

Senate Commerce Committee Nominee Questionnaire, 118th Congress

Instructions for the nominees: The Senate Committee on Commerce, Science, and Transportation (the “Committee”) asks you to provide typed answers to each of the following questions. It is requested that the nominee type the question in full before each response. Do not leave any questions blank. Type “None” or “Not Applicable” if a question does not apply to the nominee. Begin each section (i.e., “A”, “B”, etc.) on a new sheet of paper. Electronically submit your completed questionnaire to the Committee in PDF format and ensure that sections A through E of the completed questionnaire are in a text searchable and that any hyperlinks can be clicked. Section F may be scanned for electronic submission and need not be searchable.

A. BIOGRAPHICAL INFORMATION AND QUALIFICATIONS

1. Name (Include any former names or nicknames used):

Lisa Taylor Ballance

2. Position to which nominated:

Chair and Member of the Marine Mammal Commission

3. Date of Nomination:

July 23, 2024

4. Address (List current place of residence and office addresses):

Residence:

Office: 2030 SE Marine Science Drive, Newport, OR 97365

5. Date and Place of Birth:

June 6, 1959; Los Alamos, NM

6. Provide the name, position, and place of employment for your spouse (if married) and the names and ages of your children (including stepchildren and children by a previous marriage).

Spouse: Robert L. Pitman, retired; no children

7. List all college and graduate schools attended, whether or not you were granted a degree by the institution. Provide the name of the institution, the dates attended, the degree received, and the date of the degree.

- University of California Los Angeles, 1987-1993, Ph.D. 1993
- University of Arizona, 1986-1987, no degree
- Moss Landing Marine Laboratories, San Jose State University, 1982-1986, M.S. 1987

- University of California San Diego, 1977-1981, B.A. 1981
8. List all post-undergraduate employment, including the job title, name of employer, and inclusive dates of employment, and highlight all management-level jobs held and any non-managerial jobs that relate to the position for which you are nominated.
- Director Marine Mammal Institute and Professor Fisheries, Wildlife, and Conservation Sciences, Oregon State University (2019-present)
 - Director, Marine Mammal and Turtle Research Division, Southwest Fisheries Science Center, NOAA Fisheries (2007-2019)
 - Leader, Ecosystem Studies Program, Southwest Fisheries Science Center, NOAA Fisheries (2001–2007)
 - Professor (Adjunct), Scripps Institution of Oceanography, University of California San Diego (2005-2021; concurrent with other positions)
 - Senior Field Scientist, Marine Mammal and Ecosystem Assessment Surveys, Southwest Fisheries Science Center, NOAA Fisheries (1990-2018; concurrent with other positions)
 - Marine Ecologist, Southwest Fisheries Science Center, NOAA Fisheries (1996-2001)
 - Post-doctoral Fellow, National Research Council, The National Academies (1993-1996)
 - Lecturer, University of San Diego (1994)
 - Lecturer, Northeastern University at Friday Harbor Marine Laboratory, Friday Harbor WA (1993)
 - Lecturer, Oregon Institute of Marine Biology, University of Oregon (1989-1992,1994)
 - Teaching Assistant, University of Los Angeles (1987, 1988)
 - Teaching Assistant, University of Arizona (1986)
 - Lecturer, School for Field Studies (1985-1987)
 - Kitchen Staff, Pete’s Delicatessen, (1981-1982)
 - Kitchen Staff, Delicatessen (name unknown), (1982)

9. Attach a copy of your resume.

CV sent

10. List any advisory, consultative, honorary, or other part-time service or positions with Federal, State, or local governments, other than those listed above after 18 years of age.

None

11. List all positions held as an officer, director, trustee, partner, proprietor, agent, representative, or consultant of any corporation, company, firm, partnership, or other business, enterprise, educational, or other institution.

Chair and Executive Committee (uncompensated) – Pacific Seabird Group

12. Please list each membership you have had after 18 years of age or currently hold with any civic, social, charitable, educational, political, professional, fraternal, benevolent or religiously affiliated organization, private club, or other membership organization. (For this question, you do not have to list your religious affiliation or membership in a religious house of worship or institution.). Include dates of membership and any positions you have held with any organization. Please note whether any such club or organization restricts membership on the basis of sex, race, color, religion, national origin, age, or disability.

- American Association for the Advancement of Science; 10+ years; member and fellow
- American Association of University Women; 10+ years; member
- American Cetacean Society; 10+ years; Life Member
- American Ornithological Society; 10+ years; member
- ARCS Foundation Oregon; 2019-present; member
- Association for Women in Science; 10+ years; member
- British Ornithologists' Union; 10+ years; Life Member
- Pacific Seabird Group; 10+ years; Chair and Executive Committee; Life Member
- Sigma Xi, The Scientific Research Honor Society; 10+ years; Member
- Society for Conservation Biology; 10+ years; Life Member
- Society for Marine Mammalogy; 10+ years; Life Member

13. Have you ever been a candidate for and/or held a public office (elected, non-elected, or appointed)? If so, indicate whether any campaign has any outstanding debt, the amount, and whether you are personally liable for that debt.

No

14. List all memberships and offices held with and services rendered to, whether compensated or not, any political party or election committee within the past ten years. If you have held a paid position or served in a formal or official advisory position (whether compensated or not) in a political campaign within the past ten years, identify the particulars of the campaign, including the candidate, year of the campaign, and your title and responsibilities.

None

15. Itemize all political contributions to any individual, campaign organization, political party, political action committee, or similar entity of \$200 or more for the past ten years.

No contributions over \$200

16. List all scholarships, fellowships, honorary degrees, honorary society memberships, military medals, and any other special recognition for outstanding service or achievements.

- Endowed Chair for Marine Mammal Research, Oregon State University (2020-present)
- Fellow, American Association for the Advancement of Science (2021)
- Fellow, American Ornithological Society (2021)
- Fellow, Public Voices: The OpEd Project (2021)
- Interviews with Marine Mammal Scientists, Society for Marine Mammalogy, Professional Development Program (2019)
- NOAA Fisheries Employee of the Year Award for Leadership (2019)
- NOAA Bronze Medal (2019)
- Fellow, National Conservation Leadership Institute (2018-2019)
- Historical Perspectives in Marine Mammal Science, Aquatic Mammals (2018)
- Cover Feature, Association for Women in Science (2013)
- Elective Member, American Ornithologists' Union (2013)
- NOAA Bronze Medal (2008)
- Project of the Year, Strategic Environmental Research and Development Program (2008)
- NOAA Fisheries Supervisor of the Year (2007)
- Department of Commerce Silver Medal (2003)
- Post-doctoral Fellow, National Research Council, The National Academies (1993-1996)
- Graduate Research Fellow, NOAA Fisheries (1988-1993)
- Taussig Traveling Fellowship, University of California Los Angeles (1991)
- Research Fellowship, University of California Los Angeles (1991)
- Josselyn Van Tyne Award, American Ornithologists' Union (1991)
- Integrative Biology Award, University of California Los Angeles (1991)
- Best Student Paper, Tenth Annual Reunion of the Marine Mammal Conferences of Mexico (1985)

17. List each book, article, column, letter to the editor, Internet blog posting, or other publication you have authored, individually or with others. Include a link to each publication when possible. If a link is not available, provide a digital copy of the publication when available.

Peer-Reviewed Journal Papers, Book/Encyclopedia Chapters, Book Reviews

Allen, C.D., S.J. Sawyer, L.E. Peavey Reeves, T. Eguchi, **L.T. Ballance**, R.L. Pitman, S.L. Martin, T.T. Jones, and J.A. Seminoff. *In Review*. Sex ratios of olive ridley sea turtles foraging in the high seas of the North Pacific establish baselines for climate change research. Marine Ecology Progress Series.

Ballance, L.T. *In Press*. Lessons from 40 years as a marine scientist: Advice to a young Lisa. Aquatic Mammals.

Jones, T., J.K. Parrish, P. MacCready, **L.T. Ballance**, D.W. Bradley, H.K. Burgess, J.E. Dolliver, J.T. Harvey, T. Joyce, K. Lindquist, J. Lindsey, H.M. Nevins, J. Roletto, L. Wilson, C. Wright. *In Press*. Assessing total mortality following

seabird wrecks given variable data quantity and quality: the Cassin's auklet die-off. Canadian Journal of Fisheries and Aquatic Sciences.

Kennerley, W.L., **L.T. Ballance**, R.A. Orben, L.G. Torres, & D.I. Solick. 2024. First Visual Record of a Hoary Bat (*Lasiurus cinereus*) over the Open Ocean. Journal of North American Bat Research Notes, 2, 1–5.
<https://www.eaglehill.us/NABRonline/access-pages/004-Solick-accesspage.shtml>

Ballance, L.T., R.L. Pitman, J. Barlow, T. Pusser, A.I. DeAngelis, C. Hayslip, L. Irvine, D. Steel, C.S. Baker, D. Gillies, S. Baumann-Pickering, J.S. Trickey, B. Gisborne. 2023. Acoustic recordings, biological observations, and genetic identification of a rare(?) beaked whale in the North Pacific: *Mesoplodon carlhubbsi*. Marine Mammal Science. DOI 10.1111/mms.13059

Foote, A.D., A. Alexander, **Ballance, L.T.**, R. Constantine, B. Galletti Vernazzani Muñoz, C. Guinet, K.M. Robertson, M.H.S. Sinding, M. Sironi, P. Tixier, J. Totterdell, J.R. Towers, R. Wellard, R.L. Pitman, and P.A. Morin. 2023. "Type D" killer whale genomes reveal long-term small population size and low genetic diversity. Journal of Heredity.
<https://doi.org/10.1093/jhered/esac070>

Russell, T.M., A.R. Szesciorka, T.W. Joyce, D.G. Ainley, and **L.T. Ballance**. 2023. National Marine Sanctuaries capture enhanced abundance and diversity of the California Current Ecosystem avifauna. Journal of Marine Systems.
<https://doi.org/10.1016/j.jmarsys.2023.103887>

Young, L.C., & **L.T. Ballance**. 2023. Ecology of Marine Birds. Pages 3-32 in: Conservation of Marine Birds, L.C. Young & E. VanderWerf (eds.). <https://doi.org/10.1016/B978-0-323-88539-3.00016-9>

Brownell, R.L., Jr., F.I. Archer, **L.T. Ballance**, T.A. Jefferson, J.G. Mead, S.L. Mesnick, R.R. Reeves, and B.L. Taylor. 2022. In Memorium: William F. Perrin 1938-2022. Marine Mammal Science DOI: 10.1111/mms.12996

Chen, B., Wu, C., **L.T. Ballance**, D. Fertl, H. Jiang, Y. Qiao, Z. Du, Y. Zhang, F. Yang, G. Yang, and R.L. Pitman. 2022. Cooperative feeding and foraging lateralization by Eden's whales off southern China. Marine Mammal Science. DOI:10.1111/mms.12974

DeAngelis, A.I., J. Barlow, D. Gillies, & **L.T. Ballance**. 2022. Echolocation depths and acoustic foraging behavior of Baird's beaked whales (*Berardius bairdii*) based on towed hydrophone recordings. Marine Mammal Science doi.org/10.1111/mms.12958

Lent, R., D.E. Squires, P.H. Dutton, and **L.T. Ballance**, eds. 2022. Multidisciplinary Approaches to Mitigating Fisheries Bycatch. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88976-043-5

Lent, R., D. Squires, **L.T. Ballance**, P. Dutton, and L. Dagorn. 2022. Editorial: Multidisciplinary approaches to mitigating fisheries bycatch. Frontiers in Marine Science 9:884885 doi 10.3389/fmars.2022.884885

Ballance, L.T., T. Gerrodette, C.E. Lennert-Cody, R.L. Pitman, and D. Squires. 2021. A history of the tuna-dolphin problem: successes, failures, and lessons learned. Frontiers in Marine Science 8:1-17. doi: 10-3389/fmars.2021.754755 <https://www.frontiersin.org/articles/10.3389/fmars.2021.754755>

Ballance, L.T. 2021. In praise of Newport. Viewpoint: Newport News Times 9/16/2021. (opinion piece)

Foote, A.D., R. Hooper, A. Alexander, R.W. Baird, C.S. Baker, **L. Ballance**, J. Barlow, A. Brownlow, T. Collins, R. Constantine, L. Dalla Rosa, N.J. Davison, J.W. Durban, R. Esteban, L. Excoffier, S.L. Fordyce Martin, K.A. Forney, T. Gerrodette, M.T.P. Gilbert, C. Guinet, M.B. Hanson, S. Li, M.D. Martin, K.M. Robertson, F.I.P. Samarra, R. de Stephanis, S.B. Tavares, P. Tixier, J.A. Totterdell, P. Wade, J.B.W. Wolf, G. Fan, Y. Zhang, and P.A. Morin. 2021. Runs of homozygosity in killer whale genomes provide a global record of demographic histories. Molecular Ecology <https://doi.org/10.1111/mec.16137>

Ford, R.G., S. Terrill, J. Casey, D. Shearwater, S.R. Schneider, **L.T. Ballance**, L. Terrill, M. Tollefson., and D.G. Ainley. 2021. Distribution patterns and population size of the Ashy Storm-Petrel *Hydrobates homochroa*. Marine Ornithology 49:193-204.

Leander, S.M., J.W. Durban, K. Danil, H. Fearnbach, T.W. Joyce, and **L.T. Ballance**. 2021. Sexually dimorphic measurements from stranded and bycaught specimens allow characterization of group composition in free ranging common dolphins (*Delphinus* spp.) from aerial images. Marine Mammal Science: 1-7. DOI: 10.1111/mms.12804

Squires, D., **L.T. Ballance**, P.H. Dutton, L. Dagorn, R. Lent. 2021. Mitigating bycatch: Novel insights to multidisciplinary approaches. Frontiers in Marine Science. doi.org/10.3389/fmars.2021.613285

Squires, D.E., R. Lent, P.H. Dutton, L. Dagorn, **L.T. Ballance**. 2021. Credit systems for bycatch and biodiversity conservation. Frontiers in Marine Science 8:613279. doi: 10.3389/fmars.2021.613279

Glennie, R., S.T. Buckland, R. Langrock, T. Gerrodette, **L.T. Ballance**, S.J. Chivers, and M.D. Scott. 2020. Incorporating animal movement into distance sampling. Journal of the American Statistical Association. DOI: 10.1080/01621459.2020.1764362

Ballance, L.T. 2020. Book Review - European Whales, Dolphins, and Porpoises: Marine Mammal Conservation in Practice. Quarterly Review of Biology 95:258.

Ballance, L.T. 2020. Sea change: Reflections on a career as a female marine mammal scientist. Whalewatcher. Journal of the American Cetacean Society 43(1):27-29.

Szesciorka, A.R., **L.T. Ballance**, A. Širović, A. Rice, M.D. Ohman, J.A. Hildebrand, and P.J.S. Franks. 2020. Timing is everything: Drivers of interannual variability in blue whale migration. Scientific Reports 10:7710; <https://doi.org/10.1038/s41598-020-64855-y>

Dunn, D., A-L. Harrison, C. Curtice, S. DeLand, B. Donnelly, E. Fujioka, E. Heywood, C. Kot, S. Poulin, M. Whitten, S. Åkesson, A. Alberini, W. Appeltans, P. Arcos, H. Bailey, **L.T. Ballance**, B. Block, H. Blondin, A. Boustany, J. Brenner, P. Catry, D. Cejudo, J. Cleary, P. Corkeron, D. Costa, M. Coyne, G. Ortuño Crespo, T. Davies, M. Dias, F. Douvere, F. Ferretti, A. Formia, D. Freestone, A. Friedlaender, H. Frisch-Nwakanma, C. Barrio Froján, K. Gjerde, L. Glowka, J. Gonzalez-Solis, B. Godley, J.P. Granadeiro, V. Gunn, Y. Hashimoto, L. Hawkes, G. Hays, C. Hazin, J. Jimenez, D. Johnson, P. Luschi, S. Maxwell, C. McClellan, M. Modest, G. Notarbartolo di Sciarra, D. Palacios, A. Herrero Palacio, A. Pauly, M. Rayner, A. Rees, E. Ross, D. Secor, A. Sequeira, M. Spalding, F. Spina, S. Van Parijs, N. Varo, M. Virtue, B. Wallace, H. Weimerskirch, L. Wilson, B. Woodward, P. Halpin. 2019. The importance of migratory connectivity for global ocean policy. Proceedings of the Royal Society B 286: 20191472 <https://doi.org/10.1098/rspb.2019.1472>

Foote, A.D., M.D. Martin, M. Louis, G. Pacheco, K.M. Robertson, M-H.S. Sinding, A.R. Amaral, R.W. Baird, C. S. Baker, **L. Ballance**, J. Barlow, A. Brownlow, T. Collins, R. Constantine, W. Dabin, L. Dalla Rosa, N.J. Davison, J.W. Durban, R. Esteban, S.H. Ferguson, T. Gerodette, C. Guinet, M.B. Hanson, W. Hoggard, C.J.D. Matthews, F.I.P. Samarra, R. de Stephanis, S.B. Tavares, P. Tixier, J.A. Totterdell, P. Wade, L. Excoffier, M.T. Gilbert, J.B.W. Wolf, P.A. Morin. 2019. Killer whale genomes reveal a complex history of recurrent admixture and vicariance. Molecular Ecology 28:3427-3444. DOI:10.1111/mec.15099

Mesnick S.L., **Ballance L.T.**, Wade P.R., Pryor K., Reeves R.R. 2019. Oceanic Dolphin Societies: Diversity, Complexity, and Conservation. In: Würsig B. (ed.) Ethology and Behavioral Ecology of Odontocetes. Ethology and Behavioral Ecology of Marine Mammals. Springer, Cham. https://doi.org/10.1007/978-3-030-16663-2_9

Pitman, R. L., **L. T. Ballance**, M. Sironi, J. Totterdell, J. R. Towers, and R. Wellard. 2019. Enigmatic megafauna: type D killer whale in the Southern Ocean. Ecology 00(00):e02871. 10.1002/ecy.2871

- Ballance, L.T.** 2018. Cetacean Ecology. Pages 172-180 *in*: Encyclopedia of Marine Mammals, Third Edition. B. Würsig, K. Kovacs, and J.G.M. Thewissen (eds.). Elsevier, San Diego.
- Ballance, L.T.** 2018. Contributions of photographs to cetacean science. *Aquatic Mammals* 44(6):668-682, DOI 10.1578/AM.44.6.2018.668
- Fiedler, P., J.V. Redfern, K.A. Forney, D.M. Palacios, C. Sheredy, K. Rasmussen, I. García-Godos, L. Santillán, M. Tetley, F. Félix, and **L.T. Ballance**. 2018. Prediction of large whale distributions: A comparison of presence-absence and presence-only modeling techniques. *Frontiers in Marine Science* DOI 10.3389/fmars.2018.00419
- Jones, T., J.K. Parrish, W.T. Peterson, E.P. Bjorkstedt, N.A. Bond, **L.T. Ballance**, V. Bowes, J.M. Hipfner, H. K. Burgess, J.E. Dolliver, K. Lindquist, J. Lindsey, H.M. Nevins, R.R. Robertson, J. Roletto, L. Wilson, T. Joyce, and J.T. Harvey. 2018. Massive mortality of a planktivorous seabird in response to a marine heatwave. *Geophysical Research Letters*. DOI 10.1002/2017GL076164
- Schlenger, A.J., S. Libralato, and **L.T. Ballance**. 2018. Temporal variability of primary production explains marine ecosystem structure and function. *Ecosystems*. <https://doi.org/10.1007/s10021-018-0272-y>
- Young, H., K. Nigro, D. McCauley, **L.T. Ballance**, E.M. Oleson, and S. Baumann-Pickering. 2017. Limited trophic partitioning among sympatric delphinids off a tropical oceanic atoll. *PLoS ONE* <https://doi.org/10.1371/journal.pone.0181526>
- Ruiz-Cooley, R.I., T. Gerrodette, P. Fiedler, S.J. Chivers, K. Danil, and **L.T. Ballance**. 2017. Temporal variation in pelagic food chain length in response to environmental change. *Science Advances* 3:e1701140 <http://advances.sciencemag.org/content/3/10/e1701140/tab-pdf>
- Ballance, L.T.** 2017. Book Review: Whales, Dolphins and Porpoises: A Natural History and Species Guide. A. Berta (ed.). *Quarterly Review of Biology* 92:113-114.
- Joyce, T.W., J.W. Durban, D.E. Claridge, C.A. Dunn, H. Fearnbach, K.M. Parsons, R.D. Andrews, and **L.T. Ballance**. 2017. Physiological, morphological, and ecological tradeoffs influence vertical habitat use of deep-diving toothed-whales in the Bahamas. *PLoS ONE* 12(10):e0185113: <https://doi.org/10.1371/journal.pone.0185113>
- Redfern, J.V., T.J. Moore, P.C. Fiedler, A. deVos, R.L. Brownell, Jr., K.A. Forney, E.A. Becker, and **L.T. Ballance**. 2017. Predicting cetacean distributions in data-poor marine ecosystems. *Diversity and Distributions* 1-15. DOI: 10.1111/ddi.12537
- Trejo Albarrán, X., L. Medrano González, J. Urbán Ramírez, **L. Ballance**. 2017. Los mamíferos marinos del archipiélago de Revillagigedo. *Ecológica* 209. <http://www.jornada.unam.mx/2016/11/28/eco-e.html>
- Hetherington, E.D., R.J. Olson, J.C. Drazen, C.E. Lennert-Cody, **L.T. Ballance**, R.S. Kaufmann, and B.N. Popp. 2016. Spatial food-web structure in the eastern tropical Pacific Ocean based on compound-specific nitrogen isotope analysis of amino acids. *Limnology and Oceanography* doi:10.1002/lno.10443
- Joyce, T.W., J.W. Durban, H. Fearnbach, D. Claridge, and **L.T. Ballance**. 2016. Use of time-at-temperature data to describe dive behavior in five species of sympatric deep-diving toothed whales. *Marine Mammal Science* DOI:10.1111/mms.12323
- Martin, S.L., **L.T. Ballance**, and T. Grooves. 2016. An ecosystem services perspective for the oceanic eastern tropical Pacific: commercial fisheries, carbon storage, recreational fishing, and biodiversity. *Frontiers in Marine Science* doi: 10.3389/fmars.2016.00050 | <http://dx.doi.org/10.3389/fmars.2016.00050>

Squires, D., **L.T. Ballance**, R. Deriso, J. Ianelli, M. Maunder, K. Schaefer. 2015. Comment on 'Scope and compatibility of measures in international fisheries agreements' by Finus and Schneider. Oxford Economic Papers doi: 10.1093/oep/gpv041

Lyday, S.E., **L.T. Ballance**, D.B. Field, and K.D. Hyrenbach. 2015. Shearwaters as ecosystem indicators: towards fishery-independent metrics of fish abundance in the California Current. Journal of Marine Systems 146:109-120.

Pitman, R.L., J.A. Totterdell, H. Fearnbach, **L.T. Ballance**, J.W. Durban, and H. Kemps. 2014. Whale killers: Prevalence and ecological implications of killer whale predation on humpback whale calves off Western Australia. Marine Mammal Science DOI: 10.1111/mms.12182

Priddel, D., N. Carlile, D. Portelli, Y. Kim, L. O'Neill, V. Bretagnolle, **L.T. Ballance**, R.A. Phillips, R.L. Pitman, M.J. Rayner. 2014. Pelagic distribution of Gould's Petrel *Pterodroma leucoptera*: linking shipboard and beached bird sightings with remote tracking data. Emu 114:360-370.

Fiedler, P.C., J.V. Redfern, J. Van Noord, C. Hall, R. Pitman, and **L.T. Ballance**. 2013. Effects of a tropical cyclone on a pelagic ecosystem from the physical environment to top predators. Marine Ecology Progress Series 484:1-16.

Guy, T.J., S.L. Jennings, R.M. Suryan, E.F. Melvin, M.A. Bellman, **L.T. Ballance**, B.A. Blackie, D.A. Croll, T. Deguchi, T.O. Geernaert, R.W. Henry, M. Hester, K.D. Hyrenbach, J. Jahncke, M.A. Kappes, K. Ozaki, J. Roletto, F. Sato, W.J. Sydeman, J.E. Zamon. 2013. Overlap of North Pacific albatrosses with the U.S. west coast groundfish and shrimp fisheries. Fisheries Research 147:222-234.

Jefferson, T.A., C.R. Weir, R.C. Anderson, **L.T. Ballance**, R.D. Kenney, and J.J. Kiszka. 2013. Global patterns of Risso's dolphin (*Grampus griseus*) distribution: a review and critical evaluation. Mammal Review. doi:10.1111/mam.12008

Ruiz-Cooley, R.I., **L.T. Ballance**, and M.D. McCarthy. 2013. Range expansion of the jumbo squid in the NE Pacific: $\delta^{15}\text{N}$ decrypts multiple origins, migration and habitat use. PLoS ONE 8(3):e59651. doi:10.1371/journal.pone.0059651.

Staaf, D.J., J.V. Redfern, W.F. Gilly, W. Watson, and **L.T. Ballance**. 2013. Distribution of ommastrephid paralarvae in the eastern tropical Pacific. Fishery Bulletin 111:78-89.

Pitman, R.L., **L.T. Ballance**, and C.A. Bost. 2012. Incidence of wing deformities ('Angel Wing') among Masked Boobies at Clipperton Island: life history consequences and insight into etiology. The Wilson Journal of Ornithology 124(3):597-602.

Forney, K.A., M.C. Ferguson, E.A. Becker, P.C. Fiedler, J.V. Redfern, J. Barlow, L.I. Vilchis, and **L.T. Ballance**. 2012. Habitat-based spatial models of cetacean density in the eastern Pacific Ocean. Endangered Species Research 16:113-133.

Nur, N., J. Jahncke, M.P. Herzog, J. Howar, K.D. Hyrenbach, J.E. Zamon, D.G. Ainley, J.A. Wiens, K. Morgan, **L.T. Ballance**, and D. Stralberg. 2011. Where the wild things are: predicting hotspots of seabird aggregations in the California Current System. Ecological Applications 21(6):2241-2257.

Ballance, L.T. and T. Whitty. 2010. Review of "Ecosystem-Based Management for the Oceans" Restoration Ecology 18(5):780-781.

Olson, R.J., B.N. Popp, B.S. Graham, G.A. López-Ibarra, R. Galván-Magaña, C.E. Lennert-Cody, N. Bocanegra-Castillo, N.J. Wallsgrove, E. Gier, B. Alatorre-Ramírez, **L.T. Ballance**, and B. Fry. 2010. Food web inferences of stable isotope spatial patterns in copepods and yellowfin tuna in the pelagic eastern Pacific Ocean. Progress in Oceanography 86:124-138.

Ballance, L.T. 2009. Cetacean Ecology. Pages 196-201 *in*: Encyclopedia of Marine Mammals, Second Edition. W.F. Perrin, B. Würsig and J.G.M. Thewissen (eds.). Elsevier, San Diego.

Ballance, L.T., D.G. Ainley, G. Ballard, and K. Barton. 2009. An energetic correlate between colony size and foraging effort in seabirds, an example of the Adélie penguin *Pygoscelis adeliae*. *Journal of Avian Biology* 40:279-288.

Force, M.P. and **L.T. Ballance**. 2009. A Pink-footed Shearwater in Hawai'i. *'Elepaio* 69(6):39-40.

Force, M.P., J.M. Cotton, R.A. Rowlett, and **L.T. Ballance**. 2009. First records of Chatham Island Petrel *Pterodroma axillaris* in the eastern Pacific Ocean. *Marine Ornithology* 37:269-271.

Weimerskirch, H. M. Le Corre, C.A. Bost, **L.T. Ballance**, and R.L. Pitman. 2009. L'avifaune et l'écologie des oiseaux marin. Pages 381-392 in: Clipperton, environnement et biodiversité d'un microcosme océanique. L. Charpy (ed.). Patrimones Naturels 68. MNHN, Paris; IRD, Marseille.

Vilchis, L.I., **L.T. Ballance**, and W. Watson. 2009. Temporal variability of neustonic ichthyoplankton assemblages of the eastern Pacific warm pool: Can community structure be linked to climate variability? *Deep-Sea Research I* 56:125-140.

Andrews, R.D., R.L. Pitman and **L.T. Ballance**. 2008. Satellite tracking reveals distinct movement patterns for Type B and Type C killer whales in the southern Ross Sea, Antarctica. *Polar Biology* 31:1461-1468.

Pagen, R., P. Pyle, and **L.T. Ballance**. 2008. A *Fregatta* storm-petrel off Mexico. *Western Birds* 39:225-227.

Redfern, J.V., J. Barlow, **L.T. Ballance**, T. Gerrodette, and E.A. Becker. 2008. Absence of scale dependence in dolphin-habitat models for the eastern tropical Pacific ocean. *Marine Ecology Progress Series* 363:1-14.

Ballance, L.T. 2007. Understanding seabirds at sea: why and how? *Marine Ornithology* 35:127-135.

Ballance, L.T. 2007. Storm-Petrels of the Eastern Pacific Ocean: Species Assembly and Diversity along Marine Habitat Gradients. (Review) *Ibis* 149:871.

Pitman, R., Fearnbach, H., LeDuc, R., Gilpatrick, J.W., Ford, J.K.B. and **Ballance, L.T.** 2007. Killer whales preying on a blue whale calf on the Costa Rica Dome: genetics, morphometrics, vocalizations and composition of the group. *Journal of Cetacean Research and Management* 9(2): 151-158.

Ballance, L.T., R.L. Pitman, R. Hewitt, D. Siniff, W. Trivelpiece, P. Clapham, and R.L. Brownell, Jr. 2006. The removal of large whales from the Southern Ocean. Evidence for long-term ecosystem effects? Pages 215-230 *in*: Whales, whaling, and ocean ecosystems. J.A. Estes, D.P. DeMaster, D.F. Doak, T.M. Williams, and R.L. Brownell, Jr. (eds.). University of California Press, Berkeley, CA.

Ballance, L.T., R.L. Pitman, and P.C. Fiedler. 2006. Oceanographic influences on seabirds and cetaceans of the eastern tropical Pacific: a review. *Progress in Oceanography* 69:360-390.

Barlow, J. M. Ferguson, W.F. Perrin, **L.T. Ballance**, T. Gerrodette, G. Joyce, C. D. MacLeod, K. Mullin, D.L. Palka, and G. Waring. 2006. Abundance and density of beaked and bottlenose whales (Family Ziphiidae). *Journal of Cetacean Research and Management* 7(3):263-270.

Brooke, M.D.L., **L.T. Ballance**, R.L. Pitman, and R.W. Furness. 2006. Fishery impacts on the food supplies of seabirds. *Acta Zoologica Sinica* 52 (Supplement):639-640.

Lavín, M.F., P.C. Fiedler, J.A. Amador, **L.T. Ballance**, J. Färber-Lorda, and A.M. Mestas-Nuñez. 2006. A review of eastern tropical Pacific oceanography: summary. *Progress in Oceanography* 69:391-398.

MacLeod, C., W.F. Perrin, R.L. Pitman, J. Barlow, **L.T. Ballance**, A. D'Amico, T. Gerrodette, G. Joyce, K.D. Mullin, D.L. Palka, and G.T. Waring. 2006. Known and inferred distributions of beaked whale species (Cetacea: Ziphiidae). *Journal of Cetacean Research and Management* 7(3):271-286.

Pyle, P., G. Friedrichsen, T. Staudt, C. Oedekoven, and **L.T. Ballance**. 2006. First record of Ringed Storm-Petrel (*Oceanodroma hornbyi*) for North America. *North American Birds* 60(1):162-163.

Redfern, J.V., M.C. Ferguson, E.A. Becker, K.D. Hyrenbach, C. Good, J. Barlow, K. Kaschner, M. Baumgartner, K.A. Forney, **L.T. Ballance**, P. Fauchald, P. Halpin, T. Hamazaki, A.J. Pershing, S. Qian, A. Read, S. Reilly, L. Torres, and C. Werner. 2006. Techniques for cetacean-habitat modeling. *Marine Ecology Progress Series* 310:271-295.

Vilchis, L.I., **L.T. Ballance**, and P.C. Fiedler. 2006. Pelagic habitat of seabirds in the eastern tropical Pacific: effects of foraging ecology on habitat selection. *Marine Ecology Progress Series* 315:279-292.

Borberg, J.M., **L.T. Ballance**, R.L. Pitman, and D.G. Ainley. 2005. A test for bias attributable to seabird avoidance of ships during surveys conducted in the tropical Pacific. *Marine Ornithology* 33:173-179.

Karnovsky, N.J., L.B. Spear, H.R. Carter, D.G. Ainley, K.D. Amey, **L.T. Ballance**, K.T. Briggs, R.G. Ford, G.L. Hunt, Jr., C. Keiper, J.W. Mason, K.H. Morgan, R.L. Pitman and C.T. Tynan. 2005. At-sea distribution, abundance and habitat affinities of Xantus's Murrelets. *Marine Ornithology* 33:89-104.

Pitman, R.L., **L.T. Ballance**, and C. Bost. 2005. Clipperton Island: Pig sty, rat hole and booby prize. *Marine Ornithology* 33:193-194.

Ford, R.G., D.G. Ainley, J.L. Casey, C.A. Keiper, L.B. Spear, and **L.T. Ballance**. 2004. The biogeographic patterns of seabirds in the central portion of the California Current. *Marine Ornithology* 32:77-96.

Ballance, L.T. 2002. Cetacean Ecology. Pages 208-214 *in*: Encyclopedia of Marine Mammals. W.F. Perrin, B. Würsig and J.G.M. Thewissen (eds.). Academic Press, San Diego.

Ballance, L.T. 2002. Review of Cormorant harassment to protect juvenile salmonids in Tillamook County, Oregon. *Marine Ornithology* 30:54.

Pitman, R.L. and **L.T. Ballance**. 2002. The changing status of marine birds breeding at San Benedicto Island, Mexico. *Wilson Bulletin* 114(1):11-19.

Ballance, L.T., R.C. Anderson, R.L. Pitman, K. Stafford, A. Shaan, Z. Waheed, and R.L. Brownell, Jr. 2001. Cetacean sightings around the Republic of the Maldives, April 1998. *Journal of Cetacean Research and Management* 3(2):213-218. <http://digitalcommons.unl.edu/usdeptcommercepub/97>

Ballance L.T., D.G. Ainley and G.L. Hunt, Jr. 2001. Seabird Foraging Ecology. Pages 2636-2644 *in*: J.H. Steele, S.A. Thorpe and K.K. Turekian (eds.) Encyclopedia of Ocean Sciences, vol. 5. Academic Press, London.

Pitman, R.L., **L.T. Ballance**, S. L. Mesnick, and S. J. Chivers. 2001. Killer whale predation on sperm whales: observations and implications. *Marine Mammal Science* 17(3):494-507.

Spear, L.B., **L.T. Ballance**, and D.G. Ainley. 2001. Response of seabirds to thermal boundaries in the tropical Pacific: the thermocline versus the Equatorial Front. *Marine Ecology Progress Series* 219:275-289.

Ballance, L.T. and R.L. Pitman. 1999. Foraging ecology of tropical seabirds. Proceedings of the 22nd International Ornithological Congress, Durban:2057-2071. Adams, N. and R. Slotow (eds.). Johannesburg: BirdLife South Africa.

Hertel, F. and **L.T. Ballance**. 1999. Wing ecomorphology of seabirds from Johnston Atoll. *Condor* 101:549-556.

Ballance, L.T. and R.L. Pitman. 1998. Cetaceans of the western tropical Indian Ocean: distribution, relative abundance, and comparisons with cetacean communities of two other tropical ecosystems. *Marine Mammal Science* 14(3):429-459.

Ballance, L.T., R.L. Pitman and S.B. Reilly. 1997. Seabird community structure along a productivity gradient: importance of competition and energetic constraint. *Ecology* 78:1502-1518.

Ballance, L.T. 1995. Flight energetics of free-ranging Red-footed Boobies, *Sula sula*. *Physiological Zoology*. 68:887-914.

Ballance, L.T. 1992. Ranges and habitat utilization patterns of the bottlenose dolphin, *Tursiops truncatus*, in the Gulf of California, Mexico. *Marine Mammal Science* 8:262-274.

Pitman, R.L. and **L.T. Ballance**. 1992. Parkinson's Petrel distribution and foraging ecology in the eastern tropical Pacific: aspects of an exclusive feeding relationship with dolphins. *Condor* 94:824-834.

Ballance, L.T. 1990. Residence patterns, group organization, and surfacing associations of bottlenose dolphins in Kino Bay, Gulf of California, Mexico. Pages 267-283. *In*: The bottlenose dolphin. Leatherwood, S. and R.R. Reeves (eds.). Academic Press.

Pitman, R.L. and **L.T. Ballance**. 1990. Daytime feeding by Leach's Storm-Petrel on a midwater fish, *Vinciguerria lucetia*, in the eastern tropical Pacific. *Condor* 92:524-527.

Croll, D.A., **L.T. Ballance**, B.G. Würsig, and W.B. Tyler. 1986. Movements and daily activity patterns of a Brown Pelican in central California. *Condor* 88:258-260.

Technical Reports and Theses

Schneider, Stephanie R., Eli Wallach, Charles Chamberlin, Sophie B. Bernstein, Sadie Trush, David G. Ainley, Scott B. Terrill, Sharon H. Kramer, R. Glenn Ford, Janet Casey, Jarrod A. Santora, **Lisa Ballance**, and Arne Jacobson. 2024. Seabirds in 3D: A Framework to Evaluate Collision Vulnerability with Future Offshore Wind Developments. Interim Project Task Report prepared for the California Energy Commission.

Leirness, J.B., J. Adams, **L.T. Ballance**, M. Coyne, J.J. Felis, T. Joyce, D.M. Pereksta, A.J. Winship, C.F.G. Jeffrey, D. Ainley, D. Croll, J. Evenson, J. Jahncke, W. McIver, P.I. Miller, S. Pearson, C. Strong, W. Sydeman, J.E. Waddell, J.E. Zamon, and J. Christensen. 2021. Modeling at-sea density of marine birds to support renewable energy planning on the Pacific Outer Continental Shelf of the contiguous United States. Camarillo (CA): US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2021-014. 385 p.

Henry A.E., J.E. Moore, J. Barlow, J. Calambokidis, **L.T. Ballance**, L. Rojas-Bracho, and J. Urbán Ramírez. 2020. Report on the California Current Ecosystem Survey (CCES): Cetacean and Seabird Data Collection Efforts, June 26 – December 4, 2018. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-SWFSC-636.

Ballance, L. T., Benaka, L. R., Ellgen, S. U., Fitzgerald, S. M., Henry, A. E., Kim, M. A., Nathanson, S. L., and Joyce, T. W. 2019. National Seabird Program Five-Year Strategic Plan: 2020-2024. NOAA Technical Memorandum NMFS-F/SPO-202, 190 p. <https://spo.nmfs.noaa.gov/sites/default/files/TM202.pdf>

Rogers, A., O. Aburto-Oropeza, W. Appeltans, J. Assis, **L.T. Ballance**, P. Cury, C. Duarte, F. Favoretto, J. Kumagai, C. Lovelock, P. Miloslavich, A. Niamir, D. Obura, B.C. O'Leary, G. Reygondeau, C. Roberts, Y. Sadovy, T. Sutton, D. Tittensor, and E. Velarde. 2020. Critical Habitats and Biodiversity: Inventory, Thresholds and Governance. Washington, DC: World Resources Institute.

Ballance, L.T., L.R. Benaka, S.U. Ellgen, S.M. Fitzgerald, A.E. Henry, M.A. Kim, S.L. Nathanson, and T.W. Joyce. 2019. Report of the 2018 Meeting of NOAA Fisheries' National Seabird Program. NOAA Technical Memorandum NMFS-F/SPO-193.

Scott, M.D., C.E. Lennert-Cody, T. Gerrodette, S.J. Chivers, K. Danil, A.A. Hohn, L.M. Duffy, R.J. Olson, H.J. Skaug, C.V. Mente-Vera, P.C. Fiedler, **L.T. Ballance**, K.A. Forney, J. Hofmeister, M.C. Ferguson, J. Barlow. 2018. Data available for assessing dolphin population status in the eastern tropical Pacific Ocean. IATTC Special Report 23:30.

Yano, K.M., E.M. Oleson, J.L. Keating, **L.T. Ballance**, M.C. Hill, A.L. Bradford, A.N. Allen, T.W. Joyce, J.E. Moore, and A. Henry. 2018. Cetacean and seabird data collected during the Hawaiian Islands Cetacean and Ecosystem Assessment Survey (HICEAS), July–December 2017. NOAA Tech. Memo. NMFS-PIFSC-72, 110p. <https://doi.org/10.25923/7avn-gw82>

Ballance, L.T., M. Srinivasan, A. Henry, R. Angliss, L. Barre, J. Barlow, J. Bengtson, S. Bettridge, J. Bohnsack, S. Brown, P. Clapham, C. Fahy, M. Ford, L. Garrison, T. Gerrodette, N. LeBoeuf, J. Moore, E. Oleson, D. Palka, F. Parrish, J. Redfern, M. Simpkins, B. Taylor, P. Wade. 2017. A strategic plan for conducting large geographic scale, ship-based surveys to support the U.S. Marine Mammal Protection and Endangered Species Acts. NOAA Technical Memorandum NMFS-F/SPO-169. <http://spo.nmfs.noaa.gov/content/tech-memo/strategic-plan-conducting-large-geographic-scale-ship-based-surveys-support-us>

Fiedler, P. C., J. V. Redfern, and **L. T. Ballance**. 2017. Oceanography and cetaceans of the Costa Rica Dome Region. NOAA Technical Memorandum NMFS-SWFSC-590. U.S. Department of Commerce, National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla, CA.

Menza, C., J. Leirness, T. White, A. Winship, B. Kinlan, L. Kracker, J.E. Zamon, **L. Ballance**, E. Becker, K.A. Forney, J. Barlow, J. Adams, D. Pereksta, S. Pearson, J. Pierce, S. Jeffries, J. Calambokidis, A. Douglas, B. Hanson, S.R. Benson and L. Antrim. 2016. Predictive mapping of seabirds, pinnipeds and cetaceans off the Pacific Coast of Washington. NOAA Technical Memorandum NOS NCCOS 210. Silver Spring, MD. 96 pp. doi:10.7289/V5NV9G7Z.

Ballance, L.T., Barre, Bengtson, Bettridge, Bisack, Brown, Fahy, Ford, Garrison, LeBoeuf, R. LeRoux, Parrish, Seney, Simpkins, Srinivasan, VanAtta, Vardi. 2014. NOAA's National Marine Fisheries Service Protected Resources Science Investment and Planning Process (PRSIPP): highlights and significant outcomes of the September 2013 steering committee meeting. NOAA Technical Memorandum NMFS-F/SPO-140.

Rivera K. S., **L. T. Ballance**, L. Benaka, E. R. Breuer, S. G. Brooke, S. M. Fitzgerald, P. L. Hoffman, N. LeBoeuf, and G.T. Waring. 2014. Report of the National Marine Fisheries Service's National Seabird Workshop: Building a National Plan to Improve the State of Knowledge and Reduce Commercial Fisheries Impacts on Seabirds. September 9–11, 2009, Alaska Fisheries Science Center, Seattle, WA. U.S. Dept. of Commer., NOAA. NOAA Technical Memorandum NMFS-F/SPO-139, 78 p.

Barlow, J., **L.T. Ballance**, and K.A. Forney. 2011. Effective strip widths for ship-based line-transect surveys of cetaceans. NOAA Technical Memorandum NMFS-SWFSC-484.

Barlow, J., A. Henry, J.V. Redfern, T. Yack, A. Jackson, C. Hall, E. Archer, and **L.T. Ballance**. 2010. Oregon, California and Washington Line-Transect and Ecosystem (ORCAWALE) 2008 Cruise Report. NOAA Technical Memorandum NMFS-SWFSC-465.

Chivers, S.J., W.L. Perryman, N.M. Kellar, J.V. Carretta, F.I. Archer, J.V. Redfern, A.E. Henry, M.S. Lynn, C. Hall, A. Jackson, G. Serra-Valente, T.J. Moore, C. Surrey-Marsden, and **L.T. Ballance**. 2010. Ecosystem survey of *Delphinus* species cruise report. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-464.

Barlow, J., M.C. Ferguson, E.A. Becker, J.V. Redfern, K.A. Forney, I.L. Vilchis, P.C. Fiedler, T. Gerrodette, and **L.T. Ballance**. 2009. Predictive modeling of cetacean densities in the eastern Pacific Ocean. NOAA Technical Memorandum NMFS-SWFSC-444.

Hamilton, T.A., J.V. Redfern, J. Barlow, **L.T. Ballance**, T. Gerrodette, R.S. Holt, K.A. Forney, and B.L. Taylor. 2009. Atlas of cetacean sightings from Southwest Fisheries Science Center Cetacean and Ecosystem surveys: 1986-2005. NOAA Technical Memorandum NMFS-SWFSC-440.

Archer, F.I., A.E. Henry, and **L.T. Ballance**. 2008. *Stenella* abundance research line transect and ecosystem (STAR-LITE) 2007 cruise report. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-433.

Ballance, L.T., P. Fiedler, and G. Watters. 2008. Eastern tropical Pacific. Pages 85-91 *in*: Climate impacts on U.S. living marine resources: National Marine Fisheries Service concerns, activities and needs. K.E. Osgood (ed.). NOAA Technical Memorandum NMFS-F/SPO-89.

Gerrodette, T., G. Watters, W. Perryman, and **L. Ballance**. 2008. Estimates of 2006 dolphin abundance in the eastern tropical Pacific, with revised estimates from 1986-2003. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-422.

Hall, C., K.W. Roberts, S.M. Finney, W.P. Mowitt, D. Gothan, and **L.T. Ballance**. 2008. Report of a hydrographic survey of the Clipperton Ridge conducted aboard the DAVID STARR JORDAN during the *Stenella* Abundance Research Cruise 2006. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-419.

Rankin, S., J. Barlow, J. Oswald, and **L. Ballance**. 2008. Acoustic studies of marine mammals during seven years of combined visual and acoustic line-transect surveys for cetaceans in the eastern and central Pacific Ocean. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-429.

Charter, S.R., B.S. MacCall, R.L. Charter, S.M. Manion, W. Watson, and **L. Ballance**. 2006. Ichthyoplankton, paralarval cephalopod, and station data for oblique (bongo) plankton net tows from the Oregon, California, and Washington line-transect expedition (ORCAWALE) in 2001. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-393.

Reilly, S. B., M. A. Donahue, T. Gerrodette, K. Forney, P. Wade, **L. Ballance**, J. Forcada, P. Fiedler, A. Dizon, W. Perryman, F. A. Archer, and E. F. Edwards. 2005. Report of the scientific research program under the International Dolphin Conservation Program Act. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-372.

Reilly, S. B., M. A. Donahue, T. Gerrodette, P. Wade, **L. Ballance**, P. Fiedler, A. Dizon, W. Perryman, F. A. Archer, and E. F. Edwards. 2005. Preliminary report to Congress under the International Dolphin Conservation Act of 1997. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-371.

Vilchis, L.I. and **L.T. Ballance**. 2005. A complete listing of expeditions and data collected for the EASTROPAC cruises in the eastern tropical Pacific, 1967-1968. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-SWFSC-374.

Vilchis, L.I. and **L.T. Ballance**. 2005. Developing indices of cetacean prey from manta and bongo net tows conducted in the northeastern and eastern tropical Pacific between 1987 and 2003. U.S. Department of Commerce, NOAA Administrative Report LJ-05-012.

Philbrick, V. A., P. C. Fiedler, **L. T. Ballance**, and D. A. Demer. 2003. Report of ecosystem studies conducted during the 2001 Oregon, California, and Washington (ORCAWALE) marine mammal survey on the research vessels David Starr Jordan and McArthur. U.S. Department of Commerce. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-349.

Ballance, L.T., P.C. Fiedler, T. Gerrodette, R.L. Pitman and S.B. Reilly. 2002. An overview of eastern tropical Pacific ecosystems studies within the context of International Dolphin Conservation Program Act research. Administrative Report No. LJ-02-14, NOAA Fisheries, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

Ballance, L.T., R.L. Pitman, L.B. Spear and P.C. Fiedler. 2002. Investigations into temporal patterns in distribution, abundance and habitat relationships within seabird communities of the eastern tropical Pacific. Administrative Report No. LJ-02-17, NOAA Fisheries, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

Pitman, R.L., **L.T. Ballance**, and P.C. Fiedler. 2002. Temporal patterns in distribution and habitat associations of prey fishes and squids. Administrative Report No. LJ-02-19, NOAA Fisheries, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

Reilly, S. B., **L. T. Ballance**, P. C. Fiedler, T. Gerrodette, R. L. Pitman, H. G. Moser, L. B. Spear, and J. M. Borberg. 2002. Recent information to aid in detecting regime shifts in the eastern tropical Pacific Ocean. SWFSC Admin. Rep., La Jolla, LJ-02-22, 21 p.

Reilly, S. B., P. C. Fiedler, T. Gerrodette, **L. T. Ballance**, R. L. Pitman, J. M. Borberg, and R. C. Holland. 2002. Eastern tropical Pacific dolphin habitats - Interannual variability 1986-2000. SWFSC Admin. Rep., La Jolla, LJ-02-21, 44 p.

Olson, P.A., R.L. Pitman, **L.T. Ballance**, K.R. Hough, P.H. Dutton, and S.B. Reilly. 2001. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific Ocean, July 28-December 9, 2000. U.S. Department of Commerce. NOAA Technical Memorandum. NOAA-NMFS-SWFSC-304.

Olson, P.A., R.L. Pitman, **L.T. Ballance**, K.R. Hough, P. Dutton, and S.B. Reilly. 2001. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific Ocean, July 28-December 9, 1999. U.S. Department of Commerce. NOAA Technical Memorandum. NOAA-NMFS-SWFSC-301.

Olson, P.A., R.L. Pitman, **L.T. Ballance** and S.B. Reilly. 2000. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific ocean July 30 - December 9, 1998. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFSC-298.

Ballance, L.T., R.C. Anderson, R.L. Pitman, K. Stafford, A. Shaan, Z. Waheed, and R.L. Brownell, Jr. 1999. Cetacean sightings around the Republic of the Maldives, April 1998. Report SC/51/O14 presented to the Scientific Committee for the 48th Annual Meeting of the International Whaling Commission. 11 pp.

Ballance, L.T., R.L. Pitman, S.B. Reilly and P.C. Fiedler. 1997. Habitat relationships of cetaceans in the western tropical Indian Ocean. Report SC/49/O23 presented to the Scientific Committee for the 47th Annual Meeting of the International Whaling Commission. 16 pp.

Ballance, L.T., R.L. Pitman and S.B. Reilly. 1996. Cetacean observations in the western tropical Indian Ocean, March - July 1995. Report SC/48/O8 presented to the Scientific Committee for the 46th Annual Meeting of the International Whaling Commission. 24 pp.

Ballance, L.T., R.L. Pitman, S.B. Reilly and M.P. Force. 1996. Report of a cetacean, seabird marine turtle and flyingfish survey of the western tropical Indian Ocean aboard the research vessel *Malcolm Baldrige* March 21 - July 26, 1995. NOAA Technical Memorandum NMFS. NOAA-TM-NMFS-SWFSC-224.

Force, M.P., R.L. Pitman and **L.T. Ballance**. 1996. Seabirds around the Seychelles. Birdwatch, news and views from the Seychelles Bird Group 17:3-7.

Pitman, R.L. and **L.T. Ballance**. 1994. Incidental Sightings of Cetaceans in the Chilean Fjords During March 1994. Report SC/46/0194 presented to the Scientific Committee for the 44th Annual Meeting of the International Whaling Commission. 4 pp.

Ballance, L.T. 1993. Community ecology and flight energetics in tropical seabirds of the eastern Pacific: energetic correlates of guild structure. Ph.D. Dissertation. University of California Los Angeles.

Philbrick, V.A., P.C. Fiedler, S.B. Reilly, R.L. Pitman and **L.T. Ballance**. 1993. Report of ecosystem studies conducted during the 1992 eastern tropical Pacific common dolphin survey on the research vessels *David Starr Jordan* and *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-180.

Philbrick, V.A., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, G.G. Thomas and D.W. Behringer. 1991. Report of ecosystem studies conducted during the 1990 eastern tropical Pacific dolphin survey on the research vessel *David Starr Jordan*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-160.

Philbrick, V.A., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance** and D.W. Behringer. 1991. Report of ecosystem studies conducted during the 1990 eastern tropical Pacific dolphin survey on the research vessel *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-161.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, S.C. Beavers, G.G. Thomas and D.W. Behringer. 1990. Report of ecosystem studies conducted during the 1989 eastern tropical Pacific dolphin survey on the research vessel *David Starr Jordan*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-139.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, S.C. Beavers and D.W. Behringer. 1990. Report of ecosystem studies conducted during the 1989 eastern tropical Pacific dolphin survey on the research vessel *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-140.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, G.G. Thomas and D.W. Behringer. 1989. Report of ecosystem studies conducted during the 1988 eastern tropical Pacific dolphin survey on the research vessel *David Starr Jordan*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-131.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance** and D.W. Behringer. 1989. Report of ecosystem studies conducted during the 1988 eastern tropical Pacific dolphin survey on the research vessel *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-132.

Ballance, L.T. 1987. Ecology and behavior of the bottlenose dolphin, *Tursiops truncatus*, in the Gulf of California, Mexico. M.S. Thesis. Moss Landing Marine Laboratories, Moss Landing CA.

18. List all speeches, panel discussions, and presentations (e.g., PowerPoint) that you have given on topics relevant to the position for which you have been nominated. Include a link to each publication when possible. If a link is not available, provide a digital copy of the speech or presentation when available.

Digital copy included unless otherwise noted

Marine Mammals and Seabirds in the Context of Offshore Wind Energy – Rotary Club of Newport, OR (2024)

The Marine Mammal Institute of Oregon State University: Who we are, what we do, and why it matters –
Philanthropic Educational Organization of Oregon (2024)

The power of philanthropy: pennies to dollars make a difference for marine mammals and ocean ecosystems –
Keynote Faculty Speaker, College of Agricultural Sciences Dean's dinner, Oregon State University (2023) – no visual presentation

Cetaceans as catalysts for ocean protection – and a new paradigm – Plenary Speaker, Blue Corridors Summit,
World Wildlife Fund (2023)

"The Tuna-Dolphin Problem": Successes, Failures, and Lessons Learned in Mitigating Dolphin Bycatch Associated with the Multinational Yellowfin Tuna Purse Seine Fishery – International workshop on incentive-based approaches to reduce dolphin bycatch, IFREMER, France (2023)

A mystery whale uncovered off Oregon: Local research, global impact

- Road Scholar (2024)
- Oregon's Whale Watching Spoken Here (2023)
- Eugene (Oregon) Natural History Society (2023)
- Keynote Speaker, Hatfield Marine Science Day, Oregon State University (2022)
- Oregon Wild (2022)

Fact or Fiction? Dolphins and whales once had legs and lived on land - Oregon Museum of Science and Industry
"After Dark" (2022)

Finding Type D killer whale – Annual Meeting of Whale Tales (2022) – digital presentation unavailable

Marine Mammals: 'Gee whiz' science, conservation challenges, and lessons learned towards healthy marine ecosystems.

- Academy for Lifelong Learning, Oregon (2022)
- Science is the Solution, ARCS Foundation Oregon (2020)

Origin & Evolution of Cetaceans – Origins, Oregon (2022) <https://www.youtube.com/watch?v=9zxVWDjrPrc>

Oregon State University's Marine Mammal Institute: New People, New Building, New Research.

- Lincoln County League of Women Voters (2022)
- Newport Rotary Club Monthly Meeting (2021)

Science in service to marine mammal conservation: successes, failures, and personal lessons learned along the way - Student's Choice Invited Seminar, Duke University Marine Laboratory (2021) – digital presentation unavailable

Whaling. The Big Read – National Endowment for the Arts (2021)

Dammed to Extinction: the plight of southern resident killer whales and salmon - Invited panelist, 2020 Corvallis Eco-film Festival (2020) – no visual presentation

Interviews with Marine Mammal Scientists - Society of Marine Mammalogy (2019)
<https://marinemammalscience.org/professional-development/marine-mammal-scientist-interviews/>

Emerging and innovative technology in the context of applied science on marine mammals and turtles - Meeting of the Committee on Offshore Science and Assessment, National Academies (2018)

An overview of SWFSC NOAA Fisheries mammal & turtle research in the context of animal telemetry, marine

biodiversity, and ocean tracking - NANOOS-CeNCOOS SCCOOS ATN-AMON-OTN Biological Observations Workshop (2018)

Historical Perspectives in Marine Science - Aquatic Mammals (2018) – digital presentation unavailable

Cetacean-habitat relationships: From basic science to conservation and management - Workshop on Cetacean abundance and distribution, Biennial Conference on the Biology of Marine Mammals (2017) – digital presentation unavailable

From individuals to species, associations to abundance and health: the ever-changing contributions of photographs to cetacean science - Feitschrift in honor of Dr. Bernd Würsig, Biennial Conference on the Biology of Marine Mammals (2017)

Vaquita: Extinction due to unresolved bycatch? - Workshop on Bycatch Mitigation: Novel Insights through Multidisciplinary Approaches (2017)

Marine Mammals in a Changing Ocean - Plenary Speaker, 3rd International Symposium on Climate Impacts on Top Predators, San Sebastian, Spain (2015)

Bycatch and Marine Megafauna - Workshop on Incentive-Based Fisheries Bycatch Reduction (2015)

Using cetacean species diversity hotspots to set conservation priorities in oceanic ecosystems.

- IRD-IFREMER Science Seminar (2015)
- Annual Conference of the American Cetacean Society (2014)

Conducting marine mammal science with declining support: NOAA Fisheries' Protected Resources Science Investment and Planning Process – digital presentation unavailable

- NOAA Fisheries' Habitat Assessment Improvement Plan Working Group (2014)
- NOAA Fisheries' Protected Resources Economics Working Group (2014)
- Briefing for NOAA Fisheries' Assistant Administrator (2014)

Marine Mammal Science & Management Priorities: a way forward through identification of common needs - Annual meeting of the U.S. Marine Mammal Commission – Capitol Hill Presentation (2014) – digital presentation unavailable

Off the shelf: a sampling of NOAA's research on whales, dolphins, turtles, and seabirds in the world's oceanic ecosystems - Perspectives in Ocean Science, Birch Aquarium, Scripps Institution of Oceanography (2013) – digital presentation unavailable

Conducting marine mammal science with declining support - Annual meeting of the U.S. Marine Mammal Commission (2013)

NOAA's eastern tropical Pacific research program - Annual meeting of the U.S. Marine Mammal Commission (2013)

Hotspots: cetacean species richness in the oceanic eastern tropical Pacific - UCLA Research Symposium – Plenary Speaker (2013) – digital presentation unavailable

NOAA's Protected Resources Science Investment and Planning Process Initiative - NMFS Science Board (2013)

Indirect effects of the tuna purse seine fishery on dolphins in the eastern tropical Pacific - Tuna-Dolphin Workshop, International Sustainable Seafood Foundation (2012) – digital presentation unavailable

The role of whales in the Southern Ocean ecosystem - Southern Ocean Research Partnership Symposium (2012)

A proposal to conduct cetacean and ecosystem assessment surveys in NMFS' 15 U.S. exclusive economic zones - NMFS Science Board (2012) – digital presentation unavailable

The eastern tropical Pacific Research Program - Briefing for Senator Barbara Boxer (2011)

Hotspots of cetacean diversity in the eastern tropical Pacific ocean and implications for marine conservation - American Cetacean Society San Diego (2011) – digital presentation unavailable

The status of the eastern North Pacific gray whale - Briefing for Representative Lynn Woolsey (2010) – digital presentation unavailable

Hotspots: Density and species richness for oceanic cetaceans in the eastern tropical Pacific - Departmental Seminar, Scripps Institution of Oceanography (2009) – digital presentation unavailable

The pelagic ecosystem of the tropical Pacific - Pacific Remote Islands Marine National Monument Research Priorities Workshop, Convened by Marine Conservation Biology Institute (2009)

Ecology and conservation of oceanic cetaceans - 11th Annual Perspectives on Science Lecture Series, Point Loma Nazarene University (2009) – digital presentation unavailable

Marine mammals, marine turtles, and climate change - Annual Workshop of the Protected Resources Division, Southwest Region, NOAA Fisheries (2008) – digital presentation unavailable

Why are depleted dolphin stocks not recovering in the eastern tropical Pacific? - Marine Mammal Commission Annual Meeting (2007)

Using ecosystem data for protected species management - Pacific Marine and Environmental Laboratory (2006) – digital presentation unavailable

Embracing an ecosystem-based approach to management - SAIP Tier III Workshop, NOAA Fisheries (2006) – digital presentation unavailable

Whales, whaling, and effects on Antarctic ecosystems: An overview of the evidence and interpretations - Whales, Whaling, and Ocean Ecosystems Workshop sponsored by Pew Fellows (2003) – digital presentation unavailable

Habitat relationships of cetaceans, seabirds, flyingfishes, and epipelagic fauna in the eastern tropical Pacific Ocean - III Coloquio sobre Oceanografía del Pacífico Oriental, CICESE, Ensenada, Baja California, Mexico (2002)

Do depleted populations always recover? Lessons from the great whales - Second Symposium on Marine Conservation Biology (2001) – digital presentation unavailable

Swift things are beautiful: adaptive significance of color pattern variation among toothed whales, dolphins, and porpoises - Departmental Seminar, Oregon Institute of Marine Biology (2000) – digital presentation unavailable

Seabirds at sea: insights into cetacean relationships with physical and biological features from marine ornithology - Workshop on Multidisciplinary Studies of Cetaceans, International Whaling Commission (1999) – digital presentation unavailable

Habitat relationships of cetaceans in the western tropical Indian Ocean - Symposium on Oceanography and Marine Mammals, Twelfth Biennial Conference on the Biology of Marine Mammals (1998) – digital presentation unavailable

Cetacean research in the Indian Ocean Sanctuary - Scientific Briefing for Dr. James Baker, Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator (1996) – digital presentation unavailable

Dolphin tales in the Gulf of California - American Cetacean Society Los Angeles (1991) – digital presentation unavailable

Bottlenose dolphins in the Gulf of California, Mexico – digital presentation unavailable

- American Cetacean Society Monterey Bay (1986)
- American Cetacean Society Orange County (1986)

19. List all public statements you have made during the past ten years, including statements in news articles and radio and television appearances, which are on topics relevant to the position for which you have been nominated, including dates. Include a link to each statement when possible. If a link is not available, provide a digital copy of the statement when available.

None (other than presentations listed in answer to question 18 above)

20. List all digital platforms (including social media and other digital content sites) on which you currently or have formerly operated an account, regardless of whether or not the account was held in your name or an alias. Include the full name of an “alias” or “handle”, including the complete URL and username with hyperlinks, you have used on each of the named platforms. Indicate whether the account is active, deleted, or dormant. Include a link to each account if possible.

Southwest Fisheries Science Center, NOAA Fisheries (deleted)

Oregon State University (active) - <https://mmi.oregonstate.edu/> and <https://mmi.oregonstate.edu/people/lisa-t-ballance>

FaceBook (active) - <https://www.facebook.com/lisa.ballance.5>

LinkedIn (active) - <https://www.linkedin.com/in/lisa-t-ballance-601b9b23/>

ResearchGate (active) - <https://www.researchgate.net/profile/Lisa-Ballance>

21. Please identify each instance in which you have testified orally or in writing before Congress in a governmental or non-governmental capacity and specify the date and subject matter of each testimony.

None

22. Given the current mission, major programs, and major operational objectives of the department/agency to which you have been nominated, what in your background or employment experience do you believe affirmatively qualifies

you for appointment to the position for which you have been nominated, and why do you wish to serve in that position?

Qualifications: I have extensive experience conducting research on marine mammals, primarily in the context of applied science associated with the Marine Mammal Protection and Endangered Species Acts. This includes field work on research vessels in all oceans of the world, publishing scientific papers and presenting results at scientific meetings and public venues, and overseeing large and complex projects. I also have extensive experience working with and leading teams to leverage resources, create new initiatives, and address emerging issues and polarizing problems; overseeing and managing budgets; and supervising people. This experience comes from three complementary perspectives.

1. Twenty-nine years with the National Marine Fisheries Service (NMFS) as a marine mammal scientist and senior science leader

As the Director of a large (ca. 70 individuals) and diverse group of scientists and research staff who conducted applied research on marine mammals and turtles in accordance with NMFS's statutes, mission, and strategic initiatives, I was responsible for providing leadership, scientific direction, and execution of research, strategic and succession planning, supervision of a leadership team, most of whom were supervisors themselves, and overseeing an annual budget of \$9M, of which approximately one third was obtained from non-permanent funding sources. I also served as a member of NMFS' Protected Resources Board, who addressed challenges at regional and national levels pertaining to threats to protected resources (primarily marine mammals), existing regulatory policies, and how scientific research could advance solutions-based approaches for management. I developed and led a five-year initiative designed to leverage existing resources from three federal agencies (NOAA, Navy, and Bureau of Ocean Energy Management) and NMFS' four Pacific science centers to conduct research vessel-based surveys of cetaceans to address common science and regulatory requirements. I led two comprehensive science reviews of my division, six years apart, for external review panels and developed reports and action plans with milestones and timelines in response to reviewer recommendations. I also served as an invited reviewer for two protected species science reviews of other NMFS science centers and offices. And I was Chief Scientist of NMFS' tuna-dolphin research program, directing and executing congressionally mandated research in the eastern tropical Pacific that provided the scientific basis for the current "Dolphin Safe Tuna" label.

2. Five years with Oregon State University as a marine mammal scientist and senior science leader

Much of my experience as Director of the Marine Mammal Institute parallels my experience as a senior administrator in NOAA in terms of strategic planning, budget management, supervising personnel, and working with and leading teams. However, there are stark differences between the structures and functions of federal agencies and academic institutions, and working in both has given me a valuable perspective of the strengths and weaknesses of each, and particularly how they might collaborate with maximum effectiveness.

3. Forty years as a practicing marine mammal scientist

Through this time, I have become familiar with key marine mammal issues, both academic and applied, field technologies and analytical tools and their evolution through time, and institutions and individuals who contribute to advancements. I am a scientist who contributes to the global knowledge base and learns from it. And ultimately, my experience as a researcher has brought wisdom earned from failures and from successes.

Why do I wish to serve? The answer is simple. I want to make a difference. I care about marine mammals and the natural world, and I care about the well-being of human societies that rely on the oceans across the globe. I believe my experience as a marine mammal scientist with the federal government, in academia, and in collaboration with non-governmental organizations both large (e.g., World Wildlife Fund, International Union for Conservation of Nature) and small, has placed me well to tackle challenges in the contexts of my passions in a constructive manner. I see the role of the Marine Mammal Commission in general, and a commissioner in particular, as an opportunity to be a force multiplier. I am excited about the opportunity.

23. What do you believe are your responsibilities, if confirmed, to ensure that the department/agency has proper management and accounting controls, and what experience do you have in managing a large organization?

The mission and specific responsibilities of the Marine Mammal Commission are deeply embedded in the Marine Mammal Protection Act, and closely related to the Endangered Species Act, as well as additional U.S. legislation and national and international agreements. If confirmed, as a commissioner, my role would be to uphold and promote the policies and mandates of the Marine Mammal Protection Act and related laws, in concert with the Commission's Executive Director and staff, and to work with the other two commissioners and the Commission's Committee of Scientific Advisors to develop strategies to address emerging issues.

I am well versed in detail-oriented and results-driven work associated with management and accounting. I have 25 years of experience in managing large organizations and chairing complex working groups with high stakes goals. This includes four positions and appointments with NOAA that date to 1999: Director Marine Mammal and Turtle Research Division; Scientific Lead Pacific Marine Assessment Program for Protected Species; Chair NMFS Protected Resources Science Investment and Planning Process; Chief Scientist Eastern Tropical Pacific Cetacean and Ecosystem Assessment Research; and two of my positions with Oregon State University: Director Marine Mammal Institute; Chair Oregon State University Marine Operations Task Force.

24. What do you believe to be the top three challenges facing the department/agency, and why?

Challenge - Maximizing stakeholder participation in solutions-oriented discussions pertaining to human-wildlife conflict

Why - Current conflicts between humans and marine mammals are mostly indirect, diverse, and global. Typically, these conflicts occur in the context of human use of ocean resources, particularly fishing, shipping, and energy extraction and production, but there are multiple other uses that also result in conflicts (e.g., military activities). The wicked human-wildlife conflict problems that arise in association with these activities require innovative ideas from diverse perspectives, including the people and industries that are most directly involved. However, too often, potential solutions are interpreted as “either/or” where one side wins and the other loses. The polarization that often accompanies this undermines the potential success of any solution. Creating conditions for honest and open dialog where all stakeholders are included and feel genuinely valued is key to creating robust strategies for resolving these conflicts. The challenge is how to create and maintain these conditions.

Challenge – Fostering collaboration across institutions to leverage resources (funds, assets, talent)

Why - Funding for marine mammal science and associated policy development and regulation is finite and commonly inadequate. Leveraging across government agencies, academic institutions, and non-governmental organizations in strategic ways represents an opportunity to use existing resources more efficiently, but such leveraging is challenging. Institutions tend to be siloed, resulting in inefficiencies, duplicative efforts, wasted resources, and missed opportunities for collaboration on shared goals, challenges, priorities, and use of resources, including funds, assets, and talent. Consistent communication at all levels can build trust, reveal common problems and needs, and lead to leveraging opportunities, but this requires a commitment to communication and engagement on a continuing basis.

Challenge – Elevating awareness of U.S. impacts on marine mammals outside of waters under U.S. jurisdiction and articulating our responsibility for mitigating these impacts

Why – As a wealthy nation, the United States disproportionately impacts ocean ecosystems globally, through trade, economic ties, and influences on the environment (e.g., contributions to greenhouse gases, pollutants, resource extraction). These impacts can be direct or indirect, and significant. I believe there is economic incentive and an ethical responsibility to help mitigate these impacts, even when they are far from our own territorial waters. At the same time, there is tremendous pressure to provide clear justification for how federal funds are used to a public with diverse interests and backgrounds. Sending limited funds outside U.S. geographic boundaries can be met with skepticism because of the perception that these projects are not

related to U.S. issues. The challenge is to make cogent scientific and economic arguments as to why spending federal funds in far off places furthers our interests.

B. POTENTIAL CONFLICTS OF INTEREST

1. Describe all financial arrangements, deferred compensation agreements, and other continuing dealings with business associates, clients, or customers. Please include information related to retirement accounts, such as a 401(k) or pension plan.

With [REDACTED], my spouse and I have joint Cash Flow and Cash Management accounts, we each have ROTH and Traditional IRA accounts, and (through [REDACTED]), we have a joint banking account with [REDACTED].

My spouse and I each receive pensions from our former employer, NOAA, U.S. Department of Commerce.

My spouse and I each have a Thrift Savings Program Account through our former employer, NOAA, U.S. Department of Commerce.

My spouse receives Social Security benefits.

2. Do you have any commitments or agreements, formal or informal, to maintain employment, affiliation, or practice with any business, association, or other organization during your appointment? If so, please explain.

Employment:

- Current position as Director Marine Mammal Institute and Professor Fisheries, Wildlife, and Conservation Sciences of Oregon State University

Appointments (all uncompensated):

- Contributing Editor, Marine Ecology Progress Series (2020-present)
- Editorial Board, Ecology: The Scientific Naturalist (2016-present)
- Scientific Advisor, Oikonos Ecosystem Knowledge (2003–present)

3. Indicate any investments, obligations, liabilities, or other relationships which could involve potential conflicts of interest in the position to which you have been nominated. Explain how you will resolve each potential conflict of interest.

In connection with the nomination process, I have consulted with the Office of Government Ethics and the U.S. Marine Mammal Commission (MCC)'s designated agency ethics official to identify potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of the ethics agreement that I have entered into with MMC's designated agency ethics official and that has been provided to the Committee. I am not aware of any other potential conflicts of interest.

4. Describe any business relationship, dealing, or financial transaction which you have had during the last ten years, whether for yourself, on behalf of a client, or acting as an agent, that could in any way constitute or result in a possible conflict of interest in the position to which you have been nominated. Explain how you will resolve each potential conflict of interest.

None

5. Identify any other potential conflicts of interest, and explain how you will resolve each potential conflict of interest.

In connection with the nomination process, I have consulted with the Office of Government Ethics and U.S. Marine Mammal Commission (MCC)'s designated agency ethics official to identify potential conflicts of interest. Any potential conflicts of interest will be resolved in accordance with the terms of the ethics agreement that I have entered into with MMC's designated agency ethics official and that has been provided to the Committee. I am not aware of any other potential conflicts of interest.

6. Describe any activity during the past ten years, including the names of clients represented, in which you have been engaged for the purpose of directly or indirectly influencing the passage, defeat, or modification of any legislation or affecting the administration and execution of law or public policy.

None

C. LEGAL MATTERS

1. Have you ever been disciplined or cited for a breach of ethics, professional misconduct, or retaliation by, or been the subject of a complaint to, any court, administrative agency, the Office of Special Counsel, an Inspector General, professional association, disciplinary committee, or other professional group? If yes:

- a. Provide the name of court, agency, association, committee, or group;
- b. Provide the date the citation, disciplinary action, complaint, or personnel action was issued or initiated;
- c. Describe the citation, disciplinary action, complaint, or personnel action;
- d. Provide the results of the citation, disciplinary action, complaint, or personnel action.

No

2. Have you ever been investigated, arrested, charged, or held by any Federal, State, or other law enforcement authority of any Federal, State, county, or municipal entity, other than for a minor traffic offense? If so, please explain.

No

3. Have you or any business or nonprofit of which you are or were an officer ever been involved as a party in an administrative agency proceeding, criminal proceeding, or civil litigation? If so, please explain.

No

4. Have you ever been convicted (including pleas of guilty or *nolo contendere*) of any criminal violation other than a minor traffic offense? If so, please explain.

No

5. Have you ever been accused, formally or informally, of sexual harassment or discrimination on the basis of sex, race, religion, or any other basis? If so, please explain.

No

6. Please advise the Committee of any additional information, favorable or unfavorable, which you feel should be disclosed in connection with your nomination.

None

D. RELATIONSHIP WITH COMMITTEE

1. Will you ensure that your department/agency complies with deadlines for information set by congressional committees, and that your department/agency endeavors to timely comply with requests for information from individual Members of Congress, including requests from members in the minority?

Yes

2. Will you ensure that your department/agency does whatever it can to protect congressional witnesses and whistleblowers from reprisal for their testimony and disclosures?

Yes

3. Will you cooperate in providing the Committee with requested witnesses, including technical experts and career employees, with firsthand knowledge of matters of interest to the Committee?

Yes

4. Are you willing to appear and testify before any duly constituted committee of the Congress on such occasions as you may be reasonably requested to do so?

Yes

(Nominee is to include this signed affidavit along with answers to the above questions.)

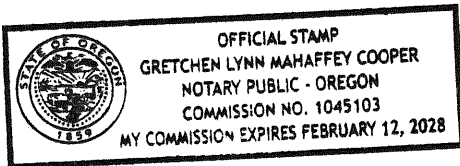
F. AFFIDAVIT

Lisa T. Ballance being duly sworn, hereby states that he/she has read and signed the foregoing Statement on Biographical and Financial Information and that the information provided therein is, to the best of his/her knowledge, current, accurate, and complete.

Lisa T. Ballance
Signature of Nominee

Subscribed and sworn before me this 26 day of Aug, 2024.

Gretchen Lynn Mahaffey Cooper
Notary Public



Lisa Taylor Ballance

Marine Mammal Institute, Oregon State University
Hatfield Marine Science Center
2030 Marine Science Drive, Newport, OR, 97365, USA



EDUCATION

- Ph.D. Ecology, University of California Los Angeles (1993)
Tropical Seabirds at Sea: Community Ecology, Competition, and Energetic Constraint
- M.S. Marine Science, Moss Landing Marine Laboratories, California State University (1987)
Ecology and Behavior of the Bottlenose Dolphin
- B.A. Biology, University of California San Diego (1981)

CAREER HISTORY

Director, Marine Mammal Institute

Oregon State University (2019-present)

- Provide leadership to ~60 professors, research faculty, staff, students, and post-doctorates of the Marine Mammal Institute; hire, oversee, and evaluate personnel; prepare, implement, oversee annual work plans and budgets; develop strategic initiatives; report activities, budgets, proposed work plan and development issues to college and university leadership and institute donors; promote a collaborative, successful and productive institute; cultivate/steward donor interest; contribute to cross-cutting university task forces, working groups, and strategic initiatives.

Professor, Department of Fisheries, Wildlife, and Conservation Sciences

Oregon State University (2019-present)

- Conduct original research and scholarly activities. Advise and mentor graduate students; teach undergraduate and graduate courses; serve on academic review and search committees.

Director, Marine Mammal and Turtle Research Division

Southwest Fisheries Science Center, NOAA Fisheries (2007-2019)

- Provide leadership, scientific direction and execution of research, strategic and succession planning, supervision of leadership team (2-4 Senior Scientists, 6-7 supervisory science leads, 1 principal investigator, 2 support staff) for approximately 70 scientists who conducted applied research on marine mammals and turtles in accordance with NOAA Fisheries' statutes, mission, and strategic initiatives. Research included estimation of abundance and trends, clarification of population structure, quantification of health and condition, identification and mitigation of threats, placement of mammals and turtles in an ecosystem context in US EEZ waters and the greater Pacific. Division annual budget was ~

\$9M, of which approximately one-third was obtained from non-permanent funding sources, typically through competitive processes.

Leader, Ecosystem Studies Program

Southwest Fisheries Science Center, NOAA Fisheries (2001–2007)

- Direct and execute research conducted by 8-10 scientists (principal investigators, technicians, post-doctorates, and graduate students) on physical and biological oceanography, mid-trophic fishes and invertebrates, marine turtles, and seabirds aboard NOAA research vessel surveys in the California Current, and central and eastern tropical Pacific Ocean.

Professor (Adjunct), Scripps Institution of Oceanography

University of California San Diego (2005-2021; concurrent with other positions)

- Conduct original research and scholarly activities. Advise and mentor graduate students; teach undergraduate and graduate courses; serve on academic review and search committees.

Senior Field Scientist, Marine Mammal and Ecosystem Assessment Surveys

Southwest Fisheries Science Center, NOAA Fisheries (1990-2018; concurrent with other positions)

- Oversee research conducted aboard NOAA research vessel marine mammal and ecosystem assessment surveys in the eastern and central tropical Pacific, California Current, Gulf of Alaska and Bering Sea; supervise sea-going scientists; make decisions regarding scientific priorities among competing projects in an ever-changing environment (weather, available personnel, ship and equipment capabilities and status); serve as the primary scientific lead for communications with ship's command and crew, and shore-based scientists; work with U.S. Fish & Wildlife to clear biological samples according to permit restrictions and requirements; ensure that research conducted in waters of non-U.S. nations complies with permit requirements of those nations; serve as primary scientific representative for the U.S. during port calls in foreign countries.

Marine Ecologist

Southwest Fisheries Science Center, NOAA Fisheries (1996-2001)

- Conduct research at sea aboard NOAA cetacean and ecosystem assessment surveys in the eastern tropical Pacific and California Current; design and oversee field and analytical research focused on ecological indicators of cetaceans and their ecosystem; present research at professional meetings; publish in the scientific literature.

Post-doctoral Fellow

National Research Council, The National Academies (1993-1996)

- Conduct research at sea aboard NOAA surveys in the tropical Indian Ocean; design and oversee field and analytical research focused on cetaceans and seabirds; present research at professional meetings; publish in the scientific literature.

APPOINTMENTS AND ADDITIONAL EXPERIENCE

- Reviewer peer-reviewed publications and funding proposals; 60+ journals/funding agencies; 5-25 reviews/year (1990-present)
- Chair, Oregon State University Marine Operations Task Force (2020-2023)
 - Appointed by Provost and Vice President of Research to lead strategic efforts to improve management efficiencies, safety and harassment practices, and the workforce environment pertaining to marine and freshwater operations for the entire university. Task Force report led to wholesale restructuring of operations resulting in greater safety, transparency, clarity, and efficiency.
- Contributing Editor, *Marine Ecology Progress Series* (2020-present)
- Editorial Board, *Ecology: The Scientific Naturalist* (2016-present)
- Scientific Advisor, Oikonos Ecosystem Knowledge (2003–present)
- Affiliate Professor, University of San Diego (2009-2021)
- Member, Oregon State University NOAA Strategy Task Force (2020-2021)
 - Appointed by Vice President of Research to develop a university-level strategy that articulates opportunities for partnership between OSU and NOAA and strengthens and diversifies OSU’s engagement.
- Research Advisor, National Research Council, The National Academies (2009-2019)
- Scientific Lead: Pacific Marine Assessment Program for Protected Species (2017-2019)
 - Accountable for this five-year partnership (2017-2021) with NOAA Fisheries’ four Pacific Science Centers, Bureau of Ocean Energy Management, and U.S. Navy to conduct large geographic-scale surveys of marine ecosystems to address common science and regulatory requirements.
- Strategic Advisory Panel, Migratory Connectivity in the Ocean Program, Global Ocean Biodiversity Initiative, GOBI.org (2017-2019)
- Chair, NOAA Fisheries National Seabird Program (2015-2019)
 - Led crosscutting group of managers and scientists who work domestically and internationally to protect and conserve seabirds; established, tracked, and implemented actions to enhance awareness of regional activities and accomplishments at the national level and to create new collaborative efforts with efficiencies of scale; furthered the program’s objective of using seabirds as ecosystem indicators in accordance with NOAA’s strategic initiatives; led national meeting and resulting 5-year strategic plan for the program.
- Member, NOAA Fisheries Protected Resources Board (2013-2019)
- Member, United States Delegation
 - World Trade Organization – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (2017-2018)
 - US-Mexico Bilateral Meetings (2012, 2013, 2016, 2018)
 - Inter-American Tropical Tuna Commission Meetings (2017, 2016, 2009)
- Review panelist, NOAA Fisheries National Protected Resources Recovery Program (2016) and Southeast Fisheries Science Center’s Protected Species Science Program (2015)
 - Selected to serve as the sole NOAA Fisheries scientist on these independent review panels; reviewed written materials and oral presentations to evaluate the quality, relevance, and performance of science and research and to make recommendations to strategically position the

- agency in planning for the future; produced written reports for Senior Executive Service leadership review and action.
- Chair, NOAA Fisheries Protected Resources Science Investment and Planning Process (2012-2015)
 - Designed and led agency-wide team of protected species science and management directors through biannual in-person meetings and monthly calls; developed framework for securing investment in science by identifying common needs and addressing them through enhanced partnerships within NOAA and across federal agencies based on conceptualized scenario-based and data-driven models; realized increased investment in protected species science by Navy and Bureau of Ocean Energy Management; created tighter linkages between NOAA Fisheries' science and management through annual communication exercise to create list of protected species science needs in support of management; provided mechanism for elevated awareness and incorporation of science needs into planning and prioritization processes at regional and national levels and across federal agencies.
 - Scientific Lead, Southwest Fisheries Science Center's Protected Species Science Program Reviews (2015, 2009)
 - Developed review agenda and scope of review topics to fully reflect mission, mandates, and objectives of the program; provided leadership with respect to written and spoken presentation materials to effectively follow review themes; designed and presented introductory and concluding talks; constructed written response to reviewer recommendations that included lists of action items with target deadlines.
 - Scientific Assistant, NOAA Fisheries Chief Science Advisor, NOAA Fisheries Headquarters (2011)
 - Attended internal NOAA Fisheries meetings requiring input from Chief Science Advisor; assisted with general Chief Science Advisor workload as directed; prepared white paper proposing a national strategy for review of science conducted by NOAA Fisheries' six science centers (subsequently used to develop NOAA Fisheries' 2013-2016 national review of science programs designed to evaluate the quality, relevance, and performance of its science and research, and to strategically position the agency in planning for the future); prepared white paper proposing recommendations for building protected species science capacity in NOAA Fisheries' Headquarters (subsequently used to develop the Protected Species Science Branch in the Office of Science and Technology, and to improve communications and heighten synergies with the Office of Protected Resources).
 - Editorial Board, *Marine Ornithology* (2005-2010)
 - NOAA Fisheries Representative, NOAA Science Conference (2010)
 - Scientific Steering Committee, Climate Impacts on Oceanic Top Predators (2007)
 - Chief Scientist, Eastern Tropical Pacific Cetacean and Ecosystem Assessment Research, Southwest Fisheries Science Center, NOAA Fisheries (1999–2006; concurrent with other positions at Southwest Fisheries Science Center)
 - Directed and executed research for arguably the largest in geographic scope, ship time requirements, and complexity of any regularly occurring scientific survey conducted in the history of NOAA Fisheries. Each survey (1999, 2000, 2003, 2006) required 240 sea days aboard two NOAA research vessels in the eastern tropical Pacific. Research was congressionally mandated and provided the scientific basis for the current "Dolphin Safe Tuna" label.
 - Review Editor, *Marine Ornithology* (2000-2004)
 - Executive Council Member, Pacific Seabird Group (2001-2003)

- Chair, Pacific Seabird Group (2002)
- Scientific Program Chair, 29th Annual Meeting of the Pacific Seabird Group (2002)
- Scientific Steering Committee, 22nd Annual Meeting of the Pacific Seabird Group (1995)
- Lecturer, University of San Diego (1994)
- Lecturer, Northeastern University at Friday Harbor Marine Laboratory, Friday Harbor WA (1993)
- Lecturer, Oregon Institute of Marine Biology, University of Oregon (1989-1992,1994)
- Lecturer, School for Field Studies (1985-1987)

FELLOWSHIPS, AWARDS, AND HONORS

- Endowed Chair for Marine Mammal Research, Oregon State University (2020-present)
- Fellow, American Association for the Advancement of Science (2021)
- Fellow, American Ornithological Society (2021)
- Fellow, Public Voices: The OpEd Project (2021)
- *Interviews with Marine Mammal Scientists*, Society for Marine Mammalogy, Professional Development Program (2019)
- NOAA Fisheries Employee of the Year Award for Leadership (2019)
- NOAA Bronze Medal (2019)
- Fellow, National Conservation Leadership Institute (2018-2019)
- *Historical Perspectives in Marine Mammal Science*, Aquatic Mammals (2018)
- Cover Feature, Association for Women in Science (2013)
- Elective Member, American Ornithologists' Union (2013)
- NOAA Bronze Medal (2008)
- Project of the Year, Strategic Environmental Research and Development Program (2008)
- NOAA Fisheries Supervisor of the Year (2007)
- Department of Commerce Silver Medal (2003)
- Post-doctoral Fellow, National Research Council, The National Academies (1993-1996)
- Graduate Research Fellow, NOAA Fisheries (1988-1993)
- Taussig Traveling Fellowship, University of California Los Angeles (1991)
- Research Fellowship, University of California Los Angeles (1991)
- Josselyn Van Tyne Award, American Ornithologists' Union (1991)
- Integrative Biology Award, University of California Los Angeles (1991)
- Best Student Paper, Tenth Annual Reunion of the Marine Mammal Conferences of Mexico (1985)

RESEARCH FUNDING

2024 - \$1,027,000

- Office of Naval Research, U.S. Navy

2022 - \$2,039,000

- U.S. Department of Energy
- Oregon Gray Whale License Plate Program

2021 - \$240,000

- Oregon Gray Whale License Plate Program
- NOAA Fisheries National Seabird Program

2019 - \$430,000

- NOAA Fisheries Office of Science & Technology
- NOAA Fisheries Office of Protected Resources
- NOAA Fisheries National Seabird Program

2018 - \$1.6M

- U.S. Bureau of Ocean Energy Management
- U.S. Navy
- NOAA Fisheries Office of Protected Resources
- NOAA Fisheries Office of Science & Technology
- NOAA Fisheries National Seabird Program
- NOAA Fisheries Pacific Islands Regional Office
- NOAA Fisheries West Coast Regional Office

2017 - \$623,000

- U.S. Bureau of Ocean Energy Management
- U.S. Navy
- NOAA Fisheries National Seabird Program
- NOAA Fisheries Office of Protected Resources

2016 - \$505,000

- U.S. Bureau of Ocean Energy Management
- National Ocean Service, NOAA
- NOAA Fisheries Office of Protected Resources
- NOAA Fisheries National Seabird Program
- Frontiers of Innovation Scholars Program, University of California San Diego

2015 - \$100,000

- NOAA Fisheries National Seabird Program

2014 - \$371,000

- U.S. Navy
- U.S. Bureau of Ocean Energy Management
- National Ocean Service, NOAA
- NOAA Fisheries National Seabird Program

2013 – 1997 (selected research awards)

- National Science Foundation - \$3.9 M total

- U.S. Navy - \$1.8M total
- NOAA Fisheries National Seabird Program - \$91,000 total
- NOAA Marine Debris Program - \$70,000
- International Whaling Commission - \$50,000
- U.S. Fish and Wildlife - \$36,400
- National Geographic Society - \$30,000

PROFESSIONAL MEMBERSHIPS

- American Association for the Advancement of Science
- American Association of University Women
- American Cetacean Society
- American Ornithological Society
- Association for Women in Science
- British Ornithologists' Union (Life Member)
- Pacific Seabird Group (Life Member)
- Sigma Xi, The Scientific Research Honor Society
- Society for Conservation Biology (Life Member)
- Society for Marine Mammalogy (Life Member)

COURSES DEVELOPED, TAUGHT

- Graduate Certificate in Marine Mammals, Oregon State University (2023-present)
- Human Dimensions of Marine Mammals (2023- present)
- Marine Tetrapods Scripps Institution of Oceanography (2009, 2013)
- Marine Mammal Biology, University of California San Diego (annually 2012-2019)
- Marine Ecology, University of San Diego (1994)
- Marine Birds and Mammals, Northeastern University at Friday Harbor Marine Laboratory (1993)
- Marine Birds and Mammals, Oregon Institute of Marine Biology, University of Oregon (1989-1992,1994)
- Biology and Behavior of Dolphins, School for Field Studies (1985-1987)

ACADEMIC SERVICE

Undergraduate Students Advised

- Charlotte Hussein, Honors Thesis, Oregon State University (2023-2024)
- Adriana Leiva, Ecological Society of America SEEDS Fellowship Program (2008-2010)
- Jean Alupay, STARS Program (2007)

Master's Students Advised

Committee Chair

- Samantha Leander, University of San Diego, M.S. (2021)
- Taylor Shedd, Scripps Institution of Oceanography, M.A.S. (2018)

- R. Cotton Rockwood, Scripps Institution of Oceanography, M.S. (2013)
- Luciano Hiriart-Bertrand, Scripps Institution of Oceanography, M.A.S. (2012)
- Alyssa Swall, Scripps Institution of Oceanography, M.A.S. (2012)
- Stephanie Nehasil, Scripps Institution of Oceanography, M.A.S. (2010)
- L. Ignacio Vilchis, Universidad Católica del Norte de Chile, M.S. (2002)

Committee Member

- Otavio Augusto Pinheiro Mendes, Grace Meyer, Sarah Stone, Oregon State University (current students)
- Julie Barros, Scripps Institution of Oceanography, M.S. (2020)
- Caitlynn Birch, University of San Diego, M.S. (2019)
- Jessica Sportelli, Scripps Institution of Oceanography, M.S. (2019)
- Grace Teller, Scripps Institution of Oceanography, M.S. (2016)
- Romy Boiskin, University of California San Diego, M.S. (2014)
- Shannon Lyday, Hawaii Pacific University, M.S. (2013)
- Monica González Jaramillo, CICESE, Ensenada, Baja California Sur, Mexico, M.S. (2001)
- Rocio Marcin Medina, Instituto Politecnico Nacional Centro Interdisciplinario de Ciencias Marinas, La Paz, Baja California Sur, Mexico, M.S. (1997)

Doctorate Students Advised

Committee Chair

- Shanta Shamsunnahar, Oregon State University (current student)
- Angela Szesciorka, Scripps Institution of Oceanography, Ph.D. (2021)
- Adam Schlenger, Scripps Institution of Oceanography, Ph.D. (2017)
- Trevor Joyce, Scripps Institution of Oceanography, Ph.D. (2016)
- Douglas Krause, Scripps Institution of Oceanography, Ph.D. (2016)
- Summer Martin, Scripps Institution of Oceanography, Ph.D. (2014)
- Tara Whitty, Scripps Institution of Oceanography, Ph.D. (2014)
- L. Ignacio Vilchis, Scripps Institution of Oceanography, Ph.D. (2010)

Committee Member

- Emma Gjerdsseth, Oregon State University (current student)
- Kelsey Lane, Oregon State University, Ph.D. (2024)
- Tammy Russell, Scripps Institution of Oceanography, Ph.D. (2024)
- Brian Stock, Scripps Institution of Oceanography, Ph.D. (2019)
- Joshua Stewart, Scripps Institution of Oceanography, Ph.D. (2018)
- Michael Tift, Scripps Institution of Oceanography, Ph.D. (2018)
- Eric Keen, Scripps Institution of Oceanography, Ph.D. (2017)
- Kerri Seger, Scripps Institution of Oceanography, Ph.D. (2016)
- Tyler Helbe, Scripps Institution of Oceanography, Ph.D. (2013)
- Jessica Meir, Scripps Institution of Oceanography, Ph.D. (2009)

External Examiner

- K.S. Hyang, University of Malaya, Kuala Lumpur, Ph.D. (2021)
- M.S. Kiani, University of Karachi, Karachi, Pakistan, Ph.D. (2014)
- E. Miller, University of Otago, New Zealand, Ph.D. (2014)
- L. Mannocci, Université de la Rochelle, Rochelle, France, Ph.D. (2013)

Post-doctorate Students Advised

- Joshua Stewart, National Research Council (2019)
- Trevor Joyce, National Research Council (2016-2019)
- Jessica Redfern, National Research Council (2001-2004)
- R. Iliana Ruiz-Cooley, National Research Council (2009-2012)

Academic Review Committees

- Oregon State University Promotion & Tenure Committee (multiple reviews annually, 2019-present)
- Scripps Institution of Oceanography, La Jolla California (multiple reviews, 2009-2019)
- Woods Hole Oceanographic Institution (2019, 2021)
- Oregon State University (2018)
- University of Otago, New Zealand (2014)
- Pomona College, Claremont California (2009)
- University of California Santa Cruz (2006)

Search Committees

Chair/Co-Chair

- Director, Oregon Hatchery Research Center, Oregon State University (2021)
- Assistant Professor, Population Biology, Scripps Institution of Oceanography (2012)

Search Advocate

- Vice President Faculty Affairs, Oregon State University (2021)
- Director, Oregon Integrated Pest Management Center, Oregon State University (2021)
- Director, Oregon Veterinary Diagnostic Laboratory, Oregon State University (2021)

Member

- Director, Marine Operations, Oregon State University (2024)
- Director, Coastal Oregon Marine Experiment Station, Oregon State University (2022)
- Director, Oregon SeaGrant (2021)
- Director, Cooperative Institute for Marine Resources Studies, Oregon State University (2020)

INVITED SCIENTIFIC AND PUBLIC SEMINARS, TALKS, AND LECTURES (PAST 10 YRS)

Marine Mammals and Seabirds in the Context of Offshore Wind Energy – Rotary Club of Newport, Newport, OR (2024)

The Marine Mammal Institute of Oregon State University: Who we are, what we do, and why it matters – Philanthropic Educational Organization of Oregon, Newport, OR (2024)

The power of philanthropy: pennies to dollars make a difference for marine mammals and ocean ecosystems – Keynote Faculty Speaker, College of Agricultural Sciences Dean's dinner, Corvallis, Oregon (2023)

Cetaceans as catalysts for ocean protection – and a new paradigm – Plenary Speaker, Blue Corridors Summit, World Wildlife Fund, Washington, D.C. (2023)

Growing up in Science: my path, my challenges, lessons learned (<https://growingupinscience.org>) – Hatfield Marine

Science Center, Oregon State University, Newport, Oregon (2023)

Lessons from 40 years as a marine scientist: Advice to students – Keynote, 26th Annual Meeting of the Northwest Student Chapter for the Society of Marine Mammalogy, Newport, Oregon (2023)

“The Tuna-Dolphin Problem”: Successes, Failures, and Lessons Learned in Mitigating Dolphin Bycatch Associated with the Multinational Yellowfin Tuna Purse Seine Fishery - Incentive-based approaches to reduce dolphin bycatch, Brest, France (2023)

A mystery whale uncovered off Oregon: Local research, global impact

- Road Scholar (2024)
- Whale Watching Spoken Here, Newport, Oregon (2023)
- Eugene Natural History Society (2023)
- Keynote Speaker, Hatfield Marine Science Day (2022)
- Oregon Wild (2022)

Fact or Fiction? Dolphins and whales once had legs and lives on land. Oregon Museum of Science and Industry “After Dark” (2022)

Finding Type D killer whale Whale Tales (2022)

Marine Mammals: ‘Gee whiz’ science, conservation challenges, and lessons learned towards healthy marine ecosystems.

- Academy for Lifelong Learning, Corvallis, Oregon (2022)
- Science is the Solution, ARCS Foundation Oregon (2020)

Origin & Evolution of Cetaceans Deschutes Public Library – Origins Program, Bend, Oregon (2022)

<https://www.youtube.com/watch?v=9zxVWDjrPrc>

Oregon State University’s Marine Mammal Institute: New People, New Building, New Research.

- Lincoln County League of Women Voters (2022)
- Newport Rotary Club Monthly Meeting (2021)

Science in service to marine mammal conservation: successes, failures, and personal lessons learned along the way.

Student’s Choice Invited Seminar, Duke University Marine Laboratory (2021)

Whaling. The Big Read – National Endowment for the Arts (2021)

Dammed to Extinction: the plight of southern resident killer whales and salmon. Invited panelist, 2020 Corvallis Eco-film Festival (2020)

Interviews with Marine Mammal Scientists. Society of Marine Mammalogy Professional Development (2019)

<https://marinemammalscience.org/professional-development/marine-mammal-scientist-interviews/>

Emerging and innovative technology in the context of applied science on marine mammals and turtles. Meeting of the Committee on Offshore Science and Assessment, National Academies (2018)

An overview of SWFSC NOAA Fisheries mammal & turtle research in the context of animal telemetry, marine biodiversity, and ocean tracking. NANOOS-CenCOOS SSCOOS ATN-AMON-OTN Biological Observations Workshop (2018)

Seabirds of Pacific Northwest Mexico. 45th Annual Meeting of the Pacific Seabird Group (2018)

Historical Perspectives in Marine Science. Aquatic Mammals (2018)

https://www.aquaticmammalsjournal.org/index.php?option=com_content&view=article&id=11&Itemid=146

Cetacean-habitat relationships: From basic science to conservation and management. Workshop on Cetacean abundance and distribution, Biennial Conference on the Biology of Marine Mammals (2017)

From individuals to species, associations to abundance and health: the ever-changing contributions of photographs to cetacean science. Feitschrift in honor of Dr. Bernd Würsig (2017)

Vaquita: Extinction due to unresolved bycatch? Workshop on Bycatch Mitigation: Novel Insights through Multidisciplinary Approaches, (2017)

The Life Aquatic – Reflections on the At-Sea Lives of Seabirds in the Eastern Tropical Pacific Ocean. Plenary Speaker, 43rd Annual Meeting of the Pacific Seabird Group, Honolulu, HI (2016)

Marine Mammals in a Changing Ocean. Plenary Speaker, 3rd Symposium on Climate Impacts on Top Predators, San Sebastian, Spain (2015)

Bycatch and Marine Megafauna. Workshop on Incentive-Based Fisheries Bycatch Reduction (2015)

Using species diversity hotspots to set conservation priorities in oceanic ecosystems.

- IRD-IFREMER Science Seminar (2015)
- Annual Conference of the American Cetacean Society (2014)

Conducting science with declining support: NOAA Fisheries' Protected Resources Science Investment and Planning Process.

- NOAA Fisheries' Habitat Assessment Improvement Plan Working Group (2014)
- NOAA Fisheries' Protected Resources Economics Working Group (2014)
- Briefing for NOAA Fisheries' Assistant Administrator (2014)

Marine Mammal Science & Management Priorities: a way forward through identification of common needs. Annual meeting of the U.S. Marine Mammal Commission – Capitol Hill Presentation (2014)

PUBLICATIONS

Peer-Reviewed Journal Papers, Book/Encyclopedia Chapters, Book Reviews

Allen, C.D., S.J. Sawyer, L.E. Peavey Reeves, T. Eguchi, **L.T. Ballance**, R.L. Pitman, S.L. Martin, T.T. Jones, and J.A. Seminoff. *In Review.* Sex ratios of olive ridley sea turtles foraging in the high seas of the North Pacific establish baselines for climate change research. *Marine Ecology Progress Series.*

Ballance, L.T. *In Press.* Lessons from 40 years as a marine scientist: Advice to a young Lisa. *Aquatic Mammals.*

Jones, T., J.K. Parrish, P. MacCready, **L.T. Ballance**, D.W. Bradley, H.K. Burgess, J.E. Dolliver, J.T. Harvey, T. Joyce, K. Lindquist, J. Lindsey, H.M. Nevins, J. Roletto, L. Wilson, C. Wright. *In Press.* Assessing total mortality following seabird wrecks given variable data quantity and quality: the Cassin's auklet die-off. *Canadian Journal of Fisheries and Aquatic Sciences.*

Kennerley, W.L., **L.T. Ballance**, R.A. Orben, L.G. Torres, & D.I. Solick. 2024. First Visual Record of a Hoary Bat (*Lasiurus cinereus*) over the Open Ocean. Journal of North American Bat Research Notes, 2, 1–5.

<https://www.eaglehill.us/NABRonline/access-pages/004-Solick-accesspage.shtml>

Ballance, L.T., R.L. Pitman, J. Barlow, T. Pusser, A.I. DeAngelis, C. Hayslip, L. Irvine, D. Steel, C.S. Baker, D. Gillies, S. Baumann-Pickering, J.S. Trickey, B. Gisborne. 2023. Acoustic recordings, biological observations, and genetic identification of a rare(?) beaked whale in the North Pacific: *Mesoplodon carlhubbsi*. Marine Mammal Science. DOI 10.1111/mms.13059

Foote, A.D., A. Alexander, **Ballance, L.T.**, R. Constantine, B. Galletti Vernazzani Muñoz, C. Guinet, K.M. Robertson, M.H.S. Sinding, M. Sironi, P. Tixier, J. Totterdell, J.R. Towers, R. Wellard, R.L. Pitman, and P.A. Morin. 2023. “Type D” killer whale genomes reveal long-term small population size and low genetic diversity. Journal of Heredity.

<https://doi.org/10.1093/jhered/esac070>

Russell, T.M., A.R. Szesciorka, T.W. Joyce, D.G. Ainley, and **L.T. Ballance**. 2023. National Marine Sanctuaries capture enhanced abundance and diversity of the California Current Ecosystem avifauna. Journal of Marine Systems.

<https://doi.org/10.1016/j.jmarsys.2023.103887>

Young, L.C., & **L.T. Ballance**. 2023. Ecology of Marine Birds. Pages 3-32 in: Conservation of Marine Birds. L. Young & E. VanderWerf (eds.). Academic Press. <https://doi.org/10.1016/B978-0-323-88539-3.00016-9>

Brownell, R.L., Jr., F.I. Archer, **L.T. Ballance**, T.A. Jefferson, J.G. Mead, S.L. Mesnick, R.R. Reeves, and B.L. Taylor. 2022. In Memorium: William F. Perrin 1938-2022. Marine Mammal Science DOI: 10.1111/mms.12996

Chen, B., Wu, C., **L.T. Ballance**, D. Fertl, H. Jiang, Y. Qiao, Z. Du, Y. Zhang, F. Yang, G. Yang, & R.L. Pitman. 2022. Cooperative feeding and foraging lateralization by Eden’s whales off southern China. Marine Mammal Science DOI:10.1111/mms.12974

DeAngelis, A.I., J. Barlow, D. Gillies, & **L.T. Ballance**. 2022. Echolocation depths and acoustic foraging behavior of Baird’s beaked whales (*Berardius bairdii*) based on towed hydrophone recordings. Marine Mammal Science doi.org/10.1111/mms.12958

Lent, R., D.E. Squires, P.H. Dutton, and **L.T. Ballance**, eds. 2022. Multidisciplinary Approaches to Mitigating Fisheries Bycatch. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88976-043-5

Lent, R., D. Squires, **L.T. Ballance**, P. Dutton, and L. Dagorn. 2022. Editorial: Multidisciplinary approaches to mitigating fisheries bycatch. Frontiers in Marine Science 9:884885 doi 10.3389/fmars.2022.884885

Rogers, A.D., W. Appeltans, J. Assis, **L.T. Ballance**, P. Cury, C. Duarte, F. Favoretto, L.A. Hynes, J.A. Kumagai, C.E. Lovelock, P. Miloslavich, A. Niamir, D. Obura, B.C. O’Leary, E. Ramirez-Llodra, G. Reygondeau, C. Roberts, Y. Sadovy, O. Steeds, T. Sutton, D.P. Tittensor, E. Velarde, L. Woodall, and O. Aburto-Oropeza. 2022. Chapter Two - Discovering marine biodiversity in the 21st century. Pages 23-115 in: Advances in Marine Biology, Volume 93. C. Sheppard (ed.). Academic Press. <https://doi.org/10.1016/bs.amb.2022.09.002>

Ballance, L.T., T. Gerrodette, C.E. Lennert-Cody, R.L. Pitman, and D. Squires. 2021. A history of the tuna-dolphin problem: successes, failures, and lessons learned. Frontiers in Marine Science 8:1-17. doi: 10-3389/fmars.2021.754755 <https://www.frontiersin.org/articles/10.3389/fmars.2021.754755>

Ballance, L.T. 2021. In praise of Newport. Viewpoint: Newport News Times 9/16/2021. (opinion piece)

- Foote, A.D., R. Hooper, A. Alexander, R.W. Baird, C.S. Baker, **L. Ballance**, J. Barlow, A. Brownlow, T. Collins, R. Constantine, L. Dalla Rosa, N.J. Davison, J.W. Durban, R. Esteban, L. Excoffier, S.L. Fordyce Martin, K.A. Forney, T. Gerrodette, M.T.P. Gilbert, C. Guinet, M.B. Hanson, S. Li, M.D. Martin, K.M. Robertson, F.I.P. Samarra, R. de Stephanis, S.B. Tavares, P. Tixier, J.A. Totterdell, P. Wade, J.B.W. Wolf, G. Fan, Y. Zhang, and P.A. Morin. 2021. Runs of homozygosity in killer whale genomes provide a global record of demographic histories. *Molecular Ecology*
<https://doi.org/10.1111/mec.16137>
- Ford, R.G., S. Terrill, J. Casey, D. Shearwater, S.R. Schneider, **L.T. Ballance**, L. Terrill, M. Tollefson., and D.G. Ainley. 2021. Distribution patterns and population size of the Ashy Storm-Petrel *Hydrobates homochroa*. *Marine Ornithology* 49:193-204.
- Leander, S.M., J.W. Durban, K. Danil, H. Fearnbach, T.W. Joyce, and **L.T. Ballance**. 2021. Sexually dimorphic measurements from stranded and bycaught specimens allow characterization of group composition in free ranging common dolphins (*Delphinus* spp.) from aerial images. *Marine Mammal Science*: 1-7. DOI: 10.1111/mms.12804
- Squires, D.E., R. Lent, P.H. Dutton, L. Dagorn, **L.T. Ballance**. 2021. Credit systems for bycatch and biodiversity conservation. *Frontiers in Marine Science* 8:613279. doi: 10.3389/fmars.2021.613279
- Squires, D., **L.T. Ballance**, P.H. Dutton, L. Dagorn, R. Lent. 2021. Mitigating bycatch: Novel insights to multidisciplinary approaches. *Frontiers in Marine Science*. doi.org/10.3389/fmars.2021.613285
- Glennie, R., S.T. Buckland, R. Langrock, T. Gerrodette, **L.T. Ballance**, S.J. Chivers, and M.D. Scott. 2020. Incorporating animal movement into distance sampling. *Journal of the American Statistical Association*. DOI: 10.1080/01621459.2020.1764362
- Ballance, L.T.** 2020. Book Review - European Whales, Dolphins, and Porpoises: Marine Mammal Conservation in Practice. *Quarterly Review of Biology* 95:258.
- Ballance, L.T.** 2020. Sea change: Reflections on a career as a female marine mammal scientist. *Whalewatcher*. *Journal of the American Cetacean Society* 43(1):27-29.
- Szescioroka, A.R., **L.T. Ballance**, A. Širović, A. Rice, M.D. Ohman, J.A. Hildebrand, and P.J.S. Franks. 2020. Timing is everything: Drivers of interannual variability in blue whale migration. *Scientific Reports* 10:7710;
<https://doi.org/10.1038/s41598-020-64855-y>
- Dunn, D., A-L. Harrison, C. Curtice, S. DeLand, B. Donnelly, E. Fujioka, E. Heywood, C. Kot, S. Poulin, M. Whitten, S. Åkesson, A. Alberini, W. Appeltans, P. Arcos, H. Bailey, **L.T. Ballance**, B. Block, H. Blondin, A. Boustany, J. Brenner, P. Catry, D. Cejudo, J. Cleary, P. Corkeron, D. Costa, M. Coyne, G. Ortuño Crespo, T. Davies, M. Dias, F. Douvère, F. Ferretti, A. Formia, D. Freestone, A. Friedlaender, H. Frisch-Nwakanma, C. Barrio Froján, K. Gjerde, L. Glowka, J. Gonzalez-Solis, B. Godley, J.P. Granadeiro, V. Gunn, Y. Hashimoto, L. Hawkes, G. Hays, C. Hazin, J. Jimenez, D. Johnson, P. Luschi, S. Maxwell, C. McClellan, M. Modest, G. Notarbartolo di Sciara, D. Palacios, A. Herrero Palacio, A. Pauly, M. Rayner, A. Rees, E. Ross, D. Secor, A. Sequeira, M. Spalding, F. Spina, S. Van Parijs, N. Varo, M. Virtue, B. Wallace, H. Weimerskirch, L. Wilson, B. Woodward, P. Halpin. 2019. The importance of migratory connectivity for global ocean policy. *Proceedings of the Royal Society B* 286: 20191472 <https://doi.org/10.1098/rspb.2019.1472>
- Foote, A.D., M.D. Martin, M. Louis, G. Pacheco, K.M. Robertson, M-H.S. Sinding, A.R. Amaral, R.W. Baird, C. S. Baker, **L. Ballance**, J. Barlow, A. Brownlow, T. Collins, R. Constantine, W. Dabin, L. Dalla Rosa, N.J. Davison, J.W. Durban, R. Esteban, S.H. Ferguson, T. Gerodette, C. Guinet, M.B. Hanson, W. Hoggard, C.J.D. Matthews, F.I.P. Samarra, R. de Stephanis, S.B.

- Tavares, P. Tixier, J.A. Totterdell, P. Wade, L. Excoffier, M.T. Gilbert, J.B.W. Wolf, P.A. Morin. 2019. Killer whale genomes reveal a complex history of recurrent admixture and vicariance. *Molecular Ecology* 28:3427-3444. DOI:10.1111/mec.15099
- Mesnick S.L., **Ballance L.T.**, Wade P.R., Pryor K., Reeves R.R. 2019. Oceanic Dolphin Societies: Diversity, Complexity, and Conservation. In: Würsig B. (ed.) *Ethology and Behavioral Ecology of Odontocetes*. *Ethology and Behavioral Ecology of Marine Mammals*. Springer, Cham. https://doi.org/10.1007/978-3-030-16663-2_9
- Pitman, R. L., **L. T. Ballance**, M. Sironi, J. Totterdell, J. R. Towers, and R. Wellard. 2019. Enigmatic megafauna: type D killer whale in the Southern Ocean. *Ecology* 00(00):e02871. 10.1002/ecy.2871
- Ballance, L.T.** 2018. Cetacean Ecology. Pages 172-180 *in*: *Encyclopedia of Marine Mammals*, Third Edition. B. Würsig, K. Kovacs, and J.G.M. Thewissen (eds.). Elsevier, San Diego.
- Ballance, L.T.** 2018. Contributions of photographs to cetacean science. *Aquatic Mammals* 44(6):668-682, DOI 10.1578/AM.44.6.2018.668
- Fiedler, P., J.V. Redfern, K.A. Forney, D.M. Palacios, C. Sheredy, K. Rasmussen, I. García-Godos, L. Santillán, M. Tetley, F. Félix, and **L.T. Ballance**. 2018. Prediction of large whale distributions: A comparison of presence-absence and presence-only modeling techniques. *Frontiers in Marine Science* DOI 10.3389/fmars.2018.00419
- Jones, T., J.K. Parrish, W.T. Peterson, E.P. Bjorkstedt, N.A. Bond, **L.T. Ballance**, V. Bowes, J.M. Hipfner, H. K. Burgess, J.E. Dolliver, K. Lindquist, J. Lindsey, H.M. Nevins, R.R. Robertson, J. Roletto, L. Wilson, T. Joyce, and J.T. Harvey. 2018. Massive mortality of a planktivorous seabird in response to a marine heatwave. *Geophysical Research Letters*. DOI 10.1002/2017GL076164
- Schlenger, A.J., S. Libralato, and **L.T. Ballance**. 2018. Temporal variability of primary production explains marine ecosystem structure and function. *Ecosystems*. <https://doi.org/10.1007/s10021-018-0272-y>
- Young, H., K. Nigro, D. McCauley, **L.T. Ballance**, E.M. Oleson, and S. Baumann-Pickering. 2017. Limited trophic partitioning among sympatric delphinids off a tropical oceanic atoll. *PLoS ONE* <https://doi.org/10.1371/journal.pone.0181526>
- Ruiz-Cooley, R.I., T. Gerrodette, P. Fiedler, S.J. Chivers, K. Danil, and **L.T. Ballance**. 2017. Temporal variation in pelagic food chain length in response to environmental change. *Science Advances* 3:e1701140 <http://advances.sciencemag.org/content/3/10/e1701140/tab-pdf>
- Ballance, L.T.** 2017. Book Review: *Whales, Dolphins and Porpoises: A Natural History and Species Guide*. A. Berta (ed.). *Quarterly Review of Biology* 92:113-114.
- Joyce, T.W., J.W. Durban, D.E. Claridge, C.A. Dunn, H. Fearnbach, K.M. Parsons, R.D. Andrews, and **L.T. Ballance**. 2017. Physiological, morphological, and ecological tradeoffs influence vertical habitat use of deep-diving toothed-whales in the Bahamas. *PLoS ONE* 12(10):e0185113: [hhttps://doi.org/10.1371/journal.pone.0185113](https://doi.org/10.1371/journal.pone.0185113)
- Redfern, J.V., T.J. Moore, P.C. Fiedler, A. deVos, R.L. Brownell, Jr., K.A. Forney, E.A. Becker, and **L.T. Ballance**. 2017. Predicting cetacean distributions in data-poor marine ecosystems. *Diversity and Distributions* 1-15. DOI: 10.1111/ddi.12537
- Trejo Albarrán, X., L. Medrano González, J. Urbán Ramírez, **L. Ballance**. 2017. Los mamíferos marinos del archipiélago de Revillagigedo. *Ecología* 209. <http://www.jornada.unam.mx/2016/11/28/eco-e.html>

- Hetherington, E.D., R.J. Olson, J.C. Drazen, C.E. Lennert-Cody, **L.T. Ballance**, R.S. Kaufmann, and B.N. Popp. 2016. Spatial food-web structure in the eastern tropical Pacific Ocean based on compound-specific nitrogen isotope analysis of amino acids. *Limnology and Oceanography* doi:10.1002/lno.10443
- Joyce, T.W., J.W. Durban, H. Fearnbach, D. Claridge, and **L.T. Ballance**. 2016. Use of time-at-temperature data to describe dive behavior in five species of sympatric deep-diving toothed whales. *Marine Mammal Science* DOI:10.1111/mms.12323
- Martin, S.L., **L.T. Ballance**, and T. Grooves. 2016. An ecosystem services perspective for the oceanic eastern tropical Pacific: commercial fisheries, carbon storage, recreational fishing, and biodiversity. *Frontiers in Marine Science* doi: 10.3389/fmars.2016.00050 | <http://dx.doi.org/10.3389/fmars.2016.00050>
- Squires, D., **L.T. Ballance**, R. Deriso, J. Ianelli, M. Maunder, K. Schaefer. 2015. Comment on 'Scope and compatibility of measures in international fisheries agreements' by Finus and Schneider. *Oxford Economic Papers* doi: 10.1093/oep/gpv041
- Lyday, S.E., **L.T. Ballance**, D.B. Field, and K.D. Hyrenbach. 2015. Shearwaters as ecosystem indicators: towards fishery-independent metrics of fish abundance in the California Current. *Journal of Marine Systems* 146:109-120.
- Pitman, R.L., J.A. Totterdell, H. Fearnbach, **L.T. Ballance**, J.W. Durban, and H. Kemps. 2014. Whale killers: Prevalence and ecological implications of killer whale predation on humpback whale calves off Western Australia. *Marine Mammal Science* DOI: 10.1111/mms.12182
- Priddel, D., N. Carlile, D. Portelli, Y. Kim, L. O'Neill, V. Bretagnolle, **L.T. Ballance**, R.A. Phillips, R.L. Pitman, M.J. Rayner. 2014. Pelagic distribution of Gould's Petrel *Pterodroma leucoptera*: linking shipboard and beached bird sightings with remote tracking data. *Emu* 114:360-370.
- Fiedler, P.C., J.V. Redfern, J. Van Noord, C. Hall, R. Pitman, and **L.T. Ballance**. 2013. Effects of a tropical cyclone on a pelagic ecosystem from the physical environment to top predators. *Marine Ecology Progress Series* 484:1-16.
- Guy, T.J., S.L. Jennings, R.M. Suryan, E.F. Melvin, M.A. Bellman, **L.T. Ballance**, B.A. Blackie, D.A. Croll, T. Deguchi, T.O. Geernaert, R.W. Henry, M. Hester, K.D. Hyrenbach, J. Jahncke, M.A. Kappes, K. Ozaki, J. Roletto, F. Sato, W.J. Sydeman, J.E. Zamon. 2013. Overlap of North Pacific albatrosses with the U.S. west coast groundfish and shrimp fisheries. *Fisheries Research* 147:222-234.
- Jefferson, T.A., C.R. Weir, R.C. Anderson, **L.T. Ballance**, R.D. Kenney, and J.J. Kiszka. 2013. Global patterns of Risso's dolphin (*Grampus griseus*) distribution: a review and critical evaluation. *Mammal Review*. doi:10.1111/mam.12008
- Ruiz-Cooley, R.I., **L.T. Ballance**, and M.D. McCarthy. 2013. Range expansion of the jumbo squid in the NE Pacific: $\delta^{15}\text{N}$ decrypts multiple origins, migration and habitat use. *PLoS ONE* 8(3):e59651. doi:10.1371/journal.pone.0059651.
- Staaf, D.J., J.V. Redfern, W.F. Gilly, W. Watson, and **L.T. Ballance**. 2013. Distribution of ommastrephid paralarvae in the eastern tropical Pacific. *Fishery Bulletin* 111:78-89.
- Pitman, R.L., **L.T. Ballance**, and C.A. Bost. 2012. Incidence of wing deformities ('Angel Wing') among Masked Boobies at Clipperton Island: life history consequences and insight into etiology. *The Wilson Journal of Ornithology* 124(3):597-602.
- Forney, K.A., M.C. Ferguson, E.A. Becker, P.C. Fiedler, J.V. Redfern, J. Barlow, L.I. Vilchis, and **L.T. Ballance**. 2012. Habitat-based spatial models of cetacean density in the eastern Pacific Ocean. *Endangered Species Research* 16:113-133.

Nur, N., J. Jahncke, M.P. Herzog, J. Howar, K.D. Hyrenbach, J.E. Zamon, D.G. Ainley, J.A. Wiens, K. Morgan, **L.T. Ballance**, and D. Stralberg. 2011. Where the wild things are: predicting hotspots of seabird aggregations in the California Current System. *Ecological Applications* 21(6):2241-2257.

Ballance, L.T. and T. Whitty. 2010. Review of "Ecosystem-Based Management for the Oceans" *Restoration Ecology* 18(5):780-781.

Olson, R.J., B.N. Popp, B.S. Graham, G.A. López-Ibarra, R. Galván-Magaña, C.E. Lennert-Cody, N. Bocanegra-Castillo, N.J. Wallsgrave, E. Gier, B. Alatorre-Ramírez, **L.T. Ballance**, and B. Fry. 2010. Food web inferences of stable isotope spatial patterns in copepods and yellowfin tuna in the pelagic eastern Pacific Ocean. *Progress in Oceanography* 86:124-138.

Ballance, L.T. 2009. Cetacean Ecology. Pages 196-201 *in*: Encyclopedia of Marine Mammals, Second Edition. W.F. Perrin, B. Würsig and J.G.M. Thewissen (eds.). Elsevier, San Diego.

Ballance, L.T., D.G. Ainley, G. Ballard, and K. Barton. 2009. An energetic correlate between colony size and foraging effort in seabirds, an example of the Adélie penguin *Pygoscelis adeliae*. *Journal of Avian Biology* 40:279-288.

Force, M.P. and **L.T. Ballance**. 2009. A Pink-footed Shearwater in Hawai'i. *'Elepaio* 69(6):39-40.

Force, M.P., J.M. Cotton, R.A. Rowlett, and **L.T. Ballance**. 2009. First records of Chatham Island Petrel *Pterodroma axillaris* in the eastern Pacific Ocean. *Marine Ornithology* 37:269-271.

Weimerskirch, H. M. Le Corre, C.A. Bost, **L.T. Ballance**, and R.L. Pitman. 2009. L'avifaune et l'écologie des oiseaux marin. Pages 381-392 *in*: Clipperton, environnement et biodiversité d'un microcosme océanique. L. Charpy (ed.). Patrimones Naturels 68. MNHN, Paris; IRD, Marseille.

Vilchis, L.I., **L.T. Ballance**, and W. Watson. 2009. Temporal variability of neustonic ichthyoplankton assemblages of the eastern Pacific warm pool: Can community structure be linked to climate variability? *Deep-Sea Research I* 56:125-140.

Andrews, R.D., R.L. Pitman and **L.T. Ballance**. 2008. Satellite tracking reveals distinct movement patterns for Type B and Type C killer whales in the southern Ross Sea, Antarctica. *Polar Biology* 31:1461-1468.

Pagen, R., P. Pyle, and **L.T. Ballance**. 2008. A *Fregatta* storm-petrel off Mexico. *Western Birds* 39:225-227.

Redfern, J.V., J. Barlow, **L.T. Ballance**, T. Gerrodette, and E.A. Becker. 2008. Absence of scale dependence in dolphin-habitat models for the eastern tropical Pacific ocean. *Marine Ecology Progress Series* 363:1-14.

Ballance, L.T. 2007. Understanding seabirds at sea: why and how? *Marine Ornithology* 35:127-135.

Ballance, L.T. 2007. Storm-Petrels of the Eastern Pacific Ocean: Species Assembly and Diversity along Marine Habitat Gradients. (Review) *Ibis* 149:871.

Pitman, R., Fearnbach, H., LeDuc, R., Gilpatrick, J.W., Ford, J.K.B. and **Ballance, L.T.** 2007. Killer whales preying on a blue whale calf on the Costa Rica Dome: genetics, morphometrics, vocalizations and composition of the group. *Journal of Cetacean Research and Management* 9(2): 151-158.

Ballance, L.T., R.L. Pitman, R. Hewitt, D. Siniff, W. Trivelpiece, P. Clapham, and R.L. Brownell, Jr. 2006. The removal of large whales from the Southern Ocean. Evidence for long-term ecosystem effects? Pages 215-230 *in*: Whales, whaling,

and ocean ecosystems. J.A. Estes, D.P. DeMaster, D.F. Doak, T.M. Williams, and R.L. Brownell, Jr. (eds.). University of California Press, Berkeley, CA.

Ballance, L.T., R.L. Pitman, and P.C. Fiedler. 2006. Oceanographic influences on seabirds and cetaceans of the eastern tropical Pacific: a review. *Progress in Oceanography* 69:360-390.

Barlow, J. M. Ferguson, W.F. Perrin, **L.T. Ballance**, T. Gerrodette, G. Joyce, C. D. MacLeod, K. Mullin, D.L. Palka, and G. Waring. 2006. Abundance and density of beaked and bottlenose whales (Family Ziphiidae). *Journal of Cetacean Research and Management* 7(3):263-270.

Brooke, M.D.L., **L.T. Ballance**, R.L. Pitman, and R.W. Furness. 2006. Fishery impacts on the food supplies of seabirds. *Acta Zoologica Sinica* 52 (Supplement):639-640.

Lavín, M.F., P.C. Fiedler, J.A. Amador, **L.T. Ballance**, J. Färber-Lorda, and A.M. Mestas-Nuñez. 2006. A review of eastern tropical Pacific oceanography: summary. *Progress in Oceanography* 69:391-398.

MacLeod, C., W.F. Perrin, R.L. Pitman, J. Barlow, **L.T. Ballance**, A. D'Amico, T. Gerrodette, G. Joyce, K.D. Mullin, D.L. Palka, and G.T. Waring. 2006. Known and inferred distributions of beaked whale species (Cetacea: Ziphiidae). *Journal of Cetacean Research and Management* 7(3):271-286.

Pyle, P., G. Friedrichsen, T. Staudt, C. Oedekoven, and **L.T. Ballance**. 2006. First record of Ringed Storm-Petrel (*Oceanodroma hornbyi*) for North America. *North American Birds* 60(1):162-163.

Redfern, J.V., M.C. Ferguson, E.A. Becker, K.D. Hyrenbach, C. Good, J. Barlow, K. Kaschner, M. Baumgartner, K.A. Forney, **L.T. Ballance**, P. Fauchald, P. Halpin, T. Hamazaki, A.J. Pershing, S. Qian, A. Read, S. Reilly, L. Torres, and C. Werner. 2006. Techniques for cetacean-habitat modeling. *Marine Ecology Progress Series* 310:271-295.

Vilchis, L.I., **L.T. Ballance**, and P.C. Fiedler. 2006. Pelagic habitat of seabirds in the eastern tropical Pacific: effects of foraging ecology on habitat selection. *Marine Ecology Progress Series* 315:279-292.

Borberg, J.M., **L.T. Ballance**, R.L. Pitman, and D.G. Ainley. 2005. A test for bias attributable to seabird avoidance of ships during surveys conducted in the tropical Pacific. *Marine Ornithology* 33:173-179.

Karnovsky, N.J., L.B. Spear, H.R. Carter, D.G. Ainley, K.D. Amey, **L.T. Ballance**, K.T. Briggs, R.G. Ford, G.L. Hunt, Jr., C. Keiper, J.W. Mason, K.H. Morgan, R.L. Pitman and C.T. Tynan. 2005. At-sea distribution, abundance and habitat affinities of Xantus's Murrelets. *Marine Ornithology* 33:89-104.

Pitman, R.L., **L.T. Ballance**, and C. Bost. 2005. Clipperton Island: Pig sty, rat hole and booby prize. *Marine Ornithology* 33:193-194.

Ford, R.G., D.G. Ainley, J.L. Casey, C.A. Keiper, L.B. Spear, and **L.T. Ballance**. 2004. The biogeographic patterns of seabirds in the central portion of the California Current. *Marine Ornithology* 32:77-96.

Ballance, L.T. 2002. Cetacean Ecology. Pages 208-214 *in*: Encyclopedia of Marine Mammals. W.F. Perrin, B. Würsig and J.G.M. Thewissen (eds.). Academic Press, San Diego.

Ballance, L.T. 2002. Review of Cormorant harassment to protect juvenile salmonids in Tillamook County, Oregon. *Marine Ornithology* 30:54.

Pitman, R.L. and **L.T. Ballance**. 2002. The changing status of marine birds breeding at San Benedicto Island, Mexico. *Wilson Bulletin* 114(1):11-19.

Ballance, L.T., R.C. Anderson, R.L. Pitman, K. Stafford, A. Shaan, Z. Waheed, and R.L. Brownell, Jr. 2001. Cetacean sightings around the Republic of the Maldives, April 1998. *Journal of Cetacean Research and Management* 3(2):213-218. <http://digitalcommons.unl.edu/usdeptcommercepub/97>

Ballance L.T., D.G. Ainley and G.L. Hunt, Jr. 2001. Seabird Foraging Ecology. Pages 2636-2644 in: J.H. Steele, S.A. Thorpe and K.K. Turekian (eds.) *Encyclopedia of Ocean Sciences*, vol. 5. Academic Press, London.

Pitman, R.L., **L.T. Ballance**, S. L. Mesnick, and S. J. Chivers. 2001. Killer whale predation on sperm whales: observations and implications. *Marine Mammal Science* 17(3):494-507.

Spear, L.B., **L.T. Ballance**, and D.G. Ainley. 2001. Response of seabirds to thermal boundaries in the tropical Pacific: the thermocline versus the Equatorial Front. *Marine Ecology Progress Series* 219:275-289.

Ballance, L.T. and R.L. Pitman. 1999. Foraging ecology of tropical seabirds. *Proceedings of the 22nd International Ornithological Congress*, Durban:2057-2071. Adams, N. and R. Slotow (eds.). Johannesburg: BirdLife South Africa.

Hertel, F. and **L.T. Ballance**. 1999. Wing ecomorphology of seabirds from Johnston Atoll. *Condor* 101:549-556.

Ballance, L.T. and R.L. Pitman. 1998. Cetaceans of the western tropical Indian Ocean: distribution, relative abundance, and comparisons with cetacean communities of two other tropical ecosystems. *Marine Mammal Science* 14(3):429-459.

Ballance, L.T., R.L. Pitman and S.B. Reilly. 1997. Seabird community structure along a productivity gradient: importance of competition and energetic constraint. *Ecology* 78:1502-1518.

Ballance, L.T. 1995. Flight energetics of free-ranging Red-footed Boobies, *Sula sula*. *Physiological Zoology*. 68:887-914.

Ballance, L.T. 1992. Ranges and habitat utilization patterns of the bottlenose dolphin, *Tursiops truncatus*, in the Gulf of California, Mexico. *Marine Mammal Science* 8:262-274.

Pitman, R.L. and **L.T. Ballance**. 1992. Parkinson's Petrel distribution and foraging ecology in the eastern tropical Pacific: aspects of an exclusive feeding relationship with dolphins. *Condor* 94:824-834.

Ballance, L.T. 1990. Residence patterns, group organization, and surfacing associations of bottlenose dolphins in Kino Bay, Gulf of California, Mexico. Pages 267-283. *In*: The bottlenose dolphin. Leatherwood, S. and R.R. Reeves (eds.). Academic Press.

Pitman, R.L. and **L.T. Ballance**. 1990. Daytime feeding by Leach's Storm-Petrel on a midwater fish, *Vinciguerria lucetia*, in the eastern tropical Pacific. *Condor* 92:524-527.

Croll, D.A., **L.T. Ballance**, B.G. Würsig, and W.B. Tyler. 1986. Movements and daily activity patterns of a Brown Pelican in central California. *Condor* 88:258-260.

Technical Reports and Theses

- Schneider, Stephanie R., Eli Wallach, Charles Chamberlin, Sophie B. Bernstein, Sadie Trush, David G. Ainley, Scott B. Terrill, Sharon H. Kramer, R. Glenn Ford, Janet Casey, Jarrod A. Santora, **Lisa Ballance**, and Arne Jacobson. 2024. Seabirds in 3D: A Framework to Evaluate Collision Vulnerability with Future Offshore Wind Developments. Interim Project Task Report prepared for the California Energy Commission.
- Leirness, J.B., J. Adams, **L.T. Ballance**, M. Coyne, J.J. Felis, T. Joyce, D.M. Pereksta, A.J. Winship, C.F.G. Jeffrey, D. Ainley, D. Croll, J. Evenson, J. Jahncke, W. McIver, P.I. Miller, S. Pearson, C. Strong, W. Sydeman, J.E. Waddell, J.E. Zamon, and J. Christensen. 2021. Modeling at-sea density of marine birds to support renewable energy planning on the Pacific Outer Continental Shelf of the contiguous United States. Camarillo (CA): US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2021-014. 385 p.
- Henry A.E., J.E. Moore, J. Barlow, J. Calambokidis, **L.T. Ballance**, L. Rojas-Bracho, and J. Urbán Ramírez. 2020. Report on the California Current Ecosystem Survey (CCES): Cetacean and Seabird Data Collection Efforts, June 26 – December 4, 2018. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-SWFSC-636.
- Ballance, L. T.**, Benaka, L. R., Ellgen, S. U., Fitzgerald, S. M., Henry, A. E., Kim, M. A., Nathanson, S. L., and Joyce, T. W. 2019. National Seabird Program Five-Year Strategic Plan: 2020-2024. NOAA Technical Memorandum NMFS-F/SPO-202, 190 p. Available at <https://spo.nmfs.noaa.gov/sites/default/files/TM202.pdf>
- Rogers, A., O. Aburto-Oropeza, W. Appeltans, J. Assis, **L.T. Ballance**, P. Cury, C. Duarte, F. Favoretto, J. Kumagai, C. Lovelock, P. Miloslavich, A. Niamir, D. Obura, B.C. O’Leary, G. Reygondeau, C. Roberts, Y. Sadovy, T. Sutton, D. Tittensor, and E. Velarde. 2020. Critical Habitats and Biodiversity: Inventory, Thresholds and Governance. Washington, DC: World Resources Institute.
- Ballance, L.T.**, L.R. Benaka, S.U. Ellgen, S.M. Fitzgerald, A.E. Henry, M.A. Kim, S.L. Nathanson, and T.W. Joyce. 2019. Report of the 2018 Meeting of NOAA Fisheries’ National Seabird Program. NOAA Technical Memorandum NMFS-F/SPO-193.
- Scott, M.D., C.E. Lennert-Cody, T. Gerrodette, S.J. Chivers, K. Danil, A.A. Hohn, L.M. Duffy, R.J. Olson, H.J. Skaug, C.V. Minte-Vera, P.C. Fiedler, **L.T. Ballance**, K.A. Forney, J. Hofmeister, M.C. Ferguson, J. Barlow. 2018. Data available for assessing dolphin population status in the eastern tropical Pacific Ocean. IATTC Special Report 23:30.
- Yano, K.M., E.M. Oleson, J.L. Keating, **L.T. Ballance**, M.C. Hill, A.L. Bradford, A.N. Allen, T.W. Joyce, J.E. Moore, and A. Henry. 2018. Cetacean and seabird data collected during the Hawaiian Islands Cetacean and Ecosystem Assessment Survey (HICEAS), July–December 2017. NOAA Tech. Memo. NMFS-PIFSC-72, 110p. <https://doi.org/10.25923/7avn-gw82>
- Ballance, L.T.**, M. Srinivasan, A. Henry, R. Angliss, L. Barre, J. Barlow, J. Bengtson, S. Bettridge, J. Bohnsack, S. Brown, P. Clapham, C. Fahy, M. Ford, L. Garrison, T. Gerrodette, N. LeBoeuf, J. Moore, E. Oleson, D. Palka, F. Parrish, J. Redfern, M. Simpkins, B. Taylor, P. Wade. 2017. A strategic plan for conducting large geographic scale, ship-based surveys to support the U.S. Marine Mammal Protection and Endangered Species acts. NOAA Technical Memorandum NMFS-F/SPO-169. <http://spo.nmfs.noaa.gov/content/tech-memo/strategic-plan-conducting-large-geographic-scale-ship-based-surveys-support-us>
- Fiedler, P. C., J. V. Redfern, and **L. T. Ballance**. 2017. Oceanography and cetaceans of the Costa Rica Dome Region. NOAA Technical Memorandum NMFS-SWFSC-590. U.S. Department of Commerce, National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla, CA.

Menza, C., J. Leirness, T. White, A. Winship, B. Kinlan, L. Kracker, J.E. Zamon, **L. Ballance**, E. Becker, K.A. Forney, J. Barlow, J. Adams, D. Pereksta, S. Pearson, J. Pierce, S. Jeffries, J. Calambokidis, A. Douglas, B. Hanson, S.R. Benson and L. Antrim. 2016. Predictive mapping of seabirds, pinnipeds and cetaceans off the Pacific Coast of Washington. NOAA Technical Memorandum NOS NCCOS 210. Silver Spring, MD. 96 pp. doi:10.7289/V5NV9G7Z.

Ballance, L.T., Barre, Bengtson, Bettridge, Bisack, Brown, Fahy, Ford, Garrison, LeBoeuf, R. LeRoux, Parrish, Seney, Simpkins, Srinivasan, VanAtta, Vardi. 2014. NOAA's National Marine Fisheries Service Protected Resources Science Investment and Planning Process (PRSIPP): highlights and significant outcomes of the September 2013 steering committee meeting. NOAA Technical Memorandum NMFS-F/SPO-140.

Rivera K. S., **L. T. Ballance**, L. Benaka, E. R. Breuer, S. G. Brooke, S. M. Fitzgerald, P. L. Hoffman, N. LeBoeuf, and G.T. Waring. 2014. Report of the National Marine Fisheries Service's National Seabird Workshop: Building a National Plan to Improve the State of Knowledge and Reduce Commercial Fisheries Impacts on Seabirds. September 9–11, 2009, Alaska Fisheries Science Center, Seattle, WA. U.S. Dept. of Commer., NOAA. NOAA Technical Memorandum NMFS-F/SPO-139, 78 p.

Barlow, J., **L.T. Ballance**, and K.A. Forney. 2011. Effective strip widths for ship-based line-transect surveys of cetaceans. NOAA Technical Memorandum NMFS-SWFSC-484.

Barlow, J., A. Henry, J.V. Redfern, T. Yack, A. Jackson, C. Hall, E. Archer, and **L.T. Ballance**. 2010. Oregon, California and Washington Line-Transect and Ecosystem (ORCAWALE) 2008 Cruise Report. NOAA Technical Memorandum NMFS-SWFSC-465.

Chivers, S.J., W.L. Perryman, N.M. Kellar, J.V. Carretta, F.I. Archer, J.V. Redfern, A.E. Henry, M.S. Lynn, C. Hall, A. Jackson, G. Serra-Valente, T.J. Moore, C. Surrey-Marsden, and **L.T. Ballance**. 2010. Ecosystem survey of *Delphinus* species cruise report. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-464.

Barlow, J., M.C. Ferguson, E.A. Becker, J.V. Redfern, K.A. Forney, I.L. Vilchis, P.C. Fiedler, T. Gerrodette, and **L.T. Ballance**. 2009. Predictive modeling of cetacean densities in the eastern Pacific Ocean. NOAA Technical Memorandum NMFS-SWFSC-444.

Hamilton, T.A., J.V. Redfern, J. Barlow, **L.T. Ballance**, T. Gerrodette, R.S. Holt, K.A. Forney, and B.L. Taylor. 2009. Atlas of cetacean sightings from Southwest Fisheries Science Center Cetacean and Ecosystem surveys: 1986-2005. NOAA Technical Memorandum NMFS-SWFSC-440.

Archer, F.I., A.E. Henry, and **L.T. Ballance**. 2008. Stenella abundance research line transect and ecosystem (STAR-LITE) 2007 cruise report. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-433.

Ballance, L.T., P. Fiedler, and G. Watters. 2008. Eastern tropical Pacific. Pages 85-91 *in*: Climate impacts on U.S. living marine resources: National Marine Fisheries Service concerns, activities and needs. K.E. Osgood (ed.). NOAA Technical Memorandum NMFS-F/SPO-89.

Gerrodette, T., G. Watters, W. Perryman, and **L. Ballance**. 2008. Estimates of 2006 dolphin abundance in the eastern tropical Pacific, with revised estimates from 1986-2003. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-422.

Hall, C., K.W. Roberts, S.M. Finney, W.P. Mowitt, D. Gothan, and **L.T. Ballance**. 2008. Report of a hydrographic survey of the Clipperton Ridge conducted aboard the DAVID STARR JORDAN during the *Stenella* Abundance Research Cruise 2006. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-419.

Rankin, S., J. Barlow, J. Oswald, and **L. Ballance**. 2008. Acoustic studies of marine mammals during seven years of combined visual and acoustic line-transect surveys for cetaceans in the eastern and central Pacific Ocean. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-429.

Charter, S.R., B.S. MacCall, R.L. Charter, S.M. Manion, W. Watson, and **L. Ballance**. 2006. Ichthyoplankton, paralarval cephalopod, and station data for oblique (bongo) plankton net tows from the Oregon, California, and Washington line-transect expedition (ORCAWALE) in 2001. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-393.

Reilly, S. B., M. A. Donahue, T. Gerrodette, K. Forney, P. Wade, **L. Ballance**, J. Forcada, P. Fiedler, A. Dizon, W. Perryman, F. A. Archer, and E. F. Edwards. 2005. Report of the scientific research program under the International Dolphin Conservation Program Act. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-372.

Reilly, S. B., M. A. Donahue, T. Gerrodette, P. Wade, **L. Ballance**, P. Fiedler, A. Dizon, W. Perryman, F. A. Archer, and E. F. Edwards. 2005. Preliminary report to Congress under the International Dolphin Conservation Act of 1997. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-371.

Vilchis, L.I. and **L.T. Ballance**. 2005. A complete listing of expeditions and data collected for the EASTROPAC cruises in the eastern tropical Pacific, 1967-1968. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-SWFSC-374.

Vilchis, L.I. and **L.T. Ballance**. 2005. Developing indices of cetacean prey from manta and bongo net tows conducted in the northeastern and eastern tropical Pacific between 1987 and 2003. U.S. Department of Commerce, NOAA Administrative Report LJ-05-012.

Philbrick, V. A., P. C. Fiedler, **L. T. Ballance**, and D. A. Demer. 2003. Report of ecosystem studies conducted during the 2001 Oregon, California, and Washington (ORCAWALE) marine mammal survey on the research vessels David Starr Jordan and McArthur. U.S. Department of Commerce. NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-349.

Ballance, L.T., P.C. Fiedler, T. Gerrodette, R.L. Pitman and S.B. Reilly. 2002. An overview of eastern tropical Pacific ecosystems studies within the context of International Dolphin Conservation Program Act research. Administrative Report No. LJ-02-14, NOAA Fisheries, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

Ballance, L.T., R.L. Pitman, L.B. Spear and P.C. Fiedler. 2002. Investigations into temporal patterns in distribution, abundance and habitat relationships within seabird communities of the eastern tropical Pacific. Administrative Report No. LJ-02-17, NOAA Fisheries, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

Pitman, R.L., **L.T. Ballance**, and P.C. Fiedler. 2002. Temporal patterns in distribution and habitat associations of prey fishes and squids. Administrative Report No. LJ-02-19, NOAA Fisheries, Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

Reilly, S. B., **L. T. Ballance**, P. C. Fiedler, T. Gerrodette, R. L. Pitman, H. G. Moser, L. B. Spear, and J. M. Borberg. 2002. Recent information to aid in detecting regime shifts in the eastern tropical Pacific Ocean. SWFSC Admin. Rep., La Jolla, LJ-02-22, 21 p.

Reilly, S. B., P. C. Fiedler, T. Gerrodette, **L. T. Ballance**, R. L. Pitman, J. M. Borberg, and R. C. Holland. 2002. Eastern tropical Pacific dolphin habitats - Interannual variability 1986-2000. SWFSC Admin. Rep., La Jolla, LJ-02-21, 44 p.

Olson, P.A., R.L. Pitman, **L.T. Ballance**, K.R. Hough, P.H. Dutton, and S.B. Reilly. 2001. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific Ocean, July

28-December 9, 2000. U.S. Department of Commerce. NOAA Technical Memorandum. NOAA-NMFS-SWFSC-304.

Olson, P.A., R.L. Pitman, **L.T. Ballance**, K.R. Hough, P. Dutton, and S.B. Reilly. 2001. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific Ocean, July 28-December 9, 1999. U.S. Department of Commerce. NOAA Technical Memorandum. NOAA-NMFS-SWFSC-301.

Olson, P.A., R.L. Pitman, **L.T. Ballance** and S.B. Reilly. 2000. Summary of seabird, marine turtle, and surface fauna data collected during a survey in the eastern tropical Pacific ocean July 30 - December 9, 1998. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFSC-298.

Ballance, L.T., R.C. Anderson, R.L. Pitman, K. Stafford, A. Shaan, Z. Waheed, and R.L. Brownell, Jr. 1999. Cetacean sightings around the Republic of the Maldives, April 1998. Report SC/51/O14 presented to the Scientific Committee for the 48th Annual Meeting of the International Whaling Commission. 11 pp.

Ballance, L.T., R.L. Pitman, S.B. Reilly and P.C. Fiedler. 1997. Habitat relationships of cetaceans in the western tropical Indian Ocean. Report SC/49/O23 presented to the Scientific Committee for the 47th Annual Meeting of the International Whaling Commission. 16 pp.

Ballance, L.T., R.L. Pitman and S.B. Reilly. 1996. Cetacean observations in the western tropical Indian Ocean, March - July 1995. Report SC/48/O8 presented to the Scientific Committee for the 46th Annual Meeting of the International Whaling Commission. 24 pp.

Ballance, L.T., R.L. Pitman, S.B. Reilly and M.P. Force. 1996. Report of a cetacean, seabird marine turtle and flyingfish survey of the western tropical Indian Ocean aboard the research vessel *Malcolm Baldrige* March 21 - July 26, 1995. NOAA Technical Memorandum NMFS. NOAA-TM-NMFS-SWFSC-224.

Force, M.P., R.L. Pitman and **L.T. Ballance**. 1996. Seabirds around the Seychelles. Birdwatch, news and views from the Seychelles Bird Group 17:3-7.

Pitman, R.L. and **L.T. Ballance**. 1994. Incidental Sightings of Cetaceans in the Chilean Fjords During March 1994. Report SC/46/O194 presented to the Scientific Committee for the 44th Annual Meeting of the International Whaling Commission. 4 pp.

Ballance, L.T. 1993. Community ecology and flight energetics in tropical seabirds of the eastern Pacific: energetic correlates of guild structure. Ph.D. Dissertation. University of California Los Angeles.

Philbrick, V.A., P.C. Fiedler, S.B. Reilly, R.L. Pitman and **L.T. Ballance**. 1993. Report of ecosystem studies conducted during the 1992 eastern tropical Pacific common dolphin survey on the research vessels *David Starr Jordan* and *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-180.

Philbrick, V.A., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, G.G. Thomas and D.W. Behringer. 1991. Report of ecosystem studies conducted during the 1990 eastern tropical Pacific dolphin survey on the research vessel *David Starr Jordan*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-160.

Philbrick, V.A., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance** and D.W. Behringer. 1991. Report of ecosystem studies conducted during the 1990 eastern tropical Pacific dolphin survey on the research vessel *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-161.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, S.C. Beavers, G.G. Thomas and D.W. Behringer. 1990. Report of ecosystem studies conducted during the 1989 eastern tropical Pacific dolphin survey on the research vessel *David Starr Jordan*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-139.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, S.C. Beavers and D.W. Behringer. 1990. Report of ecosystem studies conducted during the 1989 eastern tropical Pacific dolphin survey on the research vessel *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-140.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance**, G.G. Thomas and D.W. Behringer. 1989. Report of ecosystem studies conducted during the 1988 eastern tropical Pacific dolphin survey on the research vessel *David Starr Jordan*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-131.

Lierhiemer, L.J., P.C. Fiedler, S.B. Reilly, R.L. Pitman, **L.T. Ballance** and D.W. Behringer. 1989. Report of ecosystem studies conducted during the 1988 eastern tropical Pacific dolphin survey on the research vessel *McArthur*. NOAA Technical Memorandum, NOAA-TM-NMFS-SWFC-132.

Ballance, L.T. 1987. Ecology and behavior of the bottlenose dolphin, *Tursiops truncatus*, in the Gulf of California, Mexico. M.S. Thesis. Moss Landing Marine Laboratories, Moss Landing CA.