHIPS AND AWARDS:

- 2007 Alex and Elizabeth Swantz Endowed Chair in Cooperative Extension, University of California, Davis
- 1993 Postdoctoral Fellowship, Center for Population Biology, University of California, Davis.
- 1991 Postdoctoral Fellowship, Smithsonian Environmental Research Center, Edgewater, MD.
- 1990 Postdoctoral Fellowship, Friday Harbor Laboratories, University of Washington.
- 1989 Outstanding Student Paper, Pacific Ecology Conference, Oregon Institute of Marine Biology, University of Oregon, Charleston, OR.
- 1989 Outstanding Student Paper, Ecology Section, American Society of Zoologists, Boston, MA.
- 1988 Regents Fellowship of the University of California.
- 1987 Theodore Roosevelt Fund of the American Museum of Natural History.

TEACHING EXPERIENCE:

- 2016 Introduction to Field and Lab Methods in Ecology, UC Davis
- 2014 Introduction to Field and Lab Methods in Ecology, UC Davis
- 2012 Introduction to Field and Lab Methods in Ecology, UC Davis
- 2010 Introduction to Field and Lab Methods in Ecology, UC Davis
- 2009 REACH IGERT Graduate training core course, UC Davis
- 2007 Marine Conservation Biology, UC Davis
- 2007 Seminar on Algal Biodiversity, UC Davis
- 2005 Marine Conservation Biology, UC Davis
- 2004 Seminar on Diseases in Marine Systems, UC Davis
- 2002 Seminar on Estuarine Ecology, UC Davis
- 2001 Current Issues in Marine Ecology, UC Davis
- 1998 Marine Biology, University of New Hampshire
- 1997 Marine Biology, University of New Hampshire
- 1997 Conservation Biology, University of New Hampshire
- 1996 Marine Biology, University of New Hampshire
- 1996 Marine Ecology, University of New Hampshire
- 1990 Coastal and Marine Field Ecology, University of California, Davis.

GRADUATE STUDENTS AND POSTDOCTORAL RESEARCHERS:

Postdoctoral Fellows: Julie Hopper 2016- present, Stephanie Green 2013-2015 (Banting Fellow, Stanford Center for Ocean Solutions), Pamela Reynolds, 2013-2014 (Postdoctoral Fellow, Virginia Institute of Marine Science), Sylvia Yang 2011-2012 (Marine Scientist, Western Washington University), Chela Zabin 2006-2009 (Assistant Project Scientist, Smithsonian Institution and UC Davis), Christy Tyler 2002-2006 (Associate Professor, Rochester Institute of Technology), Catherine DeRivera 2002-2005 (Professor, Portland State University), Theo Light 2002-2004 (Associate Professor, Shippensburg University),

Ph. D. students: Elizabeth Brusati (2004), Anne Randall Hughes (2006), David Kimbro (2008), Andy Chang (2009), Heidi Weiskel (2012), Christy Bowles (2013), Betsy Wells (2013), Brian Cheng (2014), Megan Kelso (degree expected 2017), Rachel Wigginton (degree expected 2017), Jason Sadowski (degree expected 2018), Jordan Hollarsmith (expected 2019), Ben Rubinoff (degree expected 2021)

M.S. students: David Kimbro (2004), Erika Gallo (2006), Anna Deck (2010), Holly Long (2012), Christine Sur (degree expected 2016)

INVITED SYMPOSIA AND SEMINARS:

2015 Biology Department, San Diego State University, San Diego, CA
2014 Workshop, UC ANR California Naturalists Program, Monterey, CA
2014 Symposium, Ecological Society of America, Sacramento, CA
2014 Symposium, Joint Aquatic Sciences Meeting, Portland, OR
2014 Symposium, Society for Conservation Biology, Missoula, MT
2014 Workshop, Kachemak Bay NERR Oyster Aquaculture, Homer, AK
2013 Western Regional Panel Aquat. Nuis. Spec. Task Force, Portland, OR
2012 Workshop, OA and Benthic Ecosystems, Monterey, CA
2012 Keynote, Canadian Aquatic Invasive Species Network, Montreal, Canada
2012 Workshop, NOAA Oyster Restoration Metrics, Silver Spring, MD
2011 NCEAS Working Group, Climate Change & Invasions, Santa Barbara, CA
2011 Symposium, Ecological Society of America, Austin, TX
2011 Biology Department, California State University, Long Beach, CA
2010 Panelist, Oil Spill Induced Trophic Cascades, Mote Marine, Sarasota, FL
2010 Symposium, California and World Oceans, San Francisco, CA
2010 Symposium, Western Society of Naturalists, San Diego, CA
2010 Biology Department, Humboldt State University, Arcata, CA
2009 Keynote Speaker, Maryland Sea Grant Workshop, Annapolis, MD
2009 Pacific AAAS Conference, San Francisco, CA
2008 Invasive Crab Risk Assessment Workshop, Fisheries & Oceans Canada, Montreal
2008 Invasive Green Crab Workshop, Pacific States Marine Fisheries Commission, Vancouver
2008 Department of Biology, University of Maryland, College Park, MD
2008 School of Fisheries and Ocean Sciences, University of Alaska, Fairbanks
2008 School of Fisheries and Ocean Sciences, University of Alaska, Juneau
2008 Keynote Speaker, Northern Pacific Marine Science Organization (PICES), Dalian, China
2008 Romberg Tiburon Center, San Francisco State University
2007 Hadfield Marine Science Center, Oregon State University, Newport, OR

- 2007 Propagule Pressure Invited Session, Ecological Society of America, San Jose, CA
- 2007 COMPASS-Communication Partnership for Science and the Sea, Sacramento, CA
- 2006 Propagule Pressure Workshop, US EPA, Washington, D.C.
- 2006 Keynote Speaker, VI Jornadas Nacionales de Ciencias del Mar, Puerto Madryn, Argentina
- 2006 Panelist, Alternative Ballast Water Exchange Area Workshop, Seattle, WA
- 2005 Keynote Speaker, Associação Brasileira de Oceanografia, Vitoria, Brazil
- 2005 Department of Biology, University of California, Santa Cruz
- 2005 Humboldt Bay Symposium, Arcata, CA
- 2004 Ecological Society of America, Portland, OR
- 2004 3rd International Invasive Spartina Conference, San Francisco, CA
- 2004 American Society of Limnology and Oceanography, Honolulu, HI
- 2004 Pacific Northwest Economic Region Annual Summit, Victoria, BC
- 2003 National Marine Fisheries Service, Seattle, WA
- 2003 UC Davis Invasion Biology Colloquium, Davis, CA
- 2003 Estuarine Research Foundation, Seattle, WA
- 2003 NERR Invasive Monitoring Workshop, Monterey, CA
- 2003 The Nature Conservancy Forum on Invasive Species, San Francisco, CA
- 2003 Gulf of the Farallones Forum on Invasive Species, San Francisco, CA
- 2002 Scripps Institution of Oceanography, La Jolla, CA
- 2002 California and World Oceans Conference, Santa Barbara, CA
- 2002 Ecological Society of America, Tuscon, AZ
- 2001 State of the River Conference, Davis, CA
- 2001 NATO Advance Research Workshop on Invasions in the Mediterranean, Black and Caspian Seas, Baku, Azerbaijan (cancelled)
- 2001 North American Commission for Environmental Cooperation (CEC, US, Canada, Mexico), Montreal, Canada
- 2001 DANR Statewide Conference, UC Riverside, Riverside, CA
- 2000 Department of Biology, Colorado State University
- 2000 Department of Integrative Biology, University of California, Berkeley
- 2000 Symposium Co-Organizer (with John Maron): Ecological Consequences of Adaptive Evolution Among Invasive Species in Terrestrial and Marine Systems. Ecological Society of America, Snowbird, UT.
- 2000 Monterey Bay Aquarium Research Institute (MBARI), Monterey, CA.
- 2000 10th International Invasive Species Conference, Toronto, Canada
- 2000 State of Tomales Bay Conference, Inverness, CA
- 2000 CALFED Bay-Delta Science Conference, Sacramento, CA
- 1999 National Conference on Marine Bioinvasions, Sea Grant/NOAA, Massachusetts Institute of Technology Cambridge, MA
- 1998 Workshop: Controlling Established Populations of Alien Marine Species. Marine Conservation Biology Institute, Seattle, WA
- 1998 Symposium: The Multitrophic Level Impacts of the European Green Crab in Central California. Eighth International Zebra Mussel and Aquatic Nuisance Species Conference, Sacramento, CA.
- 1998 Workshop: Exotics of the North Sea, Biologische Anstalt Helgoland, Wattenmeerstation Sylt, List/Sylt, Germany
- 1998 Symposium: The Range Expansion and Ecological Impacts of the European Green Crab in California. Workshop on the Potential Impacts of Green Crabs in the Pacific Northwest. Washington and Oregon Seagrant Programs, Portland, OR
- 1998 Department of Biology, Bowdoin College

- 1998 Department of Biologie, Universite Laval, Montreal, Canada
- 1997 Symposium: The European Shore Crab (*Carcinus maenas*) in Australian waters. Workshop on Impacts and Management Options Commonwealth Scientific and Industrial Research Organization (CSIRO), Hobart, Tasmania.
- 1997 Symposium Organizer: The Impact of Introduced Species in Aquatic, Terrestrial, and Marine Systems. Society for Conservation Biology, Victoria, Canada.
- 1997 Symposium: Effects of Multiple Stressors on Freshwater and Marine Ecosystems. American Society of Limnology and Oceanography, Santa Fe, NM.
- 1997 Symposium: Nonindigenous Species: Invasion Patterns, Ecosystem Impact, and Management. American Society of Limnology and Oceanography, Santa Fe, NM
- 1997 Symposium: Marine Biological Invasions: Patterns, Processes, and Prospects. American Association for the Advancement of Sciences, Seattle, WA
- 1996 Symposium: Marine and Coastal Aquatic Nuisance Species, Aquatic Nuisance Species Task Force, National Oceanic and Atmospheric Administration (NOAA) and U. S. Fish and Wildlife Service (FWS), Newark, CA
- 1996 Symposium: Non-indigenous Species Workshop. NOAA-California Sea Grant Program, Millbrae, CA
- 1996 Department of Zoology, University of Rhode Island
- 1996 Department of Ecology and Evolutionary Biology, Brown University
- 1996 Symposium: Research in Support of Sanctuaries and Reserves. American Association for the Advancement of Sciences, Pacific Division, Monterey, CA
- 1995 Department of Zoology, University of New Hampshire, Durham
- 1995 Department of Biology, Northeastern University, Boston.
- 1995 Department of Biology, University of California, Los Angeles.
- 1994 Department of Biology, California State University, Sonoma.
- 1994 Symposium: American Association for the Advancement of Sciences, Pacific Division, San Francisco, CA.
- 1994 USDA Invasion Biology Workshop, University of California, Davis, CA.
- 1994 Department of Zoology, University of Texas, Austin.
- 1993 Department of Ecology and Evolutionary Biology, Brown University, Providence, RI.
- 1992 Department of Biological Sciences, University of Michigan, Ann Arbor.
- 1990 Center for Population Biology, University of California, Davis.
- 1990 Symposium Co-organizer (with Greg Dwyer): Experimental Approaches to Host-Parasite Population Dynamics. Ecological Society of America, Snowbird, UT.

CONTRIBUTED PRESENTATIONS:

- 2016 International Conference on Marine Bioinvasions, Sydney, AUS
- 2015 Coastal and Estuarine Research Foundation, Portland, OR
- 2015 National Shellfish Association, Monterey, CA
- 2015 Benthic Ecology Meetings, Quebec City, CAN
- 2014 California Estuarine Research Society, Bodega Bay, CA
- 2013 International Congress for Conservation Biology, Baltimore, MD
- 2013 State of the San Francisco Bay Estuary, Oakland, CA
- 2013 International Conference on Marine Bioinvasions, Vancouver, CAN

2013 Coastal and Estuarine Research Foundation, San Diego, CA
2012 Ecological Society of America, Portland, OR
2011 Coastal and Estuarine Research Foundation, Daytona Beach, FL
2011 7th International Marine Bioinvasions Conference, Barcelona, Spain
2010 Dreissenid Mussel Summit, Sacramento, CA
2010 International Conference on Aquatic Invasive Species, San Diego, CA
2009 Ecological Society of America, Albuquerque, NM
2009 6th International Marine Bioinvasions Conference, Portland, OR
2009 Coastal and Estuarine Research Foundation, Portland, OR
2009 California Estuarine Research Society, Bodega Bay, CA
2008 American Geophysical Union, San Francisco, CA
2008 Ecological Society of America, Milwaukee, WI
2008 Western Society of Naturalists, Vancouver, Canada
2007 5th International Marine Bioinvasions Conference, Cambridge, MA
2007 California Estuarine Research Society, Bodega Bay, CA
2007 West Coast Native Oyster Restoration Workshop, Shelton, WA
2006 Western Society of Naturalists, Redmond, WA
2006 National Shellfisheries Association, Monterey, CA
2006 Ecological Society of America, Memphis, TN
2005 4th International Marine Bioinvasions Conference, Wellington, New Zealand
2005 Western Society of Naturalists, Monterey, CA
2005 Ecological Society of America, Montreal, Canada
2004 Western Society of Naturalists, Rohnert Park, CA
2004 CALFED Science Conference, Sacramento, CA
2003 3rd International Marine Bioinvasions Conference, La Jolla, CA
2003 Ecological Society of America, Savannah, GA
2003 Western Society of Naturalists, Long Beach, CA
2003 American Geophysical Union, San Francisco, CA
2003 CALFED Science Conference, Sacramento, CA
2002 Western Society of Naturalists, Monterey, CA
2002 Bodega Marine Laboratory, Bodega Bay, CA
2002 11th International Conference on Aquatic Invasive Species, Alexandria, VA
2001 Western Society of Naturalists, Ventura, CA
2001 2nd International Marine Bioinvasions Conference, New Orleans, LA
2000 CALFED Bay-Delta Science Conference, Sacramento, CA
1999 1st International Marine Bioinvasions Conference, MIT, Cambridge, MA
1999 Society for Integrative and Comparative Biology, Denver, MA
1997 Society for Integrative and Comparative Biology, Boston, MA
1996 Ecological Society of America, Providence, RI.
1996 8th International Coral Reef Symposium, Smithsonian Tropical Research Institute, Panama City, Panama.
1996 Benthic Ecology Society, Columbia, SC.
1995 Society for Conservation Biology, Ft. Collins, CO.
1994 Ecological Society of America, Knoxville, TN.
1993 Ecological Society of America, Madison, WI.
1993 Society for the Study of Evolution and American Society of Naturalists, Salt Lake City, UT.
1992 Society for the Study of Evolution and American Society of Naturalists,

- Berkeley, CA.
- 1992 Benthic Ecology Society, Newport, RI.
- 1991 Western Society of Naturalists, University of California, Santa Barbara, CA.
- 1991 Society for the Study of Evolution and the American Society of Naturalists, University of Hawaii, Hilo, HI.
- 1991 Ecological Society of America, San Antonio, TX.
- 1989 Ecological Society of America, Toronto, Ontario, Canada.
- 1989 American Society of Zoologists, Boston, MA.
- 1989 Pacific Ecology Conference, O.I.M.B., University of Oregon, Charleston, OR.
- 1988 American Society of Zoologists, San Francisco, CA.
- 1988 Ecological Society of America, UC Davis, Davis, CA.
- 1987 Southwest Population Biology Conference, UC California James Reserve, Mt. San Jacinto, CA.

EDITORIAL SERVICE:

Associate Editor: *Frontiers in Ecology and the Environment* (2005-2012)

Associate Editor: *Ecology* (2007-present)

Associate Editor: *Estuaries and Coasts* (2012-present)

Reviewer for: *American Naturalist*, *Austral Ecology*, *Biological Conservation*, *Biological Invasions*, *Bioscience*, *Conservation Biology*, *Ecology*, *Ecology Letters*, *Ecological Applications*, *Frontiers in Ecology and the Environment*, *Invasion Biology*, *Journal of Experimental Marine Biology and Ecology*, *Estuaries*, *Journal of the Marine Biological Association of the U. K.*, *Journal of Shellfish Research*, *Marine and Freshwater Research*, *Limnology and Oceanography*, *Marine Biology*, *Marine Ecology-Progress Series*, *National Science Foundation*, *National Environment Research Council (UK)*, *Oecologia*, *Oikos*, *Proceedings of the National Academy of Sciences*, *Science*, *Trends in Ecology and Evolution*, *National Research Council (NAS)*, *National Sciences and Engineering Research Council (Canada)*, various state Sea Grant programs

UNIVERSITY AND PROFESSIONAL SERVICE:

2015-present Chair, Graduate Group in Ecology, UCD

2015 Member, Search Committee, Restoration Specialist

2012-2015 Member and Co-Chair, Specialists Advisory Council, UCD

2012 Coastal and Marine Science Institute Planning Committee, UCD

2011-present Member, Merton Love Awards Committee, UCD

2011-present Member, Evolution and Ecology Seminar Series, UCD

2011-present Member, UC Coastal Marine Science Institute Planning Committee

2011 San Francisco Bay Marine Life Protection Act Working Group

2010-2011 Member, Endemic/Invasive Pest & Disease SI Panel, UCD/SR

2009-present Member, San Francisco Bay Native Oyster Working Group

2009-2011 Chair of Admissions, Graduate Group in Ecology, UC Davis

2009-2011 Member, Graduate Group in Ecology Executive Committee, UCD
 2009-2011 Member, SF Bay Subtidal Goals Working Group
 2009-2010 Committee Member, National Academy of Sciences, Committee
 On Assessing Numeric Limits for Living Organisms in Ballast
 2009 Review Committee Member, NSERC Network on Aquatic Invasive
 Species
 2008-2009 REACH IGERT Graduate Admissions Committee, UCD
 2008-2009 Member, Bodega Marine Lab Nonindigenous Species Committee
 2006-2012 Member, Pacific Rim Research Program Faculty Committee
 2007-2010 Member, CAES Executive Committee, UC Davis
 2007-2009 Co-Chair, San Francisco Bay Native Oyster Working Group
 2007-2009 Member, NOAA San Francisco Bay Subtidal Goals Committees
 2007-2008 Bolinas Lagoon Restoration Working Group
 2007 Member, Search Committee, Global Change Informatics
 2006-2007 Member, West Coast Native Oyster Restoration Conference
 Committee
 2006 Member, Search Committee, Biogeochemical Modeler
 2006-2007 Co-Chair, UC Office of the President Marine Invasive Species
 Council
 2006-2008 Member, Grant Panel Review Committee, UC Pacific Rim
 Foundation
 2004-present Member, Evolution and Ecology Seminar Committee
 2004-present Member, Merton Love Awards Committee, UC Davis
 2004-2007 Member, Grant Review Committee, UC Center for Invasive Species
 2003-2007 Member, Steering Committee, UC Davis IGERT Graduate Training
 Grant
 2003 University of California External Review Committee for California
 Sea Grant Program
 2003 Member, Search Committee for faculty position in Marine Ecology
 2002-2006 Co-Chair, Coastal Committee of the Western Regional Panel of the
 Federal Aquatic Nuisance Species Task Force
 2000-2007 Member, Green Crab Control Committee of the Federal Aquatic
 Nuisance Species Task Force (ANSTF)
 2000-2005 Member, Southern California Caulerpa Action Team (SCCAT)
 2000-2007 Co-Chair, Coastal and Marine Resources Workgroup, Division of
 Agriculture and Natural Resources, UC Davis
 2002-2006 Advisor, Marine Ecology Area of Emphasis, Graduate Group in
 Ecology, UC Davis
 2000-2001 Chair, Marine Ecology Area of Emphasis, Graduate Group in
 Ecology, UC Davis
 2000-2001 Member, Joint NSF-NIH Grant Panel: Ecology of Infectious
 Diseases
 2000-2001 Member, Non-native Invasive Species Strategic Planning and
 Implementation Committee, CALFED Bay-Delta Program
 2000-2001 Member, Mitten Crab Project Work Team, San Francisco Bay Inter-
 Agency Ecological Program
 2000 Committee Member, Search for Business Office Staff, Department
 of Environmental Science and Policy, UC Davis

- 1999-2000 Co-Chair, Public Affairs Committee, Division of Ecology and Evolution Division, Society for Integrative and Comparative Biology, (formerly ASZ).
- 1998-99 Co-Chair, Public Affairs Committee, Division of Ecology and Evolution Division, Society for Integrative and Comparative Biology, (formerly ASZ).
- 1997-98 Committee Member, Diving Control Board, University of New Hampshire
- 1997-99 Committee Member, Computer Advisory Committee, College of Life Sciences and Agriculture, University of New Hampshire
- 1997-98 Committee Member, Hubbard Marine Program Endowment Education Committee, University of New Hampshire
- 1997 Chair, Graduate Admissions Committee, Department of Zoology, University of New Hampshire
- 1996 Volunteer Grant Consultant, Kreesge Foundation Project, Audubon Society of New Hampshire, Concord, NH
- 1996 Committee Member, Search for Associate Director of the Shoals Marine Laboratory, Cornell University and Department of Zoology, University of New Hampshire
- 1996 Committee Member, Zoology Department, Planning Committee for Hubbard Chair and Future Positions, University of New Hampshire.
- 1996 Committee Member, Hubbard Marine Program Endowment Review Panel, University of New Hampshire.
- 1995-97 Public Affairs Committee Representative, Division of Ecology and Evolution, Society for Integrative and Comparative Biology, (formerly ASZ).