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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 Associate Professor and Associate 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

- Ostfeld, R.S. In press. The ecology of climate change and infectious diseases – comment. *Ecology* (accepted May 2008).
- Ostfeld, R.S., M. Thomas, and F. Keesing. In press. Biodiversity and ecosystem function: perspectives on disease. Chapter in S. Naeem, D. Bunker, A. Hector, M. Loreau, and C. Perrings, eds. *Biodiversity and Human Impacts*, Oxford University Press (accepted August 2008)
- Schauber, E.M., M.J. Connors, B.J. Goodwin, C.G. Jones, and R.S. Ostfeld. 2008. Quantifying a dynamic risk landscape: heterogeneous predator activity and implications for prey persistence. *Ecology* (accepted April 2008).
- Ostfeld, R.S., and C.G. Jones. In press. The ecology of place in oak forests: progressive integration of pairwise interactions into webs. Chapter in I. Billick, and M.V. Price, *The Ecology of Place*, University of Chicago Press (accepted August 2007).
- LoGiudice, K., S. Duerr, M. Newhouse, K.A. Schmidt, M. Killilea, and R.S. Ostfeld. In press. Impact of community composition on Lyme disease risk. *Ecology* (accepted January 2008).

- Killilea, M., A. Swei, R. Lane, C. Briggs, and R.S. Ostfeld. In press. Spatial dynamics of Lyme disease: a review. *EcoHealth* (accepted March 2008).
- Carver, S., A. Bestall, A. Jardine, and R.S. Ostfeld. In press. 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* (accepted June 2008).
- 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. In press. A protective role for avian diversity in the United States West Nile Virus epidemic. *Oecologia* (accepted July 2008).

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1. Ostfeld, R.S. 2008. Parasites as weapons of mouse destruction. *Journal of Animal Ecology* 77:201-204.
2. 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.
3. 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.
4. Brunner, J.L. and R.S. Ostfeld. 2008. Multiple causes of variable tick burdens on small-mammal hosts. *Ecology* 89:2259-2272.
5. Ogada, D., M.E. Gadd, R.S. Ostfeld, T.P. Young, and F. Keesing. 2008. Impact of large herbivorous mammals on bird diversity and abundance in an African savanna. *Oecologia* 156:387-397.
6. Schmidt, K.A., S.A. Rush, and R.S. Ostfeld. 2008. Wood thrush nest success and post-fledging survival across a temporal pulse of small mammal abundance in an oak forest. *Journal of Animal Ecology* 77:830-837.
7. Schmidt, K.A. and R.S. Ostfeld. 2008. Numerical and behavioral effects within a pulse-driven system: Consequences for direct and indirect interactions among shared prey. *Ecology* 89:635-646.
8. 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.
9. Brisson, D., D.E. Dykhuizen, and R.S. Ostfeld. 2008. Conspicuous impacts of inconspicuous hosts on the human Lyme disease epidemic. *Proceedings of the Royal Society of London, B, Biological Sciences* 275:227-235.
10. Brunner, J.L., K. LoGiudice, and R.S. Ostfeld. 2008. Estimating the importance of zoonotic reservoir hosts in pathogen transmission: prevalence and infectivity, sensitivity and specificity. *Journal of Medical Entomology* 45:139-147.
11. Keesing, F., R.S. Ostfeld, and V.T. Eviner. 2008. Introduction. Pages 1-5 in Ostfeld, R.S., F. Keesing, and V. Eviner, eds. *Infectious disease ecology: effects of ecosystems on disease and of disease on ecosystems*. Princeton University Press.
12. Ostfeld, R.S. 2008. Introduction to Section III. Pages 321-323 In Ostfeld, R.S., F.

- Keesing, and V. Eviner, eds. Infectious disease ecology: effects of ecosystems on disease and of disease on ecosystems. Princeton University Press.
13. Ostfeld, R.S., F. Keesing, and V.T. Eviner. 2008. The ecology of infectious diseases: progress, challenges, and frontiers. Pages 469-482 in Ostfeld, R.S., F. Keesing, and V. Eviner, eds. Infectious disease ecology: effects of ecosystems on disease and of disease on ecosystems. Princeton University Press.
 14. Ostfeld, R.S. 2007. Habitat fragmentation and disease ecology: the case of Lyme disease. Pages 183-187 In: Vogt, K.A., Honea, J.M., Vogt, D.J., Edmonds, R.L., Sigurdardottir, R., and Patel-Weynand, T. eds. Forests and Society: Sustainability and Life Cycles of Forests in Human Landscapes CABI Publishing, CAB International, Oxfordshire, United Kingdom.
 15. Ostfeld, R.S. and J.N. Mills. 2007. Social behavior, demography, and rodent-borne pathogens. Pages 478-486 in J. O. Wolff and P.W. Sherman, eds. Rodent Societies. University of Chicago Press.
 16. Ostfeld, R.S. and F. Keesing. 2007. Pulsed resources and community responses: An exploration of factors influencing outcomes. Pages 30-42 in J. Bissonette and I. Storch, eds. Temporal dimensions of landscape ecology: wildlife responses to variable resources. Springer.
 17. Schaubert, E.M., B. J. Goodwin, C.G. Jones, and R.S. Ostfeld. 2007. Spatial selection and inheritance: applying evolutionary concepts to population dynamics in heterogeneous space. Ecology 88:1112-1118.
 18. Waller, L.A., B.J. Goodwin, M.L. Wilson, R.S. Ostfeld, N.B. Hayes, and S. Marshall. 2007. Spatio-temporal patterns in county-level incidence and reporting of Lyme Disease in the northeastern United States, 1990-2000. Environmental and Ecological Statistics 14:83-100.
 19. Giery, S.T., and R.S. Ostfeld. 2007. The role of lizards in the ecology of Lyme disease in two endemic zones of the northeastern United States. Journal of Parasitology 93:511-517.
 20. 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.
 21. Horobik, V., F. Keesing, and R.S. Ostfeld. 2006. Abundance and *Borrelia burgdorferi*-infection prevalence of nymphal *Ixodes scapularis* ticks along forest-field edges. EcoHealth 3::262-268.
 22. Keesing, F., R.D. Holt, and R.S. Ostfeld. 2006. Effects of species diversity on disease risk. Ecology Letters 9:485-498.
 23. Schmidt, K.A., R.S. Ostfeld, and K.N. Smyth. 2006. Spatial heterogeneity in predator activity, nest survivorship, and nest-site selection in two forest thrushes. Oecologia 148:22-29.
 24. Ostfeld, R.S., C.D. Canham, K. Oggenfuss, R.J. Winchcombe, and F. Keesing. 2006. Climate, deer, rodents, and acorns as determinants of variation in Lyme-disease risk. PLoS Biology 4(6) e145.
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28. 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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30. 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)
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32. Schaubert, E.M., R.S. Ostfeld, and A. Evans. 2005. What is the best predictor of annual Lyme disease incidence: weather, mice, or acorns? *Ecological Applications* 15:575-586.
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38. Ostfeld, R.S., P. Roy, W. Haumaier, L. Canter, F. Keesing, and E. D. Rowton. 2004. Sand fly (*Lutzomyia vexator*) (Diptera: Psychodidae) populations in upstate New York: abundance, microhabitat, and phenology. *Journal of Medical Entomology* 41:774-778.
39. Hornbostel, V., R.S. Ostfeld, E. Zhioua, and M. Benjamin. 2004. Sublethal effects of *Metarhizium anisopliae* (Deuteromycetes) on engorged larval, nymphal, and adult *Ixodes scapularis* (Acari: Ixodidae). *Journal of Medical Entomology* 41:922-929.
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41. Schnurr, J.L., C.D. Canham, R.S. Ostfeld, and R. S. Inouye. 2004. Neighborhood analyses of small mammal dynamics: Implications for seed predation and seedling

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 53. Ostfeld, R.S., F. Keesing, E.M. Schaubert, and K.A. Schmidt. 2002. The ecological context of infectious disease: diversity, habitat fragmentation, and Lyme disease risk in North America. Pages 207-219 *In*: A. Aguirre, R.S. Ostfeld, C.A. House, G. Tabor, and M. Pearl, eds. *Conservation medicine: ecological health in practice*. Oxford University Press; New York.
 54. Ostfeld, R.S., M. Pearl, and G. Meffe. 2002. Conservation medicine: the birth of another crisis discipline. Pages 17-26 *In*: A. Aguirre, R.S. Ostfeld, C.A. House, G. Tabor, and M. Pearl, eds. *Conservation medicine: ecological health in practice*. Oxford University Press; New York.
 55. Shaw, M.T., F. Keesing, and R.S. Ostfeld. 2002. Herbivory on *Acacia* seedlings in an east African savanna. *Oikos* 98:385-392.
 56. Benjamin, M.A., E. Zhioua, and R.S. Ostfeld. 2002. Laboratory and field evaluation of the entomopathogenic fungus *Metarhizium anisopliae* (Deuteromycetes) for controlling questing adult *Ixodes scapularis* (Acari: Ixodidae) *Journal of Medical Entomology* 39:723-728.

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