

Curriculum Vitae

Dr. Christopher C. Wilmers

Environmental Studies Department
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Professional Preparation

Postdoctoral Fellow in Biological Informatics, University of California, Davis	2005-2006
Postdoctoral Fellow in Biology, Penn State University, State College, PA	2004-2005
Ph.D. in Environmental Science, Policy and Management, University of California, Berkeley	2004
B.A. in Physics with Thesis Honors, Wesleyan University, Middletown, CT	1995

Appointments

2007-present. Assistant Professor, Environmental Studies Department, University of California, Santa Cruz.

Research Interests

Climate change impacts on terrestrial ecosystems
Predator effects on biodiversity
Wildlife connectivity and conservation

Teaching

UCSC
Conservation Biology ENVS 120
Conservation Biology Graduate Seminar ENVS 220
Guest lectures in:
Animal Ecology and Conservation ENVS 123
Ecological Forecast for Global Warming ENVS 80B
UCB (Graduate Student Instructor)
Wildlife Ecology
Natural Resource Modeling
Guest lectures in:
Quantitative Methods in Ecology
Wildlife Ecology
Yellowstone Institute
Wolf and scavenger ecology field course

Awards and Fellowships

2005 NSF Biological Informatics Postdoctoral Fellowship (2 years)
2004 UCB Outstanding Student Instructor Award
2001 EPA STAR Graduate Fellowship (3 years)
2000 Santa Fe Institute Complex Systems Summer School Fellowship
1999 Irvine Memorial Scholarship (1 year)
1998 UC Regent Fellowship (1 year)

Research Grants

2004-2006	NSF Ecology Panel Award; Consumer-resource dynamics in a changing climate (Co-PI).	\$127,400
2007-2010	NSF Arctic Sciences Panel Award; Trophic mismatch and its consequences for dynamics of an arctic herbivore (Co-PI).	\$195,051
2007-2009	NSF Ecology Panel Award; The role of species interactions on community response to climate change (PI).	\$50,000
2007-2008	UCSC Committee on Research Award; A pilot study on the ecological and physiological performance of a large ambush predator (PI).	\$20,000
2008-2009	UCSC Junior Faculty Research Grant; Advancing techniques for the conservation of large predators (PI).	\$25,000

Professional Society Memberships and Service

Ecological Society of America
Society for Conservation Biology
Wildlife Society

Reviewer for: *American Naturalist*, *Annales Zoologici Fennici*, *Biological Conservation*, *Canadian Journal of Zoology*, *Ecological Applications*, *Ecology*, *Ecology Letters*, *Environmental management*, *Journal of Animal Ecology*, *Journal of Applied Ecology*, *Journal of Australian Zoology*, *Journal of Mathematical Biology*, *Journal of Theoretical Biology*, *Nature*, *NSF*, *Oecologia*, *Population Ecology*, *Proceedings of the Royal Society*

Environmental Studies Department curriculum committee, UCSC, 2007-present

Invited Seminars

University of Montana, Missoula, 2008
San Jose State University, San Jose, 2008
STEPS Institute for Innovation in Environmental Research, Santa Cruz, 2008
University of Aarhus, Denmark, 2007
Stanford University, Palo Alto, 2007
National Institute for Basic Biology, Okazaki, Japan, 2006
University of California, Santa Cruz, 2006

University of California, Davis, 2005
University of Colorado, Boulder, 2005
University of Washington, Seattle, 2005
University of British Columbia, Vancouver, Canada, 2004
Penn State University, State College, 2004
Saha Institute for Nuclear Physics, Calcutta, India, 2002
Imperial College, London, UK, 2002

Invited Workshops

Global Population Dynamics and Climate, Denmark, 2007
Global Climate Change and Conservation in the Greater Yellowstone Ecosystem, Wildlife
Conservation Society, Bozeman, 2007
Wildlife Connectivity, Elkhorn Slough Reserve, 2007

Publications

- Post, E., Pederson, C., **Wilmers, C.C.** & Forchhammer, M.C. 2008. Phenological sequences reveal aggregate life history response to climatic warming. *Ecology* 89: 363-370.
- Post, E., Pederson, C., **Wilmers, C.C.** & Forchhammer, M.C. 2008. Warming, plant phenology and the spatial dimension of trophic mismatch for large herbivores. *Proceedings of the Royal Society B*.
- Wilmers, C.C.** 2007 Understanding Ecosystem Robustness. 2007. *Trends in Ecology and Evolution* 22: 506-506.
- Wilmers, C.C.**, Post, E. & Hastings, A. 2007. The anatomy of predator-prey dynamics in a changing climate. *Journal of Animal Ecology* 76: 1037-1044.
- Wilmers, C.C.**, Post, E. & Hastings, A. 2007. A perfect storm: the combined effects on population fluctuations of auto-correlated environmental noise, age structure, and density dependence. *American Naturalist* 169: 673-683.
- Getz, W.M., Formann-Roe, S., Cross, P.C., Lyons, A.J., Ryan, S.J., & **Wilmers, C.C.** 2007. LoCoH: nonparametric kernel methods for constructing home ranges and utilization distributions. *PLoS One* 2(2) e207.
- Wilmers, C.C.**, Post, E., Peterson, R.O. & Vucetich, J.A. 2006. Predator disease out-break modulates top-down, bottom-up and climatic effects on herbivore population dynamics. *Ecology Letters* 9: 383-389.
- Wilmers, C.C.** & Post, E. 2006. Predicting the influence of wolf-provided carrion on scavenger community dynamics under climate change scenarios. *Global Change Biology* 12: 403-409.
- Wilmers, C.C.** & Getz, W.M. 2005. Gray wolves as climate change buffers in Yellowstone. *PLoS Biology* 3: 571-576.
- Wilmers, C.C.** & Getz, W.M. 2004. Simulating the effects of wolf-elk population dynamics on resource flow to scavengers. *Ecological Modelling* 177: 193-208.
- Getz, W.M. & **Wilmers, C.C.** 2004. A local nearest-neighbor convex-hull construction of home ranges and utilization distributions. *Ecography* 27: 489-505.

- Wilmers, C.C.,** Stahler, D.R., Crabtree, R.L., Smith, D.W. & Getz, W.M. 2003. Resource dispersion and consumer dominance: scavenging at wolf- and hunter-killed carcasses in Greater Yellowstone. *Ecology Letters* 6: 996-1003.
- Wilmers, C.C.,** Crabtree, R.L., Smith, D.W., Murphy, K.M. & Getz, W.M. 2003. Trophic facilitation by introduced top predators: gray wolf subsidies to scavengers in Yellowstone National Park. *Journal of Animal Ecology* 72: 909-916.
- Wilmers, C.C.,** Sinha, S. & Brede, M. 2002. Examining the effects of species richness on community stability: an assembly model approach. *Oikos* 99: 364-368.
- Wilmers, C.C. &** Stahler, D.R. 2002. Constraints on active-consumption rates in gray wolves, coyotes and grizzly bears. *Canadian Journal of Zoology* 80: 1256-1261.

Papers presented at professional meetings

- “Climate change in a top-down world.” 2007 Meeting of the Wildlife Society, Tuscon, AR (Invited)
- “Disease-mediated switch from top-down to bottom-up control increases moose population response to climate.” 2006 Meeting of the Ecological Society of America, Memphis, TN
- “Predators as climate change buffers.” 2004 Meeting of the Ecological Society of America, Portland, OR
- “Trophic facilitation by introduced top predators.” 2003 Meeting of the Society for Conservation Biology, Duluth, MN
- “Wolves, scavengers and climate change in Yellowstone National Park.” 2003 World Wolf Congress, Banff, Canada
- “Modeling gray wolf impacts on scavenger biodiversity.” 2002 Meeting of the Natural Resource Modeling Society, Lesvos, Greece
- “The gray wolf - scavenger complex in Yellowstone National Park.” 2002 Defenders of Wildlife Carnivore Biology and Conservation Meeting, Monterey, CA

PhD Students

Taal Levi
Yiwei Wang

Postdoctoral Researchers

Chris Darimont