

HEATHER MARIE TALLIS

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EDUCATION

University of Washington	Ph.D. Zoology	June 2006
University of Otago (New Zealand)	M.Sc. Marine Science	December 2000
University of California, Santa Cruz	M.S. Marine Science	December 1999
Eckerd College	B.S. Marine Biology	May 1998

EMPLOYMENT

- Global Managing Director & Lead Scientist for Strategy Innovation**, The Nature Conservancy
(Nov 2016 – present)
Acting Chief Scientist (July 2015 – Nov 2016)
Lead Scientist & Director of the Human Dimensions Program (March 2013 – July 2015)
Lead Scientist for the Natural Capital Project, Stanford University, Senior Research Scientist
2012-2013; Research Associate 2008-2012; Post-doctoral Scholar 2006-2008
Water Resources Team Scientist, Stone Environmental, Inc. Montpelier VT. (June – Oct 2001)
Research Cruise Technician, University of California, SC (July – Sept 2000)
Research Assistant, Department of Marine Sciences, University of California, SC (Sept 1998-
Dec 1999).
Assistant Scientist, Sea Education Association (May – Sept 1998)

PUBLICATIONS

- Allan, B.F., **Tallis, H.**, Chaplin-Kramer, R., Hockett, S., Kowal, G., Musengezi, J., Okanga, S., Ostfeld, R., Polasky, S., Schieltz, J., Warui, C., Wood, S.A., Keesing, F. (in press) Can integrating wildlife and livestock enhance the delivery of ecosystem services in central Kenya? *Frontiers in Ecology and the Environment*.
- The National Academies of Sciences, Engineering, and Medicine. 2016. Effective Monitoring to Evaluate Ecological Restoration in the Gulf of Mexico. Washington, DC: The National Academies Press. 10.17226/23476. **H. Tallis** as contributing author and member of Committee on Effective Approaches for Monitoring and Assessing Gulf of Mexico Restoration Activities.
- Grimm, N.B., Groffman, P., Staudinger, M., **Tallis, H.** 2016. Climate change impacts on ecosystems and ecosystem services in the United States: process and prospects for sustained assessment. *Climate Change* 135: 97-109.
- Mandle, L., Doubllass, J., Lozano, J.S., Sharp, R.P., Vogl, A.L., Denu, D., Walschburger, T., **Tallis, H.** 2016. OPAL: An open-source software tool for integrating biodiversity and ecosystem services into impact assessment and mitigation decisions. *Environmental Modelling & Software* 84: 121-133.
- Tallis, H.**, Kennedy, C.M., Ruckelshaus, M., Goldstein, J., Kiesecker, J.M. 2015. Mitigation for one and all: An integrated framework for mitigation of development impacts on biodiversity and ecosystem services. *Environmental Impact Assessment Review* 55: 21-34.

6. Mandle, L., **Tallis, H.**, Sotomayor, L., Vogl, A.L. 2015. Who loses? Tracking ecosystem service redistribution from road development and mitigation in the Peruvian Amazon. *Frontiers in Ecology and the Environment* 13: 309-315.
7. Williams, J.R., Masuda, Y.J., **Tallis, H.** 2015. A measure whose time has come: Formalizing time poverty. *Social Indicators Research* DOI 10.1007/s11205-015-1029-z.
8. Polasky, S., **Tallis, H.**, Reyers, B. 2015. Setting the bar: Standards for ecosystem services. *Proceedings of the National Academy of Sciences of the United States of America* 112.24: 7356-7361.
9. Diaz, S., Demissew, S., Carabias, J.,**Tallis, H.**, and 80 others. 2015. The IPBES Conceptual Framework—Connecting nature and people. *Current Opinion in Environmental Sustainability* 14: 1-16.
10. Karp, D.S., **Tallis, H.**, Sachse, R., Halpern, B., Thonicke, K., Cramer, W., Mooney, H., Polasky, S., Tietjen, B., Waha, K., Walz, A., Wolny, S. *in press*. National indicators for observing ecosystem service change. *Global Environmental Change*.
11. Selomane, O., Reyers, B., Biggs, R., **Tallis, H.**, Polasky, S. 2015. Towards integrated social-ecological sustainability indicators: Exploring the contribution and gaps in existing global data. *Ecological Economics* 118: 140-146.
12. Guerry, A.D., Polasky, S., Lubchenco, J., Chaplin-Kramer, R., Daily, G.C., Griffin, R., Ruckelshaus, M., Bateman, I.J., Duraiappah, A., Elmqvist, T., Feldman, M.W., Folke, C., Hoekstra, J., Kareiva, P.M., Keeler, B.L., Li, S., McKenzie, E., Ouyang, Z., Reyers, B., Ricketts, T.H., Rockstrom, J., **Tallis, H.**, Vira, B. 2015. Natural capital and ecosystem services informing decisions: From promise to practice. *Proceedings of the National Academy of Sciences of the United States of America* 112.24: 7348-7355.
13. **Tallis, H.**, Lubchenco, J. Adams, V.M., Adams-Hosking, C., Agostini, V.N., Andelman, S.J., Arkema, K., Balvanera, P., Ban, N., Beger, M., Bennett, E., Biggs, R., Blanchette, C., Boersma, P.D., Bottrill, M.C., Chaplin-Kramer, R., Coll, M., Corrigan, C., Cross, M.S., Daily, G., DeFries, R., DiFonzo, M.M.I., Ehrlich, A., Carmona, N.E., Ferreira, J., Foley, M., Francis, T., Fraschetti, S., Fuentes, M.M.P.B., Gaiser, E.E., and 210 additional co-authors. 2014. A call for inclusive conservation. *Nature* 515: 27-28.
14. Nelson, E., Kareiva, P., Ruckelshaus, M., Arkema, K., Geller, G., Girvetz, E., Goodrich, D., Matzek, V., Pinsky, M., Reid, W., Saunders, M., Semmens, D., **Tallis, H.** 2014. Climate change's impacts on key ecosystem services and the human wellbeing they support in the United States. *Frontiers in Ecology and the Environment* 11: 483-493.
15. Mooney, H., **Tallis, H.** 2014. Comment: Fauna in decline: global assessments. *Science* 345 (6199): 885.
16. Bhagabati, N.K, Ricketts, T., Sulistyawan, T.B.S., Conte, M., Ennaanay, D., Hadian, O., McKenzie, E., Olwero, N., Rosenthal, A., **Tallis, H.**, Wolny, S. 2014. Ecosystem services reinforce Sumatran tiger conservation in land use plans. *Biological Conservation* 169: 147-156.
17. Terrado, M., Acuna, V., Ennaanay, D., **Tallis, H.**, Sabater, S. 2014. Impact of climate extremes on hydrological ecosystem services in a heavily humanized Mediterranean basin. *Ecological Indicators* 37: 199-209.
18. Ruckelshaus, M., McKenzie, E., **Tallis, H.**, Guerry, A., Daily, G., Kareiva, P., Ricketts, T., Bhagabati, N., Wood, S.A., Bernhardt, J. 2013. Notes from the field: Lessons learned from using ecosystem service approaches to inform real world decisions. *Ecological Economics*.
19. **Tallis, H.**, Mooney, H., Andelman, S., Balvanera, P., Cramer, W., Karp, D., Polasky, S., Reyers, B., Ricketts, T., Running, S., Thoenicke, K., Tietjen, B., Walz, A. 2012. A global system for monitoring ecosystem service change. *BioScience* 62: 977-986.

20. **Tallis, H.**, Polasky, S., Lozano, J.S., Wolny, S. 2012. Inclusive wealth accounting for regulating ecosystem services. *In Inclusive Wealth Report 2012: Measuring progress towards sustainability.* Cambridge University Press, Cambridge.
21. Reyers, B., Polasky, S., **Tallis, H.**, Mooney, H., Larigauderie, A. 2012. Finding common ground for biodiversity and ecosystem services. *BioScience* 62(5): 503-507.
22. **Tallis, H.** Lester, S.E., Ruckelshaus, M., Plummer, M., McLeod, K., Guerry, A., Andelman, S., Caldwell, M., Conte, M., Coppins, S., Fox, D., Fujita, R., Gaines, S.D., Gelfenbaum, G., Gold, B., Kareiva, P., Kim, C., Lee, K., Papenfus, M., Redman, S., Silliman, B., Wainger, L., White, C. 2012. New metrics for managing and sustaining the ocean's bounty. *Marine Policy* 36:303-306.
23. Kim, C.K., Papenfus, M., Toft, J.E., Halpern, B.S., **Tallis, H.** 2012. Catching the right wave: Evaluating wave energy resources and trade-offs with competing marine and coastal uses. *PLoS One* 11: e47598. doi:10.1371/journal.pone.0047598.
24. Guerry, A.D., Ruckelshaus, M.H., Arkema, K., Bernhardt, J.R., Guannel, G., Kim, C.K., Marsik, M., Papenfus, M., Toft, J.E., Verutes, G., Wood, S.A., Beck, M., Chan, F., Chan, K.M.A., Gelfenbaum, G., Gold, B.D., Halpern, B.S., Labiosa, W.B., Lester, S.E., Levin, P.S., McField, M., Pinsky, M.L., Plummer, M., Polasky, S., Ruggiero, P., Sutherland, D.A., **Tallis, H.**, Day, A., Spencer, J. 2012. Modelling Benefits from Nature: Using ecosystem services to inform coastal and marine spatial planning. *International Journal of Biodiversity, Ecosystem Services and Management*, 1-15.
25. Lester, S.E., McLeod, K.L., **Tallis, H.**, Ruckelshaus, M., Halpern, B.S., Levin, P.S., Chavez, F.P., Pomeroy, C., McCay, B.J., Costello, C., Gaines, S.D., Mace, A.J., Barth, J.A., Fluharty, D.L., Parrish, J.K. 2010. Science in support of ecosystem-based management for the US West Coast and beyond. *Biological Conservation* 143: 576-587.
26. **Tallis, H.**, Polasky, S. 2009. Mapping and valuing ecosystem services as an approach for conservation and natural-resource management. *Annals of the New York Academy of Sciences* 1162: 265-283.
27. **Tallis, H.**, Levin, P.S., Ruckelshaus, M., Lester, S.E., McLeod, K.L., Fluharty, D.L., Halpern, B.S. 2009. The many faces of ecosystem-based management: Making the process work today in real places. *Marine Policy* 34: 340-348.
28. **Tallis, H.** 2009. Kelp and rivers subsidize rocky intertidal communities in the Pacific Northwest. *Marine Ecology Progress Series* 389: 85-96.
29. Fox, H.E., Kareiva, P., Silliman, B., Hitt, J., Lytle, D.A., Halpern, B.S., Hawkes, C.V., Lawler, J., Neel, M., Olden, J.D., Schlaepfer, M.A., Smith, K., **Tallis, H.** 2009. Why do we fly? Ecologists' sins of emission. *Frontiers in Ecology and the Environment* 7(6): 294-296. doi:10.1890/09.WB.019
30. Goldman, R.L., **Tallis, H.** 2009. A critical analysis of ecosystem services as a tool in conservation projects: The possible perils, the promises and the partnerships. *Annals of the New York Academy of Sciences* 1162: 63-78.
31. **Tallis, H.**, Ruesink, J.L., Dumbauld, B., Hacker, S., Wisheart, L.M. 2009. Oysters and aquaculture practices affect eelgrass density and productivity in a Pacific Northwest Estuary. *Journal of Shellfish Research* 28(2): 251-261.
32. **Tallis, H.**, Goldman, R., Uhl, M., Brosi, B. 2009. Ecosystem services and human needs: How the world's two largest conservation organizations integrate conservation and development. *Frontiers in Ecology and the Environment* 7(1): 12-20.
33. Nelson, E., Mendoza, G., Regetz, J., Polasky, S., **Tallis, H.**, Cameron, D., Chan, K., Daily, G., Goldstein, J., Kareiva, P., Lonsdorf, E., Naidoo, R., Ricketts, T., Shaw, R. 2009. Modeling multiple ecosystem services and tradeoffs. *Frontiers in Ecology and the Environment* 7(1): 4-11.
34. **Tallis, H.**, Kareiva, P., Marvier, M., Chang, A. 2008. An ecosystem services framework to support both practical conservation and economic development. *Proceedings of the National Academy of Sciences of the USA* 105(28): 9457-9646.

35. Goldman, R.L., **Tallis, H.**, Kareiva, P., Daily, G. 2008. Field evidence that ecosystem service projects support biodiversity and diversify options. *Proceedings of the National Academy of Sciences of the USA* 105(27): 9445-9448.
36. **Tallis, H.**, Ferdaña, Z., and Gray, E. 2008. Linking terrestrial and marine conservation planning and threats analysis. *Conservation Biology* 22:120.
37. Richardson, N. F., Ruesink, J.L., Naeem, S., Hacker, S.D., **Tallis, H.M.**, Dumbauld, B.R. and Wisehart, L.M. 2008. Bacterial abundance and aerobic microbial activity across natural and oyster aquaculture habitats during summer conditions in a northeastern Pacific estuary. *Hydrobiologia* 596: 269-278.
38. Fischer, J., Brosi, B., Daily, G.C., Ehrlich, P.R., Goldman, R., Goldstein, J., Lindenmayer, D.B., Manning, A.D., Mooney, H.A., Pejchar, L., Ranganathan, J., **Tallis, H.** 2008. Should agricultural policies encourage land sparing or wildlife-friendly farming? *Frontiers in Ecology and the Environment* 6: doi;10.1890/070019.
39. **Tallis, H.** and Kareiva, P. 2006. Shaping global environmental decisions using socio-ecological models. *Trends in Ecology and Evolution* 21(10): 562-568.
40. **Tallis, H.** and Kareiva, P. 2005. Ecosystem Services. *Current Biology* 15(18):R746-748.
41. Stoms, D. M., Davis, F. W., Andelman, S. J., Carr, M. H., Gaines, S. D., Halpern, B. S., Hoenicke, R. S., Leibowitz, G., Leydecker, A., Madin, E. M. P., **Tallis, H.**, Warner, R. R. 2005. Integrated coastal reserve planning: making the land-sea connection. *Frontiers in Ecology and the Environment* 3(8):429-436.
42. Wisehart, LM., Hacker, SD., **Tallis, HM.**, Ruesink, JL., Oyarzun, R., Dumbauld, RB. 2004. The effects of different aquaculture techniques on *Zostera marina* biomass, density, and growth rates in Willapa Bay, Washington. *Journal of Shellfish Research* 23 (2): 660.
43. **Tallis, H.M.**, Wing, S.R., Frew, R.D. 2004. Historical evidence for habitat conversion and local extinction in a New Zealand fjord. *Ecological Applications* 14(2): 546-554.
44. **Macrellis*, H.M.**, Trick, C.G., Rue, E.L., Smith, G., Bruland, K.W. 2001. Collection and detection of natural iron-binding ligands from seawater. *Marine Chemistry* 76(3):175-187.

*Maiden name, Heather Macrellis

IN REVIEW

- Tallis, H.**, Bratman, G., Samhuri, J.F., Fargione, J. Student test scores more strongly associated with urban trees than poverty. *Proceedings of the National Academies of Science of the United States of America*.
- Masuda, Y.J., **Tallis, H.**, Musengezi, J., Wongbusarakum, S. Human well-being impacts: Incorporating, monitoring, and evaluating human well-being into conservation programs. *Conservation Biology*.

BLOGS

Cool Green Science Blogs

- [Because you're a man](#)
- [The deceit of yes/no conservation](#)
- [US Federal government sends agencies to bat- for nature and people](#)
- [Nature and people: how can the US federal government put them together? With Lydia Olander](#)
- [Why applied science can often be truly brilliant](#)
- [Why conservation should embrace a diversity of people and values](#)
- [Nature as normal](#)
- [Sustainability: Time to get in the real game](#) (re-run on GreenBiz and Voices)
- [Conservation Next? Getting real about rural stewardship](#)

BOOKS

1. Kareiva, P.M., **Tallis, H.**, Ricketts, T.H., Daily, G.C., Polasky, S. (eds.) 2011. Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press.

BOOK CHAPTERS

1. Wutich, A., Lele, S., **Tallis, H.**, Cardenas Campo, J.C., Pahl-Wostl, C., Rauschmayer, F., Schleyer, C., Suhardiman, D., Turner, M., Swarteveen, M. Integrating sustainability, justice, and diversity? Opportunities and challenges for inclusively framing water research. In S. Lele (ed.) Rethinking Environmentalism. Ernst Strungmann Forum, Frankfurt. (*in press*).
2. **Tallis, H.**, Kennedy, C.M., Ruckelshaus, M., Goldstein, J., Kiesecker, J.M. 2016. Mitigation for the people: An ecosystem services framework. In D. Geneletti (ed.) Handbook on Biodiversity and Ecosystem Services in Impact Assessment. Edward Elgar Publishing, Cheltenham.
3. Mandle, L., **Tallis, H.** 2016. Ecosystem service analysis for Environmental Impact Assessment of projects. In D. Geneletti (ed.) Handbook on Biodiversity and Ecosystem Services in Impact Assessment. Edward Elgar Publishing, Cheltenham.
4. Balvanera, P., Quijas, S., Karp, D.S., Ash, N., Bennett, E.M., Boumans, R., Brown, C., Chan, K.M.A., Chaplin-Kramer, R., Halpern, B.S., Honey-Roses, J., Kim, C.K., Cramer, W., Martinez-Harms, M.J., Mooney, H., Mwampamba, T., Nel, J., Polasky, S., Reyers, B., Roman, J., Turner, W., Scholes, R.J., **Tallis, H.**, Thonicke, K., Villa, F., Walpole, M., Walz, A. 2016. Ecosystem Services. In The GEO Handbook on Biodiversity Observation Networks. Springer, New York.
5. Guerry, A., **Tallis, H.** 2014. Marine Ecosystem Services: A framework and practical set of tools for ecosystem-based management. In Fogarty, M.J. and McCarthy, J.J. (eds.). Volume 16 of The Sea: Ideas and Observations on Progress in the Study of the Seas. Harvard University Press, Harvard.
6. **Tallis, H.**, Guerry, A. and Daily, G.C. in press. Ecosystem services. In The Encyclopedia of Biodiversity, Academic Press.
7. **Tallis, H.**, Guerry, A. and Daily, G.C. 2012. Ecosystem services. In R.A. Myers (ed). The Encyclopedia of Sustainability Science and Technology, Springer, New York.
8. Daily, G.C., **Tallis, H.** and Guerry, A. 2012. Investing in natural capital. Pp. 105-119 in J. Murray, G. Cawthorne, C. Dey and C. Andrew, C. (eds). Enough for All Forever: A Handbook for Learning about Sustainability. Common Ground Publishing LLC, Champaign, Illinois .
9. **Tallis, H.**, Polasky, S. 2011. Assessing multiple ecosystem services: An integrated tool for the real world. In Kareiva, P.M. et al. (eds.). Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press; pp. 34-48.
10. **Tallis, H.**, Polasky, S. 2011. How much information do managers need? The sensitivity of ecosystem service decisions to model complexity. In Kareiva, P.M. et al. (eds.). Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press; pp. 264-277.
11. **Tallis, H.**, Pagiola, S., Zhan, W., Shaikh, S., Nelson, E., Stanton, C., Shyamsunder, P. 2011. Poverty and the distribution of ecosystem services. In Kareiva, P.M. et al. (eds.). Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press; pp. 278-293.
12. Polasky, S., Caldarone, G., Duarte, T.K., Goldstein, J., Hannahs, N., Ricketts, T., **Tallis, H.** 2011. Putting ecosystem service models to work: Conservation, management and tradeoffs. In Kareiva, P.M. et al. (eds.). Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press; pp. 249-262.
13. Daily, G.C., Kareiva, P., Polasky, S., Ricketts, T., **Tallis, H.** 2011. Mainstreaming natural capital into decisions. In Kareiva, P.M. et al. (eds.). Natural Capital: Theory and Practice of Mapping Ecosystem Services. Oxford University Press; pp. 3-12.

15. **Tallis, H.**, Daily, G., Grant, J., Kareiva, P., Ricketts, T. 2009. Including natural capital in environmental decision making. In People and the Environment: The Role of Environment in Poverty Alleviation. Fordham University Press.
16. Shaber Nelson, K., Gray, E., **Tallis, H.** 2006. Logging and Marine Coastal Systems. In McGraw-Hill Yearbook of Science & Technology. McGraw-Hill. Pgs. 135-137.
17. **Tallis, H.M.** 2006. *Zostera japonica* and *Utricularia inflata*. P.D. Boersma, S.E. Reichard and A.N. Van Buren, eds. Invasive Species of the Pacific Northwest. Seattle and London:University of Washington Press.

OTHER

- Conservation by Design: 20th Anniversary Edition. 2015. Co-author and Co-Chair: Conservation Approach Task Force. The Nature Conservancy, Arlington.
- Olander, L., Johnston, R.J., **Tallis, H.**, Kagan, J., Maguire, L., Boyd, J., Polasky, S. 2015. Best Practices for Integrating Ecosystem Services into Federal Decision Making. National Ecosystem Service Partnership, Duke University, Durham NC.
- Mandle, L., **Tallis, H.** 2012. Can the Pucallpa-Cruziero do Sul road be developed with no net loss of natural capital in Peru? Report to the Latin America Conservation Council. The Nature Conservancy, Arlington.
- Tallis, H.**, Markham, A., Ramos, A., Calvache, A., Guzman, A., Klemz, C., Veiga, F., Eggers, M., Benitez, S. 2012. Water Funds Business Case: Conservation as a Source of Competitive Advantage. The Nature Conservancy, Arlington.
- Goldman, R.L., Benitez, S., Calvache, A., Davidson, S., Ennaanay, D., McKenzie, E., **Tallis, H.** 2012. TEEB case: Linking people and nature through watershed conservation in the East Cauca Valley, Colombia. Available at: www.TEEBweb.org.
- Tallis, H.T.**, Ricketts, T., Guerry, A.D., Nelson, E., Ennaanay, D., Wolny, S., Olwero, N., Vigerstol, K., Pennington, D., Mendoza, G., Aukema, J., Foster, J., Forrest, J., Cameron, D., Lonsdorf, E., Kennedy, C., Verutes, G., Kim, C.K., Guannel, G., Papenfus, M., Toft, J., Marsik, M., and Bernhardt, J. 2012. InVEST 2.2 User's Guide. The Natural Capital Project, Stanford University.
- Tallis, H.** and Wolny, S. 2010. Including ecosystem services in mitigation. Report to the Colombian Ministry of the Environment, Mines and Territorial Development. Natural Capital Project: Stanford University.
- Tallis, H.**, Yukuan, W., Bin, F., Bo, Z., Wanze, Z., Min, C., Tam, C., Daily, G. 2010. The Natural Capital Project. *Bulletin of the British Ecological Society* 41(1): 10-13.
- Tallis, H.** 2007. Payments, policies and pop stars. *The Nature Conservancy's Science Chronicles*, 5(3): 10-12.
- Tallis, H.** 2006. Ecosystem Services. *The Nature Conservancy's Science Chronicles*, 4(3): 9-11.

LEADERSHIP

Founder & Secretariat Chair, The Bridge Collaborative. Partnership with PATH, IFPRI and Duke University to create a unified evidence base for solutions across health, development and environment. (2016-present)

External Advisory Board Member, University of Minnesota Institute on the Environment (2016 – present)

Steering Committee Member, UC Santa Cruz Doris Duke Conservation Scholars Program (2015 – present)

Steering & Planning Committee Member, A Community of Ecosystem Services (ACES) Annual Meeting (2016)

Committee Member, National Research Council Committee on Effective Approaches for Monitoring and Assessing Gulf of Mexico Restoration Activities. (March 2015 – May 2016)

Women in Science Summit: Hosted 200 person summit with California Academy of Sciences (Jan 2016). <https://www.youtube.com/watch?v=q5uAMRMLHvs>

Contributing Author, Best Practices for Integrating Ecosystem Services Into Federal Decision Making. Effort led by Lydia Olander and National Ecosystem Services Partnership to provide recommendations to United States Executive Offices of the President process for determining ecosystem service guidelines. (2015).

Expert Member of World Bank Policy and Technical Expert Committee for WAVES (Wealth Accounting and Valuation of Ecosystem Services): Integrating nature's benefits into national accounts. Including 1 month secondment to WAVES team, April 2014. (2012-2014).

Expert Member Contributing to Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Scientific Process:

- Contributing expert to design of IPBES Assessment Conceptual Framework (Aug-Nov 2012).
- ICSU Delegate to Second Plenary Meeting of IPBES (April 2012).
- Scientific Input to the IPBES Work Programme (Jan 2012).

Board Chair, Coastal Watershed Council. A local watershed conservation NGO in Santa Cruz, CA. (Nov 2013 – Jan 2015).

Co-Chair of GEO BON Working Group on Ecosystem Services: Leading interdisciplinary group in development of global monitoring platform for ecosystem services. (Feb. 2012 – 2013, member 2009 – May 2015).

Lead Contributing Author for 2014 United States National Climate Assessment: Biodiversity/Ecosystems/Ecosystem Services Chapter (2012-2014)

Young Scholar, Stellenbosch Institute for Advanced Study: Fellow in residence. Research in sustainable development: Linking land use and natural resource management to provision of ecosystem services and poverty alleviation. Stellenbosch, South Africa. April 2014.

Advisory Committee Member, Natural Capital Project: (2013-2015)

Member of The Nature Conservancy Planning Evolution Team. Provided recommendations for improving all standard spatial and strategic planning processes used by TNC. (2010 – 2011).

External Advisor to Universidad de Rosario (Bogota, Colombia). Providing advice on design of Integrated Ecology Department with focus on tropical socio-ecological systems. (Oct 2011 – 2012)

External Expert: Ecuadorian National Deforestation Fee. Led collaboration to provide methods to Ecuadorian Ministry of Environment (2012).

External Advisory Committee Member. The Gordon and Betty Moore Foundation Marine Conservation Initiative (2010-2011).

STRATEGIC PLANNING & MANAGEMENT

I designed, developed, and/or executed, the following projects and programs:

- **The Bridge Collaborative:** Founded and act as Secretariat Chair for partnership with PATH (public health community), IFPRI (development community) and Duke University to build a shared evidence base for solutions to socio-ecological challenges. *8 person core team, 20 person Advisory Council, 19 Co-PIs convening ~200 experts and practitioners. (July 2016 – present).*
- **Wicked Econ Partnership:** Co-founded partnership with University of Minnesota to rapidly bring world class economic expertise to wicked conservation challenges in week-long solution sessions. *4 person team.*
- **Oxford University Climate Partnership:** Directed partnership with Oxford's Martin School to establish joint climate science research program with conservation focus. *5 person team. (2015-2016).*
- **NatureNet Science Fellows Program:** Directed post-doctoral fellows program focused on placing fellows at top-level universities to address climate change and conservation challenges. Recruited new universities to
- **Conservation by Design Refresh Task Force:** Co-lead team in advancing TNC's science-based approach to conservation. (2014 – 2016).
- **Naturally Smarter Schools: The Connection Between Nature Views and Elementary School Student Test Scores.** *6-person team.* Used remotely sensed data and publicly available test scores to explore view characteristics around schools and correlation with student outcomes. (2014 – present).
- **Guidance for Measuring Conservation Impacts on Human Well-being.** *5-person team.* Developed, field tested and published organizational guidance for TNC on identifying human well being objectives and metrics, and selecting social science methods for monitoring. (2013-2014.)
- **Charting a path to water sustainability: What can an individual do?** *2-person team.* Using available data in the US to identify which individual choices have the biggest impact on water scarcity in drought-prone regions. (2014 – present).
- **A Time-Income Poverty Metric: Creating a multi-dimensional definition of poverty for economics and conservation.** *3-person team.* Expanding the definition of poverty beyond income, and moving beyond arbitrary poverty lines in the US and a developing country. (2014 – present).
- **The Nature Conservancy Human Dimensions Program:** Founded program, hired *3-person team*, established them in global regions, and supervised and facilitated work on the following projects (2013-2014):
 - *Targeting conservation investments for climate risk reduction.* Expanding RIOS tool for floodplains management and coastal marine ecosystem services, piloted in Iowa (flood risk reduction) and Florida (RESTORE act prioritization).

- *Ecosystem services in national planning.* Expanding RIOS tool for use in national planning processes. Piloted at national scale for Gabon.
- *Measuring rangeland management impacts on household well being.* Developing devolved monitoring program for Northern Rangelands Trust, Kenya.
- *Cell phone monitoring of conservation impacts on people.* Using mobile phones to distribute household survey questions on a high frequency, for a large sample size. Piloted in Kenya and Colombia.
- *Organizational guidance for measuring conservation impacts on people.* Developing written guidance and online training modules.
- **Landscape-level connections between wildlife, livestock, tourism, income, nutrition and tick-borne disease in Northern Kenya.** *Co-lead 14-person team.* Pseudo-experimental, survey and model-based studies across Laikipia District, exploring social, economic, and ecological integration and implications for land management and conservation. (2013 - present).
- **Aligning Water Fund Design for the Latin America Water Funds Platform.** *8-person working group, 35-person advisory group.* Developed and launched free, open source RIOS software package (2011-2013).
- **Including Ecosystem Services in National Permitting,** Colombia. *5-person team* and TNC collaborators developing coal mining case and specialized tool for national use by Ministry of Environment (2010 – 2013).
- **Assessing “No Net Loss of Natural Capital” for a Trans-Amazonian Road.** *2-person team* in collaboration with TNC to apply ecosystem service permitting approach to a road in Peru (2012-2014).
- **A Scientific Approach to Water Fund Design:** Water for Life and Sustainability Fund, Colombia. *4 people* and TNC partners to create and apply social and natural science approach to investment design (2009-2011).
- **Medellin Water Fund Investment Design,** Colombia. *3 people* with TNC collaborators to create investment portfolios for municipal water fund (2010-2012).
- **Mapping and Valuing Terrestrial and Freshwater Ecosystem Services.** *3-5 people* to create models and software to map and value multiple ecosystem services (2006-2011).

FUNDING

Anne Ray Charitable Trust: \$2.2 million. Conservation in an Era of Sustainable Development. 2016-2018.

Anne Ray Charitable Trust: \$300,000. Science Impact Project. 2016-2018.

Anne Ray Charitable Trust: \$1.4 million. Transformative Evidence for Planetary Health. 2016-2017.

The David and Lucille Packard Foundation: \$297,184. Linking conservation interventions with human well-being. 2016-2017. (Co-PIs: Lydia Olander, Eddie Game)

P. Roy Vagelos Gift: \$15 million. Global Science Leadership. 2015-2019. (PI: Peter Kareiva; I finalized and executed grant from 2015-2016).

The Craig and Susan McCaw Foundation: \$15 million. Levers for Change: Our food systems, soil health and climate change. 2015-2019. (PI: Peter Kareiva; I finalized and executed grant in 2015-2016, partial execution continuing).

Anne Ray Charitable Trust: \$2.0 million. Human Dimensions. 2014-2016. (Co-PI: Peter Kareiva)

The National Science Foundation: \$1.5 million. An ecological trap for parasites and its impacts

on human disease risk, nutrition and income. Coupled Natural Human Systems Program. 2013-2017 (Co-PIs: Brian Allan, Richard Ostfeld, Felicia Keesing, Gretchen Daily)

SESYNC: \$125,000. Monitoring the direct links between ecosystems and people. 2012-present (Co-PIs: Belinda Reyers, Sandy Andelman)

The Gordon and Betty Moore Foundation: \$1.75 million. Streamlining ecosystem service science to create policy change: Tools and standards for informing mitigation, water fund design, industrial agriculture and monitoring. 2011-2013 (Co-PI: Gretchen Daily)

US Environmental Protection Agency: \$95,000. Water use impact assessment for biofuels. 2010-2011 (Co-PI: Gretchen Daily)

The Gordon and Betty Moore Foundation: \$2.36 million. Developing ecosystem service science, software and policy change for land use planning. 2010-2013 (Co-PI: Gretchen Daily)

The Gordon and Betty Moore Foundation: \$1.97 million. Marine InVEST: Development and application of a suite of ecosystem service models to inform marine ecosystem-based management. 2008-2010 (Co-PIs: Mary Ruckelshaus, Gretchen Daily, Peter Kareiva)

Global Environment Facility: \$47,500. Project for Ecosystem Services, Proposal submitted by UNEP-DEPI (Co-PI Gretchen Daily; \$6.3 million total grant)

The Nature Conservancy: \$40,000. RJ Kose Grant 2004-2005 (Washington Field Office)

National Fish and Wildlife Foundation: \$10,000. Budweiser Conservation Scholarship. 2003

OTHER PROFESSIONAL ACTIVITIES

Ecological levers for health: Advancing a priority agenda for disease ecology and planetary health in the 21st century. SNAPP Working Group (PIs: Susanne Sokolow, Kevin Lafferty). (2016-2018)

SESYNC Working Group Lead: Monitoring the direct links between ecosystems and people. (2012-2014).

Advisory Group Member: Metrics for Measuring the Impact of Water Funds on Nature and People. Advise team of 3-5 people in collaboration with TNC (2012-2014).

A Framework to Assess Ecosystem Health in Support of Ecosystem-Based Management of Coastal-Marine Systems Working Group. National Center for Ecological Analysis and Synthesis – University of California, Santa Barbara (2009-2010).

Marine Ecosystem Service Mapping and Valuation Working Group. The Natural Capital Project – Stanford University, The Nature Conservancy, World Wildlife Fund (2009 – 2011).

Gulf of Maine EBM Toolkit, Planning Committee Member, COMPASS, EBM Tools Network and Gulf of Maine Council initiative (2008)

Working Group Member: Advancing Marine Spatial Planning With New Marine Ecosystem Service Metrics. Lead author on synthesis paper (2007-2008).

California Current Ecosystem-Based Management Initiative Science Advisory Committee Member, COMPASS and UCSC initiative (May 2007 – 2008).

Reviewer for the Kathryn Fuller Fellowship Program. World Wildlife Fund (2007, 2008).

Ecosystem Service Mapping and Valuation Working Group. National Center for Ecological Analysis and Synthesis – University of California, Santa Barbara (2006-2007)

Aquatic/Marine Expert on The Nature Conservancy's Asia-Pacific Science Assessment Team, Bali, Indonesia (November 2004).

Coastal Reserves Working Group. National Center for Ecological Analysis and Synthesis — University of California, Santa Barbara (March 2004).

*H. Tallis was a primary organizer of these meetings.

***The Bridge Collaborative: Co-PI Launch.** Convened 25 faculty and practitioners from across health, development and environment communities to design and launch 8 working groups to create principles for a shared evidence base. Arlington, VA. 30 Nov. – 1 Dec. 2016.

The Nature Conservancy's Evidence Vision. Margaret A Cargill Philanthropies and ACES environmental NGO consortium discussion. Arlington, VA. 16 Aug 2016.

Exploring Partnership for Conservation and Health. PATH. Seattle, WA. 6 May 2016.

***Wicked Econ Fest: Financing Change in the Mississippi Basin.** Led rapid economic, financial and policy analysis and synthesis workshop to recommend transformative finance options for agriculture BMP adoption in the US corn belt. Minneapolis, MN. 12-14 April 2016.

Closing Remarks. The Natural Capital Project Ten Year Anniversary Symposium and Celebration. Stanford University, CA. 13 Oct 2015.

***Solution Space for Integrated Evidence.** Led rapid synthesis workshop with NatureNet Fellows, Nature Conservancy staff and university faculty. Ben Lomond, CA. 21-24 Sept 2015.

The Outdoors Summit. Keynote, "Nature as Normal". Also ran breakout session on "Making Nature Normal". Great Outdoors Colorado, Denver, CO, 11 June 2015.

Land Trust Alliance Leadership Retreat. Keynote, "Diversification and Engaging New Constituencies". Santa Cruz, CA, 14 May 2015.

Ecosystem Services and Mitigation Banking. Presentation and discussion with US Council on Environmental Quality staff. Washington DC, 21 April 2015.

Global Water Summit. Opening Keynote, "Nature: The wave of change for water". Chicago, IL. 18 Nov 2014.

Sustainable Food: On land and sea. Moderated panel with TNC Science Impact Project fellows for local professors, students, government representatives. Hong Kong, Hong Kong. 6 Nov 2014.

Exploring the business case for nature as a health solution. UnitedHealth Optum Labs and Harvard School of Public Health. Boston, MA. 8 Oct 2014.

InterAmerican Development Bank (IDB) Infrastructure and Environment Sector

Knowledge Week. Chaired panel on Natural Capital: Transforming the way we make decisions. Washington, DC. 10 Sept 2014.

EAT Stockholm. EAT Scalability: Translating knowledge on sustainable and healthy production into action at scale. Stockholm, Sweden. 26-27 May 2014.

***Linking Census, Bureau of Economic Activity, Economic Development Administration and NOAA to Reveal Nature's Benefits.** Explored opportunities to improve existing monitoring programs to better track natural capital and contributions to human well being. US Dept. of Commerce, Washington, DC. 20 March 2014.

Northern Rangelands Trust 'Social Comms' Indicator Development Meeting. Developed indicators for conservation impacts on people through logic model exploration and stakeholder discussion. Lewa Conservancy, Kenya. 21-22 Jan 2014.

***The Nature Conservancy All Science Meeting.** Led development of agenda, plenaries, keynote speakers, open session and poster solicitation and selection, and general content for 250 person science conference. Presented in and ran several sessions and side workshops. Santa Clara, CA. 10-12 Dec 2013.

Chicago Ideas Week Talk: The Ponzi Scheme for Managing the Planet. Chicago, IL 19 Oct 2013.

United States RESTORE Council Briefing. How can ecosystem service science inform Gulf

restoration? New Orleans, LA. 24 Sept 2013.

***Introduction to Payments for Ecosystem Services.** A workshop for Mongolian national government officials. Delivered presentations on "Major ecosystem services in Mongolia", "Multiple Investors and Fee Systems: The water funds case from Latin America", "Mitigation Offsets as a Form of PES: Building on Development by Design", "Creating PES Investment Portfolios" and "Including Climate Change in PES Design". Ulaanbaatar, Mongolia. 2 Sept 2013.

Global Science Media Event. Briefed multiple local and national news source reps on current environmental issues. Seattle, WA. 13 Aug 2014.

***RIOS Launch Event.** Release of RIOS 1.0 Software tool I led development of. Held at InterAmerican Development Bank, with sponsorship from IDB Water Sector, Funcacion FEMSA, World Bank GEF, and Natural Capital Project. Washington DC. 13 June 2013.

Unites States Executive Offices of the President Briefing: Ecosystem services: On the path from promise to proof. Attended by members of CEA, CEQ, NOC, OMB, and OSTP. Washington, DC. 9 May 2013.

Ecosystem service assessment approaches and tools. World Resources Institute, Washington DC. 25 April 2013.

Ecosystem services in cost benefit analysis. USAID, Washington DC. 18 April 2013.

Success and frontiers in mapping and valuing nature's benefits. World Bank Brown Bag Lunch, Washington DC. 17 April 2013.

Engaging policy makers on ecosystem accounts. World Bank WAVES Third Partnership Meeting, Washington DC. 9-11 April 2013.

Coral Reef Solution Series. Charting the future strategy for TNC's global coral reef work. Providence, Rhode Island. 1-2 April 2013.

***Water Fund Prioritization Tool Technical Workshop: Diagnostic Screening and Priority Area Selection.** Workshop for representatives of governments, corporate entities, conservation practitioners and academics to test and review the first release of a water fund prioritization tool called RIOS. I gave 2 presentations, ran multiple break out groups, synthesized findings and compiled reporting documents and next steps. Tlalmanalco, Mexico. 16-17 April 2012.

Inclusive Wealth Accounting for Regulating Ecosystem Services: An exploratory case study for Colombia. World Bank WAVES (Wealth Accounting and Valuation of Ecosystem Services) Second Partnership Meeting. World Bank, Washington DC. 3 April 2012.

Getting to Scale with Ecosystem Services in Water Funds and Development by Design in Latin America. The Nature Conservancy, World Office, Washington, D.C. 11 Jan 2012.

Restoring Ecological and Economic Vitality to the Gulf of Mexico: An exploration of the National Research Council report. Panelist at U.S. House of Representatives and Senate briefings. Washington, D.C. 16 Nov. 2011.

Ecosystem Services in Permitting and Mitigation: A Path Forward for Colombia. Meeting with Colombian Minister of Environment Frank Pearl and Vice Minister Adriana Soto. Bogota, Colombia. 2 Nov. 2011.

***Aligning Water Fund Prioritization in Latin America.** Workshop for academics, conservation practitioners, government technical staff and water fund technical secretariats to identify core components of water fund investment prioritization. I gave 8 presentations and led all plenary discussions. Santo Domingo, Dominican Republic. 27-29 Sept. 2011.

***Mongolia National Workshop to Design Payments for Ecosystem Services Law.** Workshop for academics, agency staff and ministers (environment, energy, development) to discuss options for establishing a national payment for ecosystem services law. "Sustaining freshwater resources in Mongolia". Ulaanbaatar, Mongolia. 8-10 June 2011.

- *Water Funds as Climate Adaptation Strategies.** Workshop for academics and practitioners designing investment portfolio for Agua por la Vida y Sostenibilidad water fund in Cauca, Colombia. Discussed climate change modeling results and planned final analyses and communications. Cali, Colombia. 7-11 Feb. 2011.
- Central Sumatra RIMBA Corridor Government Planning Workshop.** "Policy recommendations for integrated management and development in the RIMBA corridor." Pekanbaru, Indonesia. 22-26 June 2010.
- Changing the Decision-making Lens by Focusing on Ecosystem Services.** United Nations University, International Human Dimensions Program. Bonn, Germany. 18 Nov. 2010.
- *Ecosystem services, climate change, and human well-being: Identifying opportunities, tools, and approaches for connecting to conservation action in the Northern Andes and Southern Central America region.** Several talks including "Introduction to ecosystem service modeling and conservation planning", "Ecosystem service modeling and climate change adaptation strategy design" and "The World Resources Institute methodology for identify ecosystem service reliance in industrial supply chains". Quito, Ecuador. 14-16 Oct. 2009.
- Designing Monitoring Programs for Water Funds: Determining social and ecological impacts.** "Prioritizing water fund investments and designing monitoring systems." Quito, Ecuador. 21 Oct 2009
- Agua Para la Vida Water Fund Stakeholder Meeting.** Ran session to develop scenarios of water fund investments based on input from stakeholders (sugar cane companies, grassroots NGOs, The Nature Conservancy) for one of nine watersheds included in the water fund. Cali, Colombia. 29 Oct. 2009.
- Planning for the Future of the Amazon.** Meeting with Brazilian Minister of Strategic Affairs, Minister Mangabeira Unger and Amazonas State Secretary of Planning and Economic Development, Mr. Denis Minev. Stanford, CA. 17 April 2009.
- Quantifying Current and Future Ecosystem Service Delivery.** Meeting with Sally Collins, Director of the Office of Ecosystem Services and Markets, and her Deputy Director, Mark Nechodom. Stanford, CA. 2009.
- *Ecosystem Services in the Willamette Basin.** "Introduction to InVEST: A tool for integrating conservation and society". Portland, Oregon. 22 July 2008.
- InVEST: A simple tool for coastal EBM.** NOAA Coastal Services Center (remote presentation via web). 9 June 2008.
- Scoping Workshop with BC Hydro.** "Integrated Valuation of Ecosystem Services and Tradeoffs: A Tool for Hydropower Management." Vancouver, British Columbia. 29 April 2008.
- California Current Ecosystem-Based Management Initiative: Managers and Scientists Workshop.** "Science needs for managing marine ecosystem services." Santa Cruz, CA. 29-31 Jan. 2008.
- Business for Social Responsibility's Workshop on Environmental Services and Markets: Assessment of Emerging Corporate Tools, Risks and Opportunities.** "Including ecosystem services in the business equation." San Francisco, CA. 6-7 Dec. 2007.
- *Collaboration Opportunities for Ecosystem Service Science and Environmental Management: The World Bank and the Natural Capital Project.** "The Natural Capital Project concept and models for assessing programs biodiversity and ecosystem service benefits." Washington.D.C. 26 Sept. 2007.
- National Environmental Services Workshop.** "The Natural Capital Project: Connections with the field." Cartagena, Colombia. 15 Feb. 2007.
- Chinese Delegation to Examine U.S. Carbon Markets.** "Ecosystem Services: The State of the Science." San Francisco, CA. 11 Sept. 2006.

Prospective Environmental Restoration Workshop. Hosted by Chevron and DuPont, Chevron Headquarters, San Ramon, CA. 6-7 Sept. 2006.

Rotary Ambassadorial Scholar, South Island New Zealand. Presented 15 talks to Rotary Clubs and Rotary Anns on general marine science and the influence of a hydro-power plant on the Doubtful Sound ecosystem. New Zealand.1999.

COMMUNICATION – ACADEMIC CONFERENCES

***The Need for a Universal Evidence Base for Environment, Development and Health. In the session I organized,** “Evidence Chains to Take Ecosystem Services from Popular Concept to Widespread Impact”. ACES Annual Meeting. Jacksonville, FL. 7 Dec. 2016.

Incorporating Ecosystem Services into Results Chains to Inform Restoration Decisions. ACES Annual Meeting. Jacksonville, FL. 6 Dec. 2016.

Getting Specific: Consistent identification of ecosystem service and human well being outcomes from environmental management decisions. ACES Annual Meeting. Jacksonville, FL. 7 Dec. 2016.

Non-Academic Careers. Panelist. University of California, Davis. 19 April 2016.

Naturally Smarter Schools: How far outside should we be looking? Plenary speaker, US Green Building Council’s Green Schools Summit. Denver, CO. 6 Nov 2015.

Recreating Forestry and Conservation Through Science and Society. Plenary speaker, Society of American Foresters. 4 Nov 2015.

***A Week for Inclusive Conservation.** Feb. 23-27 2015. Week of events at Yale School of Forestry and Environmental Studies (FES) including:

Conservation Finance Panel: Steve Polasky, Brad Gentry, Eli Fenichel. Gave presentation “Ecosystem service standards: What’s our best opportunity for mainstream uptake?”

FES Student Interest Group discussion

Getting (More) Women in Science Panel: with Tracie Seimon, Navis Bermudez, Stacie Solie, Liza Comita, Megan McClellan

Young Artists for Nature Panel: Performances and panel discussion with Julia Horwitz (slam poet), Victor Medina (salsa dancer and park ranger), Samara Gaev (hip hop theatre), AJ Davis (installation artist).

Developing Tools That Matter: A workshop on scientific tool design and uptake. Targeted to graduate students.

Yale Environmental Women: Lunch with women’s student group.

NatureNet Fellows Program: Dinner with fellows and mentors.

Evolutions Student Meeting: Yale Peabody Museum high school program.

IPBES: A stakeholder perspective. Ecological Society of America, Minneapolis, MN. 7 Aug 2013.

Yale Climate and Energy Annual Conference: Managing Species for Regulating the Carbon Cycle. Yale University, Connecticut. 12-13 April 2012.

A Global System for Monitoring Ecosystem Service Change. Planet Under Pressure Meeting. London, UK. 27 March 2012.

Water. In the symposium: *Six Things Everyone Cares About: Connecting Ecosystems and Human Well-Being.* American Association for the Advancement of Science, Vancouver Canada. 17 February 2012.

***Including People in the Mitigation Hierarchy: Mapping ecosystem service winners and**

- losers in Colombia.** In the symposium I organized: *Plugging back in to earth's life-support systems: advances in ecosystem service science that make a difference*. Ecological Society of America. Austin, TX. 9 Aug. 2011.
- Ecosystem Services for the Future: A marriage of biophysical and social variability.** This talk was accompanied by 5-minute remarks over lunch to high level policy makers from several US agencies (Department of Defense, Department of Interior, White House Council on Environmental Quality, etc.). American Association for the Advancement of Science. Washington DC. 18 Feb. 2011.
- Ecosystem Service Metrics and Models to Inform Coastal and Marine Spatial Planning.** This talk was accompanied by 4-minute remarks to policy makers over breakfast. California and the World Ocean. 9 Sept. 2010.
- Supply, Service and Value Metrics of Marine Ecosystem Services.** Ecological Society of America. Pittsburgh, Pennsylvania. 6 Aug. 2010.
- InVEST: The Next Google Venture?** Meeting with Google engineers and outreach staff to review potential of developing InVEST on the Earth Engine. Google Campus, Mountain View, California. 1 April, 2010.
- No Time? No Data? No Governance? No Problem: Making ecosystem based management work today in real places.** American Association for the Advancement of Science. San Diego, California. 21 Feb. 2010.
- Including Ecosystem Services in Conservation Planning and Infrastructure Permitting.** 2010 IAP Biodiversity Conference. Royal Society, London. 13 Jan. 2010.
- Integrated Valuation of Ecosystem Services and Tradeoffs: A modeling framework for terrestrial and marine management.** Coastal and Estuarine Research Federation. Portland. 1 Nov. 2009.
- Ecosystem Service Modeling in Agricultural Systems.** Delegation of Chinese academic agriculture experts to Stanford University. 2 Sept 2009.
- Mapping Ecosystem Services and Poverty in the Amazon Basin.** In the session I organized: *Beyond Ideas: Using the valuation of ecosystem services to advance conservation on the ground*. International Congress for Conservation Biology. Beijing, China. 12 July 2009.
- The Many Faces of Ecosystem-Based Management: Making the process work today in real places.** International Marine Conservation Congress. Washington, D.C. 22 May 2009.
- Linking Terrestrial and Marine Ecosystem Services.** American Association for the Advancement of Science Meeting. Boston, Massachusetts. 16 Feb. 2008.
- Making the Link to Conservation: Lessons from a database of ecosystem service projects from TNC and WWF.** Ecological Society of America and Society for Ecological Restoration Joint Meeting. San Jose, California. 9 Aug. 2007.
- Beyond the Catskills: The status of ecosystem services in conservation practice.** Society for Conservation Biology Meeting. Port Elizabeth, South Africa. 4 July 2007.
- Science for decision making: A multi sector planning tool.** The Nature Conservancy's XCON 2007 External Affairs Conference. Washington, D.C. 28 Feb. 2007.
- Current approaches to modeling, valuing and mapping ecosystem services.** The Nature Conservancy's All Science Meeting. Tucson, Arizona. 29 Nov. 2006.
- Logging as a threat to marine ecosystems.** The Nature Conservancy's All Science Meeting. Tucson, Arizona. 28 Nov. 2006.
- Ecosystem Service Mapping and Valuation. Natural Capital Project Launch.** Washington, D.C. 2 Nov. 2006.
- The conservation case for ecosystem services.** The Nature Conservancy's Marketing Field Days, Tucson, Arizona. 28 Sept. 2006.

A method for explicitly linking terrestrial and marine conservation planning. Society for Conservation Biology. San Jose, California. 26 June 2006.

Ecology of ecosystem services. The Nature Conservancy's Conservation Strategies Conference. Austin, Texas. 5 April 2006.

Oysters and aquaculture practices affect eelgrass density and productivity in a Pacific Northwest estuary. National Shellfishers Association. Monterey, California. 27 March 2006.

Does logging alter terrestrial-marine links in the Pacific Northwest? Ecological Society of America Meeting, Montreal, Canada. August 2005.

Can cultured oysters and native eelgrass co-exist? (poster) Ecological Society of America Meeting. Portland, Oregon. August 2004.

Can oysters and eelgrass co-exist? Interactions between *Crassostrea gigas* and *Zostera marina* outside an aquaculture setting. Pacific Coast Shellfish Growers Association Conference. Portland, Oregon. October 2003.

The role of culture practices in structuring interactions between cultured oysters and native eelgrass. Pacific Coast Shellfish Growers Association Conference. Newport, Oregon. September 2002.

Linking watershed-scale alteration of hydrology to estuarine habitat conversion and local biodiversity decline. ASLO Summer Meeting. Victoria, British Columbia. 2002

Isolation of natural organic iron-binding ligands from seawater. ASLO/AGU Joint Conference San Antonio, Texas. January 2000.

Impact of crab predation on two species of mangrove snail. Florida Academy of Sciences Conference. Winter Park, Florida. 1998.

COMMUNICATIONS – SEMINARS

Rethinking the Value of Forests: From timber, to water, education and health. S.J. Hall Lecture in Industrial Forestry. University of California, Berkeley. Berkeley, CA. 30 Sept 2016.

The Ties That Bind Us: Explorations of socio-ecological systems and ecosystem services in conservation. Kaeser Scholar, Departmental Seminar, Center for Limnology, University of Wisconsin, Madison. 28 Sept. 2016.

An Evidence Revolution: Can we create a shared evidence base for the environment, development and health communities? Kaeser Scholar, Biology Colloquium, Center for Limnology, University of Wisconsin, Madison. 29 Sept. 2016.

Rethinking the value of nature from education to health. UCLA La Kretz Center 7th Annual Public Lecture, Malibu, CA. 23 April 2016.

The true life history of a marine conservation scientist. Guest lecture, Marine Conservation Biology course, University of California, Santa Cruz, 3 Dec. 2014.

Valuing Ecosystem Services. Guest lecture, Conservation Biology course, University of California, Santa Cruz. 20 Nov 2014.

Nature as Normal: Rethinking the value of forests for clean water, free time and education. CICR, ICON and Interdisciplinary Graduate Studies joint seminar. University of Georgia. Athens, GA. 23 Sept 2014.

Nature as Normal. Harvard University Advanced Leadership Initiative. Columbine Ranch, Jefferson, CO. 10 June 2014.

Rethinking the value of forests for clean water, free time and education. Boething Lecture, Stanford University. Palo Alto, CA. 22 May 2014.

Making nature count: Incorporating ecosystem services into societal decision-making.

Co-presented with Steven Polasky. Stellenbosch Institute for Advanced Studies.
Stellenbosch, South Africa. 24 April, 2014.

Improving conservation and natural resource management decisions with science. UCSC Environmental Studies departmental seminar. Santa Cruz, CA. 18 Nov 2013.

Ecosystem Services. UCSC Environmental Studies graduate seminar. Santa Cruz, CA. 7 May 2013.

What's nature got to do with us? Defining, measuring and acting on the role of nature in human life. UCSC Environmental Studies Department Faculty Seminar. Santa Cruz, CA. 6 May 2013.

Assessing Ecosystem Services for Decision Making. Cornell Department of Natural Resources, Ecosystem Services and the Green Economy Seminar. 8 April 2013.

Simplified Modeling of Ecosystem Services. Stanford Biology Department Graduate Ecosystem Modeling Seminar. 31 May 2011.

The Full Monty: Revealing the environmental and social costs and benefits of agriculture. Stanford University, Connecting the Dots: The food, energy, water and climate nexus. 22 April, 2011.

Facebook for Planet Earth: Revealing hidden connections of vital importance. Stanford University Health and Environment: An Impact Assessment Course. 6 May 2010.

Including Ecosystem Services in Conservation Planning and Action. The Nature Conservancy conservation planning staff, central science staff, funders, partners. (remote presentation via web). 2 Feb. 2010.

The Nature Conservancy and the Natural Capital Project in Colombia and Ecuador: The prickly business of conservation in working landscapes. Center for Conservation Biology Seminar, Stanford University. 17 Nov. 2009

Thinking Back Inside the Box: Merging science and society. Keynote address for Santa Clara University Undergraduate Science and Engineering Symposium. 8 May 2009.

Developing a Practical Tool for EBM: INVEST. EBM Tools Network (remote presentation via web). 12 June 2008.

Ecosystem based management: a little theory goes a long ways. University of New Hampshire Department of Natural Resources Seminar Series. 12 May 2008.

A method for explicitly linking terrestrial and marine conservation planning. Ecosystem Based Management – Integrated Land-Sea Planning Working Group. 21 March 2008.

Conserving the world with ecosystem services: The Natural Capital Project approach. Santa Clara University Environmental Studies Seminar Series. 2 March 2007.

Modeling and mapping ecosystem services to change the world. Stanford Ecology and Evolution Lunch Series. 5 Dec. 2006.

Global circulation, climate change and distribution of biomes. Round River Field Ecology, Namibia. Nov 2006.

Introduction to Ecosystem Services and the Natural Capital Project Approach. Round River Field Ecology, Namibia. Nov 2006.

Ecosystem Services. University of Montana Poverty and Conservation Graduate Seminar. 27 Oct. 2005.

Succession. University of Washington Foundations of Ecology Course. 2005

Global atmospheric circulation and biome distribution. Tropical Forestry Institute Field Course. 2004

Visualizing science. University of Washington Graduate Art Seminar 2003

Introduction to oceanography. Organization for Tropical Studies, Graduate Tropical Ecology 2003

Global atmospheric and oceanic circulation. University of Washington Marine Biology Course

COMMUNICATIONS – ACADEMIC WORKSHOPS

**H. Tallis was a primary organizer of these meetings.*

- *Oxford University – Nature Conservancy Climate Partnership Launch.** Launch and roundtable discussion. Oxford, England. 14 Sept. 2016.
- *Evidence Chains Workshop.** Led working group with diverse academics and practitioners on assessment of evidence in health, development and environment interventions. Hvalfjardarsveit, Iceland. 5-7 Sept. 2016.
- Ernst Strüngmann Forum: Rethinking Environmentalism to Link Justice, Sustainability and Diversity.** Frankfurt am Main, Germany. 19-24 June 2016.
- *Causal chain principles to take ecosystem services from popular concept to widespread impact.** Led working group meeting with academics and practitioners on the use of conceptual models to link conservation interventions to health and development outcomes for people. Bronx Zoo, NY. 23-25 May 2016.
- *NatureNet Fellows Orientation.** Initiated post-doctoral fellow cohort, updates from second year fellows, provided key skills trainings. Arlington, VA. 17-19 Oct 2013; Arlington, VA 5-6 Oct 2015;
- *Developing National Indicators of Ecosystem Services.** SESYNC-funded working group meeting. Annapolis, MD. 5-7 June 2013.
- *Well-being Considerations in Latin America.** Rockefeller Foundation and Stanford University Uncommon Dialogues: Ecosystem Services and Human Well-being. Stanford Woods Institute for the Environment, Stanford CA. 7-8 December 2011.
- *GEO BON Working Group 6: Demonstrating global models and developing bottom up approaches.** "Promise and problems with InVEST as a global monitoring tool: Results from decadal analysis." Co-authored talk "Promise and problems with national statistics as a global monitoring tool: Results from decadal analysis." Paris, France. 19-21 March 2011.
- *Nature's Benefits in Conservation.** On the organizing committee for conference of The Nature Conservancy staff and partners. Designed and chaired 6 sessions, gave 5 presentations covering tools available for including ecosystem services in terrestrial, freshwater or marine conservation and on monitoring and measuring ecosystem services in all systems. San Ramon, California. 22-24 Feb. 2011
- *Globally-spatially-explicit view of ecosystem processes and ecosystem service delivery.** Workshop for sub group of GEO BON Working Group 6. "InVEST model structure and philosophy"; "Preliminary results of InVEST global application; demonstration of use for global monitoring". Potsdam, Germany. 13-15 Nov. 2010.
- MSP Decision Support Tool Workshop.** "InVEST: History, theory and application." Moore Foundation, Palo Alto, California. 11-12 Aug. 2010.
- GEO BON Detailed Implementation Plan Meeting.** "Working Group 6 (Ecosystem Services) Progress Report." Asilomar, California. 25 Feb. 2009.
- GEO BON Working Group 6: Ecosystem Services Meeting.** "What can regional, spatial, ecosystem service models add to a global monitoring program?" Copenhagen, Denmark. 1-4 Dec. 2009.
- *West Coast Ecosystem Services: Feasible metrics and tradeoffs.** "A framework for ecosystem service metrics". Stanford, California. 22-23 July 2009.
- Scenarios and Models for Exploring Future Trends in Biodiversity and Ecosystem**

- Services Changes.** Project Workshop for The Economics of Ecosystems and Biodiversity (TEEB). Delivered expert opinion on proposed scenarios and models. Brussels, Belgium. 13 May 2009.
- COMPASS/NCEAS Ecosystem Based Management Science Communication and Policy Workshop.** National Center for Ecological Analysis and Synthesis, Santa Barbara, CA (2009).
- *Ecosystem Services in the Willamette Basin.** "Introduction to InVEST: A tool for integrating conservation and society". Portland, Oregon. 22 July 2008.
- Scoping Workshop with BC Hydro.** "Integrated Valuation of Ecosystem Services and Tradeoffs: A Tool for Hydropower Management." Vancouver, British Columbia. 29 April 2008.
- California Current Ecosystem-Based Management Initiative: Managers and Scientists Workshop.** "Science needs for managing marine ecosystem services." Santa Cruz, CA. 29-31 Jan. 2008.
- California Current Ecosystem-Based Management Initiative Science Advisory Committee Meeting.** "InVEST: A framework and decision support tool for mapping and valuing marine ecosystem services." Seattle, WA. 14-15 Nov. 2007.
- *Ecosystem Services Situation Analysis of the Amazon and Andes.** "Current approaches to considering poverty in ecosystem service assessments." Quito, Ecuador. 24-26 Oct. 2007.
- *Modeling Ecosystem Services in the Marine Environment: Adapting InVEST or Starting New?** "Creating tools to support decision making about marine ecosystem services." And "The InVEST tool: a production function-based tool for terrestrial and aquatic ecosystem service assessment." Santa Cruz, CA. 16-17 Oct. 2007.
- Coordinating Hydrologic and Ecosystem Service Modeling of the Willamette Basin, Oregon.** "Models for priority setting: Including ecosystem services in the equation." Portland, OR. 15-16 Oct. 2007.
- Mapping Ecosystem Services in the North Shore Region of Hawai'i.** "Flexible models for multiple ecosystem service planning." Waikiki, HI. 8-11 Oct. 2007.
- The Natural Capital Project and Poverty Alleviation.** "Planning for biodiversity and poverty alleviation." Stanford, CA. 1-2 Oct. 2007.
- Workshop on Mapping, Modeling, Monitoring and Valuation of Ecosystem Services.** "Multi-sector planning and management: Ecosystem services framework and tools." And "Mapping, modeling and valuing pollination, recreation and tourism." Beijing, China. 10-15 Sept. 2007.
- * Workshop on Mapping and Valuing Ecosystem Services: Natural Capital Project tools for conservation and development.** "InVESTing in Conservation: Filling the gaps to align conservation and society." Arlington, VA. 5 June 2007 and Washington, D.C. 6 June 2007.
- Valuing the Arc: Program for Ecosystem Services and Conservation in Tanzania's Eastern Arc Mountains.** "Natural Capital Project: Science and Implementation in the Arc." York, England. 26 Feb 2007.
- Valuing the Arc Planning Workshop,** Natural Capital Project and UK research group meeting. Dar es Salaam, Tanzania. 15-17 Feb. 2007.
- *Natural Capital Project Ecosystem Services Mapping and Valuation Team Meeting.** "Version 1.0 of InVEST, Integrated Valuation of Ecosystem Services and Tradeoffs tool" and "Making InVEST user-friendly." Santa Barbara, CA. 23-27 April 2007.
- Harvard-Stanford Ecosystem Services Exchange Meeting.** "Natural Capital Project Approach to Mapping and Valuing Ecosystem Services." Stanford, CA. 28 Oct. 2006.
- First Meeting of the High-Level Expert Group on Human Well-being, Ecosystem Services and Natural Capital.** Participant. Bloomington, IN. 26-28 Sept. 2006.
- Conservation Incentives that Work for People on the Land Workshop, Session Chair,** Stanford University. 24-26 May 2005.

The Guardian: Lack of diversity is impeding effective conservation action, experts say. 11/2014

Scientific American: Climatewire: Can Humans and Nature Co-exist? 11/2014

Greenwire: Former NOAA chief joins call for diversity in conservation movement. 11/2014

environment360: Scientists call for greater diversity of viewpoints on conservation. 11/2014

Sinc: Lideres conservacionistas piden diversidad de voces y opiniones para salvar el planeta. 11/2014

Commonwealth Club of California, on public radio: Investing in natural capital for humanity. 4/2013

National Wildlife Magazine: Natural Capital. 8/2012

The Hook: Humans need not be enemies of healthy ecosystems, argue two scientists. 2/2012

Nature Reports Climate Change. 5/2010

The Economist: Price Fixing: Why is it important to put a price on nature? 1/2010

Before 2010

Wired Magazine; WEST: The LA Time's Magazine; Seed Magazine; KQED – Northern California Public Radio Station.

COURSE INSTRUCTOR & TRAININGS

Conservation by Design: Situation analysis and results chains. Organized and created curricula for 2-day training workshops on situation analyses and development of results chains with emphasis on identifying causal pathways between environment and human well-being. Managed team and conducted trainings for The Nature Conservancy staff in Santa Cruz, CA (June 2015, Youth engagement strategies), Detroit, MI (Aug. 2015, North American cities program), and remotely (July 2015, Emerald Edge program).

RIOS: Resource Investment Optimization System tool. Organized and co-created curricula for 1-day training workshop on RIOS tool. Ulaanbaatar, Mongolia (Sept 2013).

InVEST: Conservation and natural resource management tool. Organized and co-created curricula for 1, 2, 4 and 5-day training workshops on biodiversity, carbon, pollination, timber production, hydropower production, water purification, and avoided reservoir sedimentation models of the InVEST tool. Included material on scenario development, policy tools, modeling post-analysis and upcoming research. Co-conducted training for international managers, conservation practitioners, academics, and government employees, in Ulaanbaatar, Mongolia (Sept 2013), Stanford, CA (Feb. 2012), Memphis, TN (Oct. 2011), San Ramon, California (Feb. 2011), Cali, Colombia (April 2010), Beijing, China (at SCB meeting, July 2009), Stanford, California (Sept. 2009, July 2008) and Santa Barbara, California (at NCEAS, April 2008).

Ecosystem Services in Conservation Practice: Finance Mechanisms. Guest Faculty for Conservation Strategy Fund's Economic Tools for Conservation Course. (designed and taught half-day module). Stanford University (20 Aug. 2007).

Measuring, Planning for and Monitoring Biodiversity and Ecosystem Services. Guest Faculty for the Kinship Fellows Course (designed and taught a half day workshop to mid-career conservation practitioners), Western Washington University (June 26 2007).

Communicating Science Beyond Academia (designed and taught a short course to graduate students and faculty), University of Washington (2005)

Applied Marine Science (taught full term courses for high school, undergraduate and graduate students on board a sailing school vessel), Sea Education Association (1998)

Teaching Assistant for Foundations of Ecology (U of Washington 2005), Marine Biology (U of Washington 2002, 2003), Introductory Biology for Majors (U of Washington 2002), Conservation Biology (U of Washington 2001), The Marine Environment (UC Santa Cruz 1999), Introductory Chemistry (UC Santa Cruz 1999), Ecology (Eckerd College 1998).

ADVISING

Doctoral Students

Diana Ruiz (committee member, University of California, Santa Cruz, 2015 – present)

Masters Students

Megan McClellan (committee member, Oregon State University, 2009-2011, now stream ecologist with Washington State Department of Ecology)

Post-doctoral Scholars

Chase Mendenhall (2015 – present, NatureNet Science Fellow, with Stanford University)

Drew Michanowicz (2015 – present, NatureNet Science Fellow, with Harvard University)

Steven Hockett (2014 – 2016, with University Illinois-Champaign-Urbana, now Conservation Programs Director with Great Rivers Greening)

Dan Auerbach (2013 – 2015 as NatureNet Fellow with Cornell University, now with Environmental Protection Agency)

Adrian Vogl (2012 – 2013, now Research Scientist at Stanford University)

Guillermo Mendoza (2006-2008, now on National Research Council Research Associateship with US Army Corps of Engineers Institute for Water Resources)

Marc Conte (2008 – 2012, now assistant professor at Fordham University)

Driss Ennaanay (2008 – 2011, now private consultant)

Erik Nelson (2006-2009, now assistant professor at Bowdoin College)

MENTORING

Speaker, Women in Science and Engineering. Lunch speaker for undergrad and graduate students at University of California, Santa Cruz. Feb 18, 2015.

Mentor, The Nature Conservancy's Science Impact Project. Mentor 3rd program cohort of 13 staff scientists in leadership, communications and scientific design. (2014 – 2015).

Mentor, The Nature Conservancy's Science Internship Program. Mentored Melissa Uhl, a recent graduate from Santa Clara University with a major in political sciences in surveys of TNC and WWF practitioners to populate a database of ecosystem service projects. (June 2007 – 2008).

Mentor, Carleton College's Environmental and Technology Studies Summer Intern Program. Mentored Bessie Schwarz, a philosophy and environmental studies undergraduate, on creating and conducting a social study of aquaculture industry and tourism industry perspectives of ecosystem services in Clayoquot Sound, British Columbia. (March 2007 – 2008).

Mentor, Aquatic Conservation and Management course "Making a Difference²" project, Trained and mentored eight undergraduates in dissertation laboratory analyses (2005).

Mentor, Personally identified and trained a local high school student, Katherine Dexter, in my dissertation research for one year, including the field season (2004).

Mentor, Making Connections Program, served as a mentor for two women in the UW program to engage socio-economically disadvantaged high school students in math, science and technology careers (2003).

VOLUNTEER EXPERIENCE

Consultant with Earth Island Institute and Sahabat Alam Malaysia, Sarawak Borneo. Pro-bono Non-Timber Forest Product Use and Valuation Study; designed and conducted vegetation survey, trained 15 members of the local Penan community in field methods, censused and interviewed half the local community, analyzed vegetation distribution data, calculated replacement value for all non-timber forest products and produced a report to be used in court cases (April 2001).

Consultant with Non Timber Forest Products Project, Ratanikiri Cambodia. Pro-bono support: Communal Forest Ownership Rights Pamphlet Project; included interviewing community members and producing a pamphlet on the history of community land ownership rights acquisition by an indigenous community. The pamphlet is used as an educational and inspirational tool for other communities seeking entry into the land rights process (March 2001).

PROFESSIONAL ORGANIZATIONS

Ecological Society of America (ESA)
Society for Conservation Biology (SCB)

EDITORIAL & REVIEW RESPONSIBILITIES

Associate Editor, *Frontiers in Ecology and the Environment* (Jan 2010 – 2014)
Reviewer for *Proceedings of the National Academy of Sciences of the United States*, *Conservation Letters*, *Ecological Applications*, *Conservation Biology*, *Conservation & Society*, *Oikos*, *Marine Environmental Research*, *Journal of Environmental Management*, *Global Change Biology*, *Aquatic Sciences*, *Ecosystems*, *Ecosystem Services*, *Ecological Economics*, *Global Environmental Change*, *Trends in Ecology and Evolution*, publications by the *World Resources Institute* and the *Scientific Committee on Problems in the Environment (SCOPE)*, and grant applications for the *National Science Foundation* and *NOAA Sea Grant*. External thesis reviewer for *University of Queensland*.