JENNIFER A. DUNNE

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CURRENT POSITIONS

- Vice President for Science. Santa Fe Institute. Santa Fe, NM. 2013-present.
- Professor. Santa Fe Institute. Santa Fe, NM. 2010-present.

PRIOR POSITIONS

- Co-Director, Co-Founder. Pacific Ecoinformatics & Computational Ecology Lab. Berkeley, CA. 2004-2014.
- Research Professor. Santa Fe Institute. Santa Fe, NM. 2007-2010.
- Research Associate. Rocky Mountain Biological Lab. Gothic, CO. 2003-2008.
- Visiting Professor. Santa Fe Institute. Santa Fe, NM. 2003-2007.
- Postdoctoral Fellow. Santa Fe Institute. Santa Fe, NM. 2001-2003.
- Postdoctoral Researcher. Romberg Tiburon Center for Environmental Studies, San Francisco State University. Tiburon, CA. 2000-2002.
- Principal Investigator. Rocky Mountain Biological Lab. Gothic, CO. 1996-2000.

EDUCATION

- Ph.D. 2000 University of California, Berkeley (Energy and Resources Group)
- M.A. 1994 San Francisco State University (Dept. Biology; Ecology & Systematic Biology)
- A.B. 1989 Harvard University (Dept. Philosophy; *Cum Laude* General Studies)

HONORS & FELLOWSHIPS

- Fellow of the Ecological Society of America. 2017.
- Santa Fe Institute Postdoctoral Fellowship. Santa Fe Institute. 2001-2003.
- NSF Postdoctoral Fellowship in Biological Informatics. National Science Foundation. 2000-2002.
- DOE Hollaender Distinguished Postdoctoral Fellowship. Dept. of Energy. 2000. (declined)
- Berkeley Fellowship for Graduate Studies. University of California. 1994-1996, 1999-2000.
- Soroptimist Founder Region Dissertation Writing Fellowship. 1999.
- EPA Science to Achieve Results (STAR) Graduate Fellowship. Environmental Protection Agency. 1996-1999.

SERVICE

- Editorial Board. *The SFI Press.* 2017 to present.
- Immersion Distinguished Scholar. *National Socio-Environmental Synthesis Center* (*SESYNC*). 2017.
- Advisory Board. *NSF Cyberlearning Project: Extracting Salient Scenarios from Interaction Logs (ESSIL).* Technical Education Research Centers, Harvard University, NY Hall of Science. 2017-2019.
- Program Committee. *Conference on Complex Systems 2015*. Organized by Arizona State University in collaboration with the European Complex Systems Society and the Santa Fe Institute. 2015.
- Steering Committee. *ASU-SFI Center for Biosocial Complex Systems*. 2014-present.
- Advisory Panel. *Gordon & Betty Moore Foundation.* Data-Driven Discovery Investigator Competition. 2014.
- Advisor. *Nautilus.* Initial member of Board of Advisors for new science magazine that uses multiple perspectives and approaches to develop a comprehensive narrative of the role that science plays in our lives and culture. 2013-present.
- Editor. *Journal of Complex Networks.* Oxford University Press. One of ten initial senior-level editors; recruited five associate editors. 2012-present.
- Academic Editor. *PeerJ*. 2012-present.
- Series Editor. *Oxford Series in Ecology and Evolution*. Oxford University Press. 2009-present.
- Editor. *Ecology Letters*. 2009-2015.
- Subject Editor. *Oikos*. 2007-2012.
- Reviewer. *American Journal of Botany*, *Basic and Applied Ecology*, *Conservation Ecology*, *Ecology*, *Ecology Letters*, *Ecological Applications, Ecological Complexity, Ecological Informatics*, *Ecological Modelling*, *Functional Ecology*, *Global Change Biology*, *Journal of Animal Ecology*, *Journal of Theoretical Biology*, *Nature*, *Nature Communications*, *Oikos*, *Oecologia*, *Paleobiology*, *Philosophical Transactions of the Royal Society B*, *PLoS Biology, PLoS Computational Biology*, *PLoS One*, *Proceedings of the National Academy of Sciences USA*, *Proceedings of the Royal Society B*, *Progress in Oceanography*, *Science*, *The American Naturalist*, *Theoretical Ecology*, *Trends in Ecology & Evolution*; as well as various book proposals, chapters, manuscripts.
- Grant Proposal Reviewer & Panelist. *National Science Foundation*. Primarily for the Directorates for Biological Sciences & Geosciences.

TEACHING

- Santa Fe Institute Global Sustainability Summer School. Santa Fe, NM. 2016.
- Santa Fe Institute Complex Systems Summer School. Santa Fe, NM. 2006-2014.
- Santa Fe Institute Complex Systems Summer School Chile. Santiago, Chile. 2013.
- Santa Fe Institute Short Course on Complex Systems: Networks. Austin, TX. 2013
- Santa Fe Institute GUTS y GIRLS Program (Growing Up Thinking Scientifically for Middle School Girls). Santa Fe, NM. 2010-2012.
- Santa Fe Institute GUTS Program (Growing Up Thinking Scientifically for Middle School Students). Santa Fe, NM. 2007-2012.
- Workshop on Theoretical Ecology and Global Change. ICTP, Trieste, Italy. 2009.

- Santa Fe Institute Latin American Complex Systems Summer School. Bariloche, Argentina. 2008.
- A Primer in Ecological Networks: Data and Theory. University of Parma, Parma, Italy. 2008.
- International Workshop on Networks Science. New York Hall of Science, New York, NY. 2007.
- Ecological Networks Workshop. Colorado State University, Fort Collins, CO. 2007.
- SFI Graduate Workshop: Computational Social Science Modeling. Santa Fe, NM. 2003, 2006.

GRANTS

2017 Co-PI. *JSMF Adaptation, Aging and the Arrow of Time.* The James S. McDonnell Foundation. PI: David Krakauer. $2,500,00 (5 yrs). [SFI Institutional Grant]

2015 PI/Team Leader. *Developing a Comprehensive Theory of Complexity.* The John Templeton Foundation. $2,500,000 (3 yrs). [SFI Institutional Grant]

2014 Senior Scientist. *Information Theory, Complexity and Biological Systems.* Templeton World Charity Foundation TWCF F0079/AB47. PI: D. Wolpert. $588,000 (3 yrs).

2014 Senior Scientist. *Extinction, Recovery and Diversification in Permian to Triassic Terrestrial Ecosystems in South Africa.* Smithsonian Institution Competitive Grant for Science. PI: C.C. Labandeira. $68,276 (1yr).

2013 PI. Workforce Development in Complex Adaptive Systems. NSF PHY-1240192. $300,000 (3 years). [SFI Institutional Grant]

2013 Co-PI. *Socio-Ecosystem Dynamics of Natural-Human Networks on Model Islands***.** NSF CNH-1313830. PI: Neo Martinez. $1,300,000 (5 yrs).

2012 Co-PI. *WarmingWebs—The Role of Biodiversity, Species Thermal Tolerance and Food Web Structure in the Response to Climate Change: Temperate Versus Tropical Ecosystems*. Portuguese National Science Foundation PTDC/MAR-EST/2141/2012. PI: C. Vinagre. $105,000 (2 yrs).

2012 PI. *Using Ecological Networks to Understand Environmental Change.* Betsy and Jesse Fink Foundation. $25,000 (2 yrs).

2010 Co-PI. *Strategies: GUTS y GIRLS (Growing Up Thinking Scientifically for Girls).* NSF DRL-1031421. PI: I. Lee. $714,510 (3 yrs).

2010 PI. *Cloud-Enabled Exploration of Complex Ecological Networks* (CiC Supplement to NSF DBI-0850373). NSF DBI-1048302. $149,000 (2 yrs).

2009 PI. *Semantic Web Informatics for Species in Space and Time.* NSF DBI-0850373. $1,499,426 (4 yrs).

2009 PI. *Using Agent-Based Modeling Approaches to Explore Persistence and Stability in Complex Ecological Networks.* A National Academies/Keck Futures Initiative (NAKFI) Grant for Research on Complex Systems. $25,000 (1 yr).

2008 PI. *Ecological Network Research.* Funding from the Oprah Winfrey Foundation in support of the Santa Fe Institute's research and education mission. Salary Offset. $34,625 (1 yr).

2008 PI. *Archipelago Art and Science Project.* Funding from the Oprah Winfrey Foundation in support of the Santa Fe Institute's research and education mission. Equipment Funding. $15,375 (1 yr).

2006 Science Advisor. *Archipelago: Digitally Modeled Ecosystems Inhabited by Artificially Intelligent Organisms.* New Visions/New Mexico Contract Award. PI: D. Stout. $15,000 (1 yr).

2006 Senior Scientist. *Financial Markets as an Empirical Laboratory to Study an Evolving Ecology of Human Decision Making.* NSF HSD-0624351. PI: J.D. Farmer. $749,661 (3 yrs).

2005 Senior Scientist. *Complex Ecosystem Interactions over Multiple Spatial & Temporal Scales: The Biocomplexity of Sanak Island.* NSF Biocomplexity ARC-0508101. PI: H. Maschner. $1,150,000 (3 yrs). Subcontract: $110,000.

2003 Senior Scientist. *Science on the Semantic Web: Prototypes in Bioinformatics.* NSF ITR-0326460. PI: T. Finin. $2,350,001 (5 yrs). Subcontract: $439,001.

2003 PI. *Paleofoodweb Construction and the Evolution of Ecosystem Structure, II.* SFI working group meeting funded by SFI's research programs on "Robustness" and "Network Dynamics" through funding from the Packard Foundation and Intel Research. $8,000 (1 yr.).

2002 Co-PI. *Webs on the Web: Internet Database, Analysis, and Visualization of Ecological Networks.* NSF DBI-0234980. PI: N.D. Martinez. $1,443,830 (4 yrs).

2002 PI. *Paleofoodweb Construction and the Evolution of Ecosystem Structure, I.* SFI working group meeting funded by the Thaw Trust for "Work on Innovations." $10,000 (1 yr).

2002 PI. *Webs on the Web: Internet Database, Analysis, and Visualization of Ecological Networks.* SFI working group meeting funded by SFI research programs on "Robustness" and "Network Dynamics" with Packard Foundation and Intel Research funding. $11,000 (1 yr.).

2000 PI. *Effects of Biodiversity Loss on Complex Communities: A Web-Based Combinatorial Approach.* NSF Postdoctoral Fellowship DEB/DBI-0074521. $100,000 (2 yrs).

1996 PI. *An Integrated Field Investigation of Interactions between Climate Change and Ecosystem Dynamics.* EPA STAR Graduate Fellowship U915000. $78,670 (3 yrs).

1996 Principal Researcher. *Vegetation Feedbacks to Climate Change: Extending Results from an Ecosystem Warming Experiment to the Landscape Level.* NSF Dissertation Improvement Grant DEB-9623258. Sponsoring PI: J. Harte. $6,000 (1 yr).

PUBLICATIONS

- Google Scholar Citations = 6551, h-index = 32 (5/16/17)
- Google Scholar Profile: http://scholar.google.com/citations?user=P0Co1HMAAAAJ&hl=en
- PDFs at ResearchGate: https://www.researchgate.net/profile/Jennifer_Dunne/

71) Gravel, D, B. Baiser, **J.A. Dunne**, J.P. Kopelke, N.D. Martinez, T. Nyman, T. Poisot, S.A. Wood, D.B. Stouffer, J. Tylianakis, and T. Roslin. (2017) Bringing Elton and Grinnell together: A quantitative framework to represent the biogeography of ecological interaction networks. *Ecography.* [see also *bioRxiv* 055558]

70) Vinagre, C., M.J. Costa, **J.A. Dunne**. 2017. Effect of spatial scale on the network properties of estuarine food webs. *Ecological Complexity* 29:87-92.

69) P. Ehrlich, L. Ross, K. Arrow, M. Feldman, D. Kennedy, R. Cialdini, N. Diamond-Smith, J. Diamond, **J.A. Dunne**, R. Horn, C. Murphy, D. Pirages, K. Smith, R. York. 2016. The climate change challenge and barriers to the exercise of foresight intelligence. *BioScience* 66: 363-370. doi: 10.1093/biosci/biw025

68) Davies, N., D. Field, D. Gavaghan, S.J. Holbrook, S. Planes, M. Troyer, M. Bonsall, J. Caludet, G. Roderick, R.J. Schmitt, L.A. Zettler, V. Berteaux, H.D. Bossin, C. Cabaase, A Collin, J. Deck, A. Dell, **J.A. Dunne**, R. Gates, M. Harfoot, J.L. Hench, M. Hopuare, P. Kirch, G. Kotoulas, A. Kosenkov, J.J. Leichter, H. Lenihan, A. Maoulas, N.D. Martinez, C. Meyer, B. Stoll, B. Swalla, D.M. Tartokovsky, H. Teavia Murphy, S. Turyshev, F. Valdovinos, R.J. Williams, S. Wood. 2016.

Simulating social-ecological systems: The Island Digital Ecosystem Avatars (IDEA) consortium. *Gigascience* 5:14.

67) Poisot, T.E., B. Baiser, **J.A. Dunne**, S. Kefi, F. Massol, N. Mouquet, T.N. Romanuk, D.B. Stouffer, S.A. Wood, and D. Gravel. 2016. mangal-Making ecological network analysis simple. *Ecography* 39:384-390. doi:10.1111/ecog/00976 [See also *bioRxiv* 002634]

66) **Dunne, J.A.,** H. Maschner, M.W. Betts, N. Huntly, R. Russell, R.J. Williams, and S.A. Wood. The roles and impacts of human hunter-gatherers in North Pacific marine food webs. 2016. *Scientific Reports* 6:21179. doi:10.1038/srep21179

65) Wood, S.A., R. Russell, D. Hanson, R.J. Williams, and **J.A. Dunne.** 2015. Effects of spatial scale of sampling on food web structure. *Ecology and Evolution.* doi:10.1002/ece3.1640

64) Courchamp, F., **J.A. Dunne,** Y. Le Maho, R.M. May, C. Thébaud, and M.E. Hochberg. 2015. Back to the fundamentals: a reply to Barot et al. *Trends in Ecology and Evolution* 30:370–371.

63) Jacobs, A.Z., **J.A. Dunne**, C. Moore, and A. Clauset. 2015. Untangling the roles of parasites in food webs with generative network models. *arXiv* 1505.04741

62) Yeakel, J.D., and **J.A. Dunne**. 2015. Modern lessons from ancient food webs. *American Scientist* 103:188-196. [Cover Story & Feature Article; not peer-reviewed]

61) Marquet, P.A., A.P. Allen, J.H. Brown, **J.A. Dunne**, B.J. Enquist, J.F. Gillooly, P.A. Gowaty, J. Harte, S.P. Hubbell, J.G. Okie, A. Ostling, M. Ritchie, D. Storch, and G.B. West. 2015. On the importance of first principles in ecological theory development. *BioScience* biv015. [Response to two letters on Marquet *et al.* 2014 *Bioscience*]

60) Courchamp, F., **J.A. Dunne,** Y. Le Maho, R.M. May, C. Thébaud, and M.E. Hochberg. 2015. Fundamental ecology is fundamental. *Trends in Ecology and Evolution* 30:9-16. doi:10.1016/j.tree.2014.11.005

59) Marquet, P.A., A.P. Allen, J.H. Brown, **J.A. Dunne**, B.J. Enquist, J.F. Gillooly, P.A. Gowaty, J.L. Green, D. Storch, J. Harte, S.P. Hubbell, J. O´Dwyer, J.G. Okie, M. Ritchie, A. Ostling, and G.B. West. 2014. On theory in ecology. *BioScience* 8:701-710. doi:10.1093/biosci/biu098

58) **Dunne, J.A**., C.C. Labandeira, and R.J. Williams. 2014. Highly resolved early Eocene food webs show development of modern trophic structure after the end-Cretaceous extinction. *Proceedings of the Royal Society B* 20133280. doi:10.1098/rspb.2013.3280

57) Labandeira, C.C. and **J.A. Dunne.** 2014. Data for: Highly resolved early Eocene food webs show development of modern trophic structure after the end-Cretaceous extinction. *Dryad Digital Repository*. doi:10.5061/dryad.ps0f0

56) **Dunne, J.A.**, K.D. Lafferty, A.P. Dobson, R.F. Hechinger, A.M. Kuris, N.D. Martinez, J.P. McLaughlin, K.N. Mouritsen, R. Poulin, K. Reise, D.B. Stouffer, D.W. Thieltges, R.J. Williams, and C.D. Zander. 2013. Parasites affect food web structure primarily through increased diversity and complexity. *PLoS Biology* 11: e1001579. doi:10.1371/journal.pbio.1001579

55) **Dunne, J.A.**, K.D. Lafferty, A.P. Dobson, R.F. Hechinger, A.M. Kuris, N.D. Martinez, J.P. McLaughlin, K.N. Mouritsen, R. Poulin, K. Reise, D.B. Stouffer, D.W. Thieltges, R.J. Williams, and C.D. Zander. 2013. Data for: Parasites affect food web structure primarily through increased diversity and complexity. *Dryad Digital Repository*. doi:10.5061/dryad.b8r5c

54) **Dunne, J.A.**, S.J. Jackson, and J. Harte. 2013. Greenhouse effect. Pages 18-42 in Encyclopedia of Biodiversity, 2nd Edition, Volume 4, ed. S. Levin. Academic Press, Waltham.

53) Martinez, N.D., P. Tonin, B. Bauer, S. Yoon, I. Yoon, and **J.A. Dunne**. 2012. Sustaining economic exploitation of complex ecosystems in computational models of coupled human-natural networks. *Association of Artificial Intelligence, Special Track on Computational Sustainability*.

52) Thompson, R.M., U. Brose, **J.A. Dunne**, R.O. Hall, S. Hladyz, R.L. Kitching, N.D. Martinez, H. Rantala, T. Romanuk, D.B. Stouffer, and J. M. Tylianakis. 2012. Food webs: reconciling the structure and function of biodiversity. *Trends in Ecology and Evolution* 27:689-697.

51) Cleland, E.E., J.M. Allen, T.M. Crimmins, **J.A. Dunne**, S. Pau, S.E. Travers, and E.M. Wolkovich. 2012. Phenological tracking enables positive species responses to climate change. *Ecology* 93:1765-1771

50) Brose, U., **J.A. Dunne**, J.M. Montoya, O.L. Petchey, and U. Jacob, eds. 2012. Climate change in size-structured ecosystems. Theme Issue of the *Philosophical Transactions of the Royal Society B* 367:2903-3057.

49) Brose, U., **J.A. Dunne**, J.M. Montoya, O.L. Petchey, F.D. Schneider, and U. Jacob. 2012. Climate change in size-structured ecosystems. *Philosophical Transactions of the Royal Society B* 367:2903-2912.

48) **Dunne, J.A.**, S.A. Wood, R. Russell, N. Huntly, M. Betts, and H.D.G. Maschner. 2012. How Sanak Aleut fit into the intertidal food web. Pages 79-90 in Sanak Island, Alaska. A Natural and Cultural History, eds. K.L. Reedy-Maschner, H.D.G. Maschner. Idaho Museum of Natural History, Pocatello.

47) Cohen, A.A., L.B. Martin, J.C. Wingfield, S.R. McWilliams, and **J.A. Dunne**. 2012. Physiological regulatory networks: ecological roles and evolutionary constraints. *Trends in Ecology and Evolution* 27:428-435.

46) Thompson, R.M., **J.A. Dunne**, G. Woodward. 2012. Freshwater food webs—towards a more fundamental understanding of biodiversity and community dynamics. *Freshwater Biology* 57:1329-1341.

45) Petchey, O., and **J.A. Dunne**. 2012. Predator-prey relations and food webs. Pages 86-98 in Metabolic Ecology: A Scaling Approach, eds. R.M. Sibly, J.H. Brown, A. Kodric-Brown. Wiley-Blackwell.

44) **Dunne, J.A.** 2012. Food webs. Pages 1155-1176 in Computational Complexity: Theory, Techniques, and Applications, ed., R.A. Myers. Springer, New York.

43) Jacob, U., A. Thierry, U. Brose, W.E. Arntz, S. Berg, T. Brey, I. Fetzer, T. Jonnson, K. Mintenbeck, C. Möllmann, O. Petchey, J. Riede, and **J.A. Dunne**. 2011. The role of body size in complex food webs: A cold case. *Advances in Ecological Research* 45:181-223.

42) Lotze, H.K., Coll, M., and **J.A. Dunne**. 2011. Historical changes in marine resources, food-web structure and ecosystem functioning in the Adriatic Sea, Mediterranean. *Ecosystems* 14:198-222.

41) Valdovinos, F.S., R. Ramos-Jiliberto, L. Garay-Narváez, P. Urbani, and **J.A. Dunne**. 2010. Consequences of adaptive behaviour for the structure and dynamics of food webs. *Ecology Letters* 13:1546-1559.

40) Hegland, S.J., **J.A. Dunne**, A Nielsen, J. Memmott. 2010. How to monitor an ecological community cost-efficiently: the example of plant-pollinator networks. *Biological Conservation* 143:2091-2101.

39) Lafferty, K.D., **J.A. Dunne**. 2010. Stochastic ecological network occupancy (SENO) models: a new tool for modeling ecological networks across spatial scales. *Theoretical Ecology* 3:123-135.

38) Belgrano, A., **J.A. Dunne**, J. Bascompte. 2009. Food webs. Pages 596-603 in Encyclopedia of Ocean Sciences 2nd Edition, eds. J.H. Steele, K.K. Turekian, S.A. Thorpe. Academic Press, San Diego.

37) **Dunne, J.A.** 2009. Food webs. Pages 3661-3682 in the "Complex Networks and Graph Theory" section of the Encyclopedia of Complexity and Systems Science, ed. R.A. Meyers. Springer, New York.

36) Maschner, H.D.G., M.W. Betts, J. Cornell, **J.A. Dunne**, B. Finney, N. Huntly, J.W. Jordan, N. Misarti, K.L. Reedy-Maschner, R. Russell, A. Tews, S. Wood, B. Benson. 2009. An introduction to the biocomplexity of Sanak Island, Western Gulf of Alaska. *Pacific Science* 63:673-709.

35) **Dunne, J.A.**, R.J. Williams. 2009. Cascading extinctions and community collapse in model food webs. *Philosophical Transactions of the Royal Society B* 364:1711-1723.

34) **Dunne, J.A.** 2009. Review of Human Impacts on Ancient Marine Ecosystems: A Global Perspective. 2008. T.C. Rick and J.M. Erlandson, eds. University of California Press, Berkeley. *The Quarterly Review of Biology* 84:190-191.

33) Brose, U., **J.A. Dunne**. 2009. Modeling the dynamics of complex food webs. Pages 37-44 in Community Ecology: Processes, Models, and Applications, eds. H. Verhoef, P. Morin. Oxford University Press, Oxford.

32) Vermaat, J.E., **J.A. Dunne**, A. Gilbert. 2009. Major dimensions in food-web structure properties. *Ecology* 90:278-282. doi:10.1890/07-0978.1

31) Berlow, E.L., **J.A. Dunne**, N.D. Martinez, P.B. Stark, R.J. Williams, U. Brose. 2009. Simple prediction of interaction strengths in complex food webs. *Proceedings of the National Academy of Sciences USA* 106:187-191.

30) **Dunne, J.A.**, R.J. Williams, N.D. Martinez, R.A. Wood, D.H. Erwin. 2008. Compilation and network analyses of Cambrian food webs. *PLoS Biology* 6:693-708. doi:10.1371/journal.pbio.0060102

29) Lafferty, K.D., S. Allesina, M. Arim, C.J. Briggs, G. DeLeo, A. Dobson, **J.A. Dunne**, P.T.J. Johnson, A.M. Kuris, D.J. Marcogliese, N.D. Martinez, J. Memmott, P.A. Marquet, J.P. McLaughlin, E.A. Mordecai, M. Pascual, R. Poulin, D.W. Thieltges. 2008. Parasites in food webs: the ultimate missing links. *Ecology Letters* 11:533-546.

28) Srinivasan, U., **J.A. Dunne**, J. Harte, N.D. Martinez. 2007. Response of complex food webs to realistic extinction sequences. *Ecology* 88:671-682.

27) Pascual, M., **J.A. Dunne**, eds. 2006. Ecological Networks: Linking Structure to Dynamics in Food Webs. Santa Fe Institute Studies on the Sciences of Complexity. Oxford University Press, New York.

26) Pascual, M, **J.A. Dunne**. 2006. From small to large ecological networks in a dynamic world. Pages 3-24 in Ecological Networks: Linking Structure to Dynamics in Food Webs, eds. M. Pascual, J.A. Dunne. Oxford University Press, New York.

25) **Dunne, J.A.** 2006. The network structure of food webs. Pages 27-86 in Ecological Networks: Linking Structure to Dynamics in Food Webs, eds. M. Pascual, J.A. Dunne. Oxford University Press, New York.

24) Martinez, N.D., R.J. Williams, **J.A. Dunne**. 2006. Diversity, complexity, and persistence in large model ecosystems. Pages 163-185 in Ecological Networks: Linking Structure to Dynamics in Food Webs, eds. M. Pascual, J.A. Dunne. Oxford University Press, New York.

23) Pascual, M, **J.A. Dunne**, S.A. Levin. 2006. Challenges for the future: integrating ecological structure and dynamics. Pages 351-371 in Ecological Networks: Linking Structure to Dynamics in Food Webs, eds. M. Pascual, J.A. Dunne. Oxford University Press, New York.

22) Memmott, J., D. Alonso, E.L. Berlow, A. Dobson, **J.A. Dunne**, R. Solé, J. Wietz. 2006. Biodiversity loss and ecological network structure. Pages 325-347 in Ecological Networks: Linking Structure to Dynamics in Food Webs, eds. M. Pascual, J.A. Dunne. Oxford University Press, New York.

21) Green, J.L., A. Hastings, P. Arzberger, F. Ayala, K.L. Cottingham, K. Cuddington, F. Davis, **J.A. Dunne**, M.-J. Fortin, L. Gerber, M. Neubert. 2005. Complexity in ecology and conservation: mathematical, statistical, and computational challenges. *Bioscience* 55:501-510.

20) Yoon, I., S. Yoon, R.J. Williams, N.D. Martinez, **J.A. Dunne**. 2005. Interactive 3D visualization of highly connected ecological networks on the WWW. *Proceedings of the 20th Annual ACM Symposium on Applied Computing (SAC 2005), Multimedia and Visualization Section* 1207-1217.

19) Belgrano, A., U. Scharler, **J.A. Dunne**, R.E. Ulanowicz, eds. 2005. Aquatic Food Webs: An Ecosystem Approach. Oxford University Press, Oxford.

18) **Dunne, J.A.**, U. Brose, R.J. Williams, N.D. Martinez. 2005. Modeling food-web dynamics: complexity-stability implications. Pages 117-129 in Aquatic Food Webs: An Ecosystem Approach, eds. A. Belgrano, U. Scharler, J.A. Dunne, R.E. Ulanowicz. Oxford University Press, Oxford.

17) Dell A.I., G.D. Kokkoris, C. Banasek-Richter, L.-F. Bersier, **J.A. Dunne**, M. Kondoh, T.N. Romanuk, N.D. Martinez. 2005. How do complex food webs persist in nature? Pages 425-436 in Dynamic Food Webs: Multispecies Assemblages, Ecosystem Development and Environmental Change, eds. P.C. de Ruiter, V. Wolters, J.C. Moore. Academic Press, San Diego.

16) **Dunne, J.A.**, S.R. Saleska, M.L. Fischer, J. Harte. 2004. Integrating experimental and gradient methods in ecological climate change research. *Ecology* 85:904-916.

15) Starzomski, B.M., B.J. Cardinale, **J.A. Dunne**, M.J. Hillery, C.A. Holt, M.A. Krawchuk, M. Lage, S. McMahon, M.C. Melnychuk. 2004. Contemporary visions of progress in ecology and thoughts for the future. *Ecology & Society* 9, Article 14.

14) **Dunne, J.A.**, R.J. Williams, N.D. Martinez. 2004. Network structure and robustness of marine food webs. *Marine Ecology Progress Series* 273:291-302. doi:10.3354/meps273291

13) Yoon, I., R.J. Williams, E. Levine, S. Yoon, **J.A. Dunne**, N.D. Martinez. 2004. Webs on the Web (WOW): 3D visualization of ecological networks on the WWW for collaborative research and education. *Proceedings of the IS&T/SPIE Symposium on Electronic Imaging, Visualization & Data Analysis Section* 124-132.

12) Yoon, S., I. Yoon, R.J. Williams, N.D. Martinez, **J.A. Dunne**. 2004. 3D Visualization and analysis of ecological networks on WWW. *Proceedings of the Seventh IASTED International Conference on Computer Graphics and Imaging* 224-229.

11) **Dunne, J.A.**, J. Harte, K.J. Taylor. 2003. Subalpine meadow flowering phenology responses to climate change: integrating experimental and gradient methods. *Ecological Monographs* 73:69-86.

10) Yoon, I., R.J. Williams, E. Levine, S. Yoon, **J.A. Dunne**, N.D. Martinez. 2003. 3D visualization of ecological networks on the WWW. *Proceedings of the 14th IEEE Visualization Conference.*

9) **Dunne, J.A.**, R.J. Williams, N.D. Martinez. 2002. Network structure and biodiversity loss in food webs: robustness increases with connectance. *Ecology Letters* 5:558-567.

8) Williams, R.J., E.L. Berlow, **J.A. Dunne**, A.-L. Barabási, N.D. Martinez. 2002. Two degrees of separation in complex food webs. *Proceedings of the National Academy of Sciences USA* 99:12913-12916.

7) **Dunne, J.A.**, R.J. Williams, N.D. Martinez. 2002. Food-web structure and network theory: the role of connectance and size. *Proceedings of the National Academy of Sciences USA* 99:12917-12922. doi:10.1073/pnas.192407699

6) Saleska, S.R., M.R. Shaw, M.L. Fischer, **J.A. Dunne**, C.J. Still, M.L. Holman, J. Harte. 2002. Plant community composition mediates both large transient decline and predicted long-term recovery of soil carbon under climate warming. *Global Biogeochemical Cycles* 16:1055.

5) **Dunne, J.A.**, J. Harte. 2001. Greenhouse effect. Pages 277-293 in Encyclopedia of Biodiversity, Volume 3, ed. S. Levin. Academic Press, San Diego.

4) **Dunne, J.A.** 2000. Climate change impacts on community and ecosystem properties: integrating manipulations and gradient studies in montane meadows. Ph.D. Dissertation, University of California, Berkeley.

3) **Dunne, J.A.**, V.T. Parker. 1999. Species-mediated soil moisture availability and patchy establishment of *Pseudotsuga menziesii* in chaparral. *Oecologia* 119:36-45.

2) Martinez, N.D., **J.A. Dunne**. 1998. Time, space, and beyond: scale issues in food web research. Pages 207-226 in Ecological Scale: Theory and Applications, eds. D.L. Peterson, V.T. Parker. Columbia University Press, New York.

1) **Dunne, J.A.** 1994. Seasonal soil moisture patterns and establishment of *Pseudotsuga menziesii* in chaparral. M.A. Thesis, San Francisco State University.

POPULAR SCIENCE ARTICLES

2015 **Dunne, J.A.** and M.J. Hamilton. "Are humans truly unique? How do we know?" CSM Breakthroughs—Big Ideas Driving Progress in Science and Technology. *Christian Science Monitor* (12/22/15).

SELECTED PRESS

2017 "Influential Women in Ecological Network Research." Featured in official blog of *Methods in Ecology and Evolution* (methodsblog.wordpress.com, 3/6/17).

2016 "The Part We Play In—Not Just On—Our Environment." *Pacific Standard* (Quick Studies, Nature and Technology, 2/26/16).

2016 "This is How Hunter-Gatherers Preserve Their Food Sources." *Tech Times* (2/19/16).

2016 "Hunter-Gatherer Behavior Stabilizes Local Ecosystems." *New Historian* (2/22/16).

2016 "Alaska's Ancient Hunter-Gatherer Ecology Studied." *Archaeology* (Online News, 2/22/16).

2014 "Ancient Food Web Shows Modern Structure." *Earth* (Magazine of the American Geosciences Institute; July/August Issue).

2013 "Parasitic Complexity." Figure from Dunne *et al.* 2013 *PLoS Biology* selected as one of "The Best Scientific Visualizations of 2013" by *Wired* magazine.

2013 "A Study of Food Webs—How Do Parasites Affect Complex Feeding Interactions?" *Decoded Science* (www.decodedscience.com).

2013 "Food Web, Meet Parasite." *Science* (ScienceShot in ScienceNow).

2013 "Parasites in Food Webs: Untangling the Entangled Bank." *PLoS Biology* Synopsis (Jonathan Chase).

2013 "Parasites affect food web structure primarily through increased diversity and complexity." *PLoS Biology* Weekly Editors' Pick.

2012 Research on humans in food webs described on pages 84-89 of *The Fate of The Species: Why the Human Race May Cause Its Own Extinction and How We Can Stop It* (Fred Guterl).

2012 Research on humans in food webs described on page 288 of *Antifragile: Things That Gain from Disorder* (Nasim Nicholas Taleb).

2012 Interview on *Santa Fe Radio Café. KSFR* (Santa Fe Public Radio).

2012 "An EPA STAR Fellow's Nonlinear Career." Fellow Success Story, *US EPA Fellowships Homepage*.

2012 "Ancient Aleut Stabilized Pacific Marine Ecosystem, Study Finds." *Alaska Dispatch*.

2012 "Eat or Be Eaten." *Science* (News of the Week—1 of 4 AAAS Talks Featured)

2012 "No Omnivore's Dilemma for Alaskan Hunter-Gatherers." *Science Now* (Up to Minute News).

2012 " The Dwindling Web: How Human Exploitation has Reshaped a Marine Ecosystem." *Scientific American* (Graphic Science).

2011 Interview on *The Journey Home Radio Show. KSFR* (Santa Fe Public Radio).

2011 "How 'Homo-Economicus' Destabilizes our Food Web." *SmartPlanet* (Pure Genius).

2009 "The Architecture of Ecological Interactions." *A Science of Thirty—Who's Who in Complexity* (GIACS: General Integration of Applications of Complexity in Science).

2008 "Pesquisa Revela Ecologia Cambriana." *Folha de S. Paulo* (Ciência).

2008 "Nahrungsnetze Funktionieren Schon Seit 500 Millionen Jahren." *German Public Radio.*

2008 "The Cambrian Smorgasbord." *Nature* (News Feature).

2008 "Fossils Help Figure out Food Webs Old and New." *Science* (News of the Week).

2006 Full page figure from Dunne et al. 2002 *Ecology Letters* appears on page 594 in major ecology textbook: *Ecology: From Individuals to Ecosystems*, 4th Edition (Begon, Townsend, Harper).

2006 "Restoring Nature's Backbone." *PLoS Biology*.

2003 "Virtual Ecosystems." *Conservation in Practice* (Cover Article).

2002 "Untangled Food Webs." *California Wild Magazine* (California Academy of Sciences).

2002 "Life's Not So Complicated Web." *BBC Science News*.

MEETINGS

I. Meeting Organization

2017 Human-Centered Ecological Interaction Networks Across Space and Time II. Santa Fe Institute (SFI) Working Group. Nov. 6-8, 2017.

2017 Revealing the Causes and Consequences of Interaction Complexity Using Gradient-Based Ecological Networks. Organized Oral Session. Ecological Society of America Annual Meeting. Portland, OR. Co-organized with Jes Hines. Aug. 2017.

2017 Human-Centered Ecological Interaction Networks Across Space and Time I. Santa Fe Institute (SFI) Working Group. Feb. 13-15, 2017.

2016 Frontiers of Ecological Theory Integration. Second Meeting of the Network for Ecological Theory Integration (NETI). Santa Fe Institute (SFI) Workshop. Co-organized with Pablo Marquet. Santa Fe, NM. Sept. 19-2, 2016.

2016 Ecological Data Dramatization for Art and Science. Santa Fe Institute (SFI) Working Group. Co-organized with David Stout. Santa Fe, NM. March 14-17, 2016.

2016 Comparing Ecological Networks Along Gradients. Santa Fe Institute (SFI) Working Group. Co-organized with Josh Grochow. Santa Fe, NM. Feb. 29 – March 1, 2016.

2015 Uncertainty, Sensitivity and Predictability in Ecology: Mathematical Challenges and Ecological Applications. Mathematical Biosciences Institute Workshop. Co-organized with A. Morozov, A. Hastings. Columbus, OH. Oct. 26-30, 2015.

2015 Gradient-Based Ecological Network Research II. Santa Fe Institute (SFI) Working Group. Santa Fe, NM. March 2-4, 2015.

2014 Dynamics Of and On Networks. Santa Fe Institute (SFI) Workshop. Co-organized with C. Moore. Santa Fe, NM. Dec. 1-5, 2014

2014 Information Theory, Ecosystems and Schrodinger's Paradox. Santa Fe Institute (SFI) Working Group. Co-organized with D. Wolpert, J. O'Dwyer. Santa Fe, NM. Nov. 14-15, 2014.

2014 Complexity Economics. SFI Annual Business Network and Board of Trustees Symposium. Lead organizer: C.C. Wood. Santa Fe, NM. Nov. 6-8, 2014.

2014 NETI: Network for Ecological Theory Integration I. Chile Millennium Science Initiative & Santa Fe Institute Working Group. Co-organized with P. Marquet. Chile, Oct. 21-28, 2014.

2014 Origins of Novelty in Biological, Social and Technological Systems: Towards a General Theory of Innovation. Santa Fe Institute (SFI) Workshop. Co-organized with J. Lobo, A. Wagner, M. Laubichler. Santa Fe, NM. Oct. 13-17, 2014.

2014 The Nature of Creativity in the Brain. Santa Fe Institute (SFI) Working Group, in conjunction with the National Endowment for the Arts (NEA). Co-organized with B. O'Brien, S. Iyengar. Santa Fe, NM. July 9-10, 2014.

2013 Big Data Meets Big Theory. SFI Annual Business Network and Board of Trustees Symposium. Lead organizer: C.C. Wood. Santa Fe, NM. Oct. 31-Nov.2, 2013.

2013 SFI Massive Open On-Line Courses (MOOC) Curriculum Development. Santa Fe Institute (SFI) Working Group. Co-organized with M. Mitchell, G. Richardson. Santa Fe, NM. July 31.

2013 Gradient-Based Ecological Network Research: Next Generation Data, Models, and Theory. Santa Fe Institute (SFI) Working Group. Santa Fe, NM. March 5-7, 2013.

2012 Scientists/Artists Research Collaborations (SARC) Meeting. SFI Working Group. Co-organized with J. Ox and R. Lowenberg. Santa Fe, NM. Sept. 17-18, 2012.

2011 Evolutionary Processes in Ecological Networks. Ecological Society of America Oral Session. Co-organized with N.D. Martinez. Austin, TX. Aug. 9, 2011.

2010 Connecting Individuals to Ecosystems: Multiscale Computational Approaches. SFI Working Group. Santa Fe, NM; Santa Cruz, CA. June 16-17, 2010; Oct. 26-27, 2010; March 3-4, 2011.

2010 The Ecophylogeny of Complex Species Interactions. SFI Working Group. Co-organized with J.L. Green. Santa Fe, NM. April 6-9, 2010.

2009 Parasites in Food Webs: Network Structure. National Center for Ecological Analysis and Synthesis Working Group. Co-organized with K. Lafferty. Santa Barbara, CA. April 6-10, 2009.

2005 Integrating Spatial Macroecology, Ecological Networks, and Metabolic Allometry. Pacific Ecoinformatics and Computational Ecology Lab Working Group. Co-organized with N.D. Martinez. Berkeley, CA. Dec. 13-14, 2005.

2005 Emerging Ecoinformatic Tools and Accomplishments for Synthetic Ecological Research Across Scales. Ecological Society of America Oral Session. Co-organized with N.D. Martinez. Montreal, Canada. Aug. 10, 2005.

2004 Inaugural Pacific Ecoinformatics and Computational Ecology Lab Meeting. Co-organized with N.D. Martinez. Berkeley, CA. Nov. 16-17, 2004.

2004 From Structure to Dynamics in Complex Ecological Networks. SFI Workshop. Co-organized with M. Pascual. Santa Fe, NM. Feb. 19-21, 2004.

2003 Paleofoodweb Construction and the Evolution of Ecosystem Structure. SFI Working Group. Co-organized with D.H. Erwin. Santa Fe, NM. March 21-23, 2002; April 23-25, 2003.

2002 Webs on the Web: Internet Database, Analysis, and Visualization of Ecological Networks. SFI Working Group. Co-organized with N.D. Martinez. Santa Fe, NM. April 18-20, 2002.

II. Multi-Year Working Group Participation

- Network for Ecological Theory Integration (NETI). Millennium Science Initiative (ICM) Collaboration Network. Organizer: P. Marquet. Valparaiso, Chile; Santa Fe, NM; Prague, Czech Republic. 2014-2018.
- Gradient-Based Ecological Network Research: Next Generation Data, Models, and Theory. Santa Fe Institute Working Group. Organizer: J.A. Dunne. Santa Fe, NM. 2013-2015.
- GlobalWeb: The Future of Food Web Research. Monash U. Research Accelerator Program Workshop. Organizer: R.M. Thompson. Melbourne, Australia; Barcelona, Spain. 2011-2012.
- Connecting Individuals to Ecosystems with Multiscale Computational Approaches. Santa Fe Institute Working Group. Organizer: J.A. Dunne. Santa Fe, NM; Santa Cruz, CA. 2010-2011.
- Parasites and Food Webs. National Center for Ecological Analysis and Synthesis (NCEAS) Working Group. Organizer: K.D. Lafferty. Santa Barbara, CA. 2007-2009.
- Towards a Unified Theory of Biodiversity. NCEAS Working Group. A follow-on to prior meetings at the Santa Fe Institute (2006) and the Valparaiso Complex Systems Institute, Chile (2005). Organizer: A.P. Allen. Santa Barbara, CA. 2007-2009.
- Paleofoodweb Construction and the Evolution of Ecosystem Structure. Santa Fe Institute Working Group. Organizers: J.A. Dunne, D.H. Erwin. Santa Fe, NM. 2002-2003.

III. Meetings Attended

- Far too many attended; list available separately.

INVITED TALKS

(***** talks for non-academic audiences)

2017

118) The roles, function and impacts of humans in complex ecological networks: Data and theory. Plenary Speaker. 3rd Symposium on Ecological Networks. Uppsala, Sweden.

117) Human roles, behavior, and impacts in complex ecological networks. Keynote Speaker. NetSci 2017: International School and Conference on Network Science. Indianapolis, IN.

116) Modern lessons from ancient ecological networks. Complexity in Ecological and Evolutionary Dynamics. University of Michigan-Santa Fe Institute Symposium, Ann Arbor, MI.

115) Integrating disciplines through complex systems analysis and modeling. Immersion Distinguished Scholar, Network Science and Ecology Workshop. National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD.

114) Human roles in and impacts on ecosystems—An ecological network approach. Immersion Distinguished Scholar, Network Science and Ecology Workshop. National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD.

113) The role of network research in ecological theory. Immersion Distinguished Scholar, Network Science and Ecology Workshop. National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD.

112) Modern ecological lessons from ancient food webs. Department of Ecology and Evolutionary Biology. University of Colorado, Boulder, CO.

111) *****The web of life: Humans as a part of complex ecological networks. Denver Museum of Nature & Science. Denver, CO.

2016

110) Modern ecological lessons from ancient food webs. Environmental Science Seminar Series. Dept. of Civil and Environmental Engineering. MIT, Cambridge, MA.

109) Human roles, behavior, and impacts in complex ecological networks. Human Behavior Discussion Group. Santa Fe Institute, Santa Fe, NM.

108) Perspectives on sustainability from ecological network research. Global Sustainability Summer School. Santa Fe Institute, Santa Fe, NM.

107) Stability in complex ecological and economic systems. Women Corporate Directors Foundation Meeting. Santa Fe Institute, Santa Fe, NM.

106) Parasites and paleowebs: The importance of scale dependence for understanding trophic organization. Ecology and Evolutionary Biology Departmental Seminar. UCLA, Los Angeles, CA.

105) Human roles, behavior, and impacts in complex ecological networks. Marschak Colloquium. UCLA, Los Angeles, CA.

104) A half-billion years of aquatic food webs: From the Cambrian to the Anthropocene. Peter Yodzis Colloquium in Fundamental Ecology: Aquatic Ecosystems in a Changing World: From Individuals to Whole Webs. University of Guelph, Ontario, Canada.

103) The web of life: Humans as a part of complex ecological networks. Departments of Political Science and Environmental Studies. Reed College, Portland, NM.

102) Complex systems approaches to socio-ecological-environmental (SEE) research. National Science Foundation Advisory Committee for Environmental Research and Education (AC ERE) Meeting. NSF, Arlington, VA.

2015

101) *****The web of life: The ecological human. Stanislaw Ulam Lecture Series, Santa Fe Institute. James A. Little Theater, Santa Fe, NM.

100) *****The web of life: The hidden order of complex ecosystems. Stanislaw Ulam Lecture Series, Santa Fe Institute. James A. Little Theater, Santa Fe, NM.

99) Ecological networks of French Polynesia: A new way to study sustainability during a millennium of human presence. Symposium: Putting Ecological Theory into Coupled Natural-Human Systems Science. Ecological Society of America Annual Meeting. Baltimore, CA.

98) Human-centered interaction networks of French Polynesia. 3rd IDEA Workshop. University of California Gump Field Station, Mo'orea, French Polynesia.

97) *****Complex systems science at the Santa Fe Institute. Annual Meeting of the President's Circle. Santa Fe Institute, Santa Fe, NM.

96) Ecological networks: A framework for studying sustainability of coupled natural-human systems. Department of Anthropology. Emory University, Atlanta, GA.

95) Parasites and paleowebs: The importance of scale dependence for understanding trophic organization. Population Biology, Ecology, and Evolution Graduate Program Seminar. Emory University, Atlanta, GA.

94) Ecological networks: A framework for studying sustainability of coupled natural-human systems. Howard Baker Jr. Center for Public Policy Energy and Environment Forum. University of Tennessee, Knoxville, TN.

93) Gradient-based ecological network analysis and modeling: A new research agenda. SFI Working Group: Gradient-Based Ecological Network Research II. Santa Fe Institute, Santa Fe, NM.

92) The role of complex adaptive systems in 21st century science: An ecological perspective. Panel Discussion, Launch of ASU-SFI Center for Biosocial Complex Systems. Arizona State University, Tempe, AZ.

2014

91) Ecological network research: A framework for studying sustainability of coupled natural-human systems. 2nd IDEA Workshop: Mo'orea as a Social-Ecological System. University of California, Berkeley, CA.

90) Dynamics of and on ecological networks: An overview. SFI Workshop: Dynamics Of and On Networks. Santa Fe Institute, Santa Fe, NM.

89) Advances in food web data, modeling and theory. NETI: Network for Ecological Theory Integration I. Estación Costera de Investigaciones Marinas, Las Cruces, Chile.

88) *****Women in science and engineering (Panelist). Women's International Study Center Inaugural Symposium: "Risk and Reinvention: How Women are Changing the World." Santa Fe, NM.

87) Ecological network research: A framework for studying sustainability of coupled natural-human systems. Symposium: New Directions in Ecological Theory with Applications to Conservation. Ecological Society of America Annual Meeting. Sacramento, CA.

86) *****Chaos to complexity: Where do art and science meet? Discussion between artist Shan Goshorn and scientist Jennifer Dunne moderated by Valerie Plame. Sponsored by MoCNA (Museum of Contemporary Native Arts) and SFI (Santa Fe Institute). Santa Fe, NM.

85) Food web modeling and specific applications for global human ecodynamics. SFI Working Group: Global Human Ecodynamics Alliance Modeling. Santa Fe Institute, Santa Fe, NM.

84) *****Are humans just another predator? The roles of human foragers in North Pacific marine ecosystems. Keynote Speaker, Santa Fe Science Writing Workshop. Santa Fe Institute, Santa Fe, NM.

83) *****Resilience and stability of complex systems: An ecological perspective. Santa Fe Institute Science Breakfast. Palo Alto, CA.

82) Deep time perspectives on complex ecological networks: A half-billion years of food webs. Complex Systems Lecture Series. University of Alaska, Anchorage, AK.

81) *****Are humans just another predator? The roles of human foragers in North Pacific marine ecosystems. Complex Systems Public Lecture Series. University of Alaska, Anchorage, AK.

2013

80) The roles of human foragers in North Pacific marine food webs. NSF CNH Project Meeting: Socio-Ecosystem Dynamics of Natural-Human Networks on Model Islands**.** Berkeley, CA.

79) Gradient-based ecological network research: Next generation data, analyses & models. Keynote Address. 4th Decadal International Food Web Symposium—Food Webs: Science for Impact. Giessen, Germany.

78) Generality from the specific: An ecological network case study for sustainability. SFI Workshop: Theory and Knowledge Systems for Sustainability Science. Santa Fe Institute, Santa Fe, NM.

77) *****Ecosystems as complex networks. SFI Workshop: Out of the Box Thinking—Touching Tomorrow's World with Today's Science. Santa Fe Institute, Santa Fe, NM.

76) Ecological network structure and dynamics. Center for Nonlinear Studies. Los Alamos National Lab, Los Alamos, NM.

75) *****The roles of parasites in food webs. Santa Fe Institute "Talks Under the Trees," SFI-Tesuque Campus. Tesuque, NM.

74) The importance of basic research in ecologic: Ecological network structure and dynamics. Symposium: Emphasizing the Importance of Basic Science in Ecology. 11th INTECOL Congress (International Association for Ecology). London, England.

73) Network3D: 3D representation and structural analysis and modeling of complex food webs. INTECOL Workshop: Visualization and Analysis of Ecological Networks in a Changing World. London, England.

72) Next generation ecological network data. SFI Workshop: Structure, Statistical Inference, and Dynamics in Networks: From Graphs to Rich Data. Santa Fe Institute, Santa Fe, NM. (2013)

71) *****Science at the Santa Fe Institute. CEO University. Santa Fe Institute, Santa Fe, NM.

70) Ecological networks. Santa Fe Institute Short Course in Complex Systems: Networks. Austin, TX.

69) The roles of human foragers in North Pacific marine food webs. School of Life Sciences. Arizona State University, Tempe, AZ.

68) *****The many dimensions of food web research. Santa Fe Institute President's Circle Science Club. Santa Fe, NM.

67) Structural and dynamical roles of human foragers in North Pacific marine food webs. Morrison Inst. for Population & Resource Studies Winter Colloquium. Stanford University, Palo Alto, CA.

2012

66) The roles of human hunter-gatherers in North Pacific marine food webs. Environmental Studies Program. Dartmouth College, Hanover, NH.

65) *****Resilience and stability of complex systems: An ecological perspective. Santa Fe Institute Annual Business Network Meeting. Santa Fe, NM.

64) *****Ecosystems as complex networks. SFI Workshop: Out of the Box Thinking—Touching Tomorrow's World with Today's Science. Santa Fe Institute, Santa Fe, NM.

63) Network robustness, persistence, and stability. Santa Fe Institute - Los Alamos National Lab Collaboration Workshop. Santa Fe Institute. Santa Fe, NM.

62) The roles of species in food webs: Spatial scaling, assembly, and environmental change. GlobalWeb II: The Future of Food Web Research. Barcelona, Spain.

61) Frontiers of ecological network structure research: Data, models, and application. International Conference on Networks Science (NetSci). Northwestern University, Chicago, IL.

60) A deep time perspective on the organization of species interactions in complex ecological networks. Department of Biology. Colorado State University, Fort Collins, CO.

59) *****Human impacts on ecosystems: A network approach. Santa Fe Institute Annual Donor BBQ. Santa Fe, NM.

58) Parasites, terror birds, pitcher plants, and Homo sapiens: Frontiers in ecological network research. Department of Biology. Northern New Mexico College, Espanola, NM.

57) The roles of human hunter-gatherers in North Pacific food webs. AAAS Symposium—Historical Biocomplexity in the North Pacific Ocean: Lessons From the Past. Vancouver, Canada.

2011

56) *****Integrating ecology and archaeology to understand the roles of humans in ecosystems. SFI Staff Seminar Series. Santa Fe Institute, Santa Fe, NM.

55) Parasites, terror birds, pitcher plants, and Homo sapiens: Frontiers in ecological network research. Plenary Speaker. International Symposium on Biomathematics and Ecology: Education & Research (BEER). University of Portland, Portland, OR.

54) Back to the future: A deep time perspective on the organization of species interactions in complex food webs. Institute of Evolutionary Sciences. University of Montpellier, Montpellier, France.

53) *****Integrating archaeology and ecology: The trophic roles of North Pacific Aleut in marine ecosystems. Southwest Seminars Lecture Series. Santa Fe, NM.

52) The organization of highly resolved, multi-habitat species interactions in an Eocene paleo-food web. Organized Oral Session, Ecological Society of America Annual Meeting. Austin, TX.

51) The future of ecological network research: Data, models, theory, and application. GlobalWeb I: The Future of Food Web Research. Melbourne, Australia.

2010

50) *****Complex systems science and sustainability. Plenary Speaker. International European Summer University (UIE)—Beyond Development IV: Changing Path. Poitiers, France.

49) Energetic controls on the organization and dynamics of trophic networks. 4th Gordon Research Conference on The Metabolic Basis of Ecology. University of New England, Biddeford, ME.

48) Frontiers in marine food web data, analysis, and modeling: Examples from the Antarctic and the North Pacific. Interactive Session Speaker and Panelist. American Society for Limnology and Oceanography Annual Meeting. Santa Fe, NM.

47) Frontiers of complex systems research in ecology and networks. Templeton Foundation Workshop on Complex System Science. Santa Fe Institute, Santa Fe, NM.

46) Layered and interacting networks from an ecological perspective. SFI Working Group: Emergent Properties and Resilience of Interacting Networks. Santa Fe Institute, Santa Fe, NM.

2009

45) The science, technology, and art of complex ecological interactions: Food web research, ecoinformatics, and the Archipelago project. Environmental Science Cluster. University of North Texas, Denton, TX.

44) The robustness of ecological networks to species loss. International Conference on Emergence in Chemical Systems. University of Alaska, Anchorage, AK.

43) A deep time perspective on the network structure of food webs: patterns and constraints. Department of Ecology and Evolutionary Biology. Princeton University, Princeton, NJ.

42) The organization of complex species interactions. Presentation to the President of the Nanyang Technological University of Singapore. Santa Fe Institute, Santa Fe, NM.

41) Research on ecological networks. Presentation to Boeing Corporation. Santa Fe Institute, Santa Fe, NM.

40) *****The post-Darwinian ecosystem. Santa Fe Institute Public Lecture: The Post-Darwinian World. James A. Little Theater, Santa Fe, NM.

2008

39) Ecological robustness: Is the biosphere sustainable? Panelist. National Academies Keck Futures Initiative (NAKFI) Conference on Complex Systems. Irvine, CA.

38) The architecture of ecological interactions: patterns and principles. Plenary Speaker. European Conference on Complex Systems. Hebrew University, Jerusalem, Israel.

37) Challenges and opportunities for ecological informatics. European Conference on Complex Systems Satellite Conference: Large Databases in Biomedical Complex Systems Research. Hebrew University, Jerusalem, Israel.

36) Structural and dynamical roles of pre-industrial people in food webs of the North Pacific. Symposium, Ecological Society of America Annual Meeting. Milwaukee, WI.

35) *****The strangely familiar ecology of ancient ecosystems. Presentation to the Santa Fe Westerners Association. Santa Fe Institute, Santa Fe, NM.

34) Network models of food webs. SFI Workshop: Statistical Inference for Complex Networks. Santa Fe Institute, Santa Fe, NM.

33) Putting ecology into the ecology of markets. SFI Workshop: First Steps Toward Understanding Market Ecologies. Santa Fe Institute, Santa Fe, NM.

32) New frontiers in paleoecology. SFI Researcher Overview Series. Santa Fe Institute, Santa Fe, NM.

2007

31) Implications of Aleuts' topological and dynamical food-web roles for ecosystem sustainability. Idaho State University, Pocatello, ID.

30) Current context for the collapse of ecological diversity. SFI Business Network Symposium: Diversity Collapse--Causes, Connections and Consequences. Santa Fe Institute, Santa Fe, NM.

29) Deep-time perspectives on the robustness of ecological network structure. Symposium, Ecological Society of America Annual Meeting. San Jose, CA.

28) Ecological network structure, robustness, and uncertainty. International Conference on Networks Science (NetSci). New York Hall of Science, New York, NY.

27) Scaling in food webs. SFI Workshop: Scaling in Biological and Social Networks. Santa Fe Institute, Santa Fe, NM.

26) Aspects of ecosystem robustness. SFI Workshop: Dynamic Structure of Robustness. Santa Fe Institute, Santa Fe, NM.

25) New approaches for old webs: Archaeological and paleobiological ecological network analysis. Keynote Speaker. Ecological Networks Conference. Colorado State University, Fort Collins, CO.

24) Recent and deep-time perspectives on ecological network structure. Interdisciplinary Biological and Biomedical Sciences Seminar Series. University of New Mexico, Albuquerque, NM.

23) Conservation of ecosystem structure over deep time. Department of Biological Sciences. Idaho State University, Pocatello, ID.

2006

22) Conservation of ecosystem structure over deep time. Vrije Universiteit, Amsterdam, The Netherlands.

21) A half-billion years of ecological networks. SFI Science Board Symposium. Santa Fe Institute, Santa Fe, NM.

20) Shallow and deep-time perspectives on marine food-web robustness. Hopkins Marine Station. Stanford University, Pacific Grove, CA.

19) *****Conservation of ecosystem structure over deep time. SFI President's Circle Lunch. Santa Fe Institute, Santa Fe, NM.

18) Food-web methodology for biocomplexity research. Project Meeting: The Biocomplexity of Sanak Island. Idaho State University, Pocatello, ID.

17) Comments on the science and technology of sustainability. Panelist, Session on Sustainability. Towards 2020 Science Forum. Microsoft External Research. Venice, Italy.

2005 and earlier

16) The role of ecological network research in a potential unified theory of ecological complexity. Workshop on Ecological Complexity: Approaches, Challenges & Opportunities for Integration. Valparaiso, Chile. (2005)

15) Ecoinformatic approaches to synthetic food-web research from Cambrian to contemporary ecosystems. Organized Oral Session, Ecological Society of America Annual Meeting. Montreal, Canada. (2005)

14) Ecological network structure. SFI Workshop: From Structure to Dynamics in Complex Ecological Networks. Santa Fe Institute, Santa Fe, NM. (2004)

13) *****Fossil food webs and the evolution of ecosystem structure through deep time. Keynote Speaker, Santa Fe Science Writing Workshop. Santa Fe Institute, Santa Fe, NM. (2004)

12) Extending food-web theory through deep time: Paleofoodwebs and the evolution of ecosystem structure. 3rd Decadal International Food Web Symposium—Dynamic Food Webs: Multispecies Assemblages, Ecosystem Development and Environmental Change. Giessen, Germany. (2003)

11) Network structure and robustness of food webs to species loss. International Advancement of Community Ecology Theory (InterACT) Conference: Identifying Fragile Systems and Keystone Species. Linköping University, Linköping, Sweden. (2003)

10) Network structure and the robustness of aquatic food webs to species loss. Symposium, American Society of Limnology and Oceanography Annual Meeting. Salt Lake City, UT. (2003)

9) Integrating structure and dynamics in ecological networks. SFI Working Group: Networks and Markets. Santa Fe Institute, Santa Fe, NM. (2003)

8) Food webs: Structure, dynamics and robustness of ecological networks. Department of Ecology and Evolutionary Biology. University of Michigan, Ann Arbor, MI. (2002)

7) The importance of metabolic parameters for food web structure, dynamics and stability. SFI Workshop: Toward an Ecology Based on First Principles. Santa Fe Institute, Santa Fe, NM. (2002)

6) Structure, scaling, and stability in complex food webs. Biocomplexity Seminar Series. University of New Mexico, Albuquerque, NM. (2002)

5) Webs on the Web: Internet database, analysis, and visualization of ecological networks. SFI Robustness Program Planning Meeting. Santa Fe Institute, Santa Fe, NM. (2001)

4) Integrating multiple field approaches in ecological climate change research. Energy and Resources Group Colloquium Series. University of California, Berkeley, CA. (2000)

3) Scaling within ecological studies: Synthesizing experiments and gradients. SFI Colloquium Series. Santa Fe Institute, Santa Fe, NM. (2000)

2) Sensitivity of subalpine vegetation phenology to manipulated and natural climate change. Rocky Mountain Biological Laboratory Colloquium Series. Gothic, CO. (1998)

1) Science and ideology in trophic ecology: A tale of two webs. Workshop on Trophic Organization: Food Webs, Biodiversity and Conservation. Paris, FR. (1993)