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Education:

Ph.D. in Zoology, University of California Berkeley, 1985
BA in Biology, University of California Santa Cruz, 1979

Professional Positions:

2004- : Senior Scientist, Cary Institute of Ecosystem Studies
2001-4: Scientist, Institute of Ecosystem Studies
1996: Visiting Scientist, Department of Integrative Biology, Univ. California,
Berkeley
1995-2000: Associate Scientist, Institute of Ecosystem Studies
1995- : Adjunct Professor and Scientist, Univ. of Connecticut
1991- : Associate Member of the Graduate Faculty in Ecology, Rutgers University
1990-1995: Assistant Scientist, Institute of Ecosystem Studies

Research Interests and Activities:

My research interests fall into the following general topics: Ecology of infectious diseases; Linking community ecology and epidemiology; Behavioral, population, and community ecology of mammals; Animal population dynamics; Landscape epidemiology.

Publications:

In Press, In Revision, or In Review

Keesing, F. and R.S. Ostfeld. An ecosystem service of biodiversity – the protection of human health against infectious disease. Chapter in Conservation Medicine, edited by A. Aguirre, P. Daszak, and R.S. Ostfeld, Oxford University Press, in press.

LaDeau, S.L., G.G. Glass, N.T. Hobbs, A. Latimer, and R.S. Ostfeld. Data-model fusion to better understand emerging pathogens and improve infectious disease forecasting. Ecological Applications, in press.

Brunner, J.L, L. Cheney, F. Keesing, M.E. Killilea, K. LoGiudice, A. Previtali, and R.S. Ostfeld. Molting success of *Ixodes scapularis* varies among individual blood meal hosts and species. Journal of Medical Entomology, in press.

Swei, A., C.J. Briggs, R.S. Lane, and R.S. Ostfeld. Impacts of an introduced forest pathogen on risk of Lyme disease in California. *Vector-Borne and Zoonotic Diseases*, in review.

Keesing, F., P. Oberoi, R. Vaicekonyte, K. Gowen, L. Henry, S. Mount, P. Johns, and R.S. Ostfeld. Effects of garlic mustard (*Alliaria petiolata*) on entomopathogenic fungi. *Ecoscience*, in press.

Brisson, D., C. Brinkley, P.T. Humphrey, B.D. Kemps, and R.S. Ostfeld. It takes a community to raise the prevalence of a zoonotic pathogen. *Environmental Health Perspectives*, in review.

Aguirre, A., G. Tabor, and R.S. Ostfeld. Conservation medicine: the ontogeny of an emerging discipline. Chapter in *New Directions in Conservation Medicine*, edited by A. Aguirre, R.S. Ostfeld, and P. Daszak. Oxford University Press, in press.

Published

1. Schwanz, L.E., D. Brisson, M. Gomez-Solecki, and R.S. Ostfeld. 2011. Linking disease and community ecology through behavioural indicators: immunochallenge of white-footed mice and its ecological impacts. *Journal of Animal Ecology*, 80:204-211.
2. Ostfeld, R.S., and C.G. Jones. 2011. The ecology of place in oak forests: progressive integration of pairwise interactions into webs. Pages 207-228 in I. Billick, and M.V. Price, *The Ecology of Place*, University of Chicago Press .
3. Foley, J.E., D. Clifford, K. Castle, P. Cryan, and R.S. Ostfeld. 2011. White Nose Syndrome: a roadmap for investigating and managing the ultra-rapid emergence of a novel, fatal infectious disease of hibernating bats. *Conservation Biology* 25:223-231.
4. Swei, A., R.S. Ostfeld, R.S. Lane, and C.J. Briggs. 2011. Impact of the experimental removal of lizards on Lyme disease risk. *Proceedings of the Royal Society B, Biological Sciences*, doi:10.1098/rspb.2010.2402.
5. Swei, A., R.S. Ostfeld, R.S. Lane, and C.J. Briggs. 2011. Effects of an invasive forest pathogen on abundance of ticks and their vertebrate hosts in a California Lyme disease focus. *Oecologia* 166:99-100.
6. Keesing, F., L. Belden, A. Dobson, C.D. Harvell, R. Holt, P. Hudson, A. Jolles, C. Mitchell, S. Myers, T. Bogich, and R.S. Ostfeld. 2010. Impacts of biodiversity on the emergence and transmission of infectious diseases. *Nature* 468:647-652.
7. Carver, S., A. Kuenzi, R. Douglass, A.M. Kilpatrick, R.S. Ostfeld, and P. Weinstein. 2010. Integration of environmental monitoring to enhance comprehension of the ecology and epidemiology of infectious diseases. *Journal of Environmental Monitoring*, 12:2048-2055.
8. Schwanz, L.E., M.J. Voordouw, D. Brisson, and R.S. Ostfeld. 2010. *Borrelia burgdorferi* has minimal impact on the Lyme disease reservoir host *Peromyscus leucopus*. *Vector-borne and Zoonotic Diseases* 11:117-124.
9. Allan, B.F., W.A. Ryberg, R.B. Langerhans, W.J. Landesman, N.W. Griffin, R.S.

- Katz, K.N.Smyth, B.J. Oberle, M.R. Schultzenhofer, D.E. Hernandez, A. de St. Maurice, L. Clark, R.G. McLean, K.R. Crooks, R.S. Ostfeld, and J.M. Chase. 2009. Ecological correlates of risk and incidence of West Nile Virus in the United States. *Oecologia* 158:699-708.
10. Ostfeld, R.S. 2009. Biodiversity loss and the rise of zoonotic pathogens. *Clinical Microbiology and Infection* 15 (Suppl 1): 40-43.
 11. Pongsiri, M.J. J. Roman, V. O. Ezenwa, T. L. Goldberg, H. S. Koren, S. C. Newbold, R. S. Ostfeld, S. K. Pattanayak, and D. J. Salkeld. 2009. Biodiversity loss affects global disease ecology. *BioScience* 59:945-954.
 12. Ostfeld, R.S., M. Thomas, and F. Keesing. 2009. Biodiversity and ecosystem function: perspectives on disease. Pages 209-216 in S. Naeem, D. Bunker, A. Hector, M. Loreau, and C. Perrings, eds. *Biodiversity and Human Impacts*, Oxford University Press.
 13. Keesing, F., J. Brunner, S. Duerr, M. Killilea, K. LoGiudice, K. Schmidt, H. Vuong and R. S. Ostfeld. 2009. Hosts as ecological traps for the vector of Lyme disease. *Proceedings of the Royal Society B, Biological Sciences* 276:3911-3916.
 14. Ostfeld, R.S. 2009. Climate change and the distribution and intensity of infectious diseases. *Ecology* 90:903-905.
 15. Suzan, G., E. Marcé, J. T. Giermakowski, J. N. Mills, G. Ceballos, R. S. Ostfeld, B. Armién, J. M. Pascale, and T. L. Yates. 2009. Experimental evidence for reduced rodent diversity causing increased hantavirus prevalence. *PLoS ONE* 4(5): e5461. doi:10.1371/journal.pone.0005461.
 16. Schaubert, E.M., M.J. Connors, B.J. Goodwin, C.G. Jones, and R.S. Ostfeld. 2009. Quantifying a dynamic risk landscape: heterogeneous predator activity and implications for prey persistence. *Ecology* 90:240-251.
 17. Carver, S., A. Bestall, A. Jardine, and R.S. Ostfeld. 2009. The influence of hosts on the ecology of arboviral transmission: potential mechanisms influencing dengue, Murray Valley encephalitis and Ross River virus in Australia. *Vector Borne and Zoonotic Diseases* 9:51-64.
 18. Ostfeld, R.S. 2008. Parasites as weapons of mouse destruction. *Journal of Animal Ecology* 77:201-204.
 19. Schmidt, K.A. and R.S. Ostfeld. 2008. Eavesdropping squirrels reduce their future value of food under the perceived presence of cache robbers. *American Naturalist* 171:386-393.
 20. LoGiudice, K., S. Duerr, M. Newhouse, K.A. Schmidt, M. Killilea, and R.S. Ostfeld. 2008. Impact of community composition on Lyme disease risk. *Ecology* 89:2841-2849.
 21. Killilea, M., A. Swei, R. Lane, C. Briggs, and R.S. Ostfeld. 2008. Spatial dynamics of Lyme disease: a review. *EcoHealth* 5:167-195.
 22. Schmidt, K.A., E. Lee, R.S. Ostfeld, and K. Sieving. 2008. Eastern chipmunks increase their perception of predation risk in response to titmouse alarm calls. *Behavioral Ecology* 19:759-763.
 23. Brunner, J.L. and R.S. Ostfeld. 2008. Multiple causes of variable tick burdens on small-mammal hosts. *Ecology* 89:2259-2272.
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 27. Molyneux, D., R.S. Ostfeld, A. Bernstein, and E. Chivian. 2008. Ecosystem disturbance, biodiversity loss, and human infectious disease. Pages 287-323 in E. Chivian and A. Bernstein, eds. *Sustaining life: how human health depends on biodiversity*. Oxford University Press, Oxford, UK.
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39. Ostfeld, R.S., F. Keesing, and K. LoGiudice. 2006. Community ecology meets epidemiology: the case of Lyme disease. Pages 28-40 in S. Collinge and C. Ray, eds. *Disease ecology: community structure and pathogen dynamics*. Oxford University Press.
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44. Dobson, A., I Cattadori, R. Holt, R.S. Ostfeld, F. Keesing, K. Krichbaum, J. Rohr, S.E. Perkins, and P.J. Hudson. 2006. Sacred cows and sympathetic squirrels: the importance of biological diversity to human health. *PLoS Medicine* 3(6) e231.
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46. Ostfeld, R.S., G. Glass, and F. Keesing. 2005. Spatial epidemiology: an emerging (or re-emerging) discipline. *Trends in Ecology and Evolution* 20:323-331.
47. Connors, M.J., E.M. Schaubert, A. Forbes, C.G. Jones, B. J. Goodwin, and R.S. Ostfeld. 2005. Using track plates to quantify predation risk at small spatial scales. *Journal of Mammalogy* 86:991-996.
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49. Kremen, C. and R.S. Ostfeld. 2005. A call to ecologists: Measuring, analyzing, and managing ecosystem services. *Frontiers in Ecology and the Environment* 10:540-548 (subject of follow-up article, *Pathways to Scientific Teaching* by C. Richmond et al., 2005, *Frontiers in Ecology and the Environment* 10:557-558)
50. Schmidt, K.A., L. Nelis, N. Briggs, and R.S. Ostfeld. 2005. Invasive shrubs and songbird nesting success: effects of climatic variability and predator abundance. *Ecological Applications* 15:258-265.
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52. Hornbostel, V., R.S. Ostfeld, M. Benjamin. 2005. Effectiveness of *Metarhizium anisopliae* (Deuteromycetes) against *Ixodes scapularis* (Acari: Ixodidae) engorging on *Peromyscus leucopus*. *Journal of Vector Ecology* 30:91-101.

53. Hornbostel, V., E. Zhioua, M. Benjamin, H. Ginsberg, and R.S. Ostfeld. 2005. Pathogenicity of *Metarhizium anisopliae* (Deuteromycetes) and permethrin to *Ixodes scapularis* (Acari: Ixodidae) nymphs. *Experimental and Applied Acarology* 35:301-316.
54. Burns, C.E., B.J. Goodwin, and R.S. Ostfeld. 2005. A prescription for longer life? Bot fly parasitism of the white-footed mouse. *Ecology* 86:753-761.
55. Ostfeld, R.S. and R.D. Holt. 2004. Are predators good for your health? Evaluating evidence for top-down regulation of zoonotic disease reservoirs. *Frontiers in Ecology and the Environment* 2:13-20.
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