

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

- Research Professor. Santa Fe Institute. Santa Fe, NM. 2007-2010.
- Co-Director/Co-Founder. Pacific Ecoinformatics & Computational Ecology Lab (PEaCE Lab). Berkeley, CA. 2004-2014.
- 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 Network Science Society. 2020.
- Fellow of the Ecological Society of America. 2017.
- Immersion Distinguished Scholar. National Socio-Environmental Synthesis Center (SESYNC). 2017.
- Santa Fe Institute Postdoctoral Fellowship. Santa Fe Institute. 2001-2003.
- NSF Postdoctoral Fellowship in Biological Informatics. National Science Foundation. 2000-2002.
- 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. U.S. Environmental Protection Agency. 1996-1999.

PUBLICATIONS

- Google Scholar Citations 16,801; h-index 48; i10-index 67 (8/17/2026)
- Google Scholar Profile: <http://scholar.google.com/citations?user=P0Co1HMAAAA&hl=en>
- PDFs at ResearchGate: https://www.researchgate.net/profile/Jennifer_Dunne/

I. ARTICLES, CHAPTERS, PRE-PRINTS, CONFERENCE PROCEEDINGS

- 85) Wootton, K.L., **J.A. Dunne**, M. Galesic, A. Clauset, D.B. Larremore. In review. Researchers play distinct epistemic roles in constructing ecological knowledge.
- 84) Shipley, A.E., A.P. Beckerman, C. Pimiento, J.O. Shaw, **J.A. Dunne**, T. Aze, A.M. Dunhill. In review. Extinction impacts of *Otodus megalodon* and other marine megafauna on ecosystem structure.
- 83) Crabtree, S.A., J.G. Kayn, S.A. Wood, **J.A. Dunne**. In review. The importance of trees to six cultures worldwide: Analysis of the many ways humans interact with other species. Chapter in Entangled Legacies: Human, Forest, and Tree Dynamics.
- 82) Strydom, T., B. Karapunar, **J.A. Dunne**, P. Hull, C.T.S. Little, C. Pimiento, A. Ridgwell, A.P. Beckerman, A.M. Dunhill. 2026. Are we mapping ecosystems or models? Framework choices dominate food web topology and extinction inferences. *ecoevoRxiv* doi.org/10.32942/X2XQ1M
- 81) Karapunar, B., T. Strydom, A.P. Beckerman, W.J. Foster, **J.A. Dunne**, P.B. Wignall, P. Hull, C. Pimiento, C.T.S. Little, A. Ridgwell, A.M. Dunhill. 2026. Temporal resolution shapes inference of trophic structure and extinction selectivity across the Permian-Triassic mass extinction. *bioRxiv* doi.org/10.64898/2026.06.22.733099
- 80) Karapunar, B., T. Strydom, A.P. Beckerman, A. Ridgwell, P.B. Wignall, **J.A. Dunne**, C.T.S. Little, P. Hull, C. Pimiento, A.M. Dunhill. 2026. No global collapse of marine food webs across the Permian-Triassic mass extinction. *bioRxiv* doi.org/10.64898/2026.02.24.707709
- 79) Strydom, T., **J.A. Dunne**, T. Poisot, A.P. Beckerman. 2026. Scaling from metawebs to realised webs: a hierarchical approach to network ecology. *ecoevoRxiv* doi.org/10.32942/X2JW8K
- 78) Kahn, J.G., S.A. Crabtree, P.V. Kirch, A. Buffington, S.A. Wood, D. Hanson, E. Holt, **J.A. Dunne**. In press. Do ecological or social factors generate internal variation amongst Eastern Polynesian chiefdoms? A comparison of human interactions with other species in the Society Islands and Gambier Islands (Mangareva). *Frontiers in Complex Systems (Complex Systems Approaches to Historical Dynamics: Mathematical and Computational Models in Historiography)*.
- 77) Woodhouse, A., A. Swain, J.A. Smith, E.C. Sibert, A.R. Lam, **J.A. Dunne**, A. Auderset. 2024. The micropaleoecology framework: Evaluating biotic responses to global change through paleoproxy, microfossil, and ecological data integration. *Ecology and Evolution* 14(11): e70470. doi.org/10.1002/ece3.70470
- 76) **Dunne, J.A.** 2024. Diversity/Complexity/Stability. 2024. Pages 1239-1248 in Foundational Papers in Complexity Science Volume II, ed. D.C. Krakauer. SFI Press. doi.org/10.37911/9781947864535.41
- 75) Shaw, J.O., A. M. Dunhill, A.P. Beckerman, **J.A. Dunne**, P.M. Hull. 2024. A framework for reconstructing ancient food webs using functional trait data. *bioRxiv* doi.org/10.1101/2024.01.30.578036
- 74) Tabi, A., L.J. Gilarranz, S.A. Wood, **J.A. Dunne**, S. Saavedra. 2023. Protection increases energetically efficient structures in marine communities. *PLoS Computational Biology* 19(12): e1011742. doi.org/10.1371/journal.pcbi.1011742
- 73) Crabtree, S.A., **J.A. Dunne**. 2023. Food webs. Pages 331-344 in The Oxford Handbook of Archaeological Network Research, eds. T. Brughmans, B.J. Mills, J. Munson, M.A. Peeples. Oxford University Press. doi.org/10.1093/oxfordhb/9780198854265.013.19

- 72) Swain, A., L.E Azevedo-Schmidt, S.A. Maccracken, E.D. Currano, **J.A. Dunne**, C.C. Labandeira, W.F. Fagan. 2023. Sampling bias and the robustness of ecological metrics for plant-damage-type association networks. *Ecology* 104: e3922. doi.org/10.1002/ecy.3922
- 71) Crabtree, S.A., J.G. Kahn, R. Jackson, J. Earnshaw, I. McKechnie, P. Verhagen, S.A. Wood, P.V. Kirch, **J.A. Dunne**, A. Dugmore. 2023. Why are sustainable practices often elusive? The role of information flow in the management of networked human-environment interactions. *Global Environmental Change* 78: 102597. doi.org/10.1016/j.gloenvcha.2022.102597
- 70) Crabtree, S.A., **J.A. Dunne**. 2022. Towards a science of archaeoecology. *Trends in Ecology and Evolution* 37:976-984. doi.org/10.1016/j.tree.2022.07.010
- 69) Crabtree, S.A., **J.A. Dunne**, S.A. Wood. 2021. Ecological networks and archaeology. *Antiquity* 95:812-825. doi.org/10.15184/aqy.2021.38
- 68) Shaw, J., E. Coco, K. Wootton, D. Daems, A. Gillreath-Brown, A. Swain, **J.A. Dunne**. 2021. Disentangling ecological and taphonomic signals in ancient food webs. *Paleobiology* 47:385-401. doi.org/10.1017/pab.2020.59
- 67) Boone, C.G., S.T.A. Pickett, A. Agrawal, K. Bawa, P. Bertsch, C.D. Campbell, P. Dodd, **J.A. Dunne**, I.J. Gordon, D. Hart, J.J. Hellman, A. Janetos, J. Kramer, H. Mallee, A. Miller, M. New, J.P. Ometto, K. Talos, G. Wendorf. 2020. Preparing interdisciplinary leadership for a sustainable future. *Sustainability Science* 15:1723–1733. doi.org/10.1007/s11625-020-00823-9
- 66) Gordon, I.J., K. Bawa, G. Bammer, C.G. Boone, C., **J.A. Dunne**, J. Hellman, A. Miller, M. New, J. Ometto, S.T.A. Pickett, G. Wendorf, A. Agrawal, P. Bertsch, C. Campbell, P. Dodd, D. Hart, A. Janetos, J. Kramer, H. Mallee, K. Taylor. 2019. Forging future organizational leaders for sustainability science. *Nature Sustainability* 2:647-649. doi.org/10.1038/s41893-019-0357-4
- 65) Baiser, B., D. Gravel, A. Cirtwill, **J.A. Dunne**, A. Fahimipour, L. Gilarranz, J. Grochow, L. Daijiang, N.D. Martinez, A. McGrew, T. Poisot, T. Romanuk, D. Stouffer, L. Trotta, F. Valdovinos, R.J. Williams, S. Wood, J. Yeakel. 2019. Ecogeographical rules and the macroecology of food webs. *Global Ecology and Biogeography* 28:1204-1218. doi.org/10.1111/geb.12925
- 64) Vinagre, C., M.J. Costa, S.A. Wood, R.J. Williams, **J.A. Dunne**. 2019. Potential impacts of climate change and humans on the trophic network organization of estuarine food webs. *Marine Ecology Progress Series* 616:13-24. doi.org/10.3354/meps12932
- 63) 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, T. Roslin. 2019. Bringing Elton and Grinnell together: A quantitative framework to represent the biogeography of ecological interaction networks. *Ecography* 42:401-415. doi.org/10.1111/ecog.04006
- 62) 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. doi.org/10.1016/j.ecocom.2017.01.004
- 61) Ehrlich, P., 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.org/10.1093/biosci/biw025
- 60) 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. doi.org/10.1186/s13742-016-0118-5

- 59) Poisot, T.E., B. Baiser, **J.A. Dunne**, S. Kefi, F. Massol, N. Mouquet, T.N. Romanuk, D.B. Stouffer, S.A. Wood, D. Gravel. 2016. mangal-Making ecological network analysis simple. *Ecography* 39:384-390. doi.org/10.1111/ecog/00976
- 58) **Dunne, J.A.**, H. Maschner, M.W. Betts, N. Huntly, R. Russell, R.J. Williams, S.A. Wood. 2016. The roles and impacts of human hunter-gatherers in North Pacific marine food webs. *Scientific Reports* 6:21179. doi.org/10.1038/srep21179
- 57) Wood, S.A., R. Russell, D. Hanson, R.J. Williams, **J.A. Dunne**. 2015. Effects of spatial scale of sampling on food web structure. *Ecology and Evolution*. doi.org/10.1002/ece3.1640
- 56) Courchamp, F., **J.A. Dunne**, Y. Le Maho, R.M. May, C. Thébaud, M.E. Hochberg. 2015. Back to the fundamentals: a reply to Barot et al. *Trends in Ecology and Evolution* 30:370–371. doi.org/10.1016/j.tree.2015.05.003
- 55) Jacobs, A.Z., **J.A. Dunne**, C. Moore, A. Clauset. 2015. Untangling the roles of parasites in food webs with generative network models. *arXiv* 1505.04741
- 54) 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, G.B. West. 2015. On the importance of first principles in ecological theory development. *BioScience* biv015. doi.org/10.1093/biosci/biv015 [Response to two letters on Marquet *et al.* 2014 *Bioscience*]
- 53) Courchamp, F., **J.A. Dunne**, Y. Le Maho, R.M. May, C. Thébaud, M.E. Hochberg. 2015. Fundamental ecology is fundamental. *Trends in Ecology and Evolution* 30:9-16. doi.org/10.1016/j.tree.2014.11.005
- 52) 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, G.B. West. 2014. On theory in ecology. *BioScience* 8:701-710. doi.org/10.1093/biosci/biu098
- 51) **Dunne, J.A.**, C.C. Labandeira, 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.org/10.1098/rspb.2013.3280
- 50) **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, C.D. Zander. 2013. Parasites affect food web structure primarily through increased diversity and complexity. *PLoS Biology* 11: e1001579. doi.org/10.1371/journal.pbio.1001579
- 49) **Dunne, J.A.**, S.J. Jackson, J. Harte. 2013. Greenhouse effect. Pages 18-42 in Encyclopedia of Biodiversity, 2nd Edition, Volume 4, ed. S. Levin. Academic Press, Waltham.
- 48) Martinez, N.D., P. Tonin, B. Bauer, S. Yoon, I. Yoon, **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*.
- 47) Thompson, R.M., U. Brose, **J.A. Dunne**, R.O. Hall, S. Hladysz, R.L. Kitching, N.D. Martinez, H. Rantala, T. Romanuk, D.B. Stouffer, J. M. Tylianakis. 2012. Food webs: reconciling the structure and function of biodiversity. *Trends in Ecology and Evolution* 27:689-697. doi.org/10.1016/j.tree.2012.08.005
- 46) Cleland, E.E., J.M. Allen, T.M. Crimmins, **J.A. Dunne**, S. Pau, S.E. Travers, E.M. Wolkovich. 2012. Phenological tracking enables positive species responses to climate change. *Ecology* 93:1765-1771. doi.org/10.1890/11-1912.1
- 45) Brose, U., **J.A. Dunne**, J.M. Montoya, O.L. Petchey, U. Jacob, eds. 2012. Climate change in size-structured ecosystems. Theme Issue of the *Philosophical Transactions of the Royal Society B* 367:2903-3057.

- 44) Brose, U., **J.A. Dunne**, J.M. Montoya, O.L. Petchey, F.D. Schneider, U. Jacob. 2012. Climate change in size-structured ecosystems. *Philosophical Transactions of the Royal Society B* 367:2903-2912. doi.org/10.1098/rstb.2012.0232
- 43) **Dunne, J.A.**, S.A. Wood, R. Russell, N. Huntly, M. Betts, 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.
- 42) Cohen, A.A., L.B. Martin, J.C. Wingfield, S.R. McWilliams, **J.A. Dunne**. 2012. Physiological regulatory networks: ecological roles and evolutionary constraints. *Trends in Ecology and Evolution* 27:428-435. doi.org/10.1016/j.tree.2012.04.008
- 41) 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. doi.org/10.1111/j.1365-2427.2012.02808.x
- 40) Petchey, O., **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.
- 39) **Dunne, J.A.** 2012. Food webs. Pages 1155-1176 in Computational Complexity: Theory, Techniques, and Applications, ed., R.A. Myers. Springer, New York.
- 38) 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, **J.A. Dunne**. 2011. The role of body size in complex food webs: A cold case. *Advances in Ecological Research* 45:181-223. doi.org/10.1016/B978-0-12-386475-8.00005-8
- 37) Lotze, H.K., Coll, M., **J.A. Dunne**. 2011. Historical changes in marine resources, food-web structure and ecosystem functioning in the Adriatic Sea, Mediterranean. *Ecosystems* 14:198-222. doi.org/10.1007/s10021-010-9404-8
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- 35) 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. doi.org/10.1016/j.biocon.2010.05.018
- 34) 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. doi.org/10.1007/s12080-010-0082-0
- 33) 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.
- 32) **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.
- 31) 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. doi.org/10.2984/049.063.0410
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- 28) Vermaat, J.E., **J.A. Dunne**, A. Gilbert. 2009. Major dimensions in food-web structure properties. *Ecology* 90:278-282. doi.org/10.1890/07-0978.1
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- 23) 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.
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- 19) 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.
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- 16) **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.
- 15) 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.
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- 9) **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. doi.org/10.1890/0012-9615(2003)073[0069:SMFPRT]2.0.CO;2
- 8) 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*.
- 7) **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. doi.org/10.1046/j.1461-0248.2002.00354.x
- 6) 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. doi.org/10.1073/pnas.19244879
- 5) **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.org/10.1073/pnas.192407699
- 4) 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. doi.org/10.1029/2001GB001573
- 3) **Dunne, J.A.**, J. Harte. 2001. Greenhouse effect. Pages 277-293 in Encyclopedia of Biodiversity, Volume 3, ed. S. Levin. Academic Press, San Diego.
- 2) **Dunne, J.A.**, V.T. Parker. 1999. Species-mediated soil moisture availability and patchy establishment of *Pseudotsuga menziesii* in chaparral. *Oecologia* 119:36-45. doi.org/10.1007/s004420050758
- 1) 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.

II. BOOKS

- 2006 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.
- 2005 Belgrano, A., U. Scharler, **J.A. Dunne**, R.E. Ulanowicz, eds. 2005. Aquatic Food Webs: An Ecosystem Approach. Oxford University Press, Oxford.

III. THESES

- 2000 **Dunne, J.A.** 2000. Climate change impacts on community and ecosystem properties: integrating manipulations and gradient studies in montane meadows. Ph.D. Dissertation, U. California, Berkeley.
- 1994 **Dunne, J.A.** 1994. Seasonal soil moisture patterns and establishment of *Pseudotsuga menziesii* in chaparral. M.A. Thesis, San Francisco State University.

IV. PUBLISHED DATASETS

- 2023 Tabi, A., L.J. Gilarranz, S.A. Wood, **J.A. Dunne**, S. Saavedra. Data from: Protection promotes energetically efficient structures in marine communities. *Zenodo* digital.csic.es/handle/10261/354162
- 2022 Swain, A., L.E Azevedo-Schmidt, S.A. Maccracken, E.D. Currano, **J.A. Dunne**, C.C. Labandeira, W.F. Fagan. Data from: Sampling bias and the robustness of ecological metrics for plant-damage-type association networks. *Zenodo* zenodo.org/records/7242324
- 2020 Shaw, J., E. Coco, K. Wootton, D. Daems, A. Gillreath-Brown, A. Swain, **J.A. Dunne**. Data from: Disentangling ecological and taphonomic signals in ancient food webs. *Dryad* doi.org/10.5061/dryad.63xsj3v0j
- 2016 Wood, S.A., R. Russell, D. Hanson, R.J. Williams, **J.A. Dunne**. Data from: Effects of spatial scale of sampling on food web structure. *Dryad* doi.org/10.5061/dryad.g1qr6
- 2015 Labandeira, C.C. **J.A. Dunne**. 2015. Data from: Highly resolved early Eocene food webs show development of modern trophic structure after the end-Cretaceous extinction. *Dryad* doi.org/10.5061/dryad.ps0f0
- 2013 **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, C.D. Zander. 2013. Data from: Parasites affect food web structure primarily through increased diversity and complexity. *Dryad* doi.org/10.5061/dryad.b8r5c

V. POPULAR SCIENCE

- 2019 **Dunne, J.A.** (Author, Editor, Interlocutor). Autonomous ecosystems. Pages 88-107 in InterPlanetary Transmissions—Genesis: Proceedings of the Santa Fe Institute’s First InterPlanetary Festival (Compass Book 2; eds. D.C. Krakauer, C.L. McShea; 2019). Santa Fe Institute Press.
- 2015 Yeakel, J.D., **J.A. Dunne**. Modern lessons from ancient food webs. *American Scientist* 103:188-196. [Cover Story & Feature Article]
- 2015 **Dunne, J.A.**, 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). Republished as pages 249-255 in Worlds Hidden in Plain Sight: The Evolving Idea of Complexity at the Santa Fe Institute 1984-2019 (Compass Book 1; ed. D.C. Krakauer; 2019). Santa Fe Institute Press.
- 2009 **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.

SELECTED TALKS (out of ~150)

- *ArchaeoEcological Networks: A Framework for Exploring How Humans Interact with Biodiversity Through Space and Time*. Colloquium Speaker. NetSci – The Network Science Society. Virtual (2023)
- *How Humans Interact with Species Across Space and Time*. Symposium Speaker. How Human Interactions with Biodiversity Shape Socio-Ecological Dynamics in Deep Time. AAAS Annual Meeting. Washington D.C. (2019)
- *A Half-Billion Years of Food Webs: From the Cambrian to the Anthropocene*. Keynote Speaker. Closing the Palaeontological—Ecological Gap (CPEG). British Ecological Society Macroecology Special Interest Group Meeting. School of Earth and Environment. University of Leeds, Leeds, UK. (2018)
- *The Roles, Function and Impacts of Humans in Complex Ecological Networks: Data and Theory*. Plenary Speaker. 3rd Symposium on Ecological Networks. Uppsala, Sweden. (2017)
- *The Deep Time Frontiers of Ecological Network Research*. Keynote Speaker. NetSci 2017—International Conference on Network Science. Indianapolis, IN. (2017)
- *Human Roles, Behavior, and Impacts in Complex Ecological Networks*. Colloquium Speaker. Marschak Colloquium. UCLA, Los Angeles, CA. (2016)
- *Complex Systems Approaches to Socio-Ecological-Environmental (SEE) Research*. Advisory Speaker. National Science Foundation Advisory Committee for Environmental Research and Education (AC ERE) Meeting. NSF, Arlington, VA. (2016)
- *The Web of Life: The Hidden Order of Complex Ecosystems & The Ecological Human* (2 lectures). Public Lecturer. Stanislaw Ulam Memorial Lecture Series, Santa Fe Institute. James A. Little Theater, Santa Fe, NM. (2015)
- *Ecological Networks: A Framework for Studying Sustainability of Coupled Natural-Human Systems*. Colloquium Speaker. Howard Baker Jr. Center for Public Policy Energy and Environment Forum. University of Tennessee, Knoxville, TN. (2015)
- *Gradient-Based Ecological Network Research: Next Generation Data, Analyses & Models*. Keynote Speaker. 4th Decadal International Food Web Symposium—Food Webs: Science for Impact. Giessen, Germany. (2013)
- *Ecological Networks of French Polynesia: A New Way to Study Sustainability During a Millennium of Human Presence*. Symposium Speaker. Putting Ecological Theory into Coupled Natural-Human Systems Science. Ecological Society of America Annual Meeting. Baltimore, CA. (2013)
- *Structural and Dynamical Roles of Human Foragers in North Pacific Marine Food Webs*. Colloquium Speaker. Morrison Institute for Population & Resource Studies Winter Colloquium. Stanford University, Palo Alto, CA. (2013)
- *Energetic Controls on the Organization and Dynamics of Trophic Networks*. Keynote Speaker. 4th Gordon Research Conference on The Metabolic Basis of Ecology. Biddeford, ME. (2010)
- *The Architecture of Ecological Interactions: Patterns and Principles*. Plenary Speaker. European Conference on Complex Systems. Hebrew University, Jerusalem, Israel. (2008)
- *Ecological Network Structure, Robustness, and Uncertainty*. Keynote Speaker. NetSci 2007—International Conference on Networks Science. New York Hall of Science, New York, NY. (2007)
- *Extending Food-Web Theory Through Deep Time: Paleofoodwebs and the Evolution of Ecosystem Structure*. Keynote Speaker. 3rd Decadal International Food Web Symposium—Dynamic Food Webs: Multispecies Assemblages, Ecosystem Development and Environmental Change. Giessen, Germany. (2003)

GRANTS

- 2023 Co-PI. *Community and Structural Collapse During Mass Extinctions (CASCaDE)*. NSF GEO-NERC 2334456 (Collaborative). Other PIs: A. Dunhill, A. Beckerman, P. Hull. Subaward to J.A. Dunne: \$35,471 (3 yrs).
- 2022 Co-PI. *Emergent Political Economies: Rules, Dynamics, and Diversity Research*. Omidyar Network. PI: D. Krakauer. \$6,500,000 (5 yrs). [SFI Institutional Grant]
- 2021 Co-PI. *IRES Track II: Complexity Advanced Studies Institute - Germany, Austria, Italy, Netherlands (Complexity-GAINs)*. NSF IRES. PI: D. Krakauer. \$399,944 (3 yrs). [SFI Institutional Grant]
- 2020 PI. *Progress in Complexity Science: Three Research Syntheses from the Santa Fe Institute*. The John Templeton Foundation. \$173,304 (2 yrs). [SFI Institutional Grant]
- 2019 Co-PI. *Convergent Paths Toward Universality in Complex Systems*. NSF PHY. PI: D. Krakauer. \$84,713 (1 yr). [SFI Institutional Grant]
- 2019 Co-PI. *Mapping the Structure and Dynamics of the Scientific Ecosystem*. Minerva Research Initiative, Dept. of Defense. PIs: D. Larremore, A. Clauset. \$2,565,505. SFI Subaward to M. Galesic, J.A. Dunne: \$172,569 (3 yrs).
- 2018 Co-Author/Investigator. *The ArchaeoEcology Project: How Human Interactions with Biodiversity Shape Socio-Ecological Dynamics and Sustainability*. The Coalition for Archaeological Synthesis (CfAS). PI: S. Crabtree. \$50,000 (2 yrs).
- 2017 Co-PI. *JSMF Adaptation, Aging, and the Arrow of Time*. The James S. McDonnell Foundation. PI: D. Krakauer. \$2,500,00 (5 yrs). <https://doi.org/10.37717/220020491> [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 Co-PI. *Cloud-Enabled Exploration of Complex Ecological Networks* (CiC Supplement to NSF DBI-0850373). NSF DBI-1048302. \$149,000 (2 yrs).
- 2009 Co-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). Subaward to J.A. Dunne: \$110,000.
- 2003 Senior Scientist. *Science on the Semantic Web: Prototypes in Bioinformatics*. NSF ITR-0326460. PI: T. Finin. \$2,350,001 (5 yrs). Subaward to N.D. Martinez, J.A. Dunne: \$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).

MEETING ORGANIZATION

- 2023 *Micropaleoecology, Climate Crises and Extinctions*. SFI Micro Working Group. Co-organizers: Anshuman Swain, Adam Woodhouse. Santa Fe, NM. Oct. 23-27, 2023.
- 2023 *Integrating Ecological Theories from a First Principles Perspective*. SFI Working Group. Co-organizer: Pablo Marquet. Santa Fe, NM. Oct. 17-19, 2023.
- 2021 *Resilience of French Polynesia Islands Over a Millennium of Human Interactions with Biodiversity*. SFI Working Group. Co-organizer: Stefani Crabtree. Santa Fe, NM. Oct. 18-20, Dec. 13-17, 2021.
- 2019 *Convergent Paths Toward Universality in Complex Systems*. NSF Sponsored Conference by the Santa Fe Institute. Co-organizer: D. Krakauer. Arlington, VA. Dec. 4-6, 2019.
- 2019 *Human-Centered Ecological Interaction Networks Across Space & Time IV*. SFI Working Group. Co-organizers: S. Crabtree, I. McKechnie. Hakai Institute, Quadra Island, BC. Oct. 7-12, 2019.
- 2019 *How Human Interactions with Biodiversity Shape Socio-Ecological Dynamics in Deep Time*. AAAS Annual Meeting Symposium. Co-organizer: S. Crabtree. Washington, D.C. Feb. 14-17, 2019.
- 2018 *Tackling Complex Sustainability Issues: Lessons from Inter- and Transdisciplinary Organizations*. SFI Working Group. Co-organizers: S. Pickett, C. Boone, A. Miller, G. Bammer. Santa Fe, NM. Nov. 27-30, 2018.
- 2018 *Next-Generation Ecological Network Theory and Application*. SFI Working Group. Co-organizers: P. Staniczenko, F. Valdovinos. Santa Fe, NM. Nov. 5-7, 2018.
- 2018 *Human-Centered Ecological Interaction Networks Across Space & Time III*. SFI Working Group. Co-organizer: S. Crabtree. Santa Fe, NM. Oct. 15-19, 2018.
- 2017 *Human-Centered Ecological Interaction Networks Across Space & Time I, II*. SFI Working Groups. Co-organizers: S. Crabtree, S. Wood. Santa Fe, NM. Feb. 13-15, Nov. 6-8, 2017.
- 2016 *Frontiers of Ecological Theory Integration*. Network for Ecological Theory Integration (NETI). SFI Workshop. Co-organizer: P. Marquet. Santa Fe, NM. Sept. 19-2, 2016.
- 2016 *Ecological Data Dramatization for Art and Science*. SFI Working Group. Co-organizer: D. Stout. Santa Fe, NM. March 14-17, 2016.
- 2016 *Comparing Ecological Networks Along Gradients*. SFI Working Group. Co-organizer: J. 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-organizers: A. Morozov, A. Hastings. Columbus, OH. Oct. 26-30, 2015.
- 2015 *Gradient-Based Ecological Network Research II*. SFI Working Group. Santa Fe, NM. March 2-4, 2015.
- 2014 *Dynamics Of and On Networks*. SFI Workshop. Co-organizer: C. Moore. Santa Fe, NM. Dec. 1-5, 2014
- 2014 *Information Theory, Ecosystems and Schrodinger's Paradox*. SFI Working Group. Co-organizers: D. Wolpert, J. O'Dwyer. Santa Fe, NM. Nov. 14-15, 2014.
- 2014 *NETI: Network for Ecological Theory Integration I*. Chile Millennium Science Initiative & Santa Fe Institute Working Group. Co-organizer: P. Marquet. Chile, Oct. 21-28, 2014.
- 2014 *Origins of Novelty in Biological, Social and Technological Systems: Towards a General Theory of Innovation*. SFI Workshop. Co-organizers: J. Lobo, A. Wagner, M. Laubichler. Santa Fe, NM. Oct. 13-17, 2014.
- 2014 *The Nature of Creativity in the Brain*. SFI Working Group, with the National Endowment for the Arts (NEA). Co-organizers: B. O'Brien, S. Iyengar. Santa Fe, NM. July 9-10, 2014.
- 2013 *SFI Massive Open On-Line Courses (MOOC) Curriculum Development*. SFI Working Group. Co-organizers: M. Mitchell, G. Richardson. Santa Fe, NM. July 31.
- 2013 *Gradient-Based Ecological Network Research: Next Generation Data, Models, and Theory*. SFI Working Group. Santa Fe, NM. March 5-7, 2013.

- 2012 *Scientists/ Artists Research Collaborations (SARC) Meeting*. SFI Working Group. Co-organizers: J. Ox, R. Lowenberg. Santa Fe, NM. Sept. 17-18, 2012.
- 2011 *Evolutionary Processes in Ecological Networks*. Ecological Society of America Oral Session. Co-organizer: 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-organizer: 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-organizer: 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-organizer: N.D. Martinez. Berkeley, CA. Dec. 13-14, 2005.
- 2005 *Emerging Ecoinformatic Tools & Accomplishments for Synthetic Ecological Research Across Scales*. Ecological Society of America Oral Session. Co-organizer: N.D. Martinez. Montreal, Canada. Aug. 10, 2005.
- 2004 *Inaugural Pacific Ecoinformatics and Computational Ecology Lab Meeting*. Co-organizer: N.D. Martinez. Berkeley, CA. Nov. 16-17, 2004.
- 2004 *From Structure to Dynamics in Complex Ecological Networks*. SFI Workshop. Co-organizer: M. Pascual. Santa Fe, NM. Feb. 19-21, 2004.
- 2003 *Paleofoodweb Construction and the Evolution of Ecosystem Structure*. SFI Working Group. Co-organizer: 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-organizer: N.D. Martinez. Santa Fe, NM. April 18-20, 2002.

MULTI-YEAR WORKING GROUP PARTICIPATION

- *Human Interactions with Other Species Through Space and Time*. SFI Working Group. Organizers: S. Crabtree, J.A. Dunne, S. Wood. Santa Fe, NM. 2016-present.
- *Interdisciplinary Research Matters: Pathways to Successful Organizational Models*. Working Group hosted by SESYNC & SFI. Organizer: G. Bammer. Annapolis, MD, 2018; Santa Fe, NM, 2020.
- *Network for Ecological Theory Integration (NETI)*. Millennium Science Initiative (ICM) Collaboration Network. Organizer: P. Marquet. Valparaiso, Chile, 2014; Santa Fe, NM, 2016, 2023.
- *Gradient-Based Ecological Network Research: Next Generation Data, Models, and Theory*. SFI Working Group. Organizer: J.A. Dunne. Santa Fe, NM. 2013-2015.
- *GlobalWeb: The Future of Food Web Research*. Monash University Research Accelerator Program Workshop. Organizer: R.M. Thompson. Melbourne, Australia; Barcelona, Spain. 2011-2012.
- *Connecting Individuals to Ecosystems with Multiscale Computational Approaches*. SFI 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*. SFI Working Group. Organizers: J.A. Dunne, D.H. Erwin. Santa Fe, NM. 2002-2003.

TEACHING

- Santa Fe Institute Complexity-GAINs International School. *Ecological Persistence and Resilience: From Emergence of Life to the Anthroposphere*. Director & Speaker (Co-Directors: C. Kempes, S. Kéfi). Sète, France. 2024.
- Santa Fe Institute Complex Systems Summer School. Santa Fe, NM. 2006-14, 2018-19, 2022-23.
- Santa Fe Institute Global Sustainability Summer School. Santa Fe, NM. 2016.
- 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. 2010-12.
- Santa Fe Institute GUTS Program (*Growing Up Thinking Scientifically for Middle School Students*). Santa Fe, NM. 2007-12.
- 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 on Computational Social Science Modeling. Santa Fe, NM. 2003, 2006.

PROFESSIONAL SERVICE

I. Vice President for Science, Santa Fe Institute

Primary areas of oversight and responsibility include:

- Resident Faculty, including renewals
- External Faculty, including nominations, renewals, visits
- Postdoctoral Fellows program
- Sponsored Research Services Office
- Scientific visitors, seminars, meetings, and programs
- Science budgets & expense reporting, institutional policy & procedures

II. Advisory

- External Advisory Board. *National Socio-Environmental Synthesis Center*. Annapolis, MD. 2018-present.
- Board of Advisors. *Nautilus*. Initial member of Board for science/culture magazine. 2013-present.
- Steering Committee. *ASU-SFI Center for Biosocial Complex Systems*. 2014-2023.
- Fellows Selection Committee. *Network Science Society*. 2021, 2022.
- Program Committee. *Conference on Complex Systems (CCS) 2015*. Organized by Arizona State University in collaboration with the European Complex Systems Society and the Santa Fe Institute. 2015.
- Advisory Panel. *Gordon & Betty Moore Foundation*. Data-Driven Discovery Investigator Competition. Palo Alto, CA. 2014.
- External Advisory Group. *Cedar Creek Ecosystem Science Reserve*. Mid-Term LTER Site review for the U.S. National Science Foundation. Cedar Creek, MN. 2009.

III. Editorial

- Series Editor. *Oxford Series in Ecology and Evolution*. Oxford University Press. 2009-2024.
- Editor. *Journal of Complex Networks*. Oxford University Press. One of ten initial senior-level editors; recruited five associate editors. 2012-2017.
- Editor. *Ecology Letters*. 2009-2015.
- Subject Editor. *Oikos*. 2007-2012.

IV. Reviewing

- Journals: *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*.
- Various book proposals, chapters, manuscripts, dissertations.
- Grant Proposals for the U.S. *National Science Foundation*. Primarily for the Directorates for Biological Sciences & Geosciences.

SELECTED PRESS

Wikipedia Page: https://en.wikipedia.org/wiki/Jennifer_Dunne

- 2025 Highly Ranked Scholar – [Lifetime All #6 Food Web](#). *Scholar GPS*.
- 2024 “The Diets of Half-A-Billion-Year-Old Species.” *Simplifying Complexity Podcast* (11/11/2024). [The diets of half-a-billion-year-old species - SC - Simplifying Complexity - Omny.fm](#)
- 2024 “Food Webs, Humans and Cod – Part 2.” *Simplifying Complexity Podcast* (08/19/2024). [Food webs, humans and cod - Part 2 - SC - Simplifying Complexity - Omny.fm](#)
- 2024 “Food Webs, Humans and Cod – Part 1.” *Simplifying Complexity Podcast* (08/05/2024). [Food webs, humans and cod - Part 1 - SC - Simplifying Complexity - Omny.fm](#)
- 2024 “Uncertainty is Science’s Superpower. Make it Yours, Too.” *Uncertain Episode #1* by Christie Aschwanden, part of *Scientific American’s “Science Talk”* Podcasts (04/03/2024). <https://www.scientificamerican.com/podcast/episode/uncertainty-is-sciences-super-power-make-it-yours-too/>
- 2023 “Archaeoecology with Dr. Stefani Crabtree and Dr. Jennifer Dunne.” *Women in Archaeology Podcast* (05/21/2023). <https://womeninarchaeology.com/2023/05/21/archaeoecology-with-dr-stefani-crabtree-and-dr-jennifer-dunne/>
- 2022 “The New Science of Archaeoecology.” *The Archaeology Podcast* (09/25/2022). <https://www.archaeologypodcastnetwork.com/archaeology/190>
- 2022 “A Playful Past Allows Us to Last: Part II of II – An Emerging Science Reveals the Past and Future of Coupled Natural-Human Systems.” *Interplace Podcast* (09/18/2022). <https://interplace.io/p/a-playful-past-allows-us-to-last#details>
- 2022 “Archaeoecology will examine the history of humans and nature.” [Earth.com](#) (09/06/2022).
- 2019 “Jennifer Dunne on Reconstructing Ancient Food Webs.” 6th Podcast Episode of *Complexity*, by the Santa Fe Institute (11/6/2019). <https://santafe.edu/culture/podcast>
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