

2 December 2020

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## CURRICULUM VITAE

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Lorrie Darlene Rea, Ph.D.

### Professional Address:

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### Education History:

1995 Doctor of Philosophy, University of Alaska, Fairbanks, Alaska  
Dissertation title: Prolonged fasting in Pinnipeds. Chair: Dr. Michael A. Castellini  
1990 Master's of Science, University of California, Santa Cruz, California.  
Thesis title: Changes in resting metabolic rate during long-term fasting in  
northern elephant seal pups (*Mirounga angustirostris*). Chair: Dr. Daniel P. Costa  
1987 Bachelor of Science (Honors Marine Biology), University of Guelph, Guelph,  
Ontario, Canada. Thesis title: Post-absorptive metabolism of hooded seals  
(*Cystophora cristata*).

### Current Professional Affiliation:

Research Professor, Institute of Northern Engineering, Water and Environmental Research  
Center, University of Alaska Fairbanks, Fairbanks, AK 99775 (July 2017 to present)

### Past Professional Affiliations:

Research Associate Professor, Institute of Northern Engineering, Water and Environmental  
Research Center, University of Alaska Fairbanks, Fairbanks, AK 99775 (Sept 2013 to  
June 2017)  
Associated Faculty, Department of Veterinary Medicine, College of Natural Sciences and  
Mathematics, University of Alaska Fairbanks, Fairbanks AK 99775 (June 2015 to May  
2016)  
Affiliate Faculty, College of Veterinary Medicine and Biomedical Sciences, Colorado State  
University, Fort Collins, CO (November 2015 to September 2016)  
Wildlife Physiologist III, Steller Sea Lion Research Program, Marine Mammals Section,  
Division of Wildlife Conservation, Alaska Department of Fish and Game, Fairbanks,  
AK 99701 (June 2011 to Sept 2013)  
Affiliate Assistant Professor of Marine Science, University of Alaska, Fairbanks, Alaska  
99775 (October 2000 – May 2013)  
Affiliate Faculty Member, Department of Biology and Wildlife, College of Natural Sciences  
and Mathematics, University of Alaska Fairbanks 99775 (June 2011 to May 2013)  
Wildlife Physiologist III and Program Leader of the Steller Sea Lion Research Program,  
Marine Mammals Section, Division of Wildlife Conservation, Alaska Department of  
Fish and Game, Fairbanks, AK 99701 (February 2006 to June 2011)  
Wildlife Biologist IV and Program Leader, Steller Sea Lion Research Program, Division of  
Wildlife Conservation, Alaska Department of Fish and Game, (August 2004 to  
February 2006)  
Wildlife Biologist III, Marine Mammals Section, Division of Wildlife Conservation, Alaska  
Department of Fish and Game, Anchorage, AK 99518 (August 2000 to August 2004)  
Assistant Professor, Department of Biology, University of Central Florida, Orlando, FL (1998  
to 2000, leave of absence status August 2000 to August 2001)  
Research Associate, Institute of Marine Science, University of Alaska Fairbanks (May-June  
1998)  
Research Biologist, National Marine Mammal Laboratory, Seattle, WA (April-May 1998)  
Research Associate, National Research Council, tenured at the National Marine Mammal  
Lab, National Marine Fisheries Service, NOAA, Seattle, WA (1995 to 1997)  
Graduate Research Assistant, Institute of Marine Science, University of Alaska (1990 to  
1995)  
Graduate Teaching and Research Assistant, Institute of Marine Sciences, University of  
California, Santa Cruz, CA (1987 to 1990)  
Assistant Research Biologist, Tarandus Associates, Toronto, Canada (1987, seasonal)  
Assistant Research Biologist, Ontario Hydro Corporation, Biological Research Section,

Toronto, Canada (1985 and 1986, seasonal)

### **Synergistic Activities:**

UAF Strategic Planning Committee, December 2018 to April 2019.

UAF Strategic Enrollment Planning, Military Enrollment Action Planning Group. Jan – Mar 2019.

Office of Naval Research Marine Mammal Program Reviewer, April 2019.

Department of Commerce, National Oceanic and Atmospheric Administration, Alaska Marine Mammal Scientific Review Group, February 2018 to present.

Research Unit Peer Review Committee for Faculty Promotion – Fall 2013, 2017, 2018, 2019

Limited Submissions Review Committee reporting to the Vice Chancellor of Research, University of Alaska Fairbanks, July 2015 to present.

Administrative Leadership Institute (participant), University of Alaska Fairbanks, Fairbanks, AK, October 2016 to April 2017.

National Science and Engineering Research Council (NSERC Canada) Scholarship and Fellowship Selection Committee (Ecology and Evolution Section – Ecotoxicology focus), September 2016 to June 2017.

INE Peer Review Operating Procedures Committee, April to September 2016.

INE Research Faculty Promotion Criteria Development Committee, April 2015 to February 2016.

Marine Mammal Health Monitoring and Analysis Platform Workshop, NOAA. March 3-5, 2015. Invited Participant.

Aleutian Bering Sea Islands Landscape Conservation Cooperative Aleutians Contaminants Working Group, Member, April 2014 to present.

Department of the Interior, Bureau of Ocean Energy Management Outer Continental Shelf Scientific Committee, Chairman 2011 to 2014, Vice-Chairman 2008 – 2011; Chair of the Environmental Sensitivity Analysis Subcommittee, Member of the Alaska Subcommittee.

Alaska Department of Fish and Game Animal Care and Use Committee, Member 2010-2013.

Alaska SeaLife Center Scientific Advisory Committee, Member 2001 – 2007.

North Pacific Universities Marine Mammal Research Consortium Scientific Review Committee, Member 2003 – 2007.

Alaska Steller Sea Lion Restoration Team, State of Alaska, Member 2000-2001.

Reviewer – Peer reviewed journal submissions including Physiological and Biochemical Zoology, Marine Mammal Science, Canadian Journal of Zoology, Journal of Experimental Zoology Part A., Polar Biology, Comparative Physiology and Biochemistry, Journal of Comparative Physiology B and Marine Ecology Progress Series.

Reviewer – Research proposal review for North Pacific Research Board, Pollock Conservation Cooperative Research Center, Alaska SeaLife Center, North Pacific Universities Marine Mammal Research Consortium.

Reviewer - MMPA research permits for National Marine Fisheries Service, Office of Protected Resources.

Editor of proceedings – editorial duties for the Proceedings of the Symposium Sea Lions of the World: Conservation and Research in the 21<sup>st</sup> Century. Sept. 30 – Oct. 3, 2004, Anchorage, AK. Alaska Sea Grant College Program publication AK-SG-06-01, 2006.

Secretary, Comparative Nutrition Society, Board of Directors (1999 - 2001)

Vice President, University of Central Florida Chapter of Sigma Xi (1999- August 2000)

### **Academic Awards and Honors:**

College of Engineering and Mines Researcher of the Year, University of Alaska Fairbanks, Fairbanks, AK. October 2020.

Invited Visiting Research Scientist, Department of Biology, Dalhousie University, Halifax, Nova Scotia, Canada. December 1997 to March 1998.

National Research Council Research Associateship, November 1995 to November 1997.

Seaspace Scholarship (1991, 1992, 1993, 1994).

International Women's Fishing Association Scholarship Trust (1991, 1992, 1993).

University of Alaska Chancellor's Fellowship, September 1990 to June 1992.

University of California Out-of State Tuition Fellowship, October 1987 to March 1990.

Student Award for the Best Poster Presentation, Conference on the Biology of Marine Mammals, December 1986.

University of Guelph Entrance Award, September 1982 to June 1983.

### **Certifications:**

First Aid/Survival Training:

American Red Cross Standard First Aid (biennial 1982 to 2013, excluding years with specialized responder training), CPR/AED (annual 2000 to 2013, excluding years with specialized responder training); USARP Cold Climates Survival and Sea Ice Survival (1992, 1993, 1994, 2003, 2005); Learn to Return (LTR) Remote First Aid (2003), Prevention of

Disease Transmission (2003) and Marine Survival (2003); DAN Oxygen First Aid for Scuba Diving Injuries (2005), Diving First Aid for Professional Divers (2008); Emergency First Response Corp. Emergency Responder CPR/First Aid/AED (2010, 2012).

**Scientific Scuba Diving Training:**

NAUI Scuba Diver (1983), Hyperbaric Novice Diver (1983), Advanced Scuba Diver (1987, 2001), Master Scuba Diver (2002), Scuba Rescue Diver (2001), Advanced Scuba Rescue Diver (2002); PADI Open Water Diver (2000); IANTD Advanced EANx Diver (2001), EANx Overhead Environment Diver (2001), EANx Gas Blender (2001), Rebreather Diver (2001), Introductory Cave Diver (2002); UCSC Certified Research Diver (1988); ADF&G Scientific Diver (2001-2011).

**Animal capture and care (IACUC) Training:**

University of Guelph course 730-2600 "Introduction to Laboratory animal care and management" (Fall 1984), Alaska SeaLife Center IACUC training (1999), Alaska Department of Fish and Game (ADF&G) "Safe Capture" training (Jan 2001), UAF "Research with free-ranging wildlife: IACUC 101" (14May2004), ADF&G "Wildlife care and use guidelines, resources, training materials, and animal welfare policy" (2009), ADF&G "Controlled substance and prescription drug policy and handling" training (22Feb2012), ADF&G "Wildlife capture and chemical immobilization and safety" (23-24Feb2012), UAF CITI online "Working with IACUC" (26 modules; 3Apr2014), UAF CITI online "Wildlife Research" (5 modules; 3Apr2014), UAF CITI online Wildlife Research refresher (12 modules; 22Aug2017).

**Research Awards:**

- Ocean Peace Research Partnership III. L.D. Rea. \$300,000. Ocean Peace, Inc. through the UA Foundation. January 2021 – December 2022.
- Phocid whisker stable isotopes. L.D. Rea \$82,000. NOAA NFFS7300-20-02650 (contract 1305M320PNFFS0633). September 2020-September 2021.
- Collaborative Research: Mercury dynamics from the Holocene to the Anthropocene: Tracking Aleutian mercury in ocean species important to Native Alaskan diets. J.P. Avery, N. Misarti, L.D. Rea and C.L. Funk. \$2,621,196. National Science Foundation, Office of Polar Programs, Arctic System Science and Arctic Social Science. May 2020 – December 2024.
- Ocean Peace Research Partnership II. L.D. Rea. \$300,000. Ocean Peace, Inc. through the UA Foundation. January 2020 – December 2021.
- A novel coupling of isotopic approaches to identify pathways of methylmercury through marine food-webs of the Aleutians. B. Barst (PI), M. Wooller, L.D. Rea (Co-I), and T.M. O'Hara. North Pacific Research Board \$437,997. September 2019 – August 2022.
- Impact of mercury on the hormone status of Steller sea lions. L.D. Rea \$16,993. Alaska Department of Fish and Game. August 1, 2019 – July 31, 2020.
- Harbor seal whisker stable isotopes. L.D. Rea \$14,970. NOAA NFFS7300-19-03252. August 15 2019 – Sept 30, 2020.
- Modeling diet composition of adult female Steller sea lions from the western and central Aleutian Islands. L.D. Rea (PI), T. O'Hara, B. Taras and M. Wooller. \$1,016,733. NOAA 2019 Alaska Pinniped Research Program (NOAA-NMFS-AK-2019-2005923). July 2019 – June 2022.
- Ocean Peace Research Partnership. L.D. Rea and T.M. O'Hara. \$300,000. Ocean Peace, Inc. through the UA Foundation. January 2019 – December 2020.
- Methane in the Marine Environment: Sources and Potential Adverse Effects (Marine Methane Fellowship). T.M. O'Hara, J. Guerard, L.D. Rea, S. Aggarwal. \$290,000. Hilcorp Alaska, LLC. January 2019- December 2021.
- Acquisition of a gas chromatograph isotope ratio mass-spectrometer: A multi-user facility to benefit teaching, health and research needs in Alaska. M. Wooller, D. O'Brien, K. Iken, L. Horstmann, L.D. Rea, N. Misarti, S. Hardy and B. Potter. \$140,400 (plus \$165,901 UAF matching funds). M.J. Murdock Charitable Trust. September 2018 – August 2020.
- Mercury 101 Workshop Southeast Alaska. T.M. O'Hara and L.D. Rea. \$34,880. Green's Creek Mine (Hecla Mining Company). June 2018 – January 2020.
- Wildlife health and contaminant levels on St. Paul Island, AK. L.D. Rea. \$54,079.00 NIH BLaST Program, UAF. September 2017 – June 2019.
- Tracing pathways of mercury exposure to Alaska pinnipeds in the Aleutian Islands and the Bering Sea. L.D. Rea (PI), T. O'Hara (Co-I), M. Wooller (Co-I), B. Taras (Co-I). \$1,121,891. NOAA 2016 Alaska Pinniped Research Program (NOAA-NMFS-AK-2016-2004624). July 2016 – June 2019 (No-cost extension to June 2020).
- Adverse effects of contaminants in Steller sea lions: Immune and Oxidative Stress Status.

T.M. O'Hara (PI), L.D. Rea (Co-PI), T. Kuhn (Co-I), T. Zenteno-Savin (Consultant). \$546,291. NOAA 2016 Alaska Pinniped Research Program (NOAA-NMFS-AK-2016-2004624). July 2016 – June 2019 (No-cost extension to June 2020).

Are contaminant concentrations in young Steller sea lions in the Western Aleutian Islands associated with altered endocrine and immune systems? R. Small (PI), M. Keogh (Co-I and Project Manager), S. Karpovich (Co-I), M. Levin (Co-I), T.M. O'Hara (Co-I), L.D. Rea (Co-I), J. Maniscalco (Co-I). \$839,080. NOAA 2016 Alaska Pinniped Research Program funding to ADF&G (NOAA-NMFS-AK-2016-2004624). April 2016- July 2019

Foraging movements and diving behavior of “resident”-type killer whales in the western and central Aleutian Islands – are killer whales competing with Steller sea lions and commercial fisheries as an important consumer of Atka mackerel? L.D. Rea (PI) and P.R. Wade (Co-I). \$99,717. Pollock Conservation Cooperative Research Center (PCCRC) at University of Alaska Fairbanks. April 2016 – March 2019.

Alaskan Pinniped Ecotoxicology. L.D. Rea (PI), T.M. O'Hara (Co-I) and N. Misarti (Co-I). NOAA, National Marine Fisheries Service. \$ 370,462. February 2016 - January 2017.

Mentoring network for rural undergraduate students in biomedical research on subsistence marine mammal species. L.D. Rea and coinvestigators (Norlin, Sheffield and Ihl). \$48,130. NIH BLaST Program, UAF. February – October 2015.

Regional, seasonal and species differences in trophic feeding ecology of western and central Aleutian Steller sea lion (*Eumetopias jubatus*) prey. L.D. Rea and T.M. O'Hara. \$112,300. Cooperative Institute for Alaska Research award (NA13OAR4320056 Project #G8751) funded through NOAA, National Marine Fisheries Service. 1 July 2014 - 31 January 2015.

Steller sea lion physiology publication. L.D. Rea (PI). \$ 36,210. Alaska Department of Fish and Game. September 2013 - June 2014.

Identifying the level and prevalence of mercury and organochlorine contamination in the endangered western Steller sea lion population to assess potential links between continued declines and anthropogenic contaminant sources. L. Rea and M. Rehberg. \$1,385,410 plus \$527,810 matching funds from State of Alaska. NOAA Species Recovery Grant (NA13NMF4720041) to Alaska Department of Fish and Game, July 2013 – June 2016.

Steller sea lion Recovery Investigations. L. Rea. 2008-2012. NOAA cooperative agreement (NA08NMF4390544) supporting the ADF&G Steller sea lion research program. \$3,720,117 NOAA federal appropriation from US Department of Commerce. Aug 2008 – June 2012.

Steller sea lion Recovery Investigations. L. Rea. 2004-2008. NOAA cooperative agreement (NA04NMF4390170) supporting the ADF&G Steller sea lion research program. \$6,883,997 NOAA federal appropriation from US Department of Commerce. May 2004 – May 2008.

Chlorinated fatty acids in Northern Sea Otters in Alaska. L. Rea \$27,497 USFWS Cooperative Endangered Species Conservation Fund (75%) and ADF&G (25% match). July 2007 – June 2008.

Chlorinated fatty acids in Steller sea lions. J. Kennish, L. Alessa and L. Rea. \$60,230 North Pacific Universities Marine Mammal Research Consortium. July 2006-June 2007.

Modeling diet composition of free-ranging Steller sea lions using quantitative fatty acid signature analysis. L. Rea and J. Kennish. \$143,329 North Pacific Research Board/NPMRI. July 2002-May 2004.

Effects of foraging on the lipid biochemistry of freely diving Weddell seals. M. Castellini and L. Rea. \$851,338 National Science Foundation. March 2002-March 2005.

Students as Laboratory and Field Physiologists: Start to Finish. L. Rea. \$100,228. National Science Foundation, with \$101,801 matching funds from Univ. of Central Florida. February 2001- February 2004.

Thyroid Hormones and Plasma Leptin Concentrations during Food deprivation and Satiety: Use as an Index of Metabolic condition in Free-ranging Steller sea lions. S. Atkinson and L. Rea. \$51,388. Pollock Conservation Cooperative Research Center. 1 October 2000 – 30 September 2001.

Seasonal changes in blood chemistry and lipid metabolism in Steller sea lions. L. Rea. \$77,499. National Fish and Wildlife Foundation. February 1999 to August 2000

Lipid metabolism in fasting grey seal pups (*Halichoerus grypus*). L. Rea \$7,500. University of Central Florida Research Grant. July 1999 to July 2000

Blood lipid alterations with development and fasting in Weddell seal pups. M. A. Castellini and L.D. Rea. \$33,042 National Science Foundation. March 1998 to March 1999

#### **Undergraduate research awards sponsored in our laboratory:**

Chemical feeding ecology of mercury (Hg) in Hawaiian monk seals. Opp, K. (L.D. Rea -

supervisor). \$2,500. University of Alaska Fairbanks Undergraduate Research and Scholarly Activities (URSA) Project Award. Spring 2015.

### **Conference/Symposium Organization Committees:**

Second Biennial Conference of the Comparative Nutritional Society. Awards Committee Member. Banff, Alberta, Canada. August 14-19, 1998.

Third Biennial Conference of the Comparative Nutritional Society. Organizing and Awards Committees Member. Asilomar, Pacific Grove, CA, August 13-18, 2000.

### **Professional Society Memberships:**

American Physiological Society (1991 - 2005)

American Women in Science (1992 - 1999)

Comparative Nutrition Society (1998 – 2001, 2012 to present)

Sigma Xi (1998-2001)

The Society for Marine Mammalogy (1987 – 2003, 2013 to present)

### **Publications:**

Papers in Refereed Journals (\* denotes graduate or undergraduate student authors)

53. Lian\*, M., C. Field, E. van Wijngaarden, C. Rios, J.M. Castellini, D. Grieg, L.D. Rea, D. Coleman, C. Thomson, F.M.D. Gulland, T.M. O'Hara. *In press*. Assessment of clinical outcomes associated with mercury concentrations in harbor seal pups (*Phoca vitulina richardii*) in central California. Accepted 5 Nov 2020. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2020.143686>

52. Rea, L.D., J.M. Castellini, J.P. Avery, B.S. Fadely, V.N. Burkanov, M.J. Rehberg, and T.M. O'Hara. 2020. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions. *Science of the Total Environment* 744, 20 Nov 2020,140787. <https://doi.org/10.1016/j.scitotenv.2020.140787>

51. Lian\*, M., J Margaret Castellini, Thomas Kuhn, Lorrie Rea, Louise Bishop\*, Mandy Keogh, Stephanie Kennedy\*, Brian Fadely, Edwin van Wijngaarden, John Maniscalco, and Todd O'Hara. 2020. Assessing oxidative and antioxidant status of Steller sea lions (*Eumetopias jubatus*): associations with mercury and selenium concentrations. *Comparative Biochemistry and Physiology, Part C Toxicology and Pharmacology*. 235:108786. Online 18May2020 <https://doi.org/10.1016/j.cbpc.2020.108786>

50. Levin, M. J., L. Jasperse, J.-P. Desforges, T. M. O'Hara, L.D. Rea, J. M. Castellini, J. Maniscalco, B.S. Fadely, M. Keogh. 2020. Methyl mercury (MeHg) *in vitro* exposure alters mitogen-induced lymphocyte proliferation and cytokine expression in Steller sea lion (*Eumetopias jubatus*) pups. Online April 6, 2020. <https://doi.org/10.1016/j.scitotenv.2020.138308>

49. Keogh, M.J., B.D. Taras, K.B. Beckmen, K.A. Burek-Huntington, G.M. Ylitalo, B.S. Fadely, L.D. Rea, and K.W. Pitcher. 2020. Organochlorine contaminant concentrations in blubber of free-ranging Steller sea lion (*Eumetopias jubatus*) pups and juveniles in Alaska. *Science of the Total Environment* 698: 1Jan2020. <https://doi.org/10.1016/j.scitotenv.2019.134183>

48. VanWormer, E., J.A.K. Mazet, A. Hall, V.A. Gill, P.L. Boveng, J.M. London, T. Gelatt, B.S. Fadely, M.A. Lander, J. Sterling, V.N. Burkanov, R.R. Ream, P.M. Brock, L.D. Rea, B.R. Smith, A. Jeffers, M. Henstock, M.J. Rehberg, K.A. Burek-Huntington, S.L. Cosby, J.A. Hammond, and T. Goldstein. 2019. Emergence of Phocine Distemper virus in the North Pacific may be linked to Arctic sea ice reduction. *Scientific Reports-Nature* 9:15569. <https://doi.org/10.1038/s41598-019-51699-4>.

47. Cyr\*, A., J.A. López, L.D. Rea, M.J. Wooller, T.M. Loomis, S. Mcdermott, and T.M. O'Hara. 2019. Mercury concentrations in marine species from the Aleutian Islands: Spatial and biological determinants. *Science of the Total Environment* 664:761-770.

46. Keogh, M.J., B.D. Taras, C.A. Eischens, J. M. Kennish, B.S. Fadely, and L.D. Rea. 2019. Variation in milk, serum and blubber fatty acids in young, free-ranging Steller sea lions. Accepted 24November 2018. *Marine Mammal Science* 35(3):909-933.

45. Kennedy\*, S.N., J.M. Castellini, A.R. Hayden, B.S. Fadely, V. Burkanov, T.M. O'Hara,

and L.D. Rea. 2019. Regional and age-related variations in haptoglobin concentrations in Steller sea lions (*Eumetopias jubatus*). *Journal of Wildlife Disease*. 55(1):91-104. DOI: 10.7589/2017-10-257

44. Kennedy\*, S., B. Wilhite\*, L.D. Rea, T.M. O'Hara, J.M. Castellini, T. Kuhn. 2018. Validation of a Protein A ELISA for measuring immunoglobulin G in a non-traditional wildlife species, the Steller sea lion. Accepted 7 August 2018. *Journal of Immunological Methods*. 462: 42-47.

43. Doll, A.C., B.D. Taras, C.A. Stricker, L.D. Rea, T.M. O'Hara, A.P. Cyr, S. Mcdermott, T.M. Loomis, M.B. Wunder. 2018. Temporal records of diet diversity dynamics in individual adult female Steller sea lion (*Eumetopias jubatus*) vibrissae. *Oecologia*. 188: 263-275. <https://doi.org/10.1007/s00442-018-4173-8>

42. Lian\*, M., S. Johnson, T.S. Gelatt, T.M. O'Hara, K.B. Beckmen, and L.D. Rea. 2018. Field anesthesia of juvenile Steller sea lions (*Eumetopias jubatus*) using inhalation anesthesia. *Marine Mammal Science* 34(1):125–135, DOI: 10.1111/mms.12445

41. Rehberg, M.J., L.D. Rea, and C.A. Eischens. 2018. Overwintering Steller sea lion (*Eumetopias jubatus*) pup growth and behavior prior to weaning. *Can. J. Zool.* 96: 97–106 [dx.doi.org/cjz-2016-0296](https://doi.org/10.1139/cjz-2016-0296)

40. O'Hara, T.M., K. Hueffer, M. Murphy, J.M. Castellini, Y. Li, L.D. Rea, J. Berner. 2017. Developing a Sentinel-based Baja California Sur Rural Mexico Monitoring Program (BCS RMMP): Lessons learned from Alaska. *Recursos Naturales y Sociedad* 3(2):12-31. (<http://www.cibnor.gob.mx/revista-rns/iindex.html#>), ISSN number 2448-7406.

39. Rea, L.D., B.S. Fadely, S.D. Farley, J.P. Avery, W.S. Dunlap-Harding, V. Stegall, C.A.B. Eischens, T.S. Gelatt and K.W. Pitcher. 2016. Comparing total body lipid content of young-of-the-year Steller sea lions between areas of contrasting population trends. *Marine Mammal Science*. 32(4):1200-1218 DOI:10.1111/mms.12327

38. Pendleton, G. W., K. K. Hastings, L. D. Rea, L. A. Jemison, G. M. O'Corry-Crowe, and K. B. Beckmen. 2016. Short-term survival of Steller sea lion (*Eumetopias jubatus*) pups: Investigating the effect of health status on survival. *Marine Mammal Science*. 32(3):931-944. DOI: 10.1111/mms.12308

37. Peterson\*, S.H., E.A. McHuron\*, S.N. Kennedy\*, J.T. Ackerman, L.D. Rea, J.M. Castellini, T.M. O'Hara, and D.P. Costa. 2016. Evaluating hair as a predictor of blood mercury: the influence of ontogenetic phase and life history in pinnipeds. *Archives of Environmental Contaminants Toxicology*. Special Issue: New Developments and Perspectives in Marine Mammal Toxicology. 70:28-45. DOI 10.1007/s00244-015-0174-3.

36. Scherer, R.D., A.C. Doll\*, L.D. Rea, A.M. Christ, C.A. Stricker, B. Witteveen, T. C. Kline, C.M. Kurle, and M.B. Wunder. 2015. Isotope values in pup whiskers reveal geographic variation in diets of gestating Steller sea lions (*Eumetopias jubatus*). *Marine Ecology Progress Series* 527:261-274.

35. Stricker, C.A., A.M. Christ, M.B. Wunder, A.C. Doll\*, S.D. Farley, L.D. Rea, D.A.S. Rosen, R.D. Scherer, and D.J. Tollit. 2015. Carbon and nitrogen isotope discrimination for Steller sea lion (*Eumetopias jubatus*) vibrissae relative to milk and fish/invertebrate diets. *Marine Ecology Progress Series* 523:255-266.

34. Rea, L.D., A.M. Christ, A.B. Hayden, V.K. Stegall\*, S.D. Farley, C.A. Stricker, J.E. Mellish, J.M. Maniscalco, J.N. Waite, V. Burkanov, K.W. Pitcher. 2015. Age-specific vibrissae growth rates: A tool for determining the timing of ecologically important events in Steller sea lions. *Marine Mammal Science* 31(3):1213-1233. DOI: 10.1111/mms.12221

33. O'Corry-Crowe, G., T.S. Gelatt, L.D. Rea, C. Bonin, M. Rehberg. 2014. Crossing to safety: Dispersal, colonization and mate choice in evolutionarily distinct populations of Steller sea lions, *Eumetopias jubatus*. *Molecular Ecology* 23:5415-5434.

32. Hirama, S., L.M. Ehrhart, L.D. Rea, and R.A. Kiltie, 2014. Relating fibropapilloma tumor severity to blood parameters in green turtles, *Chelonia mydas*. *Diseases of Aquatic Organisms*, 111:61-68. doi: 10.3354/dao02765.

31. Correa\*, L., L.D. Rea, R. Bentzen and T.M. O'Hara. 2014. Assessment of mercury and selenium tissular concentrations and total mercury body burden in 6 Steller sea lion pups from the Aleutian Islands. *Marine Pollution Bulletin*, 82:175-182.  
<http://dx.doi.org/10.1016/j.marpolbul.2014.02.022>
30. Lander, M.E., B.S. Fadely, T.S. Gelatt, L.D. Rea and T.R. Loughlin. 2014. Serum chemistry reference ranges for Steller sea lion (*Eumetopias jubatus*) pups from Alaska: Stock differentiation and comparisons within a North Pacific sentinel species. *EcoHealth*. DOI: 10.1007/s10393-013-0891-x
29. Hoopes\*, L.A., L.D. Rea, A. Christ, and G.A.J. Worthy. 2014. No evidence of metabolic depression in western Alaskan juvenile Steller sea lions (*Eumetopias jubatus*). *PLoS ONE* 9(1): e85339. doi:10.1371/journal.pone.0085339
28. Rea, L.D., J.M. Castellini, L. Correa\*, B.S. Fadely, and T.M. O'Hara. 2013. Maternal Steller sea lion diets elevate fetal mercury concentrations in area of population decline. *Science of the Total Environment* 454-455: 277-282.
27. Castellini, J.M., L.D. Rea, C.L. Lieske, K.B. Beckmen B.S. Fadely, J.M. Maniscalco and T.M. O'Hara. 2012. Mercury concentrations in hair from neonatal and juvenile Steller sea lions (*Eumetopias jubatus*): implications based on age and region in this North Pacific marine sentinel piscivores. *EcoHealth* 9(3): 267-277. DOI:10.1007/s10393-012-0784-4.
26. Noren, D.P., L.D. Rea and T. Loughlin. 2009. A model to predict fasting capabilities and utilization of body energy stores in weaned Steller sea lions (*Eumetopias jubatus*) during periods of reduced prey availability. *Canadian Journal of Zoology* 87:852-864.
25. Rea, L.D., M. Berman-Kowalewski, D.A.S. Rosen and A.W. Trites. 2009. Seasonal differences in biochemical adaptation to fasting in juvenile and subadult Steller sea lions (*Eumetopias jubatus*). *Physiological and Biochemical Zoology* 82(3):236-247.
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19. King, M., L.D. Rea and J.M. Kennish. 2006. Chlorinated fatty acids in lipid class fractions from cardiac and skeletal muscle of Chinook salmon. *Lipids*. 41 (12): 1133-1140.
18. Myers, M.J., L.D. Rea and S. Atkinson. 2006. The effects of age, season and geographic region on thyroid hormones in Steller sea lions (*Eumetopias jubatus*). *Comparative Biochemistry and Physiology Part A* 145:90-98.
17. Richmond, J.P., J.M. Burns, and L.D. Rea. 2006. Ontogeny of total body oxygen stores and aerobic dive potential in Steller sea lions (*Eumetopias jubatus*). *Journal of Comparative Physiology B*. 176:535-545.
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captivity as a research tool: comprehensive study of wild pinnipeds under controlled conditions. *Aquatic Mammals* 32(1): 58-65.

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9. Rea, L.D., D.A.S. Rosen and A.W. Trites. 2000. Metabolic response to fasting in 6 week old Steller sea lion pups. *Canadian Journal of Zoology* 78:890-894.

8. Rea, L.D., M.A. Castellini, B.S. Fadely and T.R. Loughlin. 1998. Health status of young Alaska Steller sea lion pups (*Eumetopias jubatus*) as indicated by blood chemistry and hematology. *Comparative Biochemistry and Physiology Part A* 120: 617-623.

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6. Zenteno-Savin, T., M.A. Castellini, L.D. Rea and B.S. Fadely. 1997. Plasma haptoglobin levels in threatened Alaskan pinniped populations. *Journal of Wildlife Diseases*. 33:64-71.

5. Milsom, W., M. Castellini, M. Harris, J. Castellini, D. Jones, R. Berger, S. Bahrma, L. Rea and D. Costa. 1996. Effects of hypoxia and hypercapnia on patterns of sleep-associated apnea in elephant seal pups. *American Journal of Physiology*. 271:R1017-R1024.

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3. Castellini, M.A., W.K. Milsom, R.J. Berger, D.P. Costa, D.R. Jones, J.M. Castellini, L.D. Rea, S. Bharna, and M. Harris. 1994. Patterns of respiration and heart rate during wakefulness and sleep in elephant seal pups. *American Journal of Physiology*. 266:R863-R869.

2. Castellini, M.A. and L.D. Rea. 1992. The biochemistry of natural fasting at its limits. *Experientia*. 48(6):575-582.

1. Rea, L.D. and D.P. Costa. 1992. Changes in standard metabolism during long-term fasting in northern elephant seal pups (*Mirounga angustirostris*). *Physiological Zoology*. 65(1):97-111.

#### Submitted manuscripts

3. Kennedy\*, S.N., M. Keogh, M. Levin, J.M. Castellini, M. Lian, L.D. Rea, B.S. Fadely, and T.M. O'Hara. Regional variations and relationships among cytokine profiles, white blood cell



counts, and blood mercury concentrations in Steller sea lion (*Eumetopias jubatus*) pups. Submitted 16Nov2020 to Science of the Total Environment. Minor revisions requested 4Dec2020.

2. Keogh, Mandy, P. Charapata, B.S. Fadely, T. Zeppelin, L.D. Rea, J. Waite, V. Burkanov, C. Marshall, A. Jones, C. Sprowls, and M. Wooller. Whiskers as a novel tissue for tracking reproductive and stress-related hormones in North Pacific otariid pinnipeds. Submitted 19May2020, revisions submitted 7Nov2020 and 8Dec2020 to Conservation Physiology. Manuscript CONPHYS-2020-082

1. Harley\*, J., J. MacDonald, L.D. Rea, T. Bammler, T. Kavanagh, B.S. Fadely, T.S. Gelatt, T.M. O'Hara. Novel applications of next generation sequencing tools to assess the health of populations of Steller sea lions (*Eumetopias jubatus*). In revision for Science of the Total Environment; withdrawn.

#### Completed manuscripts in coauthor review

6. Crawford\*, S.G., R. Coker, M.A. Castellini, T.M. O'Hara, G. Breed, T.S. Gelatt, B.S. Fadely, V.N. Burkanov, P. Rivera, and L.D. Rea. Using plasma metabolite concentrations as an index to maternal foraging trip duration in fasting young Steller sea lion pups. In preparation for Physiological and Biochemical Zoology.

5. Castellini, J. M., L. D. Rea, J. P. Avery, T. M. O'Hara. Total mercury, total selenium, and monomethyl mercury in multiple age cohorts and tissue types in Alaskan Steller sea lions (*Eumetopias jubatus*). In preparation for Environmental Toxicology and Chemistry.

4. O'Hara, T.M., G.M. Ylitalo, S.G. Crawford\*, B.D. Taras, B.S. Fadely, M.J. Rehberg, and Rea, L.D. One Health, spatial, and cumulative exposure perspectives of organohalogen and mercury concentrations in Steller sea lions of Alaska: Emphasizing transfer to pups. In preparation for submission to EcoHealth.

3. Inglis\*, S., L.D. Rea, S. Atkinson, and M.A. Castellini. Protein Quality in the Diet of Steller sea lions, *Eumetopias jubatus*, in Western Alaska. In preparation for submission to Physiological and Biochemical Zoology.

2. Siess\*, K., N. Wolf, J. Welker, A. King, L.D. Rea, L. Cornick. Variability in  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values of Steller sea lion pup vibrissae: implications for diet and foraging studies. In preparation for submission to Marine Mammal Science.

1. Rea, L.D. and M.A. Castellini. Weaning mass influences metabolic adaptation to prolonged fasting in free-ranging northern elephant seal pups. In preparation for submission to Physiological and Biochemical Zoology.

#### Books and Reports

2. Trites, A.W, S.K. Atkinson, D.P. DeMaster, L.W. Fritz, T.S. Gelatt, L.D. Rea and K.M. Wynne, editors. 2006. Proceedings of the symposium Sea Lions of the World: Conservation and Research in the 21<sup>st</sup> Century. Sept. 30 – Oct. 3, 2004, Anchorage, AK. Alaska Sea Grant College Program publication AK-SG-06-01, 2006.

1. Kruse, G.H., M. Crow, E.E. Krygier, D.S. Lloyd, K.W. Pitcher, L.D. Rea, M. Ridgway, R.J. Small, J. Stinson, and K.M. Wynne. 2001. A review of proposed fishery management actions and the decline of Steller sea lions *Eumetopias jubatus* in Alaska: A report by the Alaska Steller Sea Lion Restoration Team. Regional Information Report No. 5J01-04, Alaska Department of Fish and Game, Division of Commercial Fisheries. 107 pp.

#### Invited Lectures, Seminars and Presentations

37. Rea, L.D. 2020. Significant Within-decade Increase in Mercury Concentrations in Steller Sea Lion Pups at Agattu Island, Alaska. Seminar presentation at the College of Fisheries and Ocean Sciences, University of Alaska Fairbanks, Fairbanks, AK on 28 October 2020.

36. Rea, L.D. 2019. Mercury in Aleutian Island pinnipeds: Steller sea lions and harbor seals. An informational presentation to the Aleut Marine Mammal Commission during their annual

meeting in Anchorage, Alaska on 13 November 2019.

35. Rea, L.D. 2018. Mercury contaminant concentrations in remote Alaska seals and sea lions. Invited seminar to the research and education staff of the Georgia Aquarium, Atlanta, GA. 25 July 2018.

34. Rea, L.D. 2018. Hg 101: a one-day workshop on mercury in pinniped food webs in Alaska. Co-presented to industry, agency, NGO, tribal and legislative personnel and general public participants with T.M. O'Hara, in a workshop sponsored by Hecla Greens Creek Mine, Juneau, Alaska, July 10, 2018.

33. Rea, L.D. 2018. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions; Temporal records of diet diversity dynamics in individual adult female Steller sea lion (*Eumetopias jubatus*) vibrissae; Temporal trends in total mercury concentrations in Steller sea lions; Comparison of total mercury concentrations in hair of three pinniped species (Steller sea lions, Pacific harbor seals and northern fur seals) feeding in the Aleutian Islands and Bering Sea, Alaska; Organochlorine contaminant concentrations in Steller sea lions and potential for cumulative effects with mercury. Five oral presentations made to NMFS, UAF and ADF&G collaborators during the Second UAF Steller Sea Lion Research Symposium, 24-25 April 2018.

32. Rea, L.D. 2018. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions. Seminar presentation to the Water & Environmental Research Center, INE, University of Alaska Fairbanks. March 30, 2018.

31. O'Hara, T.M. and L.D. Rea. 2017. Marine Mammals and Contaminants: Building an Integrated One Health Initiative, Dec.1, 2017, University of Alaska Fairbanks, Fairbanks, Alaska

30. Avery, J.P., T. Lamken, T.M. O'Hara, J. Margaret Castellini, J. London, H. Ziel, and L.D. Rea. 2017. Impact of foraging ecology on total mercury, monomethylmercury, and selenium concentrations in Aleutian Island harbor seals. University of North Florida, Department of Biological Sciences, Jacksonville FL. November 3, 2017

29. Rea, L.D. 2016. Using physiological measures to understand the condition of pinniped individuals and populations: an example using Steller sea lions. Plenary presentation at the 9<sup>th</sup> International Conference on Marine Mammals of the Holarctic, Astrakhan, Russia. October 31 – November 5, 2016.

28. Rea, L.D. 2016. Contaminants in Pinnipeds and their Prey. Science briefing to the Council on Foreign Affairs' Independent Task Force on U.S. Strategy in the Arctic. Anchorage, AK. 22 August 2016.

27. Rea, L.D. 2016. Body condition, plasma haptoglobin concentrations and mercury levels in hair of juvenile EDPS Steller sea lions. Research overview presented at Eastern Distinct Population Segment Of Steller Sea Lions: Review Of Post-Delisting Monitoring, workshop sponsored by the Alaska Regional Office, NMFS, NOAA. Seattle, WA 26-27 April, 2016.

26. Rea, L.D. 2015. Using whisker stable isotopes to investigate Steller sea lion diet. Invited presentation for the Marine Mammal Stable Isotope Workshop at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals, San Francisco, CA. 13 December, 2015.

25. Rea, L.D., A.M. Christ, A.B. Hayden, V.K. Stegall, S.D. Farley, C.A. Stricker, J.E. Mellish, J.M. Maniscalco, J.N. Waite, V. Burkanov, K.W. Pitcher. 2015. Age-specific vibrissae growth rates: A tool for determining the timing of ecologically important events in Steller sea lions. Invited presentation at the Stable isotopes in marine mammal ecology workshop of the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals, San Francisco, CA. 12 December, 2015.

24. Rea, L.D. 2015. Steller sea lions and their prey as sentinels of environmental contaminants in the Aleutian Islands. Oral presentation at the Alaska Sea Otter and Steller Sea Lion Commission Board Meeting, Anchorage, Alaska October 2, 2015.

23. Rea, L.D. 2015. Using stable isotopes to investigate Steller sea lion diet and other ecologically important events. Seminar presented at the National Marine Mammal Laboratory

Division, Alaska Fisheries Science Center, NOAA on 10 June 2015.

22. Rea, L.D. 2014. Steller sea lions and their prey as sentinels of environmental contaminants in the Aleutian Islands. Oral presentation at the Department of Veterinary Medicine, OneHealth Symposium series at University of Alaska Fairbanks on 27 October 2014.

21. Rea, L.D. 2014. Status of Steller sea lion mercury contaminant and stable isotope research and underwater capture technique for Alaska sea lions. Presented to the Monk seal research program, Pacific Islands Fisheries Science Center, NOAA, Honolulu, HI. August 21, 2014.

20. Rea, L.D. 2013. Steller sea lions as sentinels of environmental contaminants in the Aleutian Islands. Seminar presentation to the Water & Environmental Research Center, INE, University of Alaska Fairbanks. November 1, 2013.

19. Rea, L.D., J.M. Castellini, L. Correa, B.S. Fadely, V.N. Burkanov and T.M. O'Hara. 2013. Some maternal Steller sea lion diets elevate fetal mercury concentrations in the western Aleutian Island area of population decline. Invited presentation at PICES-2013: Communicating forecasts, uncertainty and consequences of ecosystem change. Nanaimo, British Columbia, Canada. October 16, 2013.  
<http://pices.int/publications/presentations/PICES-2013/2013-S3/S3-0930-Rea.pdf>

18. Rea, L.D., J.M. Castellini, L. Correa, B.S. Fadely, V.N. Burkanov and T.M. O'Hara. 2013. Some maternal Steller sea lion diets elevate fetal mercury concentrations in the western Aleutian Island area of population decline. Seminar presentation to the Colorado State University Chapter of the Wildlife Disease Society, Fort Collins, CO October 4, 2013.

17. Rea, L.D. 2013. Is mercury to blame for lack of recovery of western Aleutian Island Steller sea lions? Seminar presentation to the National Marine Mammal Laboratory, NOAA, Seattle, WA January 9, 2013.

16. Rea, L.D. 2012. Chemical feeding ecology and heavy metal contaminants in Steller sea lions. Presentation to the NPMFC Steller sea lion Mitigation Committee, Juneau, AK September 6, 2012.

15. Rea, L.D. 2010. Fasting as a way of life: Physiological and biochemical adaptations to fasting. Guest lecture to students in MSL 615 Physiology of Marine Organisms at University of Alaska, Fairbanks. October 26, 2010.

14. Rea, L.D. 2010. Exploring alternative hypotheses for the lack of recovery of Steller sea lions in Alaska. Presentation to the NPMFC Steller sea lion Mitigation Committee, Seattle, WA, January 27, 2010.

13. Rea, L.D. 2007. Steller sea lion and human interactions: Sharing the same environment. Presentation at Whalefest 2007, Sitka, Alaska. November 1-5, 2007.

12. Rea, L.D. 2006. Steller sea lion recovery investigations. Presentation to the NPMFC Steller sea lion Mitigation Committee, Seattle, WA, May 2006.

11. Rea, L.D. 2003. Towards testing the nutritional stress hypothesis in free-ranging Steller sea lions. Presentation to the Steller sea lion Recovery Team, Juneau, AK. May 7, 2003.

10. Rea, L.D. 2003. Body condition and nutritional status of juvenile Steller sea lions in the 21<sup>st</sup> century – Towards testing the nutritional stress hypothesis. Invited seminar at the Department of Biology, University of Alaska Anchorage. April 18, 2003.

9. Rea, L.D. 2000. What if they can't find fish? - The impact of food limitation on Steller sea lions. Alaska Sea Life Center, Seward, AK. May 10, 2000.

8. Rea, L.D. 2000. Fasting as a way of life. Invited seminar at the Department of Biology, Florida Institute of Technology, Melbourne, FL. April 6, 2000.

7. Rea, L.D. 1999. Feast and Famine: Unlocking the mysteries of lipid metabolism in seals and sea lions. Department of Biology, University of Central Florida, Orlando, FL. September

20, 1999.

6. Rea, L.D. 1999. Blood chemistry as indicators of nutritional condition in free-ranging Steller sea lions. Workshop presentation at the Steller sea lion Recovery Team Workshop on Physiology, National Marine Mammal Laboratory, Feb 8, 1999.

5. Rea, L.D. 1999. Captive fasting studies on Steller sea lions. Workshop presentation at the Steller sea lion Recovery Team Workshop on Physiology, National Marine Mammal Laboratory, Feb 8, 1999.

4. Rea, L.D. 1998. Biology of Steller sea lions - from Woody as a youngster to population declines. Public lecture at the Alaska Sealife Center, Seward, AK July 23, 1998.

3. Rea, L.D. 1998. Fasting adaptations in seals and sea lions. Department of Biology, Dalhousie University, Halifax, Nova Scotia. February 3, 1998.

2. Rea, L.D. 1997. Adaptations to prolonged fasting in Pinnipeds. Department of Biology, University of Central Florida, Orlando Florida. August 8, 1997.

1. Castellini, M.A. and L.D. Rea. 1996. Blood chemistry patterns associated with development in Steller sea lions. International Symposium and Workshop on Otariid Reproductive Strategies and Conservation. Washington, D.C. April 12-15, 1996. (Presented by L.D. Rea)

#### Conference Presentations

186. Rea, L.D., S.G. Crawford, J.M. Castellini, J.P. Avery, B.S. Fadely, M. Keogh, M. Rehberg, and T.M. O'Hara. 2020. Significant Within-decade Increase in Mercury Concentrations in Steller Sea Lion Pups at Agattu Island, Alaska. Oral presentation at the SETAC North America 41st Annual Meeting, Fort Worth, TX (virtual), November 15-19, 2020.

185. Castellini, J.M., L.D. Rea, J.P. Avery, and T.M. O'Hara. 2020. Total mercury, total selenium, and monomethyl mercury in multiple age cohorts and tissue types in Alaskan Steller sea lions (*Eumetopias jubatus*). Oral presentation at the SETAC North America 41st Annual Meeting, Fort Worth, TX (virtual), November 15-19, 2020.

184. Avery, J.P., N. Misarti, T.M. O'Hara, and L.D. Rea. 2020. Ancient marine mammal bones record dynamic change in mercury concentrations over the last 3000 years. Poster presentation at the SETAC North America 41st Annual Meeting, Fort Worth, TX (virtual), November 15-19, 2020.

183. Lian, M., J.M. Castellini, T.B. Kuhn, L.D. Rea, L. Bishop, M. Keogh, S.N. Kennedy, B.S. Fadely, E. van Wijngaarden, J. Maniscalco, and T.M. O'Hara. 2020. Assessing oxidative and antioxidant status of Steller sea lions (*Eumetopias jubatus*): Associations with mercury and selenium concentrations. Oral presentation at the Alaska Marine Science Symposium, Anchorage, AK. January 27-30, 2020.

182. Castellini, J. M., T.M. O'Hara, J.P. Avery, and L.D. Rea. 2020. Mercury, monomethyl mercury, and selenium concentrations of Steller sea lions (*Eumetopias jubatus*) in Alaska: Age cohorts and tissue types. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. January 27-30, 2020.

181. Rouse, S., M. Lian, J.M. Castellini, L.D. Rea, J. Berner, K. Pabilonia, and T.M. O'Hara. 2020. Evaluation of filter papers soaked in whole blood for *Brucella pinnipedalis* and *Coxiella burnetii* analyses in northern fur seals. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. January 27-30, 2020.

180. Rea, L.D., T. M. O'Hara and M.J. Wooller. 2019. Compound specific nitrogen isotope ratios of amino acids in Steller sea lion whiskers reflect seasonal changes in baseline isotope values in their Alaska marine food webs. Oral presentation at the Alaska Marine Science Symposium, Anchorage, AK. January 28-31, 2019.

179. Crawford, SG, T.M. O'Hara, J.M. Castellini, J.P. Avery, B.S. Fadely, M. Keogh, M. Rehberg, and L.D. Rea. 2019. Crescendos in heavy metal: increasing mercury concentrations measured in Steller sea lion pups at Agattu Island, western Aleutian Islands, Alaska. Oral and poster presentations at the Alaska Marine Science Symposium, Anchorage, AK. January 28-31, 2019.

178. Lian, M., J.M. Castellini, T.B. Kuhn, M. Keogh, L. Bishop, L.D. Rea, B. Fadely, J. Maniscalco, T.M. O'Hara. 2019. Oxidative stress and glutathione peroxidase in Steller sea

- lions: Associations with mercury and selenium status. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. January 28-31, 2019.
177. Keogh, M., M. Levin, T. O'Hara, J. M. Castellini, L. Rea, J. Maniscalco, B. Fadely, and J.-P. Desforges. 2019. Methyl mercury (MeHg<sup>+</sup>) alters adaptive immune functions upon *in vitro* and *in vivo* exposure in Steller sea lion (*Eumetopias jubatus*) pups. Poster presentation at the Alaska Marine Science Symposium, January 2019, Anchorage, Alaska.
176. Rea, L.D., C. Kyungcheol, and M.J. Wooller. 2018. Enhancing the interpretation of bulk (C and N) isotope oscillations in whisker samples from Steller sea lions using compound specific nitrogen isotope analyses of amino acids. Oral presentation at the 11<sup>th</sup> International Conference on the Applications of Stable Isotope Techniques to Ecological Studies, July 30 – August 3, 2018. Viña del Mar, Chile.
175. Doll, A. B. Taras, C. Stricker, L.D. Rea, T.M. O'Hara, A. Cyr, S. McDermott, T. Loomis, B. Fadely, and M. Wunder. 2018. Temporal records of diet diversity dynamics in individual adult female Steller sea lion (*Eumetopias jubatus*) vibrissae. Poster presentation by M. Wunder at the 11<sup>th</sup> International Conference on the Applications of Stable Isotope Techniques to Ecological Studies, July 30 – August 3, 2018. Viña del Mar, Chile.
174. Gerrish, H., S. Kennedy, L.D. Rea, T.M. O'Hara, and T. Kuhn. 2018. Investigation of freeze-thaw effects on the measurement of sea lion immunoglobulin G antibody. Poster presentation at the Midnight Sun Science Symposium (April 7-8, 2018) and the UAF Research and Creativity Day (April 10, 2018), University of Alaska, Fairbanks, AK.
173. Grimes, A., L.D. Rea, T.M. O'Hara, J.M. Castellini, B.S. Fadely, M. Keogh. 2018. Comparison of Adrenal Hormone and Mercury Concentrations in Hair of Steller Sea Lion Pups (*Eumetopias jubatus*). Poster presentation at the International Association of Aquatic Animal Medicine, Long Beach, CA. May 19-23, 2018.
172. Kennedy, S.N., B. Wilhite, J. M. Castellini, A. Ferrante, L. Rea, T. Kuhn, T. O'Hara. 2018. Validation of a protein A ELISA for measuring immunoglobulin G in a non-traditional wildlife species, the Steller sea lion (*Eumatopias jubatus*). Immunology 2018. Austin, TX May 4-8, 2018.
171. Bishop, L.R., M. Lian, J.M. Castellini, T.B. Kuhn, L.D. Rea, M. Keogh, B. Fadley, J. Maniscalco, T.M. O'Hara. 2018. Oxidative stress in Steller sea lions relative to mercury. Western Alaska Interdisciplinary Science Conference and Forum Sharing Science and Knowledge, Nome, Alaska, March 28–30, 2018.
170. O'Hara, T.M., J.M. Castellini, L. Rea, L. Quakenbush, J. Berner. 2018. Rural Alaska Monitoring Program (RAMP): Integrated Agency and Community-Based Assessment of Environmental Agents of Disease. Western Alaska Interdisciplinary Science Conference and Forum Sharing Science and Knowledge, Nome, Alaska, March 28–30, 2018.
169. Bishop, L.R., M. Lian, J.M. Castellini, T.B. Kuhn, L.D. Rea, M. Keogh, B. Fadley, J. Maniscalco, and T.M. O'Hara. 2018. Oxidative stress in Steller sea lions (*Eumetopias jubatus*) relative to Se and Hg. Alaska Chapter of The Wildlife Society, March 26-30, 2018
168. Steingass, S., M. Horning, L.D. Rea, and H. Ziel. 2018. What's in a Whisker? Comparisons of Pacific harbor seal (*Phoca vitulina richardii*) spatial habitat use and foraging ecology in two regions of the North Pacific. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 22-26 January, 2018.
167. Crawford, S.G., L.D. Rea, and R.H. Coker. 2018. Fasting status of Steller sea lion pups as an index of potential nutritional stress in decreasing and increasing metapopulations. Oral presentation at the Alaska Marine Science Symposium, Anchorage, AK. 22-26 January, 2018. (delivered by M. Keogh).
166. Keogh, M., K. Hastings, L.D. Rea, and S.G. Crawford. 2018. Morphometric and physiological links to survival in Steller sea lions. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 22-26 January, 2018.
165. Lian, M., J.M. Castellini, T. Kuhn, L.D. Rea, M. Keogh, B.S. Fadely, J. Maniscalco, and T.M. O'Hara. 2018. Oxidative stress indicators for assessing adverse effects of mercury exposure in Steller sea lions: baseline values from relatively low mercury exposure. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 22-26 January, 2018.
164. Cyr, A.P., J. A. Lopez, L. Rea, T. Loomis, M. Castellini, T. O'Hara. 2017. Species and regional differences in chemical feeding ecology of Hg in Aleutian Island groundfish. Poster presentation at the Soc. of Env Tox and Chem North America 38th Annual Meeting, Minneapolis, MN, November, 2017.
163. Rea, L.D., K. Choy, and M.J. Wooller. 2017. Enhancing the interpretation of bulk (C and N) isotope oscillations in whisker samples from Steller sea lions using compound specific nitrogen isotope analyses of amino acids. Oral presentation at the Compound Specific Stable Isotope Analysis Workshop following the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. October 28, 2017.
162. Avery, J.P., T. Lamken, T.M. O'Hara, J.M. Castellini, J. London, H. Ziel, and L.D. Rea.

2017. Impact of foraging ecology on total mercury, monomethylmercury, and selenium concentrations in Aleutian Island harbor seals. Poster presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
161. Crawford, S.G., L.D. Rea, and R.H. Coker. 2017. Fasting status of Steller sea lion pups as an index of potential nutritional stress in decreasing and increasing metapopulations. Oral presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
160. Lian, M., S. Johnson, T.S. Gelatt, T.M. O'Hara, K.B. Beckmen, and L.D. Rea. 2017. Field anesthesia of juvenile Steller sea lions (*Eumetopias jubatus*) using inhalation anesthesia. Oral presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
159. Rea, L.D., J.M. Castellini, J.P. Avery, B.S. Fadely, H. Ziel, R.R. Ream, C. Kuhn, C. Duncan, M. Rehberg, and T.M. O'Hara. 2017. Comparison of total mercury concentrations in hair of three pinniped species from the Aleutian Islands and Bering Sea, Alaska. Poster presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
158. Inglis, S.D., M.A. Castellini, L.D. Rea, and P.S. Barboza. 2017. Tracking protein turnover in adult female Antarctic Weddell seals (*Leptonychotes weddellii*) with the stable isotope labelled amino acid  $^{15}\text{N}$  glycine. Oral presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
157. Castellini, J.M., T.M. O'Hara, F. Gulland, R.S. Wells, L.D. Rea, L. Quakenbush, J. Berner. 2017. Novel uses of Nobuto filter paper for collection and analysis of whole blood in marine mammals: contaminants, feeding ecology, and serology. Poster presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
156. Neises, V., M. Keogh, L. Rea, and S. Trumble. 2017. Fatty acid signature analysis of Steller sea lions and harbor seals in Alaska, 1998-2010. Poster presentation at the 22nd Biennial Conference on the Biology of Marine Mammals. Halifax, Nova Scotia, Canada. 21-27 October, 2017.
155. Cyr, A.P., C. Sergeant, J. A. Lopez, L. Rea, T. Loomis, A. Whiting, M. Castellini, T. O'Hara. Assessing Hg accumulation in Alaskan fishes using chemical feeding ecology. National Environmental Monitoring Conference (NEMC), Washington D.C. Aug 7-11, 2017
154. O'Hara, T.M., Castellini, J.M., Rea, L., Templeton, M., J.E. Berner. 2017. Use of Blood Soaked Filter Paper for Assessing the Chemical Feeding Ecology of Hg. Pacific Northwest Chapter Society of Environmental Toxicology and Chemistry, 26th Annual Meeting. Northern Ecosystems: Contaminants, Science, and Toxicology, April 20-22, 2017, Anchorage, Alaska
153. Vang, R.T.; Kennedy, S.N.; Castellini, J.M.; Rea, L.D.; O'Hara, T.M.; Ferrante, A. 2017. Change in haptoglobin concentrations in Steller sea lions (*Eumetopias jubatus*) and environmental exposure to mercury: chemical assay interference? Pacific Northwest Chapter Society of Environmental Toxicology and Chemistry, 26th Annual Meeting. Northern Ecosystems: Contaminants, Science, and Toxicology, April 20-22, 2017, Anchorage, Alaska
152. Rea, L. D., J. M. Castellini, L. Correa, B. S. Fadely, V. N. Burkanov, M. J. Rehberg, and T. M. O'Hara. 2017. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions. Pacific Northwest Chapter Society of Environmental Toxicology and Chemistry, 26th Annual Meeting. Northern Ecosystems: Contaminants, Science, and Toxicology, April 20-22, 2017, Anchorage, Alaska.
151. Avery, J. P., T. Lamken, T.M. O'Hara, J. London, H. Ziel, and L. D. Rea. 2017. Regional differences in total mercury content of Aleutian harbor seal fur. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 23-27 January, 2017.
150. Castellini, J.M., J.P. Avery, T.M. O'Hara, T. Bouta, and L.D. Rea. 2017. Tissue distribution of total mercury, monomethylmercury, and selenium in Alaskan Steller sea lions. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 23-27 January, 2017.
149. Crawford, S.G., L.D. Rea, and R.H. Coker. 2017. Using fasting status to evaluate the nutritional stress hypothesis in Steller sea lion pups. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 23-27 January, 2017.
148. Harding J., J.P. Avery, T.M. O'Hara, and L.D. Rea. 2017. Can fur predict the total mercury concentration of muscle of Steller sea lions? Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 23-27 January, 2017.
147. Harley, J., L.D. Rea, T. Bammler, J. MacDonald, and T. M. O'Hara. 2017. Does mercury exposure drive differences in gene expression in Steller sea lions (*Eumetopias jubatus*) from the western Aleutian Islands, Alaska? Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 23-27 January, 2017.
146. Steingass, S., M. Horning, and L.D. Rea. 2017. Distant Relatives: Comparing stable

carbon and nitrogen isotope values and trophic niche from two Pacific harbor seal (*Phoca vitulina richardii*) populations in the North Pacific. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 23-27 January, 2017.

145. Crawford, S.G., L.D. Rea, and R.H. Coker. 2017. Using fasting status to evaluate the nutritional stress hypothesis in Steller sea lion pups. Poster presentation at the Conference of the Wildlife Society, Raleigh, NC. October 2016.

144. Rea, L.D., J.M. Castellini, M.J. Rehberg, B.S. Fadely, A. Cyr, T.M. Loomis, R. Gerlach, C. Furin, and Todd O'Hara. 2016. Mercury concentrations in Steller sea lions and their prey in the Aleutian Islands. Oral presentation at the Aleutian Life Forum, Dutch Harbor, AK. August 15-20, 2016.

143. Rea, L.D. and K.A. Hobson. 2016. Differences in changes in plasma  $\delta^{15}\text{N}$  values in pinnipeds during natural fasting vs. starvation events. Oral presentation at the 11<sup>th</sup> Biennial Symposium of the Comparative Nutrition Society, Rio Grande, Puerto Rico, August 7-12, 2016.

142. Rea, L.D. and K.A. Hobson. 2016. Differences in changes in plasma  $\delta^{15}\text{N}$  values in pinnipeds during natural fasting vs. starvation events. Oral presentation at the 10<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecology Studies. Tokyo, Japan. April 3-10, 2016.

141. Cyr, A., L.D. Rea, J.M. Castellini, T.M. Loomis, and T.M. O'Hara. 2016. Chemical feeding ecology of mercury in Aleutian Island groundfish: Special consideration for yellow Irish Lord (*Hemilepidotus jordani*). Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 25-28 January, 2016.

140. Rea, L.D., J.M. Castellini, L. Correa, B.S. Fadely, V.N. Burkanov, M.J. Rehberg, and T.M. O'Hara. 2016. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 25-28 January, 2016.

139. Opp, K.R., T.M. O'Hara, J.M. Castellini, M. Barbieri, C. L. Littnan, and L.D. Rea. 2015. Total mercury concentration and stable isotopes of carbon and nitrogen in Hawaiian monk seal hair. Poster presentation at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, California. 12-19 December, 2015.

138. Kennedy, S. N., J.M. Castellini, A.B. Hayden, T.M O'Hara, and L.D. Rea. 2015. Haptoglobin concentrations in Steller sea lions (*Eumetopias jubatus*): Update, and demographic and environmental drivers. Poster presentation at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, California. 12-19 December, 2015.

137. Harley, J., J. MacDonald, T. Bammler, L.D. Rea, B.S. Fadely, T.S. Gelatt, S. Kennedy, T. Kavanagh, T.M. O'Hara. Integration of hematology and RNA-Seq methods with microbial mining techniques using peripheral blood monocytes of Steller sea lion pups (*Eumetopias jubatus*). Poster presentation at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, California. 12-19 December, 2015.

136. Fadely, B.S., L. Fritz, D. Johnson, L.D. Rea, and T. Gelatt. 2015. Sizing-up Steller sea lion pup condition as an indicator of environmental conditions in the Aleutian Islands, Alaska. Accepted for oral presentation at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals (but withdrawn due to family emergency). San Francisco, California. 12-19 December, 2015.

135. Castellini, J.M., L.D. Rea, L. Correa, B.S. Fadely, M.J. Rehberg, T.M. O'Hara. 2015. Mercury and selenium in blood compartments of Steller sea lion (*Eumetopias jubatus*) pups in Alaska. Poster presentation at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, California. 12-19 December, 2015.

134. Rea, L.D., J.M. Castellini, L. Correa, B.S. Fadely, V.N. Burkanov, M.J. Rehberg, and T.M. O'Hara. 2015. Regional variations and drivers of mercury and selenium concentrations in Steller sea lions. Oral presentation at the 21<sup>st</sup> Biennial Conference on the Biology of Marine Mammals. San Francisco, California. 12-19 December, 2015.

133. Lian, M, TB Kuhn, LD Rea and TM O'Hara. 2015. Determining the impact of total mercury concentrations and Se:Hg molar ratios on the oxidative stress response in the endangered western population of Steller sea lions in Alaska. In The Second International Conference on Oxidative Stress in Aquatic Systems' proceedings. La Paz, Baja California Sur, Mexico. 11-14 November 2015.

132. Hughes, S.N., L.D. Rea, J.M. Castellini, B.S. Fadely, S.H. Peterson, E.A. McHuron, T.M. O'Hara. 2015. Evaluation of fur as a predictor of blood mercury in Steller sea lions (*Eumetopias jubatus*): effects of life history stages. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 19-23 January, 2015.

131. Harley, J., L. Rea, B. Fadely, T. Gelatt, T. Kavanagh, T. Bammler, J. MacDonald, and T. M. O'Hara. 2015. Evaluating RNA-Seq as a tool for assessing health status of Steller sea lions (*Eumetopias jubatus*) in an area of population decline. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 19-23 January, 2015.

130. Opp, K.R., T.M. O'Hara, J.M. Castellini, A. Cyr, S. Mcdermott, T.M. Loomis, L.D. Rea. 2015. Comparison of carbon ( $\delta^{13}\text{C}$ ) and nitrogen ( $\delta^{15}\text{N}$ ) stable isotope ratios of Atka mackerel (*Pleurogrammus monopterygius*) and Pacific cod (*Gadus macrocephalus*) in the Central and Western Aleutian Islands. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 19-23 January, 2015.
129. Rea, L.D., A.M. Christ, A.B. Hayden, V.K. Stegall, S.D. Farley, C.A. Stricker, J.E. Mellish, J.M. Maniscalco, J.N. Waite, V. Burkanov, K.W. Pitcher. 2014. Age-specific vibrissae growth rates: a tool for determining the timing of ecologically important events in Steller sea lions. Oral presentation at the 9<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies. Perth, Australia. 3-8 August, 2014.
128. Johnson, G.M., L.D. Rea, J.M. Castellini, T.M. Loomis and T.M. O'Hara. 2014. Relationship between trophic level and total mercury concentrations in 5 Steller sea lion prey species. Poster presentation at the University of Alaska Research Day, Fairbanks, AK. 29 April, 2014.
127. Malmlov, A., G.J. Kersh, K.A. Fitzpatrick, T.S. Gelatt, L.D. Rea, R. Delong, B. Dickerson, J.M. Maniscalco, C. Goertz, V. Gill, T. Atwood, T. Goldstein, N. Rouse, D. Lambourn, S. Jeffries, R. Brown, D. Costa and C. Duncan. 2014. *Coxiella burnetti* exposure in multiple marine mammal species inhabiting the North Pacific Ocean. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 20-24 January, 2014.
126. Rehberg, M.J. and L.D. Rea. 2014. Seasonal change a stronger influence than growth upon Steller sea lion behavior during their first winter. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 20-24 January, 2014.
125. Rea, L.D., M.A. Castellini, B.S. Fadely, J.M. Castellini and T.M. O'Hara. 2014. Regional differences in mercury concentrations in Alaskan Steller sea lions may have been persistent over the past 15 years. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 20-24 January, 2014.
124. Johnson, G.M., L.D. Rea, J.M. Castellini, T.M. Loomis and T.M. O'Hara. 2014. Relationship between trophic level and total mercury concentrations in 5 Steller sea lion prey species. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 20-24 January, 2014.
123. Siess, K., N. Wolf, J. Welker, L.D. Rea and L. Cornick. 2013. Variability in  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  stable isotope signatures of Steller sea lion pup vibrissae: implications for diet and foraging studies. Poster presentation at the 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand. 9-13 December, 2013.
122. Rehberg, M.J. and L.D. Rea. 2013. Seasonal change a stronger influence than growth upon Steller sea lion behavior during their first winter. Poster presentation at the 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand. 9-13 December, 2013.
121. Goldstein, T., J.A.K. Mazet, V.A. Gill, P.L. Boveng, J.M. London, T.S. Gelatt, B.S. Fadely, M.A. Lander, L.D. Rea, K.A. Burek, S.L. Cosby and J.A. Hammond. 2013. Emergence of Phocine Distemper Virus in Arctic and Sub-arctic Pinnipeds in the Northeast Pacific off Alaska. Oral presentation at the 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand. 9-13 December, 2013.
120. Christ, A.M., L.D. Rea, J.N. Waite, C.A. Stricker, M. Wunder and R.D. Scherer. 2013. Surrogate information for assessing maternal diet: matching stable isotope profiles of vibrissae from adult Steller sea lion females and their pups. Oral presentation at the 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand. 9-13 December, 2013.
119. Atkinson, S., D. Calkins, J-A. Mellish, J.N. Waite, L.D. Rea, J. Carpenter and K.L. Mashburn. 2013. Nutritional Stress: Steller sea lion response to diet and fasting. Oral presentation at the 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand. 9-13 December, 2013.
118. Rea, L.D., J.M. Castellini, L. Correa, B.S. Fadely, V.N. Burkanov and T.M. O'Hara. 2013. Some maternal Steller sea lion diets elevate fetal mercury concentrations in the western Aleutian Island area of population decline. Oral presentation at the 20<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Dunedin, New Zealand. 9-13 December, 2013.
117. Fadely, B.S., T.S. Gelatt, M. Lander, M. Haulena, L.D. Rea, J. Vollenweider, S. McDermott, M. Rehberg and K.B. Beckmen. 2013. Remotely delivered chemical immobilization of adult female Steller sea lions (*Eumetopias jubatus*) and post-handling foraging behaviors. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 21-25 January, 2013.
116. Rea, L.D., J.M. Castellini, L. Correa, B.S. Fadely and T.M. O'Hara. 2013. Some maternal Steller sea lion diets elevate fetal mercury concentrations in the western Aleutian Island area of decline. Oral presentation at the Alaska Marine Science Symposium,



Anchorage, AK. 21-25 January, 2013.

115. Correa, L., L.D. Rea, J.M. Castellini and T.M. O'Hara. Mercury body burden in Steller sea lions. Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference. Seattle, WA. 11-14 October, 2012.
114. Stricker, C.A., L.D. Rea, D.A.S. Rosen, D.J. Tollit, and S.D. Farley. 2012. Carbon and nitrogen isotope discrimination factors for Steller sea lion vibrissae on milk and fish/squid diets. 8<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies. Brest, France. 20-24 August, 2012.
113. Scherer, R.D., L.D. Rea, A.M. Christ, M. Wunder and C.A. Stricker. 2012. Spatial variation in the diets of female Steller sea lions inferred from <sup>13</sup>C and <sup>15</sup>N values of vibrissae from pups. 8<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies. Brest, France. 20-24 August, 2012.
112. Christ, A.M., L.D. Rea, J.N. Waite, C.A. Stricker, M. Wunder and R.D. Scherer. 2012. Discrimination factors for  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  profiles of vibrissae from adult Steller sea lion females and their pups *in utero* and post parturition. 8<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies. Brest, France. 20-24 August, 2012.
111. Rea L.D., J.M. Castellini, L. Correa, B.S. Fadely and T.M. O'Hara. 2012. Using chemical feeding ecology to understand variability in mercury concentrations in western Aleutian Steller sea lions. 8<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies. Brest, France. 20-24 August, 2012.
110. Christ, A.M., L.D. Rea, J.N. Waite, C.A. Stricker, M. Wunder and R.D. Scherer. 2012. Estimating locations for local extrema of stable isotope signatures in Steller sea lion vibrissae. International Statistical Ecology Conference (ISEC) Oslo Norway, 27 June to 7 July 2012.
109. Rea L.D., J.M. Castellini, L. Correa, B.S. Fadely and T.M. O'Hara. 2012. Chemical feeding ecology predicts accumulation of mercury contamination in the hair of Steller sea lions. Ninth Comparative Nutrition Society Symposium, Asilomar, CA, July 19-23, 2012.
108. Correa, L., L.D. Rea, C. Lieske, J.M. Castellini, B.S. Fadely, T.M. O'Hara. 2012. Mercury in blood and keratinous tissue of marine mammals. The Alaska Marine Science Symposium, January 16-20, 2012 in Anchorage, Alaska.
107. Rea, L.D., A.R. Banks, M.A. Castellini, B.S. Fadely, V. Burkanov. 2012. Plasma haptoglobin concentrations vary by region of capture in free-ranging Steller sea lion pups. The Alaska Marine Science Symposium, January 16-20, 2012 in Anchorage, Alaska.
106. Haulena, M., K.B. Beckmen, B.S. Fadely, M. Lander, D. C. McAllister, S. Melin, L.D. Rea, M.J. Rehberg, G. Snedgen, W.V. Bonn, and T.S. Gelatt. 2011. Remotely-Delivered Chemical Immobilization of Adult Female Steller Sea Lions for Physiological Sampling and Satellite Telemetry Attachment. The 18th Annual Conference of the Wildlife Society, November 5-10, 2011 in Waikoloa, Hawaii.
105. Rea, L.D., A.R. Banks, M.A. Castellini, B.S. Fadely, V. Burkanov. 2011. Plasma haptoglobin concentrations vary by region of capture in free-ranging Steller sea lion pups. Oral presentation at the Workshop on Marine Mammal Stress, November 25, 2011, Tampa, Florida.
104. Rehberg, M J and L.D Rea. 2011. Steller sea lion foraging behavior in Glacier Bay, Alaska. The 19th Biennial Conference on the Biology of Marine Mammals, November 26-December 2, 2011 in Tampa, Florida.
103. Rea, L.D., A.R. Banks, S.D. Farley, C.A. Stricker, B.S. Fadely, J.E. Mellish, A.C. Christ, K.W. Pitcher. 2011. Delayed age at weaning in Southeast Alaska Steller sea lions determined using stable isotopes of carbon and nitrogen. The 19th Biennial Conference on the Biology of Marine Mammals, November 26-December 2, 2011 in Tampa, Florida.
102. Haulena, M., K.B. Beckmen, B.S. Fadely, M. Lander, D. C. McAllister, S. Melin, L.D. Rea, M.J. Rehberg, G. Snedgen, W.V. Bonn, and T.S. Gelatt. 2011. Remotely-Delivered Chemical Immobilization of Adult Female Steller Sea Lions for Physiological Sampling and Satellite Telemetry Attachment. The 60th Annual Meeting of the Wildlife Disease Association, August 14-19, 2011 in Quebec, Q.C. Canada.
101. Haulena, M., K.B. Beckmen, B.S. Fadely, T.S. Gelatt, M. Lander, D.M. McAllister, S. Melin, L.D. Rea and G. Snedgen. 2011. Remotely-delivered chemical immobilization of adult female Steller sea lions for physiological sampling and satellite telemetry attachment in Southeast Alaska. Alaska Marine Science Symposium, January 17-20, 2011, Anchorage, Alaska.
100. Rehberg, M.J. and L.D. Rea. 2011. Steller sea lion foraging behavior in Glacier Bay, Alaska. . Alaska Marine Science Symposium, January 17-20, 2011, Anchorage, Alaska.
99. Banks, A.R., L.D. Rea, S.D. Farley, C.A. Stricker, A.M. Christ and J.E. Mellish. 2011. Vibrissae growth rates: a tool for determining the timing of ecologically important events. .

Alaska Marine Science Symposium, January 17-20, 2011, Anchorage, Alaska.

98. Rea, L.D., A.R. Banks, S.D. Farley, C.A. Stricker, B.S. Fadely and K.W. Pitcher. 2011. Regional differences in age of weaning in Steller sea lions determined using stable isotopes of carbon and nitrogen. Alaska Marine Science Symposium, January 17-20, 2011, Anchorage, Alaska.
97. Banks, A.R., L.D. Rea, S.D. Farley, C.A. Stricker and A.M. Christ. 2010. Vibrissae growth rates: a tool for determining the timing of ecologically important events. Poster presentation at the Seventh International conference on Applications of Stable Isotope Techniques to Ecological Studies, August 9-13, 2010, Fairbanks, Alaska.
96. Rea, L.D. and K.A. Hobson. 2010. Serum stable isotopes change with fasting in seals and sea lions. Poster presentation at the Seventh International conference on Applications of Stable Isotope Techniques to Ecological Studies, August 9-13, 2010, Fairbanks, Alaska.
95. Rea, L.D. and K.A. Hobson. 2010. Serum stable isotopes ( $\delta^{13}\text{C}$ ,  $\delta^{15}\text{N}$ ) change with fasting in seals and sea lions. Oral presentation at the Eighth Biennial Symposium of the Comparative Nutrition Society, August 6-10, 2010, Tucson, Arizona.
94. Rehberg, M.J. and L.D. Rea. 2010. Growth, behavioral ontogeny and seasonal change in Steller sea lion pups during their first winter. Alaska Marine Science Symposium, January 18-21, 2010, Anchorage, Alaska.
93. Rea, L.D., J.M. Castellini, and A.R. Banks. 2010. Plasma haptoglobin concentrations vary by age and region of capture in free-ranging Steller sea lions in Alaska. Alaska Marine Science Symposium, January 18-21, 2010, Anchorage, Alaska.
92. Castellini, J.M., K.B. Beckmen, L.D. Rea and T.M. O'Hara. 2009. Mercury and selenium levels in Steller sea lion pups in Alaska. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec City, Quebec, Canada, 12-16 October, 2009.
91. Richmond, J.P., L.D. Rea, J.E. Mellish, and S.A. Zinn. 2009. Ontogeny of the somatotrophic axis in free-ranging Steller sea lions (*Eumetopias jubatus*). 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec City, Quebec, Canada, 12-16 October, 2009.
90. Rehberg, M.J. and L.D. Rea. 2009. Longitudinal change in diving and physiology of Steller sea lion pups. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec City, Quebec, Canada, 12-16 October, 2009.
89. Rea, L.D., J.M. Castellini, and A.R. Banks. 2009. Plasma haptoglobin concentrations vary by region of capture in free-ranging Steller sea lions, but not by age. 18<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Quebec City, Quebec, Canada, 12-16 October, 2009.
88. Rivera, P. M., L. D. Rea, B. S. Fadely and V. Burkanov. 2009. Investigating stock differences in nutritional metabolites of young Steller sea lion pups in Southeast Alaska, western Alaska and Russia. Poster presentation at the Alaska Marine Science Symposium, Anchorage, Alaska, 19-23 January, 2009.
87. Rehberg, M. and L. D. Rea. 2009. Longitudinal change in Steller sea lion diving and physiology. Poster presentation at the Alaska Marine Science Symposium, Anchorage, Alaska, 19-23 January, 2009.
86. Castellini, J. M., K. B. Beckmen, L. D. Rea and T. M. O'Hara. 2009. Mercury Levels in Steller Sea Lion Pups in Alaska. Poster presentation at the Alaska Marine Science Symposium, Anchorage, Alaska, 19-23 January, 2009.
85. Rea, L. D., K. W. Pitcher, S. D. Farley, J. P. Richmond and W. S. Dunlap-Harding. 2009. Percent total body lipid content increases in Steller sea lion (*Eumetopias jubatus*) pups during the first year of life in a similar pattern to other otariid species. Oral presentation at the Alaska Marine Science Symposium, Anchorage, Alaska, 19-23 January, 2009.
84. Rea, Lorrie D, Sean D. Farley, Craig A. Stricker, Vicki K. Stegall, Carrie A. Eischens. 2008. A novel approach to monitoring changes in the diet of lactating mothers through isotopic analysis of young Steller sea lion vibrissae. Poster presentation at the 6<sup>th</sup> International Conference on Applications of Stable Isotope Techniques to Ecological Studies, Honolulu, Hawaii, USA. August 25-29, 2008.
83. Rea, Lorrie D, Sean D. Farley, Craig A. Stricker, Vicki K. Stegall, Carrie A. Eischens. 2008. A novel approach to monitoring changes in the diet of lactating mothers through isotopic analysis of young Steller sea lion vibrissae. Oral presentation at the 7<sup>th</sup> Comparative Nutrition Society Symposium, Liscomb Mills, Nova Scotia, Canada. August 8-13, 2008.
82. Rivera, Patricia M; Rea, Lorrie D., Richmond, Julie P., Stegall, Vicki K. 2008. Investigating Regional Differences in Nutritional Metabolites of Young Steller Sea Lions in Alaska. Alaska Marine Science Symposium, Anchorage, AK, January 20-23, 2008.
81. Rehberg, MR, Clark, CA, Rea, LD, Eischens, CAB. 2008. Longitudinal change in Seller sea lion diving and physiology. Alaska Marine Science Symposium, Anchorage, AK, January 20-23, 2008.
80. Rea, Lorrie D. and Eischens, Carrie A. 2008. Isotopic sampling of young Steller sea lions provides evidence of changes in the diet of their lactating mothers. Alaska Marine Science Symposium, Anchorage, AK, January 20-23, 2008.

79. Lieske, Camilla, Beckmen, Kimberlee, Burek, Kathy, Rea, Lorrie. 2008. Health Assessment of Steller Sea Lions. Alaska Marine Science Symposium, Anchorage, AK, January 20-23, 2008.
78. Hastings, K.K., T.S. Gelatt, L.A. Jemison, K.W. Pitcher, J. Laake, L.D. Rea, and G. Pendleton. 2008. Regional variation in Steller sea lion vital rates in Alaska. Alaska Marine Science Symposium, Anchorage, AK, January 20-23, 2008.
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75. Tollit, D.J., D.A.S. Rosen, K.M. Miller, L.D. Rea, and A.W. Trites. 2007. All mixed up and no place to grow? Integrating captive and field studies to examine the effects of prey intake patterns on physiology and diet reconstruction of Steller sea lions (*Eumetopias jubatus*). 17<sup>th</sup> SMM Biennial Conference On The Biology Of Marine Mammals, Cape Town, South Africa, November 28-December 4, 2007
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73. Lieske, C., K.B. Beckmen, K. Burek, and L.D. Rea. 2007. Health Assessment of Steller Sea Lions in Alaska. 17<sup>th</sup> SMM Biennial Conference On The Biology Of Marine Mammals, Cape Town, South Africa, November 28-December 4, 2007.
72. Rea, L.D. and C.A. Eischens 2007. Using stable isotope signatures of vibrissae and ingested milk from young Steller sea lions to monitor changes in the diet their lactating mothers. 17<sup>th</sup> SMM Biennial Conference On The Biology Of Marine Mammals, Cape Town, South Africa, November 28-December 4, 2007.
71. Eischens, C.B., M. Rehberg, C.A. Clark, and L.D. Rea. 2007. Changes in the foraging behavior and physiology of young Steller sea lions, *Eumetopias jubatus*, over their first winter. Marine Science in Alaska Symposium, Anchorage, AK January 21-24, 2007.
70. Rea, L.D., C.A. Beck, V.K. Stegall, S.B. Farley, K.B. Beckmen, and K.W. Pitcher. 2007. Got milk? – Assembling physiological indices of weaning for Steller sea lions. Marine Science in Alaska Symposium, Anchorage, AK January 21-24, 2007.
69. Stegall, V.K., L.D. Rea, and M.A. Castellini. 2006. Using locomotor and non-locomotor muscle development indices to assess nutritional stress in free-ranging Steller sea lions. 13<sup>th</sup> Annual Conference for the Wildlife Society in Anchorage, Alaska, September 23-27, 2006.
68. Rivera, P.M., L.D. Rea, J.P. Richmond, V.K. Stegall. 2006. Nutritional indices of young Steller sea lions in Alaska. 13<sup>th</sup> Annual Conference for the Wildlife Society in Anchorage, Alaska, September 23-27, 2006.
67. Hastings, K.K., T.S. Gelatt, K.W. Pitcher, L.A. Jemison, J.C. King, K.L. Raum-Suryan, G. Pendleton, and L.D. Rea. 2006. Survival of juvenile Steller sea lions in Southeast Alaska: effects of birth rookery, sex, age and year. 13<sup>th</sup> Annual Conference for The Wildlife Society in Anchorage, Alaska, September 23-27, 2006.
66. Clark, C.A., C.A. Beck, M.J. Rehberg, and L.D. Rea. 2006. Total body oxygen stores in young Steller sea lions (*Eumetopias jubatus*): A longitudinal study. 13<sup>th</sup> Annual Conference for The Wildlife Society in Anchorage, Alaska, September 23-27, 2006.
65. Beck, C.A., L.D. Rea, J. Kennish, S.J. Iverson, D. Tollit, K.W. Pitcher. 2006. Investigating the diet of young Steller sea lions in Alaska using blubber fatty acids. 13<sup>th</sup> Annual Conference for The Wildlife Society in Anchorage, Alaska, September 23-27, 2006.
64. Rea, L.D., C.A. Beck, V.K. Stegall, S.D. Farley, P.M. Rivera, L.A. Hoopes, and K.W. Pitcher. 2006. Developing physiological and nutritional indices as tools to investigate potential causes of population decline in Alaskan Steller sea lions. 13<sup>th</sup> Annual Conference for The Wildlife Society in Anchorage, Alaska, September 23-27, 2006.
63. Hoopes, L.A., L.D. Rea, and G.A.J. Worthy. SICB January 2006
62. Hoopes, L.A., L.D. Rea, and G.A.J. Worthy. 2005. Resting metabolic rate in free-ranging juvenile Steller sea lions (*Eumetopias jubatus*). 16<sup>th</sup> SMM Biennial Conference on the Biology of Marine Mammals, December 12-16, 2005 In San Diego, California.
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60. Rivera, P.M., L.D. Rea, J.P. Richmond, and V.K. Stegall. 2005. Nutritional Indices of Young Steller Sea Lions in Alaska. 16<sup>th</sup> SMM Biennial Conference on the Biology of Marine

Mammals, December 12-16, 2005 In San Diego, California.

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51. Hoopes, L.A., L.D. Rea, and G.A.J. Worthy. 2004. Resting metabolic rate in free-ranging juvenile Steller sea lions (*Eumetopias jubatus*): Life on the edge. Sea Lions of the World Conference, Anchorage, AK September 30 – October 3, 2004.
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40. J.P. Richmond, J.M. Burns, L.D. Rea. 2003. Developmental trends in erythropoietin: The diving force behind blood oxygen store expansion. 15<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Greensboro, North Carolina, December 15 – 19, 2003.
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38. Beck, C.A., L.D. Rea, J.M. Kennish, and S.J. Iverson. 2003. Diet differences in Steller sea lions by age and location based on fatty acid signatures. 15<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Greensboro, North Carolina, December 15 – 19, 2003.
37. Myers, M.J., L.D. Rea, K.L. Mashburn and S. Atkinson. 2003. Thyroid and cortisol hormones as an indication of metabolic function and well-being in Steller sea lions (*Eumetopias jubatus*). Marine Science in the Northeast Pacific: Science for Resource based Communities. Anchorage, Alaska. 13-17 January, 2003.
36. Richmond, J.P., J.M. Burns and L.D. Rea. 2003. Steller sea lion foraging ecology is an important factor in juvenile survival. Marine Science in the Northeast Pacific: Science for Resource based Communities. Anchorage, Alaska. 13-17 January, 2003.
35. Farley, S.D., V.K. Stegall, L.D. Rea, and W.I. Ridley. 2003. Application of laser ablation ICP-MS to elemental fingerprinting and isotope analysis to evaluate nutritional history and diet of Steller Sea lion. Marine Science in the Northeast Pacific: Science for Resource based Communities. Anchorage, Alaska. 13-17 January, 2003.
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32. Rea, L.D., J. Kennish and C.A. Beck. 2003. Modeling diet composition of free-ranging Steller sea lions using quantitative fatty acid signature analysis. Marine Science in the Northeast Pacific: Science for Resource based Communities. Anchorage, Alaska. 13-17 January, 2003.
31. Rea, L.D. 2003. Differences in blubber levels of the fatty acid 20:1n-11 suggest free-ranging Steller sea lions (*Eumetopias jubatus*) ingest prey at a younger age in Prince William Sound than sea lions captured in southeast Alaska. Marine Science in the Northeast Pacific: Science for Resource based Communities. Anchorage, Alaska. 13-17 January, 2003.
30. Richmond, J.P., J.M. Burns and L.D. Rea. 2002. Investigation in blood and muscle development in the Steller sea lion: Implications for diving ability. American Association for the Advancement of Science (AAAS), 53<sup>rd</sup> Arctic Division Science conference, Fairbanks, Alaska. September 18-21, 2002.
29. Richmond, J.P., J.M. Burns, and L.D. Rea. 2002. Biochemistry of Steller Sea Lion Muscle as it relates to Development of Dive Physiology. The Power of Comparative Physiology: Evolution, Integration, and Applied. San Diego, California. August 24-28, 2002. p. 302.
28. Hobson K.A., V.K. Stegall and L.D. Rea. 2002. Stable Isotope Changes During Fasting in Pinnipeds. The Power of Comparative Physiology: Evolution, Integration, and Applied. San Diego, California. August 24-28, 2002.
27. Rea, L.D. 2002. Identifying prey ingestion based on blubber levels of 20:1n-11 and 22:1n-11 fatty acids in free-ranging Steller sea lions (*Eumetopias jubatus*). The Power of Comparative Physiology: Evolution, Integration, and Applied. San Diego, California. August 24-28, 2002.
26. Atkinson, S., M. Myers and L. Rea. 2001. Thyroid and cortisol hormone concentrations in Steller sea lions (*Eumetopias jubatus*). 14<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia, Canada. November 28 – December 3, 2001.
25. Myers, M., S. Atkinson and L. Rea. 2001. Development of an index for metabolic condition in Steller sea lions (*Eumetopias jubatus*) utilizing leptin hormone concentrations. 14<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia,

Canada. November 28 – December 3, 2001.

24. Richmond, J.P. and L. D. Rea. 2001. Nutritional blood chemistry provides clues to the feeding status of young of the year and juvenile Steller sea lions (*Eumetopias jubatus*). 14<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia, Canada. November 28 – December 3, 2001.

23. Dunlap-Harding, W. S., L. D. Rea, K.W. Pitcher and S. D. Farley. 2001. Body condition of free-ranging Steller sea lions estimated by deuterium isotope dilution. 14<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia, Canada. November 28 – December 3, 2001.

22. Rea, L.D., D.A.S. Rosen, and A.W. Trites. 2001. The cost of fasting in Steller sea lions (*Eumetopias jubatus*). 14<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia, Canada. November 28 – December 3, 2001.

21. Rea, L.D., D.A.S. Rosen and A.W. Trites. 2001. The effect of seasonal food limitation on adaptation to fasting in captive Steller sea lions. 34<sup>th</sup> International Congress of Physiological Sciences, Christchurch, New Zealand. August 26 – 31, 2001.

20. Berman, M.L. and L.D. Rea. 2000. The effects of food deprivation on serum lipid concentration and content in Steller sea lions (*Eumetopias jubatus*). Third Biennial Symposium of the Comparative Nutrition Society, Pacific Grove, California. August 4-9, 2000.

19. Rea, L.D. and T.R. Nagy. 2000. Changes in serum leptin levels during fasting and food limitation in Steller sea lions (*Eumetopias jubatus*). Third Biennial Symposium of the Comparative Nutrition Society, Pacific Grove, California. August 4-9, 2000.

18. Rea, L.D., R. Groscolas, M.A. Castellini and J.M. Burns. 1999. Changes in fatty acid composition of pup plasma reflect differences in milk lipid composition in Weddell seals. 13<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Maui, Hawaii, November 27 - December 3, 1999.

17. Berman, M.L. and L.D. Rea. 1999. Variations of plasma lipid content in fasting Steller sea lions (*Eumetopias jubatus*). 13<sup>th</sup> Biennial Conference on the Biology of Marine Mammals, Maui, Hawaii, November 27 - December 3, 1999.

16. Rea, L.D., D.A.S. Rosen and A.W. Trites. 1999. Seasonal differences in adaptation to prolonged fasting in juvenile Steller sea lions (*Eumetopias jubatus*). Meetings of the Fed. of American Societies of Experimental Biology. Washington, D.C. April 17-21, 1999.

15. Rea, L.D., D.A.S. Rosen and A.W. Trites. 1998. Blood chemistry and body mass changes during fasting in juvenile Steller sea lions (*Eumetopias jubatus*). Proceedings of the Comparative Nutrition Society, Banff, Alberta, Canada, August 14-19, 1998.

14. Rea, L.D. and M.A. Castellini. 1996. What determines the duration of the post-weaning fast in phocid seals? Meetings of the Federation of American Societies of Experimental Biology. Washington, D.C. April 14-17, 1996.

13. Rea, L.D. and M.A. Castellini. 1995. Adaptations to prolonged fasting in elephant seal pups - Plasma chemistry and body mass loss. Abs. 11th Biennial Conference on the Biology of Marine Mammals. Orlando, Florida. December 1995.

12. Rea, L.D. and M.A. Castellini. 1994. Weaning mass determines how stored fuels are utilized during prolonged fasting in elephant seal pups. American Physiological Society Comparative Physiology meetings, San Diego, November 1994.

11. Rea, L.D., M.A. Castellini and R.L. Merrick. 1993. Body condition and metabolic chemistry of Steller sea lion pups in the Aleutian Islands and the Gulf of Alaska. Abs. 10th Biennial Conference on the Biology of Marine Mammals. Galveston, Texas. Nov 6-12, 1993.

10. Rea, L.D., M.A. Castellini and J.W. Testa. 1993. Body condition and plasma metabolites as indicators of nutritional independence in Weddell seal pups. Abs. Meetings of the International Union of Physiological Sciences, Glasgow, Scotland. August 1-6, 1993.

9. Rea, L.D. and M.A. Castellini. 1992. Plasma metabolite levels during prolonged fasting in Pinnipeds. Abs. Meetings of the Federation of American Societies of Experimental Biology. Anaheim, California. April 1992.

8. Rea, L.D. and M.A. Castellini. 1991. Assessing nutritional health status of Alaskan pinniped populations. Abs. 9th Biennial Conference on the Biology of Marine Mammals. Chicago, Illinois. December 5-10, 1991.

7. Rea, L.D. and M.A. Castellini. 1991. Plasma fuel levels during prolonged fasting in elephant seal pups (*Mirounga angustirostris*). Abs. Meetings of the International Union of Comparative Physiology and Biochemistry. Tokyo, Japan. August 25-31, 1991.

6. Rea, L.D. and D.P. Costa. 1990. Development of resting metabolic rate in northern elephant seal pups. American Physiological Society Specialty Meetings. Orlando, Florida. October 6-10, 1990. p. A-67.

5. Costa, D.P., L.D. Rea, M. Kretzmann, and P.H. Thorson. 1990. Seasonal changes in the diving pattern and energetics of the Australian sea lion. Abs. American Physiological Society Specialty Meetings. Orlando, Florida. October 6-10, 1990. p. A-91.

4. Adams, S.H., L.D. Rea and D.P. Costa. 1990. The contribution of protein catabolism to the

basal metabolic rate of fasting northern elephant seal pups. Abs. 70th Annual Meeting of the American Society of Mammalogists. Frostburg, Maryland. June 1990.

3. Rea, L.D. and D.P. Costa. 1989. The influence of body composition on the metabolic rate of young northern elephant seals. 8th Biennial Conference on the Biology of Marine Mammals. Abs. Pacific Grove, California. December 7-11, 1989. p. 51.

2. Rea, L.D. and D.P. Costa. 1989. Changes in the metabolic rate of northern elephant seal pups (*Mirounga angustirostris*) with age and mass. Abs. 69th Annual Meeting of the American Society of Mammalogists. Fairbanks, Alaska. June 11-15, 1989. p. 13.

1. Rea, L.D., 1987. Post-absorptive metabolism of hooded seals (*Cystophora cristata*). Abs. 7th Biennial Conf. on the Biology of Marine Mammals. Miami, Florida. Dec 5-9, 1987. p. 56.

### **Teaching experience**

University of Alaska Fairbanks, Department of Veterinary Medicine – Organ Systems:  
Veterinary Physiology and Histology (endocrinology, renal physiology and digestive physiology sections in a team-taught course, 2 credits of 7 credit course, Fall 2015)

University of Central Florida – Senior undergraduate courses in Comparative Animal Physiology and graduate courses in Comparative Animal Physiology (1998-2000).

University of California Santa Cruz – teaching assistantships in Animal Physiology and Female Physiology and Gynecology.

### **Graduate Student Training:**

#### Current Students (Advisory Committee)

Marianne Lian D.V.M. – Ph.D. candidate University of Alaska Fairbanks – impact of contaminants on oxidative stress response in Steller sea lions, Advisor Todd O’Hara

Stephanie Crawford – M.Sc. candidate University of Alaska Fairbanks – nutritional biochemistry of Steller sea lion pups, Advisor Robert Coker

#### Previous Students (Advisory Committee)

Susan Inglis – Ph.D. candidate University of Alaska, Fairbanks – protein metabolism in pinnipeds and quality of their prey, Advisor Michael Castellini

Stephanie Kennedy – Ph.D. candidate University of Alaska Fairbanks – immune impacts of contaminants on Steller sea lions, Advisor Todd O’Hara

John Harley – Ph.D. University of Alaska, Fairbanks – toxicogenetics in Steller sea lions and sled dogs, Advisor Todd O’Hara

Lucero Correa, M.Sc., University of Alaska, Fairbanks, - toxicodistribution of mercury in pinnipeds, Advisor Todd O’Hara

Jason Waite – Ph.D. University of Alaska, Fairbanks – comparative foraging ecology of sympatric northern fur seals and Steller sea lions in Russia.

Michelle Berman - M.Sc. University of Central Florida - serum fatty acid composition in fasting Steller sea lions.

Julie Richmond – M.Sc. University of Alaska Anchorage – blood and muscle oxygen store development in Steller sea lions.

Tamara Mau – Ph.D. University of Alaska, Fairbanks – lipid composition of marine mammals

Vicki Stegall – Ph.D. student, University of Alaska, Fairbanks – muscle histology and histochemistry of Steller sea lions as an indicator of nutritional status (withdrew).

Matthew Meyers – Ph.D. University of Alaska, Fairbanks - thyroid hormones and leptin as indices of metabolic condition in free-ranging Steller sea lions

Barbara Fields- M.Sc., Univ. of Central Florida (UCF): behavior in captive Florida manatee

Marie José Abgral - M.Sc., UCF- dispersal mechanisms and fitness of bryozoans

Shigetoma Hiram - M.Sc., UCF - fibropapilloma infections in marine green turtles

Tim Mallow - M.Sc., UCF - energetics of Florida bobcats

Donna Oddy - M.Sc., UCF - demographic performance of the Northeastern beach mouse

Karen Osegovic - M.Sc., UCF - nest survival of marine green turtles

Andrew Piercy - M.Sc., UCF - reproductive physiology of sharks

Arte Roman - M.Sc., UCF - colonial reproduction and growth of ascidians

Monica Ross - M.Sc., UCF - habitat use of manatee in Tampa Bay, FL (GIS)

Lino Liu - M.Sc., UCF - undeclared/non-thesis

Wendy Noke - M.Sc., UCF - crab fishery interactions in bottlenose dolphins

#### Previous Students (ADF&G Graduate Internships)

Stephanie Hughes – Ph.D. candidate University of Alaska Fairbanks

Stephanie Crawford – M.Sc. candidate University of Alaska Fairbanks

Lucero Correa, M.Sc. student, University of Alaska, Fairbanks, Advisor Todd O’Hara

Alison Banks, M.Sc. candidate, University of Alaska, Fairbanks, Advisor Alan Springer

Darce Holcomb, M.Sc. candidate, University of Alaska, Fairbanks, Advisor Todd O’Hara

Jill Prewitt – M.Sc. student, University of Alaska Anchorage, Advisor Jennifer Burns  
Julie Richmond – M.Sc. student, University of Alaska Anchorage, Advisor Jennifer Burns

### **Professional (Veterinary) Student Training:**

#### Past and present professional students

Brooke Davis – second year UAF Veterinary student – stable isotopes in Steller sea lion whiskers (Fall 2019)

Stephanie Rouse – second year UAF Veterinary student – Mercury concentrations in grey seal hair and blood (Summer and Fall 2019)

Kelly Walker - second year UAF Veterinary student – Stable isotopes in Aleutian Island fish muscle (Spring 2018 to Fall 2018)

Nicole Del Pino – second year CSU Veterinary student – Mercury concentrations in northern fur seal hair and blood (Summer 2017)

Jed Harding – second year UAF Veterinary student – Mercury partitioning in Steller sea lion hair and muscle (Summer 2016 to Spring 2017)

Kelly Cunningham – second year CSU Veterinary student – Mercury and selenium partitioning in Steller sea lion blood (Summer 2015)

### **Undergraduate Student Training:**

#### Undergraduate Research Awards:

1. URSA Project Award Summer 2013, awarded to Gabrielle Johnson, title “The influence of trophic level of feeding on total mercury concentrations in 5 Steller sea lion prey species.”
2. URSA travel award Spring 2014, awarded to Gabrielle Johnson to present undergraduate research at the Alaska Marine Science Symposium (Johnson, G.M., L.D. Rea, J.M. Castellini, T.M. Loomis and T.M. O’Hara. 2014. Relationship between trophic level and total mercury concentrations in 5 Steller sea lion prey species. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 20-24 January, 2014.)
3. URSA travel award Spring 2015, awarded to Katherine Opp to present undergraduate research at the Alaska Marine Science Symposium (Opp, K.R., T.M. O’Hara, J.M. Castellini, A. Cyr, S. Mcdermott, T.M. Loomis, L.D. Rea. 2015. Comparison of carbon ( $\delta^{13}\text{C}$ ) and nitrogen ( $\delta^{15}\text{N}$ ) stable isotope ratios of Atka mackerel (*Pleurogrammus monopterygius*) and Pacific cod (*Gadus macrocephalus*) in the Central and Western Aleutian Islands. Poster presentation at the Alaska Marine Science Symposium, Anchorage, AK. 19-23 January, 2015.)
4. URSA Spring 2015 Research Award. Awarded to Katherine Opp, title "Chemical feeding ecology of mercury (Hg) in Hawaiian monk seals."

#### Past and present undergraduate students:

Lars O’Hara – sophomore, University of Alaska Fairbanks, total mercury in Steller sea lion pups fur from Russia (Summer 2020 – present).

Michelle Quillin – sophomore, University of Alaska Fairbanks, BLaST Scholar, total mercury in northern fur seal pups and adult females (Fall 2018 to Fall 2020)

Tim Bouta – senior, University of Alaska Fairbanks, WERC Student Assistant C, total mercury and methylmercury analysis in Steller sea lion organ tissues (Summer 2016 to Fall 2016)

Tiffany Lamken – sophomore, University of Alaska Fairbanks, WERC Student Assistant C, total mercury analysis in harbor seal hair and preparation of whiskers for stable isotope analysis (Spring 2016 to Oct 2016)

Katherine Opp – senior, University of Alaska Fairbanks, WERC Student Assistant C, preparation of Alaska groundfish samples for stable isotope and mercury analysis (Fall 2014 to Spring 2015)

Hannah Gerrish – freshman, University of Alaska Fairbanks, WERC Student Assistant C, preparation of Alaska groundfish samples for stable isotope and mercury analysis (Spring and Summer 2015)

Gabrielle Johnson – BA post-bachelorette pursuing B.Sc. in SFOS, University of Alaska Fairbanks, ADF&G College Intern Fall 2012 (contractor August – December 2012), preparations of vibrissae tissue for stable isotope analysis and mercury analysis in Steller sea lions (Summer 2012 to Summer 2014)

Sophie Pierszalowski – post-bachelorette, University of Washington, ADF&G contractor, preparations of vibrissae tissues for stable isotope analysis (Fall 2011-Summer 2012).

Julie Hayes– senior, University of Alaska Fairbanks, ADF&G College Intern, analysis of hydration state in free-ranging Steller sea lions and preparation of vibrissae tissue for stable isotope analysis (Fall 2008- Fall 2010).



Katie Kokx – senior, University of Alaska Fairbanks, ADF&G College Intern, analysis of hydration state in free-ranging Steller sea lions and preparation of vibrissae tissue for stable isotope analysis (Fall 2008- Spring 2010).

Elizabeth Felker – senior, University of Alaska Fairbanks, ADF&G College Intern, analysis of hydration state in free-ranging Steller sea lions and preparation of vibrissae tissue for stable isotope analysis (Spring 2008- Fall 2008).

Erica Blake – freshman, ADF&G College internship, analysis of hydration state in free-ranging Steller sea lions and preparation of vibrissae tissue for stable isotope analysis (Fall 2007- Spring 2008).

Revathy Smith – senior, University of Alaska Anchorage, ADF&G College Internship, chemical analysis of chlorinated fatty acid composition of northern sea otter and Steller sea lion muscle tissues (January 2007 to Summer 2008)

Julie Richmond - senior, independent study on blood chemistry patterns in South African fur seals related to differences in nutritional status (Fall 98 - Spring 00).

Tami Haase - senior, independent study on lipid composition of plasma in Steller sea lion pups (Fall 98 - Summer 00)

Miguel Cintron-Rios - sophomore, indep study on blood chemistry in Weddell seal pups

Jamison Smith - senior, independent study on blood chemistry changes in fasting grey seal pups (Summer 99 – Spring 00)

**High School Student Mentoring:**

Katie Kimble - Highland Park Preparatory School, Florida, independent study on plasma triglyceride levels in fasting Steller sea lions. (August 1999 – May 2000)

Erica Blake – Lathrop High School, ADF&G Student intern (June 2007 to September 2007)