

## Curriculum Vitae Parvies Rana Hosseini

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### Research and Professional Experience

Current      Associate Research Scholar, Princeton University, Dept. of Ecology and Evolutionary Biology  
2002-2005      Post-doctoral Associate, Cornell University, Lab of Ornithology

### Education

2002      Ph. D. from the University of California, Santa Barbara, Dept. of Ecology, Evolution and Marine Biology  
1994      Sc. B., Brown University, Providence, R. I.

### Grants

2005-2010      NSF – NIH Emerging Infectious Diseases Program: Collaborative Research: Predicting the effects of environmental change and host diversity on the dynamics of insect-vectored generalist pathogens (\$ 2 million across 4 institutions).  
2006-2010      NSF CEOP: Collaborative Research: CHRONOS Network for Earth System History: Development of Integrated Databases and Toolkits Accessible Through a Common Portal (\$2.7 million across 7 institutions).

### Publications

Ballantyne, F., D. Menge, A. Ostling, and **P. R. Hosseini**, 2008, Nutrient recycling affects autotroph and ecosystem stoichiometry, *American Naturalist*. 171:511-523. doi:[10.1086/528967](https://doi.org/10.1086/528967)  
Borer, E., **P. R. Hosseini**, E. Seabloom, and A. P. Dobson, 2007, Pathogen-induced reversal of native dominance in a grassland community *Proceedings of the National Academy of Sciences (U.S.A.)*. 104:5473-5478 doi:[10.1073/pnas.0608573104](https://doi.org/10.1073/pnas.0608573104)  
**Hosseini, P. R.**, A. A. Dhondt, and A. P. Dobson, 2006, Spatial Spread of an Emerging Infectious Disease: Conjunctivitis in House Finches – Seasonal Rates and Geographic Barriers, *Ecology*. 87: 3037–3046. [esajournals.org](http://esajournals.org).  
**Hosseini, P. R.**, 2006, Pattern Formation and Individual-Based Models: The Importance of Understanding Individual-Based Movement. *Ecological Modeling* 194: 357-371. doi:[10.1016/j.ecolmodel.2005.10.041](https://doi.org/10.1016/j.ecolmodel.2005.10.041)

- Altizer, S., A. Dobson, **P. Hosseini**, P. Hudson, M. Pascual, and P. Rohani, 2006, Seasonality and the dynamics of infectious diseases. *Ecology Letters* 9:467-484. doi:[doi:10.1111/j.1461-0248.2005.00879.x](https://doi.org/10.1111/j.1461-0248.2005.00879.x)
- Dhondt, A. A., S. Altizer, E. G. Cooch, A. K. Davis, A. Dobson, M. J. L. Driscoll, B. K. Hartup, D. M. Hawley, W. M. Hochachka, **P. R. Hosseini**, C. S. Jennelle, G. V. Kollias, D. H. Ley, E. C. H. Swarthout, K. V. Sydenstricker, 2005, Dynamics of a novel pathogen in an avian host: Mycoplasmal conjunctivitis in house finches. *Acta Tropica* 94(1):77-93. doi:[10.1016/j.actatropica.2005.01.009](https://doi.org/10.1016/j.actatropica.2005.01.009)
- Hosseini, P. R.**, A. Dobson and A. A. Dhondt, 2004, Seasonality and wildlife disease: How seasonal birth, aggregation and variation in immunity affect the dynamics of *Mycoplasma gallisepticum* in House Finches. *Proceedings of the Royal Society of London: Biological Sciences*. 271:2569-2577. doi:[10.1098/rspb.2004.2938](https://doi.org/10.1098/rspb.2004.2938)
- Kollias, G. V., K. V. Sydenstricker, H. W. Kollias, D. H. Ley, **P. R. Hosseini**, V. Connolly, and A. A. Dhondt, 2004, Experimental infection of individually caged House Finches with *Mycoplasma gallisepticum*. *J. Wildlife Diseases*. 40: 79-86.
- Hosseini, P. R.** 2003. How localized consumption stabilizes predator-prey systems with finite frequency of mixing. *American Naturalist* 161:567-585. doi:[10.1086/368293](https://doi.org/10.1086/368293)
- Campbell, S. P., A. Clark, L. Crampton, A. D. Guerry, L. T. Hatch, **P. R. Hosseini**, J. J. Lawler, R. J. O'Connor. 2002. An assessment of monitoring efforts in endangered species recovery plans. *Ecological Applications*. 12:674-681. doi:[10.1890/1051-0761\(2002\)012\[0674:AAOMEI\]2.0.CO;2](https://doi.org/10.1890/1051-0761(2002)012[0674:AAOMEI]2.0.CO;2)
- Ellner, S. P., E. McCauley, B. E. Kendall, C. J. Briggs, **P. Hosseini**, S. Wood, A. Janssen, M. W. Sabelis, P. Turchin, R. M. Nisbet, and W. W. Murdoch. 2001. Spatial dynamics and population persistence in a multispecies metapopulation: are spatial models necessary? *Nature*, 412(6846): 538-543. doi:[10.1038/35087580](https://doi.org/10.1038/35087580)
- McCauley, E., B. Kendall, A. Janssen, W. Murdoch, **P. Hosseini**, C. Briggs, S. Ellner, R. Nisbet, P. Turchin, and S. Wood. 2000. Inferring colonization processes from population dynamics in spatially-structured predator-prey systems. *Ecology*, 81(12): 3350-3361. doi: [10.1890/0012-9658\(2000\)081\[3350:ICFPD\]2.0.CO;2](https://doi.org/10.1890/0012-9658(2000)081[3350:ICFPD]2.0.CO;2)
- Nisbet, R. M., E. B. Muller, A. J. Brooks, and **P. Hosseini**. 1997. Models relating individual and population response to contaminants. *Environmental Modeling and Assessment*, 2:7-12. doi:[10.1023/A:1019088722669](https://doi.org/10.1023/A:1019088722669)

### **Publications in press**

- Seabloom†, E. W., P. R. Hosseini†, A. G. Power, and E. T. Borer, Diversity and composition of viral communities: coinfection of barley and cereal yellow dwarf viruses in California grasslands. *American Naturalist*.

Brandt, A. J, E. W. Seabloom, and P. R. Hosseini, Phylogeny and provenance affect plant-soil feedbacks in invaded California grasslands. *Ecology*.

†Marks authors with equal contributions.

### **Articles about Hosseini's Research**

Faculty of 1000 Biology: evaluations for Borer ET et al Proc Natl Acad Sci U S A 2007 Mar 27 104 (13):5473-8

[www.f1000biology.com/article/id/1081750/evaluation](http://www.f1000biology.com/article/id/1081750/evaluation)

Science, Editor's Choice, Ecology/Evolution, Perennial Infection, 6 April 2007, 316:19

### **Teaching Experience**

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|------------|---|
| 2009       | Guest Lecture, Ecole des Hautes Etudes en Santé Publique, planned for Jan 7 <sup>th</sup> .                                   |
| 2008       | Lecturer, Introductory Biostatistics (26 Lectures, 1 Semester, Princeton)   |
| 2007, 2008 | Lecturer, Conservation Biology (35 Lectures, 1 Semester, Princeton)   |
| 2008, 2007 | Assistant Lecturer, Ecology and Epidemiology of Parasites and Infectious Diseases (Princeton),                                |
| 2006       | Environmental Physiology (Princeton)  |
| 2000       | Lecturer of Introductory Statistics for Biologists (30 Lectures, 1 Quarter, UCSB)   |
| 1995-2001  | Teaching Assistant (UCSB) for Modeling Ecology & Environment, Introductory Statistics, and Advanced Statistics for Biologists |

### **Working Groups**

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|-------------|--|
| 2003 - 2005 | Seasonality and the Population Dynamics of Infectious Diseases (NCEAS)                     |
| 1999        | Prospectus For An Analysis of Recovery Plans and Delisting (NCEAS)                         |
| 1998 - 1999 | Designing and Assessing the Viability of Nature Reserve Systems at Regional Scales (NCEAS) |
| 1996 - 1998 | Complex Population Dynamics (NCEAS)  |

### **Awards and Fellowships**

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| 1995 - 2001 | NSF RTG/GRT Fellowship in Spatial Ecology at UCSB                          |
| 2000        | Fellowship at National Center for Ecological Analysis and Synthesis        |
| 1995 - 1996 | Block Grant Fellowship, Dept. of Ecology, Evolution & Marine Biology, UCSB |

## Invited Seminars

- Dept. of Zoology, Oxford University, July 2008.  
Dept. of Biology, Stanford University, February 2008.  
Dept. of Ecology and Evolutionary Biology, University of Tennessee,  
Knoxville, March 2007.  
Dept. of Biology, EEOB Seminar Series, University of North Carolina, Chapel  
Hill, October 2006.  
Dept. of Zoology, Oregon State University, Corvallis, OR, December 2004.  
Ecology of Infectious Disease Meeting, Emory University, Atlanta, GA, May  
2004.

## Service

- Member Ecological Society of America, British Ecological Society  
SEEDS diversity mentor, ESA 2007  
SEEDS Travel Award reviewer 2008  
Reviewer for *American Naturalist*, *Ecology*, *Ecology Letters*, *Journal of Animal  
Ecology*, *PLoS Medicine*, *Population Ecology*, and *Proceedings of the  
Royal Society B: Biological Sciences*.

## References

- Andy Dobson, Professor, Dept of Ecology and Evolutionary Biology, Eno  
Hall, Princeton University, Princeton, NJ 08544,  
andy@eno.princeton.edu  
Stephen P. Ellner, Professor, Department of Ecology and Evolutionary  
Biology, Corson Hall, Cornell University, Ithaca NY 14853,  
spe2@cornell.edu  
Roger Nisbet, Ph. D., Professor Dept. of Ecology, Evolution and Marine  
Biology, University of California, Santa Barbara, 93106,  
nisbet@lifesci.ucsb.edu  
Alison G. Power, Professor, Dept. of Ecology and Evolutionary Biology,  
Corson Hall, Cornell University, Ithaca, NY 14853, agp4@cornell.edu