PERSONAL

Current Appointments:

Professor of BiologyAdjunct ProfessorDept. of Biological SciencesOcean Sciences Dept.San Jose State UniversityUniversity of CaliforniaOne Washington SquareLong Marine LabSan Jose CA 95192-0100 USASanta Cruz CA 95060-5730 USAOrcID: orcid.org/0000-0002-7751-5059

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EDUCATION

1996-00	University of California, Santa Cruz, California
1994-96	University of California, Santa Cruz, California
1988-93	San Diego State University, San Diego, California
1984-88	Grossmont College, El Cajon, California

Ph.D.BiologyM.Sc.Marine ScienceB.Sc.BiologyGeneral Education

Ph.D. Dissertation: Foraging ecology of Wandering Albatrosses (*Diomedea exulans*): Impacts on reproduction and life history. Advisors: Daniel P. Costa, Henri Weimerskirch, Terrie M. Williams, Kenneth A. Nagy, and Donald A. Croll

M.Sc. Thesis: Assessment of physiological and behavioral adjustments in diving and exercise of two cetacean species, *Delphinapterus leucas* and *Tursiops gilli*. Advisors: Daniel P. Costa, Terrie M. Williams, and Sam H. Ridgway

FUNDING (underlined awards are through UCSC)

Torres, L.G., Orben, R.O., Shaffer, S.A., Adams, J. (2017) NOAA – BREP, \$73,051. Shaffer, S.A. (2017) RSCA – SJSU, \$6,000 Shaffer, S.A. (2016) RSCA - SJSU, \$6,000 Shaffer, S.A. (2015) US Fish and Wildlife Service. \$10,000 Shaffer, S.A. (2015) RSCA - SJSU, \$6,000 Parades, R., Orben, R.A., Shaffer, S.A., and Kitaysky, S. (2014) North Pacific Research Board. \$216,738. Shaffer, S.A. (2014) RSCA - SJSU. \$4,958 Young, H.S. and Shaffer, S.A. (2013) National Geographic Society. \$13,980. Shaffer, S.A. (2012) CESU – US Fish and Wildlife Service. \$23,500 Shaffer, S.A. and Kelsey, E.M. (2012) CSUPERB. \$11,000 Shaffer, S.A. and Clatterbuck, C.E. (2011) RSCA – SJSU. \$4,949 Shaffer, S.A., Hazen, E.L. (2011) Pacific Islands Climate Change Cooperative. \$77,867 Shaffer, S.A. (2010) CESU – US Fish and Wildlife Service. \$53,378 Shaffer, S.A. (2010) SJSU/CSU Research Mini-grant, \$4,678 Shaffer, S.A. (2009) National Marine Fisheries Service, NOAA. \$10,000 Shaffer, S.A., Moore, J.W., Hayes, S.H. (2009) California Sea Grant supplement. \$3,000 Shaffer, S.A. (2009) CESU – US Fish and Wildlife Service. \$29,081 Shaffer, S.A. (2009) National Marine Fisheries Service, NOAA. \$4,000 Dirzo, R., McCauley, D., Young, H., Raab, T., Mendoza, E., & Shaffer, S.A. (2008) Natl. Geogr. Soc. \$15,292. Shaffer, S.A., Moore, J.W., Hayes, S.H. (2008) California Sea Grant supplement. \$2,000 Young, L.S., Hyrenbach, K.D., Shaffer, S.A., and Suryan, R.M. (2008) USFWS. \$33,000 Shaffer, S.A. and Henry, R.W. (2008) National Marine Fisheries Service, NOAA. \$32,000 Costa, D.P. and Shaffer, S.A. (2008) Moore Foundation (subcontract from Stanford Univ.). \$539,932 Costa, D.P. and Shaffer, S.A. (2007) Sloan Foundation (subcontract from Stanford Univ.). \$342,227 Costa, D.P. and Shaffer, S.A. (2007) Packard Foundation (as part of subcontract from Stanford Univ.). \$307,848 Shaffer, S.A., Moore, J. W., Hayes, S. H. (2007) California Sea Grant. \$256,870 Shaffer, S.A. (2007) CESU – US Fish and Wildlife Service. \$26,438

Curriculum vitae

Shaffer, S.A. (2007) National Marine Fisheries Service, NOAA. \$9,000
Austin, D., Croll, D.A., Shaffer, S.A., Henry, W.R. and Kappes, M.A. (2006) UCSC Packard Endowment. \$10,600
Shaffer, S.A., Tremblay Y., Costa, D.P., Flint, E.N. and Kappes, M.A. (2006) National Geographic Society. \$18,000
Shaffer, S.A. and Costa, D.P. (2003) Packard Foundation. \$2,500
Costa, D.P. and Shaffer, S.A. (2003) Office of Naval Research. \$56,933
Shaffer, S.A. and Costa, D.P. (2002) Packard Foundation. \$17,790
Costa, D.P. and Shaffer, S.A. (2000) Office of Naval Research. \$175,000
Shaffer, S.A. and Costa, D.P. (1999) National Science Foundation. \$10,000
Costa, D.P. and Shaffer, S.A. (1998) National Science Foundation. \$15,763
Costa, D.P. and Shaffer, S.A. (1998) National Geographic Society. \$16,610
Costa, D.P. and Shaffer, S.A. (1994) Office of Naval Research. \$103,000

PUBLICATIONS (H-index = 34, times cited 4,300+)

Published Peer-reviewed Papers (papers written by students or postdocs I advised are underlined)

- <u>Conners, M.G.</u>, Goetsch, C., Budge, S.M., Walker, W.A., Mitani, Y., Costa, D.P., Shaffer, S.A. (2018) Fisheries exploitation by albatross quantified with lipid analysis. *Frontiers in Marine Science: Marine Conservation and Sustainability*, in press.
- 75. Sequeira, A.M.M., Rodríguez, J.P. Eguíluz, V.M., Harcourt, R., Hindell, M., Sims, D.W., Duarte, C.M., Costa, D.P., Fernandez-Gracia, J., Ferreira, L.C., Hays, G.C., Heupel, M.R., Meekan, M.G., Aven, A., Bailleul, F., Baylis, A., Berumen, M.L., Braun, C.D., Burns, J., Caley, M.J., Campbell, R., Carmichael, R.H., Clua, E., Einoder, L., Friedlaender, A., Goebel, M.E., Goldsworthy, S.D., Guinet, C., Gunn, J., Hamer, D., Hammerschlag, N., Hammill, M., Hückstädt, L.A., Humphries, N.E., Lea, M-A., Lowther, A., Mackay, A., McHuron, E., McKenzie, J., McLeay, L., McMahon, C.R., Mengersen, K., Muelbert, M., Pagano, A.M., Page, B., Queiroz, N., Robinson, P.W., Shaffer, S.A., Shivji, M., Skomal, G.B., Thorrold, S.R., Villegas-Amtmann, S., Weise, M.J., Wells, R., Wetherbee, B., Wiebkin, A., Wienecke, B., Thums, M. (2018) Convergence of marine megafauna movement patterns in coastal and open oceans. *Proceedings of the National Academy of Sciences*, in press.
- 74. <u>Taylor, G.T.</u>, Ackerman, J.T., and **Shaffer, S.A.** (2018) Egg turning behavior and incubation temperature in Forster's terns in relation to mercury contamination. *PLoS ONE* 13(2): e0191390 (pg. 1-16).
- <u>Wilkinson, B.P.</u>, Jahncke, J., Warzybok, P., Bradley, R.W., and Shaffer, S.A. (2018) Variable utilization of shelf break associated habitats by chick-brooding rhinoceros auklets in the California Current system. *Marine Ecology Progress Series*, 590: 211-226.
- 72. Orben, R.A., Kokubun, N., <u>Fleishman, A.</u>, Will, A., Yamamoto, T., **Shaffer, S.A.**, Paredes, R., Takahashi, A., Kitaysky, A. (2018) Persistent annual migration patterns of a specialist seabird. *Marine Ecology Progress Series*, in press.
- Shaffer, S.A., <u>Cockerham, S.</u>, Warzybok, P., Bradley, R.W, Jahncke, J., <u>Clatterbuck, C.A.</u>, <u>Lucia, M.</u>, <u>Jelincic, J.</u>, <u>Cassell, A.</u>, Kelsey, E.C., and Adams, J. (2017) Population-level plasticity in foraging behavior of western gulls (*Larus occidentalis*). *Movement Ecology* 5: 27 (pg. 1-13).
- 70. <u>Antolos, M</u>, **Shaffer, S.A.**, Weimerskirch, H., Tremblay, Y., and Costa, D.P. (2017) Foraging behavior and energetics of albatrosses in contrasting breeding environments. *Frontiers in Marine Science* 4: 414 (pg. 1-12).
- <u>Clatterbuck, C.A</u>., Young, L.C., VanderWerf, E.A., Naiman, A.D., Bower, G.A., and **Shaffer, S.A.** (2017) Data loggers in artificial eggs reveal egg turning behavior varies on multiple ecological scales in seabirds. *Auk*, 134: 432-442.
- <u>Thorne, L.H., Conners, M.G.</u>, Hazen, E.L., Bograd, S.J., <u>Antolos, M.</u>, Costa, D.P., and **Shaffer, S.A.** (2016) Effects of El Niño-driven changes in wind patterns on North Pacific albatrosses. *Journal of the Royal Society Interface*, 13: 20160196 (pg. 1-13).
- 67. Hays, G.C., Ferreira, L.C., Sequeira, A.M.M., Meekan, M.G., Duarte, C.M., Bailey, H., Bailleul, F., Bowen, W.D., Caley, M.J., Costa, D.P., Eguíluz, V.M., Fossette, S., Friedlaender, A.S., Gales, N., Gleiss, A.C., Gunn, J., Harcourt, R., Hazen, E.L., Heithaus, M.R., Heupel, M., Holland, K., Horning, M., Jonsen, I., Kooyman, G.L.,

Lowe, C.G., Madsen, P.T., Marsh, H., Phillips, R.A., Righton, D., Ropert-Coudert, Y., Sato, K., **Shaffer, S.A.**, Simpfendorfer, C.A., Sims, D.W., Skomal, G., Takahashi, A., Trathan, P.N., Wikelski, M., Womble, J.N., and Thums, M. (2016) Key questions in marine megafauna movement ecology. *Trends in Ecology and Evolution*, 31: 463-475.

- Lascelles, B.G. Taylor, P.R., Miller, M.G.R., Dias, M.P., Oppel, S., Torres, L., Hedd, A., Le Corre, M., Phillips, R.A., Shaffer, S.A., Weimerskirch, H., and Small, C. (2016) Applying global criteria to tracking data to define important areas for marine conservation. *Diversity and Distributions* 22: 422-431.
- 65. <u>Kelsey, E.C.</u>, Warzybok, P., Bradley, R., Jahncke, J., and **Shaffer, S.A.** (2016) Environmental temperatures, artificial nests, and incubation of Cassin's Auklet. *Journal of Wildlife Management*, 80: 292-299.
- 64. <u>Gutowsky, S.E.</u>, Leonard, M.L., Conners, M.G., **Shaffer, S.A.**, and Jonsen, I.D. (2015). Individual-level variation and higher-level interpretations of space use in wide-ranging species: An albatross case study of sampling effects. *Frontiers in Marine Sciences*, 2: 3 (pg. 1-17).
- 63. <u>Orben, R.A.</u>, Paredes, R., Irons, D.B., Roby, D.D., and **Shaffer, S.A.** (2015) Body size affects individual winter foraging strategies of thick-billed murres in the Bering Sea. *Journal of Animal Ecology*, 84: 1589-1599.
- 62. Thorne, L.H., Hazen, E.L., Bograd, S.J., Foley, D.G., <u>Conners, M.G., Kappes, M.A.</u>, Kim, H.M., Tremblay, Y., Costa, D.P., and **Shaffer, S.A.** (2015) Foraging behavior links climate variability and reproduction in North Pacific albatrosses. *Movement Ecology*, 3: 27 (pg. 1-15).
- 61. <u>Orben, R.A.</u>, Paredes, R., Roby, D.D., Irons, D.B., and **Shaffer, S.A.** (2015) Wintering North Pacific black-legged kittiwakes balance spatial flexibility and consistency. *Movement Ecology*, 3: 36 (pg. 1-14).
- 60. <u>Conners, M.G.</u>, Hazen, E.L., Costa, D.P., and **Shaffer, S.A.** (2015) Shadowed by scale: subtle behavioral niche partitioning in two sympatric, tropical breeding albatross species. *Movement Ecology*, 3: 28 (pg. 1-20).
- 59. Osterback, A-M.K, <u>Frechette, D.M.</u>, Hayes, S.A., **Shaffer, S.A.**, and Moore, J.W. (2015) Long-term shifts in anthropogenic subsidies to gulls and implications for an imperiled fish. *Biological Conservation*, 191: 606-613.
- <u>Kappes, M.A.</u>, Shaffer, S.A., Tremblay, Y., Foley, D.G., Palacios, D.M., Bograd, S.J., and Costa, D.P. (2015) Reproductive constraints influence habitat accessibility, segregation, and preference of sympatric albatross species. *Movement Ecology*, 3: 34 (pg. 1-24).
- 57. <u>Frechette, D.M.</u>, Osterback, A-M.K, Hayes, S.A., Moore, J.W., **Shaffer, S.A.**, Pavelka, M., Clark Winchell, C., and Harvey, J.T. (2015) Assessing the relationship between gulls *Larus* spp. and Pacific salmon in central California using radiotelemetry. *North American Journal of Fisheries Management*, 35: 775-788.
- Thompson, D.R., Torres, L.G., Taylor, G.A., <u>Rayner, M.J.</u>, Sagar, P.M., Shaffer, S.A., Phillips, R.A., and Bury, S.J. (2015) Stable isotope values delineate the non-breeding distributions of sooty shearwaters Puffinus griseus in the North Pacific Ocean. *Marine Ecology Progress Series* 521: 277-282.
- Young, H.S.¹, Maxwell, S.M., <u>Conners, M.G.</u>, and **Shaffer, S.A.¹** (2015) Pelagic marine protected areas protect foraging habitat for multiple breeding seabirds in the central Pacific. *Biological Conservation* 181: 226-235. 1 equal contribution as senior author.
- 54. <u>Orben, R.A.</u>, Irons, D.B., Paredes, R., Roby, D.D., Phillips, R.A., and **Shaffer, S.A.** (2015) North or south? Niche separation of endemic red-legged kittiwakes and sympatric black-legged kittiwakes during their non-breeding migrations. *Journal of Biogeography* 42: 401-412.
- <u>Gutowsky, S.E.,</u> Gutowsky L.F.G., Jonsen, I.D., Leonard, M.L., Naughton, M.B., Romano, R.D., and Shaffer, S.A. (2014). Daily activity budgets reveal a quasi-flightless stage during non-breeding in Hawaiian albatrosses. *Movement Ecology* 2: 1-14.
- 52. Osterback, A-M.K, <u>Frechette, D.M.</u>, Hayes, S.A., Bond, M.H., **Shaffer, S.A.**, and Moore, J.W. (2014) Linking individual size and wild and hatchery ancestry to survival and predation risk of threatened steelhead (*Oncorhynchus mykiss*). *Canadian Journal of Fisheries and Aquatic Sciences* 71: 1877-1887.

- 51. Carey, M.J., Phillips, R.A., Silk, J.R.D., **Shaffer, S.A.** (2014) Trans-equatorial migration of Short-tailed Shearwaters revealed by geolocators. *Emu* 114: 352-359.
- Shaffer, S.A., <u>Clatterbuck, C.A., Kelsey, E.C.</u>, Naiman, A.D., Young, L.C., VanderWerf, E.A., Warzybok, P., Bradley, R., Jahncke, J., Bower, G.A. (2014) As the egg turns: Monitoring egg attendance behavior in wild birds using novel data logging technology. *PLoS ONE* 9: e97898. doi:10.1371/journal.pone.0097898.
- 49. <u>Gutowsky, S.E.</u>, Tremblay, Y., Kappes, M.A., Flint, E.N., Klavitter, J., Laniawe, L., Christenson, B., Costa, D.P., and **Shaffer, S.A.** (2014). Divergent post-breeding distribution and habitat associations of fledgling and adult Black-footed Albatrosses *Phoebastria nigripes* in the North Pacific. *Ibis* 156: 60-72.
- Frechette, D., Osterback, A-M.K., Hayes, S.H., Bond, M.H., Moore, J.W., Shaffer, S.A., and Harvey, J.T. (2013) A bioenergetics approach to assessing potential impacts of avian predation on juvenile steelhead during freshwater rearing. North American Journal of Fisheries Management 33: 1024-1038.
- Osterback, A-M.K, <u>Frechette, D.M.</u>, Shelton, A.O., Hayes, S.A., Bond, M.H., **Shaffer, S.A.**, and Moore, J.W. (2013) High predation on small populations: avian predation on imperiled salmonids. *Ecosphere* 4, article 116.
- Maxwell, S.M., Hazen, E.L., Bograd, S.J., Halpern, B.S., Breed, G.A., Nickel, B., Teutschel, N.M., Crowder, L.B., Benson, S., Dutton, P.H., Bailey, H., Kappes, M.A., Kuhn, C.E., Weise, M.J., Mate, B., Shaffer, S.A., Hassrick, J.L., Henry, R.W., Irvine, L., McDonald, B.I., Robinson, P.W., Block, B.A., and Costa, D.P. (2013) Cumulative human impacts on marine predators. *Nature Communications* 4, 2688-2697.
- 45. Hazen, E.L., Jorgensen, S., Rykaczewski, R., Bograd, S.J., Foley, D.G., Jonsen, I.D., **Shaffer, S.A.**, Dunne, J., Crowder, L.J., Costa, D.P., Block, B.A. (2013) Predicted habitat shifts in Pacific top predators in a changing climate. *Nature Climate Change*, 3: 234-238. DOI: 10.1038/NCLIMATE1686.
- 44. <u>Frechette, D.</u>, Osterback, A-M.K., Hayes, S.H., Bond, M.H., Moore, J.W., **Shaffer, S.A.**, and Harvey, J.T. (2012) Assessing avian predation of juvenile salmonids using PIT tag recoveries and mark-recapture methods. *North American Journal of Fisheries Management*, 32: 1237-1250.
- 43. <u>Rayner, M.J.</u>, Taylor, G.A., Gummer, H.D., Phillips, R.A., Sagar, P.M., **Shaffer, S.A.**, and Thompson, D.R. (2012) The breeding cycle, year-round distribution and activity patterns of the endangered Chatham Petrel (*Pterodroma axillaris*). *Emu*, 112: 107-116.
- 42. Costa, D.P. and **Shaffer S.A.** (2012) Seabirds and Marine Mammals. In *Metabolic Ecology: A scaling approach* (R.M. Sibly, J.H. Brown, and A. Kodric-Brown, Eds). Wiley & Sons, Ltd, West Sussex, UK., 225-233.
- 41. Winship, A.J., Jorgensen, S.J., **Shaffer, S.A.**, Jonsen, I.D., Robinson, P.W., Costa, D.P., and Block, B.A. (2012) State-space framework for estimating measurement error from double-tagging telemetry experiments. *Methods in Ecology and Evolution*, 3: 291-302.
- Block, B.A., Jonsen, I.D., Jorgensen, S.J., Winship, A.J., Shaffer, S.A., Bograd, S.J., Hazen, E.L., Foley, D.G., Breed, G.A., Harrison, A.-L., Ganong, J.E., Swithenbank, A., Castleton, M., Dewar, H., Mate, B.R., Shillinger, G.L., Schaefer, K.M., Benson, S.R., Henry, R.W. and Costa, D.P. (2011) Tracking Apex Marine Predator Movements in a Dynamic Ocean. *Nature*, 475: 86-90, doi:10.1038/nature10082.
- 39. <u>Rayner, M.J.</u>, Taylor, G.A., Thompson, D.R., Torres, L., Sagar, P.M., and **Shaffer, S.A.** (2011) Migration and diving activity in three non-breeding Flesh-footed shearwaters *Puffinus carneipes*. *Journal of Avian Biology*, 42: 266-270.
- <u>Rayner, M.J.</u>, Hauber, M.E., Steeves, T.E., Lawrence, H.A., Thompson, D.R., Sagar, P.M., Bury, S.J., Landers, T.J., Phillips, R.A., Ranjard, L., and **Shaffer, S.A.** (2011) Contemporary and historical separation of transequatorial migration between genetically distinct seabird populations. *Nature Communications*, 2: 332, DOI: 10.1038/ncomms1330.
- Verrier, D., Guinet, C., Authier, M., Tremblay, Y., Shaffer, S.A., Costa, D.P., Groscolas, R., Arnould, J.P.Y. (2011) The ontogeny of diving abilities in subantarctic fur seal (*Arctocephalus tropicalis*) pups: developmental tradeoff in response to extreme fasting? *Functional Ecology*, 25: 818-828, DOI: 10.1111/j.1365-

2435.2011.01846.x.

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- 35. Shaffer, S.A. (2011) A review of seabird energetics using the doubly labeled water method. *Comparative Biochemistry and Physiology* 158: 315-322.
- 34. <u>Young, H.S.</u>, McCauley, D.J., Dirzo, R., Dunbar, R.D. and **Shaffer, S.A.** (2010) Niche partitioning among and within sympatric tropical seabirds revealed by stable isotope analysis. *Marine Ecology Progress Series* 416: 285-294.
- Raymond, B., Shaffer, S.A., Sokolov, S., Woehler, E., Costa, D.P., Einoder, L., Hindell, M., Hosie, G., Pinkerton, M., Sagar, P.M., Scott, D., Smith, A., Thompson, D.R., Vertigan, C., Weimerskirch, H. (2010) Winds and prey availability determine shearwater foraging distribution in the Southern Ocean. *PLoS One* 5: e10960, 1-14.
- <u>Kappes, M.A.</u>, Shaffer, S.A., Tremblay, Y., Foley, D.G., Palacios, D.M., Robinson, P.W., Bograd, S.J., and Costa, D.P. (2010) Hawaiian albatrosses track interannual variability of marine habitats in the North Pacific. *Progress in Oceanography* 86: 246-260.
- 31. <u>Young, H.S.</u>, **Shaffer, S.A.**, McCauley, D.J., Foley, D.G., Dirzo, R. and Block, B.A. (2010) Resource partitioning by sympatric boobies in the Central Pacific Ocean. *Marine Ecology Progress Series* 403: 291-301.
- 30. Young, L.C., Vanderlip, C., Duffy, D.C., Afanasyev, V. and **Shaffer, S.A.** (2009) Bringing home the trash: do differences in foraging lead to increased plastic ingestion in Laysan Albatrosses? *PLoS One* 4: e7624, 1-9.
- 29. González-Solís, J. and **Shaffer, S.A.** (2009) Introduction and synthesis: spatial ecology of seabirds at sea. *Marine Ecology Progress Series* 391: 117-120.
- Tremblay, Y. Sophie, B., Henry, R.W., Kappes, M.A., Costa, D.P., and Shaffer, S.A. (2009). Analytical Approaches to Investigate Seabird-Environment Interactions: a review. *Marine Ecology Progress Series* 391: 153-163.
- 27. **Shaffer, S.A.**, Weimerskirch, H., Scott, D., Pinaud, D., Thompson, D.R., Sagar, P.M., Moller, H., Taylor, G.A., Foley, D.G., Tremblay, Y., and Costa, D.P. (2009) Spatio-temporal habitat use by breeding sooty shearwaters (*Puffinus griseus*). *Marine Ecology Progress Series* 391: 209-220.
- Weimerskirch, H., Shaffer, S.A., Tremblay, Y., Costa, D.P., Gadenne, H., Kato, A., Ropert-Coudert, Y., Sato, K., Aurioles, D. (2009) Species and sex specific differences in foraging behaviour and foraging zones in two sympatric boobies. *Marine Ecology Progress Series* 391: 267-278.
- 25. Adams, J., Scott, D., McKechnie, S., Blackwell, G., **Shaffer, S.A.**, and H. Moller (2009) Effects of geolocation archival tags on reproduction and adult body mass of Sooty Shearwater (*Puffinus griseus*). *New Zealand Journal of Zoology* 36: 355-366.
- 24. Costa, D.P. and **Shaffer, S.A.** (2008) Physiological constraints on the foraging ecology and energetics of albatrosses and other large seabirds. 4th CPB Meeting in Africa: Mara 2008. Molecules to Migration: The pressures of life (Eds S. Morris & A. Vosloo). Medimond Publishing Co. via Maserati, 40124 Bologna Italy. Pages 497-506.
- Suryan, R.M., Anderson, D.J., Shaffer, S.A., Roby, D.D., Tremblay, Y., Costa, D.P., Sato, F., and Ozaki, K. (2008) Wind, waves, and wing loading: Their relative importance to the at-sea distribution and movements of North and Central Pacific albatrosses. *PLoS One* 3(12): e4016, 1-8.
- 22. Burger, A.E. and **Shaffer S.A.** (2008) Perspectives in Ornithology: Application of tracking and data-logging technology in research and conservation of seabirds. *Auk* 125(2): 253-264.

- Robinson, P.W., Tremblay, Y., Antolos, M., Crocker, D.E., Kuhn, C.E., Shaffer S. A., Simmons, S., and Costa, D.P. (2007) A comparison of ARGOS-tracking-based indirect measures of foraging behavior. *Deep-Sea Research II* 54: 356-368.
- 20. Angelier, F., **Shaffer, S.A.**, Weimerskirch, H., Trouvé, C. and Chastel, O. (2007) Corticosterone and foraging behaviour in a pelagic seabird. *Physiological and Biochemical Zoology* 80: 283-292.
- Shaffer, S. A., Tremblay, Y., Weimerskirch, H., Scott, D., Thompson, D.R., Sagar, P.M., Moller, H., Taylor, G.A., Foley, D.G., Block, B.A., and Costa, D.P. (2006) Migratory shearwaters integrate oceanic resources across the Pacific Ocean in an endless summer. *Proceedings of the National Academy of Sciences USA* 103: 12799-12802.
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- 17. **Shaffer, S.A.**, Gabrielsen, G.W., Verreault, J. and Costa, D.P. (2006) Validation of water flux and body composition in Glaucous gulls (*Larus hyperboreus*). *Physiological and Biochemical Zoology* 79: 836-845.
- 16. **Shaffer, S.A.** and Costa, D.P. (2006) A database for the study of marine mammal behavior: Gap analysis, data standardization, and future directions. *IEEE Journal of Oceanic Engineering* 31 (1): 82-86.
- 15. Tremblay, Y., **Shaffer, S.A.**, Fowler, S.L., Kuhn, C.E., McDonald, B.I., Weise, M.J., Bost, C.-A., Weimerskirch, H., Crocker, D.E., Goebel, M. E., Costa, D. P. (2006) Interpolation of tracking data in a fluid environment. *Journal of Experimental Biology* 209: 128-140.
- 14. Kuhn, C.E., McDonald, B.I., **Shaffer, S.A.**, Costa, D.P., Barnes, J., Crocker, D.E., and Burns, J. (2006) Diving Physiology and Winter Foraging Behavior of a Juvenile Leopard Seal (*Hydrurga leptonyx*). *Polar Biology* 29: 303-307.
- 13. **Shaffer, S.A.**, Tremblay, Y., Awkerman, J., Henry, W.R., Teo, S.L.H., Anderson D.J., Croll, D.A., Block, B.A., and Costa, D.P. (2005) Comparison of light- and SST-based geolocation with satellite telemetry in free-ranging albatrosses. *Marine Biology* 147: 833-843.
- Costa, D.P., Kuhn, C.E., Weise, M.J., Shaffer, S.A., and Arnould, J.P.Y. (2004) When does physiology limit the foraging behaviour of freely diving mammals? In: Animals and Environments (Morris S. and Vosloo A. eds). *Proceedings of the Third International Conference of Comparative Physiology and Biochemistry* 1275C: 359-366.
- 11. **Shaffer, S.A.**, Costa, D.P., and Weimerskirch, H. (2004) Field metabolic rates of black-browed albatrosses *Thalassarche melanophrys* during the incubation stage. *Journal of Avian Biology* 35: 551-558.
- 10. **Shaffer, S.A.** (2004) Annual energy budget and food requirements of breeding Wandering Albatrosses (*Diomedea exulans*). *Polar Biology* 27: 253-256.
- 9. Mabille, G., Boutard, O., **Shaffer, S.A.**, Costa, D.P., and Weimerskirch H. (2004) Patterns of growth and energy expenditure in wandering albatross chicks. *Ibis* 146: 85-94.
- 8. Arnould, J.P.Y., Luque, S.P., Guinet, C., Costa, D.P., Kingston, J., and **Shaffer, S.A.** (2003) The comparative energetics and growth strategies of sympatric Antarctic and sub Antarctic fur seal pups, at lles Crozet. *Journal of Experimental Biology* 206: 4497-4506.
- 7. **Shaffer, S.A.**, Costa, D.P., and Weimerskirch, H. (2003) Foraging effort in relation to the constraints of reproduction in free-ranging albatrosses. *Functional Ecology* 17: 66-74.
- Weimerskirch, H., Shaffer, S.A., Mabille, G., Martin, J., Boutard, O., Rouanet, J.-L. (2002) Heart rate and energy expenditure of incubating wandering albatrosses: basal levels, natural variation, and the effects of human disturbance. *Journal of Experimental Biology* 205(4): 475-483. (Including Cover Photo).
- 5. **Shaffer, S.A.**, Costa, D.P., and Weimerskirch, H. (2001) A comparison of methods to evaluate energy expenditure of incubating wandering albatrosses. *Physiological and Biochemical Zoology* 74(6): 823-831.

Curriculum vitae

- 4. **Shaffer, S.A.**, Costa, D.P., and Weimerskirch, H. (2001) Behavioural factors affecting foraging effort in breeding wandering albatrosses. *Journal of Animal Ecology* 70: 864-874. (Elton Prize winner).
- 3. **Shaffer, S.A.**, Weimerskirch, H., and Costa, D.P. (2001) Functional significance of sexual dimorphism in wandering albatrosses, *Diomedea exulans*. *Functional Ecology* 15: 203-210. (Including Cover Photo).
- 2. Weimerskirch, H., Guionnet, T., Martin, J., **Shaffer, S.A.**, and Costa, D.P. (2000) Fast and fuel-efficient? Optimal use of wind by flying albatrosses. *Proceedings of the Royal Society of London B* 267: 1869-1874.
- 1. **Shaffer, S.A.**, Costa, D.P., Williams, T.M., and Ridgway, S.H. (1997) Diving and swimming performance of white whales, *Delphinapterus leucas*: An assessment of plasma lactate and blood gas levels and respiratory rates. *Journal of Experimental Biology* 200: 3091-3099. (Including Cover Photo).

In Review Peer-reviewed Papers (papers written by students or postdocs I advised are underlined)

Non-peer Reviewed Popular Articles, Reviews, and Technical Reports

- Shaffer, S.A., Orben, R.A., <u>Gutowsky, S.E</u>., and Hyrenbach, K.D. (2018). Population-level assessment of blackfooted albatross foraging distributions and habitat use in the central North Pacific. NOAA Technical Memorandum NOS NCCOS.
- Keller, K.E., Anders, A.D., Shaffer, S.A., Kappes, M.A., Flint, B., Friedlander, A. (2009) Seabirds. Pp. 235-274. In: Friedlander, A., Keller, K.E., Wedding, L., Clarke, A., Monaco, M. (eds.). 2009. *A Marine Biogeographic Assessment Of The Northwestern Hawaiian Islands*. NOAA Technical Memorandum NOS NCCOS 84. Prepared by NCCOS's Biogeography Branch in cooperation with the Office of National Marine Sanctuaries Papahanaumokuakea Marine National Monument. Silver Springs, MD. 363 pp.
- Shaffer, S.A. (2008) Albatross flight performance and energetics. In *Albatrosses: Their World, Their Ways* (De Roy, T., Jones, M., and Fitter, J. eds). David Bateman Ltd., Aukland, New Zealand, pp. 152-153.
- Shaffer, S.A. and Costa D.P. (2004) Tagging of Pacific Pelagics. In *Global Procellariiform Tracking Workshop Report* (ed J. P. Croxall). BirdLife International, Cambridge, page 83.
- Shaffer, S. A. Costa, D. P., Suryan, R. M., Hyrenbach, K. D. (2004) North Pacific: breeding and non-breeding. In Global Procellariiform Tracking Workshop Report (ed J. P. Croxall). BirdLife International, Cambridge, pages 47-49.
- Costa, D. P. and **Shaffer, S. A.** (2004) Marine mammal tracking database. In *Global Procellariiform Tracking Workshop Report* (ed J. P. Croxall). BirdLife International, Cambridge, page 92.
- Shaffer, S. A. (2003) Eye of the albatross: visions of hope and survival by Carl Safina A review. *Marine Ornithology*, **31**: 92.
- Weimerskirch H. and **Shaffer, S. A.** (2003) Spying on Tītī at sea some far out results! Kia Mau Te Tītī Mo Ake Tōnu Atu Tītī Times, 12: 1-2. (Tītī is the Maori name for Sooty Shearwater).

TEACHING EXPERIENCE

- 2018 Science Communication (Graduate level) San Jose State University
- 2018 Physiological Ecology (Upper Division, Majors) San Jose State University
- 2018 Physiological Ecology Lab (Upper Division, Majors) San Jose State University
- 2018 Principles of Biology II (Lower Division, Majors) San Jose State University
- 2017 Ecology (Upper Division, Majors) San Jose State University
- 2017 **Conservation Biology** (Upper Division, Majors) San Jose State University
- 2017 Functional Morphology (Upper Division, Majors) San Jose State University
- 2017 Principles of Biology II (Lower Division, Majors) San Jose State University
- 2017 Physiological Ecology (Upper Division, Majors) San Jose State University
- 2017 Physiological Ecology Lab (Upper Division, Majors) San Jose State University
- 2016 Conservation Biology (Upper Division, Majors) San Jose State University

Curriculum vitae

2016 Ecology (Upper Division, Majors) San Jose State University 2016 Graduate Seminar in Movement Ecology (Guest lecture), UC Davis 2016 Sabbatical Spring semester 2015 Seminar in Spatial Ecology (Graduate level) San Jose State University 2015 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2015 **Functional Morphology** (Upper Division, Majors) San Jose State University Physiological Ecology (Upper Division, Majors) San Jose State University 2015 2015 Physiological Ecology Lab (Upper Division, Majors) San Jose State University 2015 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2014 Functional Morphology (Upper Division, Majors) San Jose State University Ecology (Upper Division, Majors) San Jose State University 2014 2014 Physiological Ecology (Upper Division, Majors) San Jose State University Physiological Ecology Lab (Upper Division, Majors) San Jose State University 2014 2014 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2013 Functional Morphology (Upper Division, Majors) San Jose State University 2013 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2013 Seminar in Spatial Ecology (Graduate level) San Jose State University Physiological Ecology (Upper Division, Majors) San Jose State University 2013 2013 Physiological Ecology Lab (Upper Division, Majors) San Jose State University 2012 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2012 Physiological Ecology (Upper Division, Majors) San Jose State University 2012 Physiological Ecology Lab (Upper Division, Majors) San Jose State University 2011 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2011 Physiological Ecology (Upper Division, Majors) San Jose State University 2011 Physiological Ecology Lab (Upper Division, Majors) San Jose State University 2010 Foundations in Biodiversity (Lower Division, Majors) San Jose State University Foundations in Molecular Biology and Physiology (Lower Division, Majors) San Jose State University 2010 2010 Seminar in Spatial Ecology (Graduate level) San Jose State University 2009 Foundations in Biodiversity (Lower Division, Majors) San Jose State University 2009 Ecology (Upper Division, Majors) UC Santa Cruz 2009 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2008 Marine Biology and Ecology (Upper Division, Majors) CSU San Bernardino 2008 General Ecology (Upper Division, Majors) CSU San Bernardino Comparative Animal Physiology (Upper Division, Majors) CSU San Bernardino 2008 Advanced Topics in Physiology (Graduate level) CSU San Bernardino 2008 2007 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2006 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2006 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2005 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2005 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2005 Comparative Physiology of Vertebrates (Upper Division, Majors) UC Santa Cruz Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2004 2004 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2003 Physiology and Development of Animals and Plants (Lower Division, Majors) UC Santa Cruz 2003 Biology and Ecology of Marine Mammals (Upper Division, Majors) UC Santa Cruz Bioenergetics (Upper Division, Majors) UC Santa Cruz 2003 2002 Bioenergetics (Upper Division, Majors) UC Santa Cruz 2001 Biology and Ecology of Marine Mammals (Upper Division, Majors) UC Santa Cruz

2000 **Biology and Ecology of Marine Mammals** (Opper Division, Majors) UC Santa Cruz

ADVISEES AND EXTERNAL REVIEWS

Graduated or Completed Advisement

James Castle (2002-2007) Master's thesis committee, Sonoma State University

Curriculum vitae

Michelle Kappes (2005-2009) Doctoral thesis co-adviser, University of California Santa Cruz Bill Henry (2005-2011) Non-thesis committee Doctoral adviser, University of California Santa Cruz Hillary Young (2007-2010) Non-thesis committee Doctoral adviser, Stanford University Danielle Frechette (2008-2010) Master's thesis co-adviser, Moss Landing Marine Labs Autumn-Lynn Harrison (2010-2012) Doctoral thesis committee, University of California Santa Cruz Erica Donnelly (2010-2012) Masters thesis committee, Moss Landing Marine Labs Jorg Welcker (2009) External Doctoral thesis examiner, Norwegian Polar Institute, Norway Caitlin Vertigan (2010) External Doctoral thesis examiner, University of Tasmania, Australia Rachael Alderman (2012) External Doctoral thesis examiner, University of Tasmania, Australia Geoff Bower (2012) External Doctoral thesis examiner, Stanford University Dr. Matt Rayner (2009-2011) Postdoctoral co-advisor, San Jose State University and Univ. of California Santa Cruz Nathan Jones (2009-2012) Masters thesis committee, Moss Landing Marine Labs Jeff Troy (2009-2013) Doctoral thesis committee, Texas State University, San Marcos Tenaya Norris (2010-2013) Masters thesis committee, Moss Landing Marine Labs Stacy Moskal (2011-2013) Masters thesis adviser, San Jose State University Dr. Magali Lucia (2013-2013) Postdoctoral advisor, University of California Santa Cruz Emma Kelsey (2011-2014) Masters thesis adviser, San Jose State University Corey Clatterbuck (2011-2014) Masters thesis adviser, San Jose State University Dr. Lesley Thorne (2012-2014) Postdoctoral advisor, University of California Santa Cruz Melinda Nakagawa (2011-2014) Masters thesis committee, Moss Landing Marine Labs Sandra Manzel (2012-2014) Masters thesis committee, San Jose State University Rachael Orben (2009-2014) Doctoral thesis adviser, University of California Santa Cruz Melinda Conners (2009-2015) Doctoral thesis adviser, University of California Santa Cruz Anne Cassell (2011-2016) Masters thesis adviser, San Jose State University Harvey Tran (2011-2016) Master Arts adviser, San Jose State University Lesley Handa (2014-2016) Masters thesis committee, San Diego State University Sarah Gutowsky (2012-2016) Doctoral co-advisor, Dalhousie University, Canada Jennifer Jelincic (2013-2016) Masters thesis adviser, San Jose State University Tim Walker (2012-2016) Masters thesis co-adviser, San Jose State University Catherine Yi (2011-2016) Masters thesis adviser, San Jose State University Emily Moffit (2014-2016) Masters thesis committee, San Jose State University Greg Taylor (2014-2016) Masters thesis adviser, San Jose State University Lindsey Broadus (2015-2017) Masters thesis adviser San Jose State University Bradley Wilkinson (2015-2017) Masters thesis adviser San Jose State University

In Progress

Morgan Gilmour (2012-present) Doctoral thesis adviser, University of California Santa Cruz Caitlin Kroeger (2013-present) Doctoral thesis adviser, University of California Santa Cruz Susan Cockerham (2014-present) Masters thesis adviser San Jose State University Abram Fleishman (2015-present) Masters thesis adviser San Jose State University Allison Harness (2015-present) Masters thesis coadviser San Jose State University Olivia Townsend (2016-present) Masters thesis adviser San Jose State University Cole Jower (2017-present) Masters thesis adviser San Jose State University Michael McFarlin (2018-present) Masters thesis adviser San Jose State University

RELEVANT PROFESSIONAL EXPERIENCE

2017-pres. Professor of Biology. San José State University, San José, California
2013-17 Associate Professor of Biology. San José State University, San José, California
2012-15 Associate Research Biologist I. University of California, Santa Cruz, California
2009-13 Assistant Professor of Biology. Texas State University, San José, California
2009-13 Assistant Research Biologist IV. University of California, Santa Cruz, California
2009-12 Assistant Professor. California State University, San Bernardino, California

Curriculum vitae

- 2006-07 Assistant Research Biologist II. University of California, Santa Cruz, California
- 2004-06 Assistant Research Biologist I. University of California, Santa Cruz, California
- 2000-07 Lecturer in Biological Science. University of California, Santa Cruz, California
- 2000-04 Post Doctoral Researcher. University of California, Santa Cruz, California
- 2000 Biological Consultant. SRS Technologies, Newport Beach, California
- 1997-00 Graduate Student Researcher. University of California, Santa Cruz, California
- 1997 Seasonal Field Biological Technician. U.S. Fish & Wildlife Service, Anchorage, Alaska
- 1994-96 Graduate Student Researcher. University of California, Santa Cruz, California
- 1991-93 Animal Keeper. SAIC, Maritime Services Division, San Diego, California
- 1993 Seasonal Field Biologist. California State University, Long Beach, California
- 1992 Undergraduate Researcher. Bermuda Biological Station for Research, Bermuda
- 1992 Laboratory Technician. San Diego State University, San Diego, California
- 1991-93 Seasonal Field Biologist. Denver Wildlife Research Center, Denver, Colorado
- 1990-91 Seasonal Field Biologist. San Diego State University, San Diego, California
- 1989-90 Assistant Animal Trainer. SAIC, Maritime Services Division, San Diego, California
- 1988-89 Avian Keeper. Sea World Inc., San Diego, California
- 1987-88 Avian Quarantine Specialist. Sea World Inc., San Diego, California

HONORS AND AWARDS

- 2016 Awarded sabbatical leave, San Jose State University
- 2013 Provost's University Scholar, San Jose State University
- 2002 Antarctic Service Medal for service in Antarctica, 2002
- 2001 Elton Prize for best paper published by a young investigator in Journal of Animal Ecology
- 2000 Annual Outstanding Student Achievement Award, Ocean Sciences Dept., UCSC
- 2000 Best Student Paper, Pacific Seabird Group conference
- 1999 National Science Foundation Doctoral Dissertation Improvement Award
- 1993 Outstanding Biology Undergraduate, Biology Dept., SDSU
- 1993 Graduated with Distinction (GPA 3.5 in major), SDSU
- 1992 National Science Foundation's Research Experience for Undergraduates (REU) fellowship
- 1992 National Deans List
- 1992 Semester Honors, Deans List, SDSU
- 1991 Semester Honors, Deans List, SDSU

RESEARCH ACTIVITIES AND FIELDWORK

- 2017 Southeast Farallon Islands, California (May) Foraging ecology and diet of western gulls
- 2017 Año Nuevo Island, California (May June) Foraging ecology and diet of western gulls
- 2016 Southeast Farallon Islands, California (May) Foraging ecology and diet of western gulls
- 2016 Año Nuevo Island, California (May June) Foraging ecology and diet of western gulls
- 2016 Midway Atoll National Wildlife Refuge (Jan-Feb) Foraging ecology of Hawaiian albatrosses
- 2015 Ny-Ålesund, Svalbard Archipelago, Norway, (June) Incubation behavior of black-legged kittiwakes
- 2015 Southeast Farallon Islands, California (May) Foraging ecology and diet of western gulls
- 2015 Año Nuevo Island, California (May June) Foraging ecology and diet of western gulls
- 2014 Southeast Farallon Islands, California (June) Foraging ecology and diet of western gulls
- 2014 Año Nuevo Island, California (April July) Foraging ecology and diet of western gulls
- 2013-14 Dumont D'Urville Station, Antarctica (Dec-Jan) Incubation behavior and ecology of petrels
- 2013 Southeast Farallon Islands, California (May) Foraging ecology and diet of western gulls
- 2013 Año Nuevo Island, California (April July) Foraging ecology and diet of western gulls
- 2013 Midway Atoll National Wildlife Refuge, Hawaii (Jan) Foraging ecology of Hawaiian albatrosses
- 2012 Año Nuevo Island, California (April July) Diet and growth rates of western gulls
- 2012 Midway Atoll National Wildlife Refuge, Hawaii (Jan) Foraging ecology of Hawaiian albatrosses
- 2011 St. Paul Island, Pribilof Islands, Alaska (July) Foraging ecology of black-legged kittiwakes
- 2011 Midway Atoll National Wildlife Refuge, Hawaii (Jan) Foraging ecology of Hawaiian albatrosses
- 2010 Lehua Island, Hawaii (June) Diet and habitat use of tropical boobies

Curriculum vitae

2009 Lehua Island, Hawaii (June) Diet and habitat use of tropical boobies, tropicbirds, and shearwaters

2007 Palmyra Atoll (May) Diet and habitat use of tropical boobies

2006 Midway Atoll, Hawaii (June-July) First flights of fledgling albatrosses

- 2006 Isla San Ildefonso, Baja, Mexico (Mar) Foraging energetics and ecology of brown and blue-footed boobies
- 2006 Tern Island, Northwest Hawaiian Islands (Jan-Feb) Energetics and ecology of Hawaiian albatrosses
- 2005 Codfish Island, Southern New Zealand (Nov-Dec) Migration of sooty shearwaters
- 2005 Codfish Island, Southern New Zealand (Jan-Feb) Migration of sooty shearwaters
- 2003 Snares Island, Southern New Zealand (Nov-Dec) Foraging ecology of sooty shearwaters
- 2003 Snares Island, Southern New Zealand (Feb-Mar) Foraging ecology of sooty shearwaters
- 2003 Guadalupe Island, Baja California, Mexico (Jan) Foraging ecology of Laysan albatrosses
- 2002 Western Antarctic Peninsula region (Jul-Sep) Foraging ecology and physiology of crabeater seals
- 2002 Ny-Ålesund, Svalbard Archipelago, Norway (Jun-Jul) Physiology of glaucous gulls
- 2001 Amsterdam Island, Southwestern Indian Ocean (Jan-March) Ecology of yellow-nosed albatrosses
- 2000 San Miguel Island, Channel Islands, California (Aug) Monitoring impact of sonic blasts California sea lions
- 1999 Kerguelen Islands, Indian Ocean (Nov-Dec) Ecological energetics of black-browed albatrosses
- 1998-99 Crozet Islands, Indian Ocean (Dec-Feb) Foraging ecology and energetics of wandering albatross
- 1998 Crozet Islands, Indian Ocean (Jan-April) Foraging ecology and energetics of wandering albatross
- 1997 Naked Island, Prince William Sound, Alaska (Jun-Aug) Population monitoring of pigeon guillemots
- 1996 San Clemente Island, 1996Channel Islands, California (Jul-Nov) Diving physiology of white whales
- 1992 Ferry Reach, St. Georges, Bermuda (Sep-Dec) Ecological physiology of corals

SYNERGISTIC ACTIVITIES

- 2017 Chair, faculty search for Evolutionary Ecologist, Dept. of Biological Sciences, San Jose State University
- 2015 Chair, faculty search for Biostatistician, Department of Biological Sciences, San Jose State University
- 2015 Chair, Local Organizing Committee of 42nd Annual Pacific Seabird Group meeting in San Jose, CA.
- 2013-present Contributing Editor for Marine Ecology Progress Series
- 2012 Co-convened a Themed Symposium, Pacific Seabird Group annual meeting, Honolulu, Hawaii
- 2010 Co-convened workshops on seabird tracking, First World Seabird Conference, Victoria BC, Canada
- 2009 Co-edited Theme Section in the peer-reviewed journal Marine Ecology Progress Series
- 2009 Public Outreach Science officer for Seymour Discovery Center, Long Marine Lab, Santa Cruz
- 2008 3rd International Symposium on Biologging Science organizing committee
- 2008 Public Outreach with National Geographic Magazine photographer, Santa Cruz
- 2007 Pacific Seabird Group Conference organizing committee
- 2007 Pacific Seabird Group Conference Symposium organizer and Session Chair
- 2007 Worked with National Geographic writer and photographer on albatross featured in NGS Magazine
- 2006-07 Assisted USFWS Biologists with the creation and draft of Albatross Action Plan published by USFWS
- 2006-08 Assisted TOPP Education and Outreach efforts to increase web traffic on TOPP website
- 2002-08 Given several lectures to local birding and naturalist organizations

PROFESSIONAL SOCIETIES, COMMITTEE SERVICE, AND PERMITS HELD

Ecological Society of America (1999-2017)

Pacific Seabird Group (1995-present)

North Pacific Albatross Working Group (2001-present)

American Ornithologist Union (1999-2012)

Institutional Animal Care and Use Committee, UCSC (1998-2006)

Federal Master Bird Banding, Auxiliary Marking, and Salvage permits (2006-present)

Department Retention, Tenure, and Promotion committee (2014-2015)

Council on Ocean Affairs, Science and Technology (COAST), San Jose State University Rep (2010-present)

Campus Planning Board, San Jose State University (2010-present)

Institutional Animal Care and Use Committee, SJSU, alternate member (2012-present)

PRESENTATIONS (Oral presentations only)

- 2017 San Jose State University, Environmental Studies, CA (invited seminar speaker)
- 2017 University of San Francisco, CA (invited seminar speaker)

Curriculum vitae

2017 CalPoly, San Luis Obispo, CA (invited seminar speaker) 2017 Pacific Seabird Group Annual Meeting, Tacoma, WA (symposium organizer and presenter) 2016 Smithsonian Institute, Washington DC (invited seminar speaker) 2015 Stony Brook University, Stony Brook, NY (invited seminar speaker) 2015 Moss Landing Marine Labs, Moss Landing, CA (invited seminar speaker) 2015 Pacific Seabird Group Annual Meeting, San Jose, CA (presenter) 2014 Pew Fellows Program in Marine Conservation Annual Meeting, Sausalito, CA (invited symposium speaker) 2014 MARINE Symposium, Moss Landing Marine Lab, Moss Landing, CA (presenter) 2014 Department of Engineering, San Jose State University, San Jose, CA (invited speaker) 2013 Pacific Interisland Climate Change Cooperative Symposium, Honolulu, HI (invited speaker) 2013 Pacific Seabird Group Annual Meeting, Portland, OR (presenter and session moderator) 2012 Scripps Institute of Oceanography, San Diego, CA (invited seminar speaker) 2012 Pacific Seabird Group Annual Meeting, Honolulu, HI (presenter and session co-convener) 2011 Spatial Habitat Modeling of Seabird, BirdLife International, University of Coimbra, Portugal (presenter) 2010 First World Seabird Conference, Victoria, BC, Canada (session chair and presenter) 2010 Pacific Seabird Group Annual Meeting, Long Beach, CA (presenter) 2010 Santa Clara University, Santa Clara, CA (invited seminar speaker) 2009 San Jose State University, San Jose, CA (invited job candidate) 2009 Moss Landing Marine Laboratories, Moss Landing, CA (invited speaker) 2008 Sitka Whale Fest. Sitka, AK (invited speaker) 2008 Third International Science Symposium on Biologging. Asilomar, CA (presenter) 2008 4th International Albatross and Petrel Conference, Cape Town, South Africa (session chair and presenter) 2008 Camp Ocean Pines, Cambria, CA (invited speaker) 2007 Climate Impacts on Oceanic Top Predators (ClioTOP) Conference, La Paz, Mexico (Plenary speaker) 2007 University of California, Santa Cruz, CA (invited speaker) 2007 California State University, San Bernardino, CA (invited speaker) 2007 University of the Pacific, Stockton, CA (invited speaker) 2007 California State University, East Bay, Hayward, CA (invited speaker) 2007 Memorial University, St. Johns, Newfoundland, CA (invited speaker) 2007 Pacific Seabird Group Annual Meeting, Asilomar, CA (session chair and presenter) 2006 Scripps Institute of Oceanography, San Diego, CA (invited job candidate) 2006 North American Ornithological Congress, Veracruz, Mexico (symposium presenter) 2006 University of California, Merced, CA (invited speaker) 2005 Environmental Consequences of Underwater Sound Conference. Alexandria, VA (presenter) 2004 Third International Albatross and Petrel Conference. Montevideo, Uruguay (presenter) 2004 Mt. Diablo Audubon Society. Walnut Creek, CA (invited speaker) 2004 San Diego State University. San Diego, CA (invited seminar speaker) 2004 American Association for the Advancement of Science. Seattle, WA (presenter) 2003 Procellariiform Tracking Database Workshop. Cape Town, South Africa (presenter) 2003 Environmental Consequences of Underwater Sound Conference. San Antonio, TX (presenter) 2003 OBIS – SEAMAP workshop. Duke University, Durham, NC (presenter) 2003 California State University Long Beach. Long Beach, CA (invited speaker) 2002 Effects of Sound on the Marine Environment. La Jolla, CA (presenter) 2002 Effects of Sound on the Marine Environment. San Diego, CA (presenter) 2002 University of Alaska. Fairbanks, AK (invited speaker) 2002 Twenty-ninth Annual Pacific Seabird Group meeting. Santa Barbara, CA (presenter) 2001 University of British Columbia. Vancouver, BC (invited speaker) 2001 Southwest Fisheries Science Center, National Marine Fisheries Service. La Jolla, CA (invited speaker) 2001 Sonoma State University. Rohnert Park, CA (invited seminar speaker) 2000 Norwegian Polar Institute. Tromsø, Norway (invited seminar speaker) 2000 University of California Santa Cruz. Santa Cruz, CA (seminar speaker) 2000 Second International Albatross and Petrel Conference. Waikiki, HI (presenter) 2000 Mt. Diablo Audubon Society. Walnut Creek, CA (invited speaker)

- Curriculum vitae
- 2000 Twenty Seventh Annual Pacific Seabird Group meeting. Napa, CA (awarded best student presentation)

SERVICE TO SCHOLARLY JOURNALS AND FUNDING AGENCIES

- 2018 Ibis, Functional Ecology, NERC grant proposal reviewer, Contributing Editor for Marine Ecology Progress Series.
- 2017 Emu, Philosophical Transactions of the Royal Society of London B. Contributing Editor for Marine Ecology Progress Series.
- 2016 Proceedings of the National Academy of Science, Scientific Reports, Functional Ecology, Current Biology, Marine Biology, external examiner of doctoral thesis, Contributing Editor for Marine Ecology Progress Series.
- 2015 Proceedings of the Royal Society B, Movement Ecology, Journal of Animal Ecology, Endangered Species Research, Scientific Reports; Grant reviews: NSF – Polar Programs, Contributing Editor for Marine Ecology Progress Series
- 2014 Proceedings of the National Academy of Science, Functional Ecology, Royal Society Open Science, Ecology, Journal of Avian Biology, PLoS One, Scientific Reports, Journal of Animal Ecology, Proceedings of the Royal Society, Journal of Ornithology, Trends in Ecology and Evolution, Contributing Editor for Marine Ecology Progress Series
- 2013 Proceedings of the Royal Society of London B, PLoS One, Journal of Avian Biology, Marine Ecology Progress Series, Fisheries Oceanography, Ecology, Methods in Ecology and Evolution
- 2013 Contributing Editor for Marine Ecology Progress Series
- 2012 Proceedings of the Royal Society Interface, Proceedings of the Royal Society of London B, Marine Ecology Progress Series, Journal of Biogeography, Diversity and Distributions, PLoS One; Grant reviewer for National Geographic Society, National Science Foundation.
- 2011 Science, Marine Ecology Progress Series, Proceedings of the Royal Society of London, Diversity and Distributions; Grant reviewer for National Science Foundation
- 2011 Invitation to be a Review Editor for Marine Ecology Progress Series
- 2010 Proceedings of the National Academy of Sciences, Biology Letters, PLoS One, Marine Ecology Progress Series, Proceedings of the Royal Society Interface, Functional Ecology, Journal of Experimental Biology, Auk, Polar Biology, Wilson Journal of Ornithology, Grant reviewer for Natural Environmental Research Council (UK)
- 2009 Co-editor of theme section in Marine Ecology Progress Series.
- 2009 Proceeding of the National Academy of Sciences, Oecologia, PLoS One, Proceedings of the Royal Society of London, American Naturalist, Marine Ecology Progress Series, Functional Ecology, Journal of Animal Ecology, Auk, Emu, Marine Biology, Endangered Species Research, Grant reviewer for National Science Foundation and National Geographic Society.
- 2008 Co-editor of theme section in Marine Ecology Progress Series.
- 2008 Marine Ecology Progress Series, Progress in Oceanography, Biological Conservation, Proceedings of the Royal Society of London B, Marine Ornithology, Behavioral Ecology and Sociobiology, Grant reviewer for National Science Foundation, National Geographic Society, and Natural Environmental Research Council (UK).
- 2007 Editorial Board of The Open Zoology Journal.
- 2007 Current Biology, Ibis, Journal of Avian Biology, Physiological and Biochemical Zoology, Journal of Animal Ecology, Functional Ecology, American Naturalist, Endangered Species Research, Ecology, Marine Ecology Progress Series, and Grant reviewer for National Science Foundation, Agence Nationale de la Recherche (ANR, France), National Geographic Society.
- 2006 Functional Ecology, Polar Biology, Journal of Zoology, Journal of Avian Biology, Behavioral Ecology and Sociobiology, and Grant reviewer for National Science Foundation, National Geographic Society, Australian Antarctic Division, and external reviewer for US Fish and Wildlife Service technical report
- 2005 Marine Ecology Progress Series, Journal of Avian Biology, Oecologia, Deep Sea Research, University of California Press, and Grant reviewer for National Science Foundation and National Geographic Society.
- 2004 Marine Biology, Cambridge University Press, Functional Ecology, Journal of Animal Ecology, Marine Ecology Progress Series, and Journal of Avian Biology.
- 2003 Proceedings of the Royal Society of London B and Marine Ecology Progress Series.

- 2002 Physiological and Biochemical Zoology, Proceedings of the Royal Society of London B, and Behavioral Ecology and Sociobiology
- 1999 Journal of Experimental Biology
- 1998 Journal of Experimental Biology