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**Education**

B. S., <i>cum laude</i> , Biology	1990	Santa Clara University
Ph.D., Biology	1996	University of California, Santa Cruz

**Professional Positions**

1996	Lecturer, San Jose State University
1997-1998	NSF Fellow and Postdoctoral Researcher, University of Washington
1998, 1999	Lecturer, Mountain Lake Biological Station, VA
1999	Lecturer, University of Washington
1999	Population Ecologist, National Marine Fisheries Service, Northwest Fisheries Science Center
1999-2005	Assistant Professor, Department of Biology, Santa Clara University
2004 - 2007	Executive Director, Environmental Studies Institute (ESI)
2005 - 2006	Associate Professor, Department of Biology, Santa Clara University
2006 -	Associate Professor, Dept. of Biology and ESI, Santa Clara University

**Fellowships and Research Grants**

1990	U.C. Santa Cruz, Regents' Fellowship
1993 & 1995	Bodega Field Conferences, Graduate Student Research Award
1994 & 1995	U.C.S.C. Biology Board, Graduate Student Fellowship
1993-1996	National Science Foundation, Doctoral Dissertation Improvement Grant
1997-1998	National Science Foundation, Postdoctoral Fellowship
2004-2006	U.S. Environmental Protection Agency, National Center for Environmental Research. <i>Evidence based risk analysis: learning from our experiences with genetically modified crops</i> . \$232,347 (10/04 – 9/07)

**Peer Reviewed Journal Articles** (undergraduate coauthors underlined)

1. Edgerly, J. S. and M. **Marvier**. 1992. To hatch or not to hatch? Egg hatch response to larval density and to larval contact in a treehole mosquito. *Ecological Entomology* 17:28-32.
2. **Marvier**, M. 1996. Parasitic plant- host interactions: plant performance and indirect effects on parasite-feeding herbivores. *Ecology* 77:1398-1409.
3. **Marvier**, M. and D. Smith. 1997. Conservation implications of host use by parasitic plants. *Conservation Biology* 11:839-848.
4. Doak, D. F., D. S. Bigger, E. Harding, M. **Marvier**, R. O'Malley, D. Thomson. 1998. The statistical inevitability of stability-diversity relationships in community ecology. *American Naturalist*: 151:264-276.
5. Bigger, D. S. and M. **Marvier**. 1998. How different would a world without herbivory be? A search for generality in ecology. *Integrative Biology* 1:60-67.
6. **Marvier**, M. 1998. Parasite impacts on host communities: plant parasitism in an annual California coastal prairie. *Ecology* 79:2616-2623.
7. **Marvier**, M. 1998. A mixed diet improves performance and herbivore resistance of a parasitic plant. *Ecology* 79:1272-1280.
8. Kareiva, P., M. **Marvier**, and M. McClure. 2000. Recovery and management options for spring/summer chinook salmon in the Columbia River basin. *Science* 290:977-979.
9. McClure, M., T. Cooney and M. **Marvier**. 2001. Assessing the role of dams in salmon recovery. *Hydroreview* 20:36-45.
10. **Marvier**, M. 2001. Can risk analysis 'colorize' the black and white of transgenic crops? Online. *Plant Health Progress* (doi:10.1094/PHP-2001-0831-01-RV).
11. Parrish, J. K., M. **Marvier**, and R. T. Paine. 2001. Direct and indirect effects: Interactions between bald eagles and common murre. *Ecological Applications* 11:1858-1869.
12. **Marvier**, M. 2002. Improving risk assessment for nontarget safety of transgenic crops. *Ecological Applications* 12:1119-1124.
13. O'Connor, C., M. **Marvier**, and P. Kareiva. 2003. Biological versus sociopolitical priority-setting in conservation. *Ecology Letters* 6:706-711.
14. **Marvier**, M., P. Kareiva, and M. Neubert. 2004. Habitat destruction, fragmentation, and disturbance promote invasion by habitat generalists in a multispecies metapopulation. *Risk Analysis* 24:869-878.

15. **Marvier**, M. and R. VanAcker. 2005. Can crop transgenes be kept on a leash? *Frontiers in Ecology and the Environment* 3:99-106.
16. Yuan-Farrell, C., M. **Marvier**, D. Press, and P. Kareiva. 2005. Conservation easements as a conservation strategy: is there a sense to the spatial distribution of easements? *Natural Areas Journal* 25:282-289.
17. **Marvier**, M. 2007. Pharmaceutical crops have a mixed outlook in California. *California Agriculture* 61:59-66.
18. **Marvier**, M., C. McCreedy, J. Regetz, and P. Kareiva. 2007. A meta-analysis of effects of *Bt* cotton and maize on non-target invertebrates. *Science* 316:1475-1477.
19. Duan, J. J., M. **Marvier**, J. Huesing, G. Dively, and Z. Y. Huang. 2008. A meta-analysis of effects of *Bt* crops on honey bees (Hymenoptera: Apidae). *PLoS One* <http://www.plosone.org/doi/pone.0001415>
20. **Marvier**, M., Y. Carrière, N. Ellstrand, P. Gepts, P. Kareiva, E. Rosi-Marshall, B. E. Tabashnik, L. L. Wolfenbarger. 2008. Harvesting data from genetically engineered crops. *Science* 320:452-453.
21. Tallis, H., P. Kareiva, P., M. **Marvier**, and A. Chang. 2008. An ecosystem services framework to support both practical conservation and economic development. *PNAS* 105:9457-9464.
22. Kareiva, P., A. Chang, and M. **Marvier**. 2008. Development and conservation goals in World Bank projects. *Science* 321:1638-1639.

**Other Publications** (undergraduate coauthors underlined; ‘\*’ = significant contribution)

23. **Marvier**, M. A. and P. Kareiva. 1999. Extrapolating from field experiments that remove herbivores to population-level effects of herbivore resistance transgenes. Pages 57-64 in: Traynor, P. L. and J. H. Westwood (eds) *Proceedings of a Workshop on: Ecological Effects of Pest Resistance Genes in Managed Ecosystems*. Information Systems for Biotechnology, Blacksburg, Virginia.
24. **Marvier**, M., E. Meir and P. Kareiva. 1999. How do the design of monitoring and control strategies affect the chance of detecting and containing transgenic weeds? Pages 109–122 in *Methods for Risk Assessment of Transgenic Plants*, Volume 3, ed. K. Ammann, Y. Jacot, V. Simonson, and G. Kjellsson. Basel: Birkhauser Verlag Press.
25. Kareiva, P. and M. **Marvier**. 2000. An overview of risk assessment procedures applied to genetically engineered crops. Pages 231-238 in: *Incorporating Science, Economics, and Sociology in Developing Sanitary and Phytosanitary Standards in International Trade*.

*Proceedings of a Conference*. Board on Agriculture and Natural Resources, National Research Council, National Academy Press: Washington, D.C.

26. Kareiva, P. and M. **Marvier**. 2001. Concepts and theories in ecology. Pages 259-268 in: *Encyclopedia of Biodiversity, vol. 2*. Academic Press, San Diego, California.
27. Kareiva, P., M. **Marvier**, and M. McClure. 2001. Dam breaching and chinook salmon recovery: Response. *Science* 291:939a.
28. **Marvier**, M. 2001. Genetically Engineered Crops. Pages 138-140 in: *Yearbook of Science and Technology: 2002*. McGraw-Hill, New York.
29. **Marvier**, M. 2001. Tropical Ecology. Pages 391-394 in: *Yearbook of Science and Technology: 2002*. McGraw-Hill, New York.
30. \* **Marvier**, M. 2001. Ecology of transgenic crops. *American Scientist* 89:160-167.
31. **Marvier**, M. 2001. Response to letters to the editor re ecology of transgenic crops. *American Scientist* 89:195-196.
32. **Marvier**, M. 2002. Biodiversity. Pages 19-22 in vol. 3: *Encyclopedia of Science and Technology, 9<sup>th</sup> edition*. McGraw-Hill, New York.
33. **Marvier**, M. 2002. Invited book review of *Quantitative Conservation Biology and Analysis and Management of Animal Populations*. *Integrative and Comparative Biology* 42:1181.
34. \* Kareiva, P., M. **Marvier**, S. West, and J. Hornisher. 2002. Slow-moving journals hinder conservation efforts. *Nature* 420:15.
35. \* Kareiva, P. and M. **Marvier**. 2003. Conserving biodiversity coldspots. *American Scientist* 91:344-351.
36. Kareiva, P. and M. **Marvier**. 2003. Response to letters to the editor re conserving biodiversity coldspots. *American Scientist* 91:385-386.
37. Doak, D. F. and M. **Marvier**. 2003. Predicting the effects of species loss on community stability. Pages 140-160 in: Kareiva, P. and S. A. Levin, eds. *The Importance of Species: Perspectives on Expendability and Triage*. Princeton University Press, Princeton, New Jersey.
38. **Marvier**, M. 2003. Biodiversity hotspots. *Yearbook of Science and Technology: 2003*. McGraw-Hill, New York.
39. **Marvier**, M. 2004. A bridge to advanced statistical techniques. *Conservation Biology* 18:854-855 (invited book review).

40. **Marvier**, M. 2004. The Ecological Society of America voices its concerns regarding genetically engineered organisms. *ISB News Report* May 2004  
<http://www.isb.vt.edu/news/2004/news04.may.html#may0401>
41. Molnar, J., M. **Marvier**, and P. Kareiva. 2004. The sum is greater than the parts – a response to Brooks et al. *Conservation Biology* 18:1670-1671.
42. **Marvier**, M. 2004. Risk assessment of GM crops warrants higher rigor and reduced risk tolerance than traditional agrichemicals. *Naturschutz und Biologische Vielfalt* 1:119-129.
43. **Marvier**, M. 2005. Pharmaceutical crops. *Yearbook of Science and Technology: 2005*. McGraw-Hill, New York.
44. **Marvier**, M., J. Grant, and P. Kareiva. 2006. Nature: poorest may see it as their economic rival. *Nature* 443:749-750.
45. \* Kareiva, P. and M. **Marvier**. 2007. Conservation for the people. *Scientific American* 297:50-57.
46. **Marvier**, M. 2007. Pharmaceutical crops in California, benefits and risks. A review. *Agronomy for Sustainable Development* 28: DOI: 10.1051/agro:2007050. (Note that this is a re-publication of Marvier 2007 Cal Ag 61:59-66)
47. **Marvier**, M. and S. West. 2007. Ecological risk assessment of GE crops: Getting the science fundamentals right. Pages 57-73 in I. E. P. Taylor, ed. *Genetically Engineered Crops: Interim Policies, Uncertain Legislation*, Haworth Press, Binghamton, New York.
48. **Marvier**, M. 2008. Implications of transgene escape for conservation. Pages 297-307 in Carroll, S. P. and C. W. Fox (eds). *Conservation Biology: Evolution in Action*. Oxford University Press: Oxford. (invited book chapter)

#### **Manuscripts in review & in prep**

49. Kareiva, P. and M. **Marvier**. *Conservation in a Human-Dominated World*. Roberts & Co.

#### **Research Presentations since 2001**

1. Society for Nutrition Education, Oakland, CA, July 22, 2001. “Health risks and safety of genetically modified foods” (invited speaker).
2. Society for Conservation Biology, Hilo, HI, July 30, 2001. ”Do existing harvest models lead to unacceptable risks for threatened salmon?” (contributed paper)
3. GMO’s: Facts & Myths, Brasilia, Brazil. Organized by UNESCO. September 4, 2001. “Assessing impacts of GMOs on non-target organisms” (invited speaker)

4. Risk Assessment for Invasive Species: Perspectives from Theoretical Ecology, New Mexico State University, Las Cruces, NM, October 22, 2001. "Using theory to illuminate a cost-benefit analysis of invasive species and their control" (invited speaker)
5. Harvard Medical School, MA. November 15, 2001. "Potential ecological risks of genetically-modified crops" (invited speaker)
6. San Francisco State University, CA. Organismal and Population Biology seminar series. October 9, 2002. "Weighing the impacts of dams, non-native species, and harvest for the recovery of Snake River chinook salmon." (invited speaker)
7. Internationaler Kongress des Graduiertenkollegs "Stadtökologische Perspektiven", Berlin. November 23, 2002. "Beyond hotspots: Allocating resources for conservation in a world with many conservation needs" (invited speaker, co-authored with Peter Kareiva)
8. AAAS, Denver, CO. Symposium Title: Removing Dams, Restoring Rivers. February 16, 2003. "Can dams ever be compatible with conservation? Demographic lessons from salmon" (invited speaker, co-authored & co-presented with Peter Kareiva)
9. Centro Nacional Patagonico (CENPAT), Puerto Madryn, Argentina. March 21, 2003. "How much will salmon benefit from dam removal?" (invited speaker)
10. Risk, Hazard, Damage – Specification of Criteria to Assess Environmental Impact of Genetically Modified Organisms. Hannover, Germany. December 8, 2003. "Risk assessment of GM crops warrants higher rigor and reduced risk tolerance than traditional agrichemicals." (invited speaker)
11. 24th Annual Ecological Farming Conference, Asilomar, CA. January 22, 2004. "Can biotechnology and organic farming co-exist?" (invited speaker)
12. EPA Conference on the Development of Strategic Monitoring Programs for Ecological Impact from Plant-Incorporated Protectants (PIPs), Arlington, VA. August 3–5, 2004. "Using simulation models to develop monitoring strategies" (invited speaker)
13. Environmental Studies Seminar, University of California, Santa Cruz. November 8, 2004. "Setting priorities for conservation planning & action" (invited speaker)
14. Environmental Science, Policy, and Management Colloquium, University of California, Berkeley. December 6, 2004. "How should we monitor for the environmental impacts of transgenic crops? Lessons from models and meta-analyses." (invited speaker)
15. The Impacts of Biotechnology Seminar Series, UC Riverside. February 2, 2005. "How should we monitor for the environmental impacts of transgenic crops? Lessons from models and meta-analyses." (invited speaker)

16. Department of Environmental Studies, San Francisco State University. February 28, 2005. "GM crops: inevitability of transgene escape and lessons from meta-analyses regarding harms." (invited speaker)
17. AgBiotech 2006, Tenaya Lodge, Fish Camp, CA. March 18, 2006. "Evidence-based risk analysis: learning from our experiences with genetically modified crops." (invited speaker)
18. Society for Conservation Biology, San Jose, CA. June 24-28, 2006. "Evidence-based risk analysis: learning from our experiences with genetically modified crops." (contributed paper)
19. Ecological Society of America, Memphis, TN. August 11, 2006. "Evidence-based risk analysis: learning from our experiences with genetically modified crops." (contributed paper)
20. Carleton College, Northfield, MN. October 23, 2006. "Evidence-based risk analysis: learning from our experiences with genetically modified crops." (invited speaker)
21. Montana State University, Missoula, MT. April 11, 2007. "Evidence-based risk analysis: learning from our experiences with genetically modified crops." (invited speaker)
22. Ecological Society of America, San Jose, CA. August 10, 2007. "Conservation of ecosystem services for poverty alleviation: panacea or hype?" (contributed paper; co-authored with Peter Kareiva)
23. A Workshop on Genetically Engineered Organisms, Wildlife and Habitats; National Academy of Sciences; Beckman Center, Irvine, CA. November 5, 2007. "Strategies for detecting ecological effects of GEOs in nature." (invited speaker)

**Professional Service & Activities**

Associate Editor: *Frontiers in Ecology and the Environment* (2004 - )

Consulting Editor: McGraw-Hill Yearbook of Science and Technology (2005-2006)

Member: Blue Ribbon Science Advisory Panel for Northwest Forest Conservation, The Nature Conservancy (2004 - )

Executive Director: Environmental Studies Institute, SCU (2004-2007)

Associate Director: Environmental Studies Curriculum, SCU (2003-2004)

Invited workshop participant: American Microbiological Society "100 years of *Bacillus thuringiensis*," November 2001, Ithaca, NY

Invited panelist and breakout group reporter: Biotechnology Risk Assessment Research Grant Program, USDA, June 2003, Washington, DC.

Invited workshop participant and breakout group reporter: Confinement of Genetically Engineered Crops During Field Testing. USDA, 13-15 September 2004, Greenbelt, MD.

Invited panelist: “The Promise and Pitfalls of Agricultural Biotechnology,” AgBiotech 2006, March 19, 2006.

Committee member: National Research Council Committee to Organize A Workshop on Research to Improve the Evaluation of the Impacts of Genetically Engineered Organisms on Terrestrial and Aquatic Wildlife and Habitats, 2007.

**Courses Taught**

BIOL 5	Endangered Ecosystems	non-science majors, lecture & lab
BIOL 22	Introduction to Evolution & Ecology	lower division, lecture
BIOL 23	Investigations in Evolution & Ecology	lower division, lecture & lab
BIOL 150	Conservation Biology	upper division, lecture & lab
BIOL 156	General Ecology	upper division, lecture & lab
BIOL 160	Biostatistics	upper division, lecture & lab
BIOL 192	Topics in Conservation Biology	upper division, seminar course
ENVS 99	Education for a Sustainable Future	lower division, lecture