

## VITA

**JAMES THOMAS HARVEY**

2441 Rifle Range Drive  
Watsonville, CA 95076  
(831) 724-5135

Moss Landing Marine Laboratories  
8272 Moss Landing Road  
Moss Landing, CA 95039-9647  
(831) 771-4402 632-4403 FAX  
Harvey@mlml.calstate.edu

## Born:

San Diego, California, 21 July 1951.

## Education:

San Jose State University, San Jose, CA. 1969-1974. B.A., Biology/Marine Biology (minor: Chemistry).

Moss Landing Marine Laboratories, Moss Landing, CA/ San Jose State University. 1974-1977. M.S., Marine Biology (Spring 1979).

Oregon State University, Corvallis, OR. 1982-1987. Ph.D., School of Oceanography (minors: Statistics, Wildlife Ecology).

## Title of Master's Thesis:

Aspects of the natural history of the blue shark, *Prionace glauca* L., in Monterey Bay, California.

## Title of Doctoral Dissertation:

Population dynamics, annual food consumption, movements, and dive behaviors of harbor seals, *Phoca vitulina richardsi*, in Oregon.

## Primary Research Interests:

Ecology, morphology, and behavior of marine mammals, birds, turtles, and fishes; VHF/satellite-Telemetry; marine mammal/fisheries interactions; vertebrate sampling techniques and experimental design; age and growth; population and trophic dynamics; marine mammal stranding studies.

## Positions:

Director, Moss Landing Marine Laboratories (June 2013 – present)

Interim Director, Moss Landing Marine Laboratories (August 2011 – May 2013).

Professor, Moss Landing Marine Laboratories (Chair of Department, 2007- 2011), San Jose State University. (Teaching graduate courses, conducting research, and advising students). September 2002 - 2011.

Associate Professor, Moss Landing Marine Laboratories, San Jose State University. (Teaching 8 graduate courses, conducting research, and advising students). August 1996 – August 2002.

Assistant Professor, Moss Landing Marine Laboratories, San Jose State University. January 1991 - August 1996.

Instructor, Moss Landing Marine Laboratories, Moss Landing, CA. (Courses taught: Marine Birds and Mammals, Behavior of Animals, Statistics, Graduate Seminar, Techniques in Marine Vertebrate Ecology, Sampling and Experimental Design). August 1989 - January 1991.

Fisheries Biologist, National Marine Mammal Laboratory, National Marine Fisheries Service, Seattle, WA. (Population biology of northern fur seals on the Pribilof Islands), Summer 1990.

Instructor, Oregon State University (taught section of Marine Biology Course, Bi450-451), Summer 1982, 1990.

Graduate Faculty, Oregon State University, Department of Science, Math, and Computer Science Education (taught Marine Mammal Course for educators, SEd 508j), Summers 1983 - 1990.

National Research Council Post-doctoral Fellowship, N.O.A.A., National Marine Mammal Laboratory, National Marine Fisheries Service (pinniped feeding ecology), January 1988 - August 1989.

Visiting Professor, University of Oregon, Oregon Institute of Marine Biology, (taught Marine Vertebrate Ecology and Techniques in Marine Biology), Summers 1985 & 1987.

Instructor, Linn-Benton Community College (taught Oceanography), January - March 1987.

Graduate Research Assistant, Oregon State University (marine mammal acoustic deterrence, feeding habits, and strandings, ichthyoplankton studies, and museum preparations), 1982 - 1986.

Research Consultant, Cetacean Research Associates (radio-tagging and tracking studies of gray whale movements off Monterey, CA), January 1985.

Research Assistant, Oregon State University (marine mammal population biology, tagging and tracking, feeding, and strandings), November 1977 - September 1982.

Instructor, Linn-Benton Community College (taught Life History of Marine Mammals) September 1978 - November 1980.

Graduate Assistant, Moss Landing Marine Laboratories (life history and predators of market squid) September 1975 - August 1977.

Teaching Assistant, Moss Landing Marine Laboratories (assisted in teaching Marine Ecology) September 1977 - November 1977.

Diving Technician, Moss Landing Marine Laboratories (Field sampling during benthic life history studies) February - November 1977.

Research Technician, Moss Landing Marine Laboratories (cruise leader in collections of marine fishes, birds, and mammals, February 1975 - November 1977.

Second Mate, R/V Oconostota, Moss Landing Marine Laboratories, September 1976 - November 1977.

Research Assistant, Moss Landing Marine Laboratories (Longshore transport of sediment) June - September 1972.

Ecological Consultant, Harvey and Stanley, Assoc. (environmental impact studies, statistical analysis, and field studies on survival of Spartina) March 1972 - September 1974.

#### Professional Organizations and Awards:

American Association for the Advancement of Science  
 American Cetacean Society  
 American Society of Mammalogists  
 California Marine Mammal Stranding Network (Monterey Co. leader: 1989 - present)  
 International Marine Animal Trainers Association  
 Pacific Seabird Group (Local Committee Chair – 2007)  
 Sociedad Mexicana Para El Estudio de los Mamiferos Marinos  
 Society for Northwestern Vertebrate Biology  
 The Society for Marine Mammalogy (Treasurer, Committee of Scientific Advisors)  
 Western Society of Naturalists  
 Fellow, California Academy of Sciences (2009 – present)  
 Humanitarian of the Year for central Oregon coast, Oregon Humane Society. 1985.  
 National Oceanic and Atmospheric Administration. Marine Fisheries Service. 1989.  
 Certificate of Recognition for outstanding contributions serving the public trust.

#### Publications (N = 110)

**Harvey, J.T.** 1979. Aspects of the natural history of the blue shark, *Prionace glauca* L. in Monterey Bay, California. M.A. Thesis, San Jose State University. 86pp.

- Morejohn, G.V., **J.T. Harvey**, and L.T. Krasnow. 1978. The importance of *Loligo opalescens* in the food web of marine vertebrates in Monterey Bay, California. Calif. Dept. Fish Game, Fish Bull. 169:67-98.
- Mate, B., **J. Harvey**, and R. Sanchez. 1982. Radio tagging gray whales in Baja California, Mexico. Proc. Sixth Int. Reun. Study Mar. Mammals Baja Calif. Penin. pp. 90-100.
- Mate, B.R., **J.T. Harvey**, L. Hobbs, and R. Maiefski. 1983. A new attachment device for radio-tagging large whales. J. Wildl. Manage. 47:868-872.
- Harvey, J.**, R. Brown, and B. Mate. 1983. Two sightings following release of rehabilitated harbor seals. Murrelet 64(1):18.
- Cailliet, G., L. Martin, **J. Harvey**, D. Kusher, and B. Welden. 1983. Preliminary studies on the age and growth of blue, *Prionace glauca*, common thresher, *Alopias vulpinus*, and shortfin mako, *Isurus oxyrinchus*, sharks from California waters. U.S. Dep. Comm., NOAA Tech. Rep. NMFS 8:179-188.
- Harvey, J.** and B. Mate. 1984. Dive characteristics and movements of radio-tagged gray whales in San Ignacio Lagoon, Baja California Sur, Mexico. pp. 561-575, In: M.L. Jones, S.L. Swartz, S. Leatherwood, and (eds.), The gray whale (*Eschrichtius robustus*). Academic Press, Inc. Orlando, FL.
- Mate, B.R. and **J.T. Harvey**. 1984. Ocean movements of radio-tagged gray whales. pp. 577-589. In: M.L. Jones, S.L. Swartz, S. Leatherwood (eds.), The gray whale (*Eschrichtius robustus*). Academic Press, Inc. Orlando, FL.
- Sumich, J.L. and **J.T. Harvey**. 1986. Juvenile mortality in gray whales (*Eschrichtius robustus*). J. Mamm. 67:179-182.
- Rice, D.W., A.A. Wolman, B.R. Mate, and **J.T. Harvey**. 1986. A mass stranding of sperm whales in Oregon: Sex and age composition of the school. Mar. Mam Sci. 2:64-69.
- Harvey, J.T.** and D.L. Stein. 1986. The state of scientific information relating to the biology and ecology of the Gorda Ridge study area, northeast Pacific Ocean: Nekton. Oregon Dept. Geol. Mineral Industries. 131 pp. Open file Rept. O-87-7.
- Harvey, J.T.** 1987. Population dynamics, annual food consumption, movements, and dive behaviors of harbor seals, *Phoca vitulina richardsi*, in Oregon. Ph.D. Thesis, Oregon State University. 168 pp.
- Mate, B.R., R.F. Brown, C.F. Greenlaw, **J.T. Harvey**, and J. Temte. 1987. An acoustic harassment technique to reduce seal predation on salmon. pp. 23-36. In: Mate, B.R. and J.T. Harvey (eds.), Acoustical deterrents in marine mammal conflicts with fisheries. A workshop held February 17-18, 1986 at Newport, Oregon. Oregon State University, Publ. No. ORESU-W-86-001. 116 pp.
- Harvey, J.T.**, B.R. Mate, and R.F. Brown. 1987. The feasibility and effectiveness of using an acoustic barrier to restrict the movements of seals into Netarts Bay, Oregon. pp. 75-78, In: Mate, B.R. and J.T. Harvey (eds.), Acoustical deterrents in marine mammal conflicts with fisheries. A workshop held February 17-18, 1986 at Newport, Oregon. Oregon State University, Publ. No. ORESU-W-86-001. 116pp.
- Mate, B.R. and **J.T. Harvey** (eds.). 1987. Acoustical deterrents in marine mammal conflicts with fisheries. A workshop held February 17-18, 1986 at Newport, Oregon. Oregon State University, Publ. No. ORESU-W-86-001. 116 pp.
- Harvey, J.T.** 1989. Food habits, seasonal abundance, size, and sex of the blue shark, *Prionace glauca*, in Monterey Bay, California. Calif. Fish Game 75:33-44.
- Harvey, J.T.** 1989. Assessment of errors associated with harbour-seal faecal sampling. J. Zool. (Lond.). 219:101-111.
- Harvey, J.T.**, R.F. Brown, and B.R. Mate. 1990. Abundance and distribution of harbor seals (*Phoca vitulina*) in Oregon, 1975-1983. Northwest. Nat. 71:65-71.
- Harvey, J.T.** 1991. Survival and behavior of previously captive harbor seals after release into the wild. Pp.117-122, IN: Reynolds, J.E. III and D.K. Odell (eds.), Marine mammal strandings in the United States. Proceedings of the 2nd Marine Mammal Stranding Workshop, Miami, Florida, December 3-5, 1987. NOAA Tech. Rept. NMFS 98. 157 pp.

- Hodder, J., **J.T. Harvey**, M.R. Graybill, R.F. Brown, and B. Ebberts. 1992. An outbreak of probable leptospirosis in California sea lions along the Oregon coast during fall 1984. *Northwest. Sci.* 73:37-41.
- Jeffries, S.J., R.F. Brown, and **J.T. Harvey**. 1993. Methods of capturing, handling, and tagging harbor seals. *Aquat. Mamm.* 19.1:21-25.
- Starbird, C.H., A. Baldrige, and **J.T. Harvey**. 1993. Seasonal occurrence of leatherback sea turtles (*Dermochelys coriacea*) in the Monterey Bay region, with notes on other sea turtles, 1986-1991. *Calif. Fish Game.* 79(2):54-62.
- Harvey, J.T.** and G.A. Antonelis. 1994. Biases associated with non-lethal methods of determining the diet of northern elephant seals. *Mar. Mamm. Sci.* 10(2):178-187.
- Harvey, J.T.** and M.E. Dahlheim. 1994. Cetaceans in oil. Pp. 257-264. IN: *Marine mammals and the Exxon*, Loughlin, T.R. (ed.). Academic Press, Inc. San Diego, CA.
- DiMolfetto-Landon, L., K.L. Erickson, M. Blanchard-Channell, S.J. Jeffries, **J.T. Harvey**, D.A. Jessup, D.A. Ferrick, and J.L. Stott. 1995. Blastogenesis and interleukin-2 receptor assays in the harbor seal, *Phoca vitulina*. *J. Wildl. Dis.* 31(2):150-158.
- Harvey, J.T.**, R.C. Helm, and G.V. Morejohn. 1995. Food habits of harbor seals inhabiting Elkhorn Slough, California. *Calif. Fish and Game* 81(1):1-9.
- Harvey, J.T.** and M.M. Yoklavich. 1996. Book Review of Otolith Atlas of southern African marine fishes. *Copeia* 4:1061-1063.
- Lamont, M.M., J.T. Vida, **J.T. Harvey**, S. Jeffries, R. Brown, H.H. Huber, R. DeLong, and W.K. Thomas. 1996. Genetic substructure of the Pacific harbor seal (*Phoca vitulina richardsi*) off Washington, Oregon, and California. *Mar. Mam. Sci.* 12(3):402-413.
- Harvey, J.** and M.J. Weise. 1997. Impacts of California sea lions and Pacific harbor seals on salmonids in Monterey Bay, California. Pp. 71-89 IN: *Pinniped populations, eastern North Pacific: Status, trends, and issues*, (eds. G. Stone, J. Goebel, and S. Webster), New England Aquarium and Monterey Bay Aquarium. 179pp.
- Suryan, R.M. and **J.T. Harvey**. 1998. Movements and dive patterns of the harbor seal (*Phoca vitulina richardsi*) off the San Juan Islands, Washington. *Marine Mammal Science* 14(2):361-372.
- Raum-Suryan, K.L. and **J.T. Harvey**. 1998. Distribution, abundance, and habitat use of harbor porpoise (*Phocoena phocoena*) off the northern San Juan Islands, Washington. *Fishery Bulletin* 96(4):808-822.
- Zhong, J.F., **J.T. Harvey** and J.T. Boothby. 1998. Characterization of a harbor seal Class I Major Histocompatibility Complex cDNA Clone. *Immunogenetics* 48:422-424.
- Suryan, R.M. and **J.T. Harvey**. 1999. Variability in reaction of Pacific harbor seals, *Phoca vitulina richardsi*, to disturbance. *Fishery Bulletin* 97(2): 332-339.
- Trumble, S.J. and **J.T. Harvey**. in press. Diel interactions between mother and pup harbor seals near Monterey Bay, California. *Marine Mammal Science*.
- Harvey, J.T.**, T.R. Loughlin, M. Perez, and D. Oxman. 2000. Relationship between fish size and otolith length for 63 species of fishes from the eastern North Pacific Ocean. NOAA Tech. Rept. NMFS 150:1-36.
- Starbird, C.H., Z. Hillis-Starr, **J.T. Harvey**, and S.A. Eckert. 1999. Internesting movements and behavior of hawksbill turtles (*Ertemochelys imbricata*) around Buck Island Reef National Monument, St. Croix, U.S. Virgin Islands. *Chelonian Conserv. Biol.* 3(2): 237-243.
- Gulland, F.M.D., M. Haulena, L.J. Lowenstine, C. Munro, P.A. Graham, J. Bauman, and **J. Harvey**. 1999. Adrenal function in wild and rehabilitated Pacific harbor seals (*Phoca vitulina richardsii*) and in seals with Phocine herpesvirus-associated adrenal necrosis. *Mar. Mamm. Sci.* 15(3) 810-827.
- Scholin, C.A., F. Gulland, G.J. Douchette, S. Benson, M. Busman, F.P. Chavez, J. Cordaro, R. DeLong, A. DeVogelaere, **J. Harvey**, M. Haulena, K. Lefebvre, T. Limscomb, S. Loscutoff, L.J. Lowenstine, R. Marine III, P.E. Miller, W.A. McLellan, P.D.R. Moeller, C.L. Powell, T. Rowles, P. Silvagnl, M. Silver, T. Spraker, V. Trainer, and F. M. Van

- Dolah. 2000. Mortality of sea lions along the central California coast linked to a toxic diatom bloom. *Nature* 403:80-84.
- Harvey, J.**, J. Hurley, and S. Skrovan. 2001. Training California sea lions to record whale behavior using a rehabilitating California gray whale calf. *Aquatic Mamm.* 27(3):289-293.
- Stewart, B.S., **J. Harvey**, and P.K. Yochem. 2001. Post-release monitoring and tracking of a rehabilitated California gray whale. *Aquat. Mamm.* 27(3): 294-300.
- Orr, A.J. and **J.T. Harvey**. 2001. Quantifying errors associated with using fecal samples to determine the diet of the California sea lion (*Zalophus californianus*). *Can. J. Zool.* 79:1080-1087.
- Lander, M.E., **J.T. Harvey**, K.D. Hanni, and L.E. Morgan. 2002. Behavior, movements, and apparent survival of rehabilitated and free-ranging harbor seal pups. *J. Wildl. Manage.* 66(1):19-28.
- Benson, S.R., D.A. Croll, B. Marinovic, F.P. Chavez, and **J.T. Harvey**. 2002. Changes in the cetacean assemblage of a coastal upwelling ecosystem during El Niño 1997-98 and La Niña 1999. *Progress in Oceanography* 54:279-291.
- Neale, Jennifer C.C., Judith A. Van de Water, **James T. Harvey**, Ronald S. Tjeerdema, M. Eric Gershwin. 2002. Proliferative Responses of Harbor Seal (*Phoca vitulina*) T Lymphocytes to Model Marine Pollutants. *Developmental Immunology* 9(4):215-221.
- Harvey, J.T.** and S. Connors. 2003. Chapter 11. Birds and mammals. Pp 187-214. IN: Caffrey J, M. Brown, W.B. Tyler, and M. Silberstein (eds.), *Changes in a California estuary: A profile of Elkhorn Slough*. 280 pp.
- Van Parijs, P.J. Corkeron, **J.T. Harvey**, S. Hayes, D.M. Mellinger, P.A. Rouget, P.M. Thompson, M. Wahlberg, and K.M. Kovacs. 2003. Patterns in the vocalizations of male harbor seals. *J. Acoustical Soc. Amer.* 113:3403-3410.
- Goldstein, T., F.M.D. Gullands, B.M. Aldridge, **J.T. Harvey**, T. Rowles, D.M. Lambourn, S.J. Jeffries, L. Measures, P.K. Yochem, B.S. Stewart, R.J. Small, D.P. King, J.L. Stott, and J.A.K. Mazet. 2003. Antibodies to Phocine herpesvirus-1 are common in North American harbor seals (*Phoca vitulina*). *J. Wildl. Dis.* 39(3): 487-494.
- Lander, M., **J. Harvey**, F. M.D. Gulland. 2003. Hematology and serum chemistry comparisons between free-ranging and rehabilitated harbor seal (*Phoca vitulina richardsi*) pups. *Journal of Wildlife Diseases* 39(3):600-609.
- Hayes, S.A., A. Kumar, D.P. Costa, D.K. Mellinger, **J.T. Harvey**, B.L. Southall, and B.J. Le Boeuf. 2004. Evaluating the function of male vocalizations in the harbor seal (*Phoca vitulina*) through playback experiments. *Animal Behaviour* 67:1133-1139.
- Goldstein, T, J.A.K. Mazet, F.M.D. Gulland, T. Rowles, **J.T. Harvey**, S.G. Allen, D.P. King, B.M. Aldridge, J.L. Stott. 2004. The transmission of phocine herpesvirus-1 in rehabilitating and free-ranging Pacific harbor seals (*Phoca vitulina*) in California. *Vet. Microbio.* 103(2004):131-141.
- Hayes, S.A., D.P. Costa, **J.T. Harvey**, and B.J. Le Boeuf. 2004. Aquatic mating strategies of the male harbor seal (*Phoca vitulina richardii*): are males defending the hotspot? *Mar. Mamm. Sci.* 20(3): 639-656.
- Lander, M.E., M. Haulena, F.M.D. Gulland, and **J.T. Harvey**. 2005. Implantation of subcutaneous radio transmitters in harbor seals (*Phoca vitulina*). *Mar. Mamm. Sci.* 21(1):154-161.
- Eguchi, T. and **J.T. Harvey**. 2005. Diving behavior of the Pacific harbor seal (*Phoca vitulina richardii*) in Monterey Bay, California. *Mar. Mamm. Sci.* 21(2):283-295.
- Weise, M, and **J.T. Harvey**. 2005. Impact of California sea lion (*Zalophus californianus*) on salmon fisheries in Monterey Bay. *Fishery Bulletin* 103:685-696.
- Neale, JCC, FMD Gulland, KR Schmelzer, **JT Harvey**, EA Berg, SG Allen, DJ Greig, EK Grigg, and RS Tjeerdema. 2005. Contaminant Loads and Hematological Correlates in the Harbor Seal (*Phoca vitulina*) of San Francisco Bay, California. *J. Toxicol and Environ Health, Part A*, 68: 617-633.

- Burns, J.M., D.P. Costa, K. Frost, and **J.T. Harvey**. 2005. Development of body oxygen stores in harbor seals: effects of age, mass, and body composition. *Phys. Biol. Zool.* 78(6):1057-1068.
- Keiper CA, Ainley DG, Allen SG, **Harvey JT**. 2005. Marine mammal occurrence and ocean climate off central California, 1986 to 1994 and 1997 to 1999. *Mar. Exp. Progress Ser.* 289:285-306
- Henkel, L.A. and **J.T. Harvey**. 2006. Potential prey resources for Marbled Murrelets in central California. *Calif Fish Game.* 92(4):191-208.
- Nevins, H., D. Hyrenbach, C. Keiper, J. Stock, M. Hester, and **J. Harvey**. 2006. Seabirds and indicators of plastic pollution in the North Pacific. *Proceedings of the Plastic Debris Rivers to the Sea Conference 2005*. <http://conference.plasticdebris.org/whitepapers.html>
- Brookens, T., **J.T. Harvey**, and T. O'Hara. 2006. Trace-element concentrations in the Pacific harbor seal, *Phoca vitulina richardii*, in central and northern California: influence of age, sex, and trophic level. *Sci. Total Environment.* 372( 2-3): 676-692.
- Peterson, B, R. Emmett, R. Goerlicke, E. Venrick, A. Mantyla, S. Bogard, F. Schwing, S. Ralston, K. Forney, R. Hewitt, N. Lo, W. Watson, J. Barlow, M. Lowry, B.E. Lavaniegos, F. Chavez, W.J. Sydeman, D. Hyrenbach, R.W. Bradley, P. Warzybok, K. Hunter, S. Benson, M. Weise, **J. Harvey**. 2006. The state of the California Current, 2005-2006: warm in the north, cool in the south. *CalCOFI Rep.* 47:30-75.
- Hayes S.A., Pearse D.E., Costa D.P., **Harvey J.T.**, Le Boeuf B.J., Garza J.C., 2006. Mating system and reproductive success in eastern Pacific Harbour seals. *Molecular Ecology* 15:3023-3034.
- Goerlicke, R., E. Venrick, T. Koslow, W. Sydeman, F. Schwing, S. Bograd, W. Peterson, R. Emmett, J. Lara, G. Castro, J. Valdez, D. Hyrenbach, R. Bradley, M. Weise, **J. Harvey**, C. Collins, and N. Lo. 2007. State of the California Current 2006-2007: regional and local processes dominate. *CalCOFI State of the California Current.* 48: 33-66.
- Benson, S.R., K.A. Forney, **J.T. Harvey**, J.V. Carretta, and P.H. Dutton. 2007. Abundance, distribution, and habitat of Leatherback turtles (*Dermochelys coriacea*) off California, 1990-2003. *Fish. Bull.* 105:337-347.
- Parrish, J.K., N. Bond, H. Nevins, N. Mantua, R. Loeffel, W.T. Peterson, and **J.T. Harvey**. 2007. Beached birds and physical forcing in the California Current System. *Mar. Ecol. Prog. Ser.* 352:275-288.
- Harvey, J.T.** 2008. General ecology: abundance. Jorgensen, Sven E (ed.). *Encyclopedia of Ecology*. Elsevier, Oxford.
- Henkel, L.A., and **J.T. Harvey**. 2008. Abundance and distribution of marine mammals in nearshore waters of Monterey Bay, California. *California Fish and Game* 94: 1:17.
- Brookens, T.J., T.M. O'Hara, R.J. Taylor, G.R. Bratton, and **J.T. Harvey**. 2008. Total mercury body burden in Pacific harbor seal, *Phoca vitulina richardii*, pups from central California. *Marine Pollution Bulletin* 56(1): 27-41.
- Goldbogen, J.A., J. Calambokidis, D.A. Croll, **J.T. Harvey**, K.M. Newton, E.M. Oleson, G. Schorr, and R.E. Shadwick. 2008. Foraging behavior of humpback whales: kinematic and respiratory patterns suggest a high cost for a lunge. *J. Exp. Biol.* 211: 3712-3719.
- Weise, M.J. and **J.T. Harvey**. 2008. Temporal variability in ocean climate and California sea lion diet and biomass consumption: implications for fisheries management. *Mar. Ecol. Prog. Ser.* 373: 157-172.
- Peery, M.Z., L.A. Henkel, S.H. Newman, B.H. Becker, **J.T. Harvey**, and S.R. Beissinger. 2008. Effects of rapid flight-feather molt on postbreeding dispersal in a pursuit-diving seabirds. *Auk* 125(1): 113-123.
- Parker, P., **J.T. Harvey**, J.M. Maniscalco, and S. Atkinson. 2008. Pupping site fidelity among individual Steller sea lions (*Eumetopias jubatus*) at Chiswell Island, Alaska. *Can. J. Zool.* 86: 826-833.
- Phillips, E.M. and **J.T. Harvey**. 2009. A captive feeding study with the Pacific harbor seal (*Phoca vitulina richardii*): Implications for scat analysis. *Mar. Mamm. Sci.* 25(2): 373-391.

- Hyrenbach, D., H. Nevins, M. Hestyer, C. Keiper, S. Webb, and **J. Harvey**. 2009. Seabirds indicate plastic pollution in the marine environment: quantifying spatial patterns and trends in Alaska. PP. 57-62, IN: Williams, M. and E. Ammann (eds.). Marine debris in Alaska: Coordinating our efforts. Alaska Sea Grant College Program, University of Alaska Fairbanks. 130 pp.
- Moore, E., S. Lyday, J. Roletto, K. Litle, J.K. Parrish, H. Nevins, **J. Harvey**, J. Moretenson, D. Greig, M. Piazza, A. Hermance, D. Lee, D. Adams, S. Allen, and S. Kell. 2009. Entanglements of marine mammals and seabirds in central California and the north-west coast of the United States 2001-2005. Mar. Poll. Bull. 58(2009): 1045-1051.
- Neale, J.C.C., K.R. Schmelzer, **J.T. Harvey**, E.A. Berg, R.J. Small, E.K. Grigg, S.G. Allen, and R.S. Tjeerdema. 2009. PCB and DDE contamination in harbor seals (*Phoca vitulina*) from North-Central California and Bristol Bay, Alaska. Aquatic Mamm. 35(1):1-11.
- Brooks, L.B., **J.T. Harvey**, and W.J. Wallace. 2009. Tidal movements of east Pacific green turtle (*Chelonia mydas*) at a foraging area in Baja California Sur, Mexico. Mar. Ecol. Progress. Ser. 386:263-274.
- Newton, K.M., D.A. Croll, H.M. Nevins, S.R. Benson, **J.T. Harvey**, and B.R. Tershey. 2009. At-sea mortality of seabirds based on beachcast and offshore surveys. Mar. Ecol. Prog. Ser. 392:295-305.
- Weise, Michael J., **James T. Harvey**, and Daniel P. Costa. 2010. The role of body size in individual foraging strategies of a top marine predator. Ecology. 91(4): 1004-1015.
- Thomas, Kate, **J.T. Harvey**, T. Goldstein, J. Barakos, and F. Gulland. 2010. Movement, dive behavior, and survival of California sea lions (*Zalophus californianus*) posttreatment for domoic acid toxicosis. Mar. Mamm. Sci. 26(1): 36-52.
- Hall, L.A., P.J. Palsbøll, S.R. Beissinger, **J.T. Harvey**, M. Bérubé, M.G. Raphael, S.K. Nelson, R.T. Golightly, L. McFarlamne-Tranquilla, S. Newman, M.Z. Peery. 2009. Characterizing dispersal patterns in a threatened seabird with limited genetic structure. Mol. Ecol. 18(24): 5074-5085.
- Harvey, J.T.** 2010. Review of Fifty years of flukes and flippers by W.E. Evans. Mar. Mamm. Sci. 26(1):251-252.
- Phillips, E.M., H.M. Nevins, S.A. Hatch, A.M. Ramry, M.A. Miller, **J.T. Harvey**. 2010. Seabird bycatch in Alaska demersal longline fishery trials: a demographic summary. Mar. Ornith. 38: 111-117.
- Graham, T.R., **J.T. Harvey**, S.R. Benson, J.S. Renfree, and D.A. Demer. 2010. The acoustic identification and enumeration of scyphozoan jellies, prey for leatherback turtles (*Dermochelys coriacea*) off central California. ICES J. Mar. Sci. 67:1-10.
- Harris, H.S., S.C. Oates, M.M. Staedler, M.T. Tinker, D.A. Jessup, **J.T. Harvey**, and M.A. Miller. 2010. Lesions and behavior associated with forced copulation of juvenile Pacific harbor seals (*Phoca vitulina richardsi*) by southern sea otters (*Enhydra lutris nereis*). Aquat. Mamm. 36(4):331-341.
- Sweeney, J. and **J.T. Harvey**. 2011. Diet estimation in California sea lions, *Zalophus californianus*. Mar. Mamm. Sci. 27(4): 279-301.
- Harvey, J.T.** and D.P. Goley. 2011. Determining a correction factor for aerial surveys of harbor seals in California. Mar. Mamm. Sci. 27(4): 719-735.
- Nevins, Hannahrose M, S.R. Benson, E.M. Phillips, J. de Marignac, A.P. DeVogelaere, J.A. Ames and **J.T. Harvey**. 2011. Coastal Ocean Mammal and Bird Education and Research Surveys (BeachCOMBERS), 1997-2007: ten years of monitoring beached marine birds and mammals in the Monterey Bay National Marine Sanctuary. Marine Sanctuaries Conservation Series ONMS11-02. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 63 pp.
- Greig, D.J., Ylitalo, G.M., Wheeler, E.A., Boyd, D., Gulland, F.M.D., Yanagida, G.K., **Harvey, J.T.**, and Hall, A.J.H. 2011. Geography and stage of development affect persistent organic pollutants in stranded and wild-caught harbor seal pups from central California. Science of the Total Environment 409: 3537-3547.

- Germain, L.R., M.D. McCarthy P.L. Koch, and **J. Harvey**. 2012. Stable carbon and nitrogen isotopes in multiple tissues of wild and captive harbor seals (*Phoca vitulina*) off the California coast. *Marine Mammal Science* 28(3): 542-560.
- Adams, J. MacLeod, C., Suryan, R.M., Hyrenbach, K.D. & **Harvey, J.T.** 2012. Summer-time use of west coast US National Marine Sanctuaries by migrating sooty shearwaters (*Puffinus griseus*). *Biological Conservation* 156(2012): 105-116.
- Burrows, J.A., **J.T. Harvey**, K.M. Newton, D.A. Croll, and S.R. Benson. 2012. Marine mammal response to interannual variability in Monterey Bay, California. *Mar. Ecol. Progress Ser.* 461:257-271.
- McHuron, Elizabeth A., **James T. Harvey**, Judith M. Castellini, and Todd M. O'Hara. 2012. Hair sampling location in harbor seals (*Phoca vitulina*) affects mercury and selenium concentrations: implications for study design of trace element determination in pinnipeds. *Mar. Pollution Bull.* 60:765-767.
- Frechette, D., A-M.K. Osterback, S.A. Hayes, M.H. Morgan, J.W. Moore, S.A. Shaffer, and **J.T. Harvey**. 2012. Assessing avian predation of juvenile salmonids using PIT tag recoveries and mark-recapture methods. *N. Amer. J. Fish Manage.* 32(6): 1237-1250.
- McHuron, E.A., D.J. Greig, K. Colegrove, K.M. Fleetwood, T.R. Spraker, F.M.D. Gulland, **J.T. Harvey**, K.A. Lefebvre, E.R. Frame. 2013. Domoic acid exposure and associated clinical signs and histopathology in Pacific harbor seals (*Phoca vitulina richardii*). *Harmful Algae* 23 (2013):28-33.
- Hughes, S.N., D.J. Greig, W.A. Miller, B.A. Byrne, F.M.D. Gulland, and **J.T. Harvey**. 2013. Dynamics of *Vibrio* spp. with virulence genes detected in Pacific harbor seals (*Phoca vitulina richardii*) off California: implication for marine mammal health. *Microbial Ecol.* 65:982-994.
- McHuron, E., M. Miller, C.H. Gardiner, **J.T. Harvey**. 2013. Possible *Pelodera* sp. infection in the Pacific harbor seal (*Phoca vitulina richardii*). *J. Zoo Wildl. Med.* 44(3):799-802.
- Frechette, D., A.K. Osterback, S.A. Hayes, J.W. Moore, S.A. Shaffer, and **J.T. Harvey**. 2013. A bioenergetics approach to assessing potential impacts of avian predation on juvenile stellhead during freshwater rearing. *North Amer J Fish. Manage.* 33(5):1024-1038.
- Germain, L.R., P.L. Koch, **J. Harvey**, and M.D. McCarthy. 2013. Nitrogen isotope fractionation in amino acids from harbor seals: Implications for compound-specific trophic position calculations. *Mar. Ecol. Prog Ser.* 482(2013):265-277.
- Laird A. Henkel, Hannahrose Nevins, Marida Martin, Susan Sugarman, **James T. Harvey**, and Michael H. Ziccardi. 2014. Chronic oiling of marine birds in California by natural petroleum seeps, shipwrecks, and other sources. *Mar. Poll. Bull.* 79(2014):155-163.
- Harvey, James T.**, Theresa Friend, and Elizabeth A. McHuron. 2014. Cephalopod remains from stomachs of sperm whales (*Physeter macrocephalus*) that mass-stranded along the Oregon coast. *Mar. Mamm. Sci.* 30(2): 609-625.
- McHuron, Elizabeth A., **James T. Harvey**, J. Margaret Castellini, Craig A. Stricker, and Todd M. O'Hara. 2014. Selenium and mercury concentrations in harbor seals (*Phoca vitulina*) from central California: health implications in an urbanized estuary. *Mar. Poll. Bull.* 83(1): 48-57.
- Donnelly-Greenan, Erica, **James T. Harvey**, Hannahrose M. Nevins, Michelle M. Hester, and William A. Walker. 2014. Prey and plastic ingestion of Pacific Northern Fulmars (*Fulmarus glacialis rogersi*) from Monterey Bay, California. *Mar. Poll. Bull.* (85)1:214-224.
- Young, Colleen, Scott M. Gende, and **James T. Harvey**. 2014. Effects of vessels on harbor seals in Glacier Bay National Park. *Tourism in Marine Environments* 10(1-2):5-20.
- Webb, Lisa A. and **James T. Harvey**. 2014. Diet of a piscivorous seabird reveals information on spatiotemporal variation in abundance of forage fishes in the Monterey Bay region. *CalCOFI Repts.* 55(2014).
- Greig, Denise J., Frances M.D. Gulland, Woutrina A. Smith, Patricia A. Conrad, Cara L. Field, Michelle Fleetwood, **James T. Harvey**, Hon S. Ip, Spencer Jang, Andrea Packman, Elizabeth Wheeler, and Ailsa J. Hall. 2014. Surveillance for zoonotic and



- selected pathogens in harbor seals *Phoca vitulina* from central California. Diseases of Aquat. Animals 111:93-106.
- Gibble, C. and **J.T. Harvey**. In press. Food habits of harbor seals (*Phoca vitulina richardii*) as an indicator of invasive species in San Francisco, California. Mar. Mamm. Sci.
- Jacobsen, E.K., K.A. Forney, and **J.T. Harvey**. 2015. Acoustic evidence that harbor porpoises (*Phocoena phocoena*) avoid bottlenose dolphins (*Tursiops truncatus*). Mar. Mamm. Sci. 31(1):386-397.
- Frechette, D., A-M. K. Osterback, S.A. Hayes, J.W. Moore, S.A. Shaffer, M. Pavelka, C. Winchell, and **J.T. Harvey**. In press. Assessing the relationship between gulls and salmon in central California using radio telemetry. N. Amer. J. Fish. Manage.
- Manugian, S., W. Van Bonn, **J.T. Harvey**. In press. Modified technique for the subcutaneous implantation of radio transmitters in harbor seals (*Phoca vitulina richardii*) under field conditions. Vet. Record Case Repts.

Papers Submitted or in Preparation:

- Manugian, S., W. Van Bonn, **J.T. Harvey**. Modified technique for the subcutaneous implantation of radio transmitters in harbor seals (*Phoca vitulina richardii*) under field conditions. Vet. Record Case Repts. Submitted.
- Golson, Emily A., M. Tim Tinker, **James T. Harvey**, Greg A. Breed, and Tomoharu Eguchi. In prep. Predicting oil spill impacts on southern sea otters (*Enhydra lutris nereis*): Application of a mechanistic model. Ecol. Appli.
- Adams, J.A., W.A. Walker, E.J. Burton, and **J.T. Harvey**. Stomach contents of a Cuvier's beaked whale, *Ziphius cavirostris*, stranded in Monterey Bay, California. To be submitted to Northwestern Naturalist.
- Clark, Casey T., Alyson H. Fleming, **James T. Harvey**, John Calambokidis. In prep. Intra-annual changes in population parameters as indicators of humpback whale (*Megaptera novaeangliae*) migratory behavior.
- Germain, L.R., M.D. McCarthy P.L. Koch, and **J. Harvey**. Submitted. Amino acid  $\delta^{15}\text{N}$  fractionization in harbor seals: Implications for estimating trophic relationship in urea vs. ammonia excreting animals. Ecology. To be submitted MEPS.
- Frechette, D., A.K. Osterback, S.A. Hayes, J.W. Moore, S.A. Shaffer, and **J.T. Harvey**. Submitted. Tracking predation by Western Gulls (*Larus occidentalis*) on juvenile salmonids in central California. J. Field Ornith.
- Burd, M.A., **J.T. Harvey**, and G.A. Antonelis. Aerobic bacteria of northern fur seal (*Callorhinus ursinus*) pups of the Pribilof Islands (USA) and Medny Island (Russia). In review, J. Wildl. Dis.
- Harvey, J.T.**, R.F. Brown, and V. Estelle. Dive behavior and movements of radio-tagged harbor seals in Oregon. To be submitted to Mar. Mamm. Sci.
- Brown, R.F., S.J. Jeffries, and **J.T. Harvey**. Seasonal abundance and winter feeding ecology of harbor seals in the Columbia River. To be submitted to Fish Bull.
- Dorfman, E. and **J.T. Harvey**. Feeding ecology of harbor porpoise in Monterey Bay. To be submitted to J. Mamm.
- Harvey, J.T.** and A.D. Kopec. Population dynamics of harbor seals in San Francisco Bay, 1989-1992. To be submitted to California Fish and Game.
- Browne, P, **J.T. Harvey**, and J.W. Mason. Blood hematology and serum chemistry values of normal and unhealthy juvenile California sea lion (*Zalophus californianus*) in California. Submitted to Diseases of Aquatic Animals.
- Parkin, J.L., R.C. Hosea, **J.T. Harvey**, T.S. Lew, and A. Mekebri. Effects of organochlorine contaminants on Caspian Terns at Elkhorn Slough, California. Submitted to Condor.
- Chivers, S.J., B. Hanson, J. Laake, P. Gearin, M. Muto, J. Calambokidis, D. Duffield, T. McGuire, J. Hodder, D. Greig, J. Harvey, K. M. Robertson, and B. Hancock. In prep.

Additional genetic evidence for population structure of *Phocoena phocoena* off the coasts of CA/OR/WA.

Marlene M. Colón-Llavina, Antonio A. Mignucci-Giannoni, Simonetta Mattiucci, Alice Valentini, James T. Harvey, and Ernest H. Williams Jr. in review. Metazoan Parasites from Marine Mammals Stranded in California. Submitted to Pacific Science.

#### Papers Presented:

- Do birds and mammals of a feather flock together? Species-environment relationships of marine predators in a coastal upwelling system. 29 March 2002; co-authors: Scott R. Benson, Don A. Croll, Baldo Marinovic, and James T. Harvey Moss Landing Marine Laboratories and University of California Santa Cruz. Best Overall Poster.
- Are marine mammals in hot water or does hot water affect marine mammals? Monterey Bay National Marine Sanctuary Currents 2000, Santa Cruz, CA; 18 March 2000. Co-authored six posters.
- Food habits, seasonal abundance, and distribution of California sea lions and their impact on salmonid fisheries in Monterey Bay, California. The Wildlife Society, Western Section 1999 Annual Conference, Monterey, CA 21-24 January 1999. Co-authored with Mike Weise.
- Determination of Morbillivirus-specific reactivity in Pacific harbor seals using ELISA. American Society for Microbiology, Santa Clara, CA 5 April 1997. Co-authored with Yu-Shu Lin, Pam Yochem, and John Boothby.
- Toxic pollutants, health indices, and population dynamics of harbor seals in San Francisco Bay, 1989-1992. Third Biennial State of the Estuary Conference, San Francisco, CA, 10-12 October 1996. Co-authored with A.D. Kopec.
- Diving behavior and movements of the Pacific harbor seal (*Phoca vitulina richardsi*) in Monterey Bay, California. 1996. 77th Annual Meeting of the Pacific Division of AAAS, San Jose, CA 23-27, June. Co-authored with Tomo Eguchi.
- Pollutant effects on harbor seals (*Phoca vitulina richardsi*) along the Pacific coast. 1995. Co-authored with D.G. Moser and M.D. Stephensen.
- Western Society of Naturalists. 1994. "You can't count critters in a meeting, but would they come?" Co-authored with G. Cailliet and M. Foster.
- Monterey Bay Research Symposium. 1994. "Harbor seals: dining in the bay". Co-authored with D. Oxman.
- La Sociedad Mexicana para el estudio de los mamíferos marinos. 1993. "Radio-tagging gray whale calves in San Ignacio Lagoon, Baja California, Mexico".
- Pacific Seabird Group. 1993. "Abundance and distribution of seabirds in Monterey Bay, California". Co-authored with J. Mason.
- Tenth Biennial Conference on the Biology of Marine Mammals. 1993. "Pollutants and population dynamics of harbor seals in San Francisco Bay". Co-authored with A.D. Kopec.
- Tenth Biennial Conference on the Biology of Marine Mammals. 1993. "Movements, daily activity patterns, and food habits of harbor seals (*Phoca vitulina richardsi*) in San Francisco Bay, California, U.S.A. Co-authored with M.L. Torok.
- 1992 Sea Turtle Symposium. 1992. Movements and Behavior of Leatherback sea turtles (*Dermochelys coriacea*) in Monterey Bay, California". Co-authored with C. Starbird and A. Baldridge.
- Ninth Biennial Conference on the Biology of Marine Mammals. 1991. "Bacteria of northern fur seal (*Callorhinus ursinus*) pups on the Pribilof and Commander Islands". Co-authored with M.A. Burd and G.A. Antonelis, Jr.
- Monterey Bay Research Symposium. 1991. "Marine birds and mammals of Monterey Bay". Co-authored with A. Baldrige.

Wildlife 2001 Conference. 1991. "Toxic pollutant residues and health of San Francisco Bay harbor seals: preliminary findings". Co-authored with D. Kopec, S.G. Allen, and L.E. Fancher.

Western Society of Naturalists. 1990. "Assemblages of pelagic nekton (squid, fishes, birds, and mammals) and their trophic interactions in Monterey Bay". Co-authored with G.M. Cailliet.

Eighth Biennial Conference on Biology of Marine Mammals. 1990. "Quantifying errors in pinniped food habit studies." Co-authored with G.A. Antonelis, Jr. and C.J. Casson.

Society for Northwestern Vertebrate Biology. 1989. "Dive patterns and movements of radio-tagged harbor seals in Oregon."

Sixth Western Groundfish Conference. 1989. "Natural mortality of fishes attributed to harbor seals in Oregon."

Seventh Biennial Conference on Biology of Marine Mammals. 1987. "Errors associated with pinniped fecal sampling."

Second Conference on Marine Mammal Strandings. 1987. "Survival and behavior of captive harbor seals after release."

Second Workshop on Pinniped Energetics. 1987. "Annual fish consumption and feeding energetics of harbor seals in Oregon."

Sixth Biennial Conference on Biology of Marine Mammals. 1985. Co-authored with Jan Roletto. "The distribution and diagnosis of the 1984-85 Leptospirosis epizootic in California sea lions."

Fourth Biennial Conference on the Biology of Marine Mammals. 1981. "Movements and dive characteristics of radio-tagged gray whales."

Fifth Reunion Internacional Sobre Mamiferos Marinos de Baja California. 1980. "The Oregon sperm whale stranding."

Western Society of Naturalists. 1978. "Aspects of the natural history of the blue shark, Prionace glauca L., in Monterey Bay, California."

Odontocete Aging Conference. 1978. Co-authored with B. Mate. "Aging of marine mammals using acetate peels."

Marine Mammal/Fisheries Interaction Workshop. 1977. "Trophic analysis of vertebrate predators in Monterey Bay, California."

CalCOFI Conference. 1976. Symposium on the market squid, Loligo opalescens. "Comparative feeding habits of king and silver salmon with blue sharks in Monterey Bay, California."

#### Recent Seminars Presented:

"Marine mammals in Monterey Bay: ecology and conflicts". Moss Landing Marine Labs. Community Seminar Series. Moss Landing, CA. 19 January 1994.

"Rescues and miscues of marine mammals". American Cetacean Society. 25 August 1994.

"Should we rescue marine mammals?". Long Marine Lab, UCSC. 30 August 1994.

"Dining in the bay, resting in the slough". Elkhorn Slough National Estuarine Research Reserve volunteers. 8 November 1994.

"Methods of tagging and tracking marine mammals". Monterey Bay Environmental Monitoring Workshop, Sponsored by Monterey Bay Aquarium Research Inst., 28-29 Feb, 1992.

"Movements and diving of harbor seals in Oregon." Oregon State University, 20 June 1990.

"Diving behaviors of harbor seals: Things that go beep in the night." University of Oregon, 20 June 1990.

"Recent methods of studying marine mammals." American Cetacean Society, 29 March 1990.

"Effects of harbor seal feeding on nearshore fish populations." University of California, Santa Cruz, 24 January 1990.

#### Reports:

- Mate, B. and J. Harvey. 1981. An evaluation of three radio tags applied to gray whales and their utility in assessing whale movements and dive characteristics. Final Rep., U.S. Dept. Interior, Bur. Land Manage. 68pp.
- Mate, B. and J. Harvey. 1982. Feasibility of tracking whales using the Argos satellite system. Final Report, U.S. Dept. Interior, Alaska Env. Stud. Prog. 26pp.
- Lien, J., D. Jinhai, L. Baraff, J. Harvey, and K. Chu. 1982. Whale entrapments in inshore fishing gear during 1982; A preliminary report to Fisheries and Oceans Canada. N.I.C.O.S. Contr. 26, 36pp.
- Harvey, J.T. 1984. Abundance and activities of harbor seals along the central Oregon coast. Final Report to: Oregon Dept. Fish and Wildl., 506 SW Mill St., Portland, OR 97208. 17pp.
- Harvey, J.T. 1984. Effects of digestion on size and number of fish otoliths and squid beaks in fecal samples from the harbor seal, Phoca vitulina. Prelim. Report, Nat. Mar. Mamm. Lab., Nat. Mar. Fish. Serv., Seattle, WA. 12pp.
- Swartz, S.L. and J.T. Harvey. 1985. Preliminary report on the use of radio-tags to determine daytime and nighttime migration rates of gray whales (Eschrichtius robustus). Prepared for Nat. Mar. Fish. Serv., Seattle, WA. 44p.
- Harvey, J.T., H.W. Braham, and T.R. Loughlin. 1990. A conservation plan for northern fur seals, Callorhinus ursinus. Prepared for National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Washington, D.C. 49 pp.
- Harvey, J.T. and M.L. Torok. 1994. Movements, dive behaviors, and food habits of harbor seals (Phoca vitulina richardsi) in San Francisco Bay, California. Prepared for the California Department of Water Resources, Sacramento, CA. 89 pp.
- Harvey, J.T., J.W. Mason, R.M. Suryan, and P.E. Byrnes. 1994. Seabird and marine mammal surveys during disposal of dredged material at the ODMDS. Prepared for PRC Environmental Management, Inc., San Francisco, CA. 58 pp.
- Kopec, A.D., J.T. Harvey, and M.L. Torok. 1994. Toxic pollutants, health indices, and population dynamics of harbor seals in San Francisco Bay. Prepared for the San Francisco Estuary Project, Oakland, CA. 13 pp.
- Lamont, M. and J. Harvey. 1995. Genetic variation of Pacific harbor seals (Phoca vitulina richardsi) from the inner and outer coasts of Washington and Monterey Bay, California. Prepared for The Bay Foundation. 17 pp.
- Kopec, A.D. and J.T. Harvey. 1995. Toxic Pollutants, Health Indices, and Population Dynamics of Harbor Seals in San Francisco Bay, 1989-1992. Prepared for San Francisco Bay Estuary Project, EPA. 172 pp. Moss Landing Marine Laboratories Tech. Publ. 96-4.
- Harvey, J.T. and Michael J. Weise. 1997. Impacts of California sea lions and Pacific harbor seals on salmonids in Monterey Bay, California. MLML Tech. Publ. No. 97-03. 31 pp.
- Harvey, J.T. and M. Lander. 1999. Post-release survival of rehabilitated and free-ranging harbor seal (Phoca vitulina richardsi) pups. MLML Tech. Publ. No. 99-02. 103 pp.
- Weise, M.J. and J.T. Harvey. 2005. California sea lion (Zalophus californianus) impacts on salmonids near Año Nuevo Island, California. Final Rept. to NMFS.
- Brookens, T.J. and J.T. Harvey. 2005. Mercury concentrations in fur of the Pacific harbor seals, Phoca vitulina richardsi, in central California. Final Rept. to San Francisco Estuarine Institute. Project 3004, Task 92D, EEPs-Seal Hg Study. 26 pp.
- Grants (N = 140; \$ 6,227,252):
- American Society of Mammalogists, Grants-in-Aid of research. 1983. Supported preliminary work on attaching radio-tags to the heads of pinnipeds, \$487.
- Oregon Department of Fish and Wildlife, nongame research. 1984. Supported the purchase of radio-telemetry gear for a study of harbor seals, \$3,121.
- National Marine Fisheries Service, National Marine Mammal Laboratory. 1984. Funded a study of the digestion of fish otoliths in harbor seals, (Contract No. 41 USC 252 C 3), \$1,250.

National Marine Fisheries Service, National Marine Mammal Laboratory. 1985. Provided 10 radio-tags for a study of the association of harbor seal pups with their mothers, \$1,800.

National Marine Fisheries Service, through the Cooperative Institute for Marine Resource Studies. 1985. Provided funds to investigate the size distribution of seals along the coast of Oregon, \$1,500.

Oregon Coast Aquarium. 1985. Support for a study of the survival of harbor seals once released into the wild after years of captivity, \$2,000.

Walter G. Jones Memorial Scholarship. 1986. Fisheries Development Award, Oregon State University, \$400. National Research Council Post-doctoral Fellowship, National Marine Mammal Laboratory, National Marine Fisheries Service, Seattle, WA. 1988. Feeding Ecology of pinnipeds, \$50,700.

National Marine Fisheries Service, Southwest Fisheries Center. 1990. Monitoring cetacean mortalities in fisheries of Monterey Bay, \$6,000.

Texas A&M University at Galveston. 1990. Underwater recordings of whales using trained sea lions, \$1,500.

National Marine Fisheries Service, Southwest Fisheries Center. 1990. Post-mortem examinations of marine birds and mammals caught in gillnet fishery, \$4,000.

San Francisco Estuary Project, Gaps in Knowledge Program. 1991. Toxic pollution in San Francisco Bay: implications for harbor seal health and reproduction, \$40,066. (Co-principle investigator with Dianne Kopec).

National Geographic Society. 1991. Use of trained California sea lions for recording underwater behaviors of whales, \$15,500.

Environmental Protection Agency, University Academic Research Involvement Program for the San Francisco Bay/Delta. 1991. Habitat use of harbor seals in San Francisco Bay, \$41,744.

National Marine Fisheries Service. 1991. Photoidentification of bottlenose dolphins in Monterey Bay, \$500.00.

Office of Naval Research. Effect of low frequency sound on seasonal foraging ecology and diving behavior of the New Zealand fur seal, \$30,000. (co-PI Rob Mattlin).

Office of Naval Research. 1992. Remote recovery of data acquisition systems on marine mammals, \$21,075.

San Jose State University Foundation. 1993. The JASON Project: Tagging gray whales in San Ignacio Lagoon, travel award, \$2,500.

San Jose State University Foundation Research Grant. 1993. Coupling of physical and biological processes in Monterey Bay, \$2,500.

Sea Grant Trainee. 1993. Genetic engineering of fast growing strains of abalone, \$6,240. (co-PI Dr. Dennis Powers).

United State Navy. 1993. Effects of dredge disposal on marine birds and mammals at the Navy disposal site. \$22,000.

Army Corp. of Engineers. 1993. Mitigation for effects of repair of the Monterey breakwater on marine birds and mammals. \$15,455.

The Bay Foundation. 1993. Genetic variation of Pacific harbor seals (*Phoca vitulina*) from the inner and outer coasts of Washington and Monterey Bay, California. \$3,385 (co-PI Meg Lamont).

United State Navy. 1993. Ship shock trials - seabird surveys off southern California. \$23,442.

Office of Naval Research. 1994. Development of a new delivery and attachment system for tagging large cetaceans. \$163,363.

Office of Naval Research. 1994. Effects of low frequency sound on harbor seals. \$115,807.

University of California Sea Grant. 1994. Genetic engineering of fast growing strains. \$13,104. (co-PI D. Powers, Hopkins Marine Station).

University of California, Santa Cruz. 1994. Shipboard surveys of marine mammals off Point Sur related to the ATOC experiment. \$24,439.

City of Monterey. 1994. Boat ramp repair and effects on sea otters. \$2,874.

San Jose State University. 1994. Prevalence of Morbillivirus among harbor seals (*Phoca vitulina*) in the North Pacific. \$7,500 (co-PI John Boothby).

Monterey Bay National Marine Sanctuary. 1995. Monitoring abundance and distribution of marine birds and mammals in Monterey Bay, California. \$5,149.

National Oceanic and Atmospheric Administration. 1995. Marine mammal studies in the central California National Marine Sanctuaries. \$75,000 (co-PIs Dan Costa, Don Croll, and Terrie Williams, UCSC).

National Marine Fisheries Service. 1996. Survey of tagged California sea lions near Monterey, California. \$2,336.

National Marine Fisheries Service. 1996. development of a remote attachment method for tagging pinnipeds. \$5,744.

Oiled Wildlife Care Network. 1996. Assessment of the post-release survival of rehabilitated and free-ranging harbor seal (*Phoca vitulina*) pups. \$20,199.40

Mennen Foundation. 1996. Recording and tagging large whales using trained sea lions. \$20,000. (co-PI Jenifer Hurley)

Columbus Zoo. 1996. Recording underwater behaviors of whale using trained sea lions. \$1,400. (co-PI Jenifer Hurley)

California Urban Environmental Research and Education Center. 1997. Establishing a beach monitoring program to assess natural and anthropogenic changes in populations of birds, mammals and turtles in the Monterey Bay National Marine Sanctuary. \$7,227.00.

NOAA, Monterey Bay National Marine Sanctuary. 1997. Establishing a beach monitoring program to assess natural and anthropogenic changes in populations of birds, mammals and turtles in the Monterey Bay National Marine Sanctuary. \$14,685.

Dickinson Foundation. 1997. SLEWTH: Sea Lions Exploring Whales and Their Habitats. \$10,000. (co-PI Jenifer Hurley)

Packard Foundation. 1997. Recording and tagging large whales using trained sea lions. \$22,428. (co-PI Jenifer Hurley)

National Marine Fisheries Service. 1998. Assessment of impacts of harbor seals and California sea lions on depressed salmonids on the San Lorenzo River, California. \$39,996.00.

National Science Foundation. 1999. FSML: upgrading the small boat and diving facilities at Moss Landing Marine Laboratories. \$89,999.00. (co-PIs Mike Prince and John Heine)

Oiled Wildlife Care Network. 1999. Health, condition, and reproductive rates of harbor seals in Monterey Bay, California. \$6,300.00.

Packard Foundation. 1999. Impact of California sea lions and harbor seals on salmonid fisheries in Monterey Bay, California. \$19,720.

Homeland Foundation. 1999. Climate change and endangered whales in coastal upwelling centers. \$30,000 (co-PIs Don Croll, UCSC and Mike Prince, MLML).

National Oceanic and Atmospheric Administration. 1999. National Estuarine Research Reserve Graduate Research Fellowship. \$24,750 (co-PI Sarah Connors)

National Marine Fisheries Service. 1999. Assessing the impacts of pinniped foraging on salmonids in the San Lorenzo River and Monterey Bay. \$50,000.

Department of Commerce. 1999. Maintaining the MBNMS Beach COMBERS program: Assessing shores with surveys of beachcast organisms. \$15,120.

California Department of Transportation (Caltrans). 1999. Marbled murrelet biological survey. \$44,570.

URS Corp. 2000. Assessing the impacts of the proposed expansion of the SF airport, evaluating the EIR/EIS. \$11,562.

OWCN. 2001. Survival, movement, and food habits of Pacific harbor seal (*Phoca vitulina richardii*) juveniles in central California. \$6,300.

OWCN. 2001. Common murre (*Uria aalge*) diving, hematology, and foraging habitat use in central California. \$19,152.

Department of Commerce (NMFS). 2001. Assessing how sea lions detect hooked fish. \$29,997.

National Marine Fisheries Service. 2001. Assessment of California sea lion impacts on salmonids near Ano Nuevo Island, California. \$39,000. (co-PI Mike Weise).

National Marine Fisheries Service. 2001. Assessment of impacts Pacific harbor seals on depressed salmonids on the San Lorenzo River, California during 2001-2002. \$40,000. (co-PI Mike Weise).

Department of Transportation, California. 2001. Monitoring marbled murrelets at Ano Nuevo Bay. \$67,587.

National Park Service, Point Reyes National Seashore. Monitoring pinnipeds at Point Reyes. \$2,500.

National Marine Fisheries Service. 2001. Assessing seasonal abundance and distribution of pinnipeds in central California. \$3,643.

Department of Commerce, Monterey Bay National Marine Sanctuary. 2001. Assessing sanctuary shores and surveys of beachcast organisms. \$22,790.

Oiled Wildlife Care Network. 2002. Hematology, plasma chemistry, and movements of the Sooty Shearwater (*Puffinus griseus*): response to changes in body condition, food habits, and ocean conditions. \$28,176 (co-PI Josh Adams).

Oiled Wildlife Care Network. 2002. Diving and hematology of Common Murre (*Uria aalge*) in Monterey bay, CA. \$34,655 (co-PI Hannah Nevins).

National Marine Fisheries Service. 2002. Assessment of genetic techniques to identify prey species recovered in captive California sea lion fecal samples. \$20,000.

San Jose State University. Professional Development Funds. 2002. \$408.

Department of Commerce. 2003. Movements, dive behavior, and survival of post-release California sea lions after rehabilitation from domoic acid toxicity. \$95,019.

Department of Commerce. 2003. Gray whale and other large whale stranding investigations: a collaboration of marine mammal stranding participants in central California. \$95,680.

Pacific States Marine Fisheries. 2003. Capture and tagging of harbor seals in central California. \$40,000.

Department of Commerce. 2003. Movements, dive behavior, and survival of post-release California sea lions after rehabilitation from domoic acid toxicity. \$97,321.

Department of Commerce. 2003. Improving the response to marine mammal strandings at MLML in central California. \$99,716.

San Jose State University. Professional Development Funds. 2003. \$2,200.

Department of Commerce, Monterey Bay National Marine Sanctuary. 2001. Assessing sanctuary shores and surveys of beachcast organisms. \$75,956.

National Marine Fisheries Service. 2003. Assessing biases in pinniped prey studies. \$93,015.

National Marine Fisheries Service. 2003. Assessing biases in California sea lion prey studies. \$19,000.

National Marine Fisheries Service. 2003. Assessing biases in pinniped prey studies. \$20,000.

Pacific States Marine Fisheries Council. 2003. Assessing how sea lions detect caught fish. \$10,000.

National Marine Fisheries Service. 2003. Diet of California sea lions at Ano Nuevo Island (co-PI Mike Weise). \$39,000.

San Francisco State University. 2003. Capturing and tagging harbor seals at Richmond Bridge. \$18,992.

National Marine Fisheries Service. 2003. Using aerial surveys to assess pinniped abundance in central California (co-PI Mike Weise). \$7,444.

Homeland Foundation. 2003. Foraging ecology and conservation of east Pacific Green sea turtle (*Chelonia mydas*) in Bahía Magdalena, B.C.S., Mexico. \$9,700.

All Star Services. 2004. Biological monitoring for All Star Services Collaboration activity at Timber Pier, Monterey, CA. \$5,670.

Oiled Wildlife Care Network (UC Davis). 2004. Oceanographic determinants of Sooty Shearwater movements: A model for post-release survival studies of seabirds. \$37,162.

National Fish and Wildlife Foundation. 2004. Conservation of the Black Turtle in Mexico. (co-PI Louise Brooks). \$10,000.

National Marine Fisheries Service. 2004. Diet of California sea lion (*Zalophus californianus*) at Ano Nuevo Island, California (co-PI Mike Weise). \$39,117.

Oiled Wildlife Care Network. 2004. Wings under waves: diving behavior and time-activity budgets of provisioning Cassin's Auklets nesting in the Channel Islands, California (co-PI Josh Adams). \$39,756.

National Marine Fisheries Service 2004. Assessment of Calif Sea Lion Impacts on Salmonids near Ano Nuevo Island (co-PI Mike Weise). \$15,111.

National Marine Fisheries Service 2004. Assessing How Sea Lions Detect Hooked Fish: use of a side-looking sonar. \$18,000.

Department of Commerce. 2004. Movements, dive behavior, and survival of post-release California sea lions after rehabilitation from domoic acid toxicity. \$97,322.

United States Geological Survey. 2004. Ecology of Seabirds, waterbirds, and Marine Mammals of California. \$45,021.

Department of Commerce, Monterey Bay National Marine Sanctuary. 2005. Sanctuary BeachCOMBERS: Collaboration among citizens, resource managers, and scientists to assess the health of the nearshore habitats. \$88,716.

Golden Gate Bridge, Inc. 2005. Biological monitoring for Golden Gate Bridge Inc. Activity at sandholdt Bridge Replacement Project, Moss Landing, CA. \$33,902.

National Marine Fisheries Service. 2005. Diet of California sea lion (*Zalophus californianus*) at Ano Nuevo Island, California (co-PI Mike Weise). \$15,000.

Department of Commerce. 2005. Body burden assessments of total mercury in stranded Pacific harbor seals, *Phoca vitulina richardii*, in central California. \$98,815.

California Department of Fish and Game. 2005. Central coast marine bird health study (co-PI with Hannah Nevins). \$55,976.

National Marine Fisheries Service. 2006. Diet of California sea lion (*Zalophus californianus*) at Ano Nuevo Island, California (co-PI Mike Weise). \$15,000.

Monterey Bay Sanctuary Foundation. 2006. Prey species distribution in the Monterey Bay National Marine Sanctuary (co-PIs Scott Benson and Don Croll). \$53,050.

San Jose State University. 2006. Professional Development Award. \$800.

Monterey Bay Sanctuary Foundation. 2006. Tracking Sooty Shearwater habitat use throughout dynamic upwelling ecosystems in the California current (co-PI Josh Adams). \$28,600.

United State Geological Survey. 2006. Training of marine mammal observers. \$5,307.

Pacific Lumber Company. 2006. Demographic and genetic analyses of marbeled murrelet populations in the Pacific Northwest. (co-PI with Zach Peery). \$324,419.

California Department of Fish and Game. 2006/2007. Central coast marine bird health study (co-PI with Hannah Nevins). Augmentation of \$61,503/\$66,120.

Pacific Lumber Company. 2006. Characterizing source-sink dynamics for marblerd murrelet populations with genetic parentage assignments. (co-PI with Zach Peery). \$37,071.

United States Geological Survey. 2007. Ecology of Seabirds, waterbirds, and Marine Mammals of California. \$157,045.

Monterey Bay Aquarium Research Institute. 2007. Observations of marine mammals during the MBARI MARS cable-laying activities. \$53,300.

National Park Service. 2007. Disturbance effects on harbor seals in Glacier Bay. \$133,544.

Department of Commerce. 2007. Enhancing the response to marine mammal strandings by MLML in central California. \$99,838.

Packard Foundation. 2007. Packard student research and travel grant for MLML. \$50,000.

Department of Commerce, Monterey Bay National Marine Sanctuary. 2008. Sanctuary BeachCOMBERS: Collaboration among citizens, resource managers, and scientists to assess the health of the nearshore habitats. \$155,001.

Ammon, Inc. 2008. Biological Monitor for ML Breakwater repair. \$2,915.39.

California Sea Grant. 2008. Connectivity of west coast marine sanctuaries: tracking sooty shearwaters throughout dynamic upwelling systems in the California Current system: Sea Grant Trainee (co-PI Josh Adams, E. McPhee-Shaw). \$19,044.



California Department of Fish and Game. 2008. Identifying the origin of marbled Murrelets recovered from the San Francisco Bay oil spill (co-PI Zach Peery). \$3,400.

NOAA, NMFS. 2008. Acoustic identification and enumeration of epipelagic fish and jellyfish (co-PIs G. Cutter, D. Demer, S. Benson, S. Hayes, and B. McFarlane) \$39,922.

California Sea Grant. 2008. Connectivity of west coast marine sanctuaries: tracking sooty shearwaters throughout dynamic upwelling systems in the California Current system (co-PI Josh Adams). \$100,771.

California State Department of Parks and Recreation. 2008. Marbled murrelets in central California using at-sea surveys (co-PI Zach Peery). \$38,985.

Oiled Wildlife Care Network. 2008. Quantifying health parameters of Northern Fulmars (*Fulmarus glacialis*) to improve procellariid rehabilitation. (co-PI Elizabeth Phillips). \$22,511.

United States Geological Survey. 2008. Ecology of Seabirds, waterbirds, and Marine Mammals of California. \$19,422.

Sergeant Mechanical Systems. 2009. Biological Monitors for the repair of the USCG station, Monterey breakwater. \$5,060.

National Science Foundation. 2009. Improving the scientific capabilities and safety of the marine operations and diving programs at Moss Landing Marine Laboratories. \$112,264. (co-PI Dr. Diana Steller).

Office of Naval Research. 2009. Developing a better method of tag attachment for cetaceans. \$210,000.

California Sea Grant. 2009. Connectivity of west coast marine sanctuaries: tracking sooty shearwaters throughout dynamic upwelling systems in the California Current system (co-PI Josh Adams). \$203,635.

United States Geological Survey. 2009. Ecology of Seabirds, waterbirds, and Marine Mammals of California. \$89,827.

Department of Commerce. 2009. Small boat support for research. Co-PI Scott Benson. \$50,275.

Department of Commerce. 2009. Large whale stranding investigations. \$131,122.

Naval Postgraduate School. 2010. A Census of marine mammal vocalizations near Point Sur, California. (co-PI Curt Collins). \$78,456 + \$46,824.

Department of Commerce. 2010. Enhancing response to marine mammal strandings. \$99,960.

Oiled Wildlife Care Network. 2010. Health parameters, distribution, and behavior of grebes and scoters in California waters. (co-PI Josh Adams). \$47,947.

URS. 2010. Potential impacts of the Oceanside Wave Power Project on Gray whales. \$46,335.

United States Geological Survey. 2010. Ecology of Seabirds, waterbirds, and Marine Mammals of California. \$349,952.

California Department of Fish and Game. 2011. Spotted owl monitoring. Co-PI Zach Peery. \$87,076.

Oiled Wildlife Care Network. 2012. Predicting southern sea otter movement. \$10,000.

Wildlife Management Institute. 2012. Sanctuary BeachCOMBERS: Collaboration among citizens, resource managers, and scientists to assess the health of the nearshore habitats. \$20,352.

Ocean Foundation. 2012. Do all humpback whales migrate? \$16,128 (co-PI Casey Clark).

United States Geological Survey. 2012. USGS-MLML COOP Seabird Vulnerability. \$172,621.

United States Geological Survey. 2012. Training marine mammal observers for bottom mapping surveys. \$3,012.

California State Energy Resources Conservation and Development Commission. 2012. Evaluation of a passive acoustic monitoring network for harbor porpoise in California. 2012. \$136,195. Co-PI Karin Forney.

United States Geological Survey. 2012. USGS-MLML COOP Seabird Vulnerability. \$110,121. Co-PI Josh Adams

Monterey Bay Sanctuary Foundation. 2013. Monterey Bay Sanctuary BeachCOMBERS. \$10,010.

National Science Foundation. 2013. Planning for a Marine Science Village at MLML. \$24,479. Co-PIs Jon Geller and Brynn Hooton-Kaufman.

Oiled Wildlife Care Network. 2013. Reducing time from capture to treatment of oiled wildlife by predicting stranding patterns of live oiled seabirds and carcass retention in Monterey Bay. \$9,189.

Department of Commerce. 2013. Publication of Proceedings of Harbor Seal Workshop. \$10,000.

U.S. Fish and Wildlife Service. 2013. BeachCOMBERS south coast chapter. \$24,948. Co-PIs Hannah Nevins and Erica Donnelly.

SFEI. 2014. Levels of flame retardants in harbor seals. \$12,038. Co – PI Denise Greig.

Cascadia Research Collective. 2014. Ship-whale interactions and effect of ships on the dive behavior of baleen whales in major shipping lanes off San Francisco, CA. \$19,989.

UC Santa Cruz. 2015. Enhanced stranding response and a new partnership between Long Marine Lab and Moss Landing Marine Lab stranding networks. \$27,334.75

#### Professional Skills and Experiences:

- Aerial and shipboard surveys enumerating pinnipeds, cetaceans, and seabirds along the west coast of North America.
- Radio-tagging and tracking of gray whales in Baja California and California, humpback whales in Newfoundland, killer whales off Alaska, Spotted seals in Russia, fur seals in the Bering Sea, and humpback whales, blue whales, and harbor seals along the west coast of the U.S.
- Thirty years of experience with Telonics, AVM, Wildlife Computers, and Cedar Creek radio-telemetry instrumentation.
- Capture, collection, tagging, and experimental ecology of pinnipeds along the west coast of North America.
- Co-coordinator of Marine Mammal Stranding Network for central Oregon coast (1980 – 1987) and Monterey County, California (1990 – present).
- Marine bird and mammal necropsies and rehabilitation.
- Techniques of acoustical harassment of pinnipeds.
- Feeding ecology of marine vertebrates, including: identification of cephalopod beaks (attended squid beak workshop in England), and fish otoliths (using personal reference collections).
- Educational and research museum preparations of vertebrate skeletons and skins (including preparation of minke whale, gray whale and Steller sea lion skeletons for public display, and bird skins for museum collections).
- Professional photography (published in A Guide to marine mammals of greater Puget Sound, Marine mammals of the eastern North Pacific, Whales and friends Calendars, Northwest Geographer series, Whales dolphins, and porpoises of the Pacific).
- Extensive use of mainframes (e.g. Cyber) and personal computers (e.g. TRS, IBM, and Leading Edge, and use of FORTRAN and BASIC).
- Underwater sampling techniques using SCUBA.
- Disentanglement techniques for large whales (2 years of experience with humpback and minke whale entanglements in Newfoundland under direction of Dr. Jon Lien, 4 years of whale entanglement experience off California (Coordinator for the central California distentanglement team – WET).

#### Teaching Experience:

- Faculty, San Jose State University, Moss Landing Marine Laboratories, Moss Landing, CA. Quantitative Marine Science (MS 104), Introduction to Marine Animal Behavior (MS 110), Marine Birds and Mammals (MS 112), Ecology of Marine Marine Birds and

Mammals (MS 211), Marine Graduate Seminar (MS 285), Scientific Writing (MS 285), Experimental and Sampling Design (MS 204), and Scientific Methods (MS 208). Aug 1989 – present.

Instructor, National Science Foundation Chataqua course. Marine Mammal of Monterey Bay. August, 1998.

Graduate Faculty, Oregon State University, Department of Science, Math, and Computer Science Education. Marine Mammals for Educators (SEd 508). (Summer 1990).

Visiting Faculty, Oregon State University. Department of Fish and Wildlife. Marine Biology (section of Bi450-451). (Summer 1990).

Visiting Professor, University of Oregon, Oregon Institute of Marine Biology. Marine Vertebrate Ecology, BI 464 and Techniques in Marine Biology, BI 408. (Summer 1987).

Instructor, Linn-Benton Community College. Oceanography (Winter 1987).

Instructor, University of Oregon, Oregon Institute of Marine Biology. Bi 408 (Techniques in Marine Biology), team-taught (Summer 1986).

Instructor, Oregon State University. Marine mammal section of marine biology, OSU Bi 448/449. (1982-1989).

Instructor, Oregon State University. Natural history of marine mammals, OSU Sci. Ed. 508. Class for secondary and elementary school teachers, team-taught with R. Brown. (1985-1987).

Instructor, Linn-Benton Community College. Team-taught with R. Brown three classes on natural history of marine mammals (1978-1980).

Yearly lecturer for University of Idaho, responsible for lectures on marine mammals for Marine Biology class (1981 - 1987).

Lectured and prepared labs approximately twice a year for Oregon State University classes (e.g. Biological Oceanography and Marine Resource Management) (1979 - 1987).

Assistant teacher, marine ecology at Moss Landing Marine Labs (1977).

Lectured for over 60 formal and informal meetings of various organizations (e.g. Audubon, Sierra Club, school teachers, high school classes, rehabilitation centers, OSU marine extension, and Oregon nature study groups, Seattle Aquarium). (1979 - present).

Assistant naturalist on natural history cruise of Baja California, aboard the FV Executive (1984).

Assistant teacher, high school biology (1973).

Assistant teacher, elementary school math (1972).

Produced (with N. Dimeo-Ediger) "A Teacher's Guide to the Marine Mammals of the Pacific Northwest." Text and photographs for teachers of marine mammal biology.

#### Graduate Student Advising:

I presently am the major advisor for 4 graduate students actively pursuing their Master's thesis on marine fish, reptile, bird or mammal research.

I was the major advisor for 87 Master's Theses, and have served on an additional 30 graduate thesis committees at Moss Landing Marine Labs and 5 Ph.D. student committees from other institutions (UC Santa Cruz, UC Davis, Naval Postgraduate School).

#### Scientific Advising and Boards:

Research Activity Panel for the Monterey Bay National Marine Sanctuary (2001 – 2007; currently an advisor)

Reserve Advisory Panel for the Elkhorn Slough National Estuarine Research Reserve (2001 – present; Chair)

Board of Scientific Advisors for the Society for Marine Mammalogy (2004 – 2008)

Scientific Advisor for The Marine Mammal Center (2003 – present)

Scientific Advisor for the Oiled Wildlife Care Network (2001 – 2007)

Scientific Advisor for the Federal NMFS Taskforce for fisheries interactions at the Ballard Locks, WA (1989 – present)

Pacific Scientific Review Group for the National Marine Fisheries Service (2007 – present)  
 Pacific Cetacean Take Reduction Team for National Marine Fisheries Service (2004 – present).  
 Board of Directors for the San Jose State University Research Foundation (2006- present;  
 Finance and Investment Committee, Personnel Committee, Sponsored Programs Comm.)  
 Sustainability Taskforce at San Jose State University (2008 – present)  
 Executive Committee for COAST: Council on Ocean Affairs, Science and Technology  
 (2014 – present)  
 Advisory Board for California Sea Grant Program (2014 – present)  
 Advisory Board for Humboldt Marine and Coastal Sciences Institute (2014 – present)

Consulting (Effects of human activity on marine mammals and birds):

Marine Bird and Mammal surveys at the US Navy dump site off San Francisco. Assessment of the effects of dumping dredge spoils at the U.S. Navy dump site off San Francisco, California. Contracted by PRC Environmental Management, Inc. (September 1993 – December 1993).  
 Monterey Breakwater repair. Assess environmental damage to marine birds and mammals associated with repair of the Monterey breakwater. Contract from Aqua-Marine, Inc. (July 1993 – June 1994).  
 Monterey harbor boat ramp repair. Assess the impacts to sea otters of the repair of a boat ramp in Monterey harbor. Contracted by the City of Monterey (January 1994 – December 1994).  
 Ship shock trials. Assess the impact of ship shock trials to marine birds off San Diego, California. Contracted by U.S. Navy (February 1994 – July 1995).  
 Marine mammal impacts from ATOC signals at Pt. Sur Ridge. Shipboard surveys to assess the abundance and distribution of marine mammals in the proposed location of the ATOC sound source at Pt. Sur Ridge, CA. Contract from UCSC (Feb 1994 – Jan 1995).  
 Effects of the Corte Madera ferry on harbor seals. Assess environmental impacts of the wake from the Corte Madera ferry on harbor seals ashore at Corte Madera. Contract from Phillip Williams and Associates, Ltd. (December 1995 – August 1998).  
 Filming operations at Piedras Blancas. Document the impacts of filming operation on elephant seals at Piedras Blancas, California. Contracted by Pandion Enterprises (January 2001 – June 2001).  
 Effects of cable laying on marine mammals off Morro Bay, California. Assessment of the distribution and abundance of marine mammals off Morro Bay, California and effects of laying cable offshore. Contracted by MCI-Worldcom (April 1999 – June 2001).  
 Effects of landslide material on Marbled Murrelets. Assessment of the effects of disposal of landslide material by Caltrans on marbled murrelets in Ano Nuevo Bay, California. Contracted by California Department of Transportation (August 1999 – June 2002).  
 San Francisco Airport Expansion. Assess the potential impact of the expansion of SFO to marine mammals in San Francisco Bay. Contract from URS Corp (August 2000 – July 2003).  
 Boat Ramp Repair at MLML. Contract from MLML (Sept. 2003-November 2003).  
 Monterey Bay Aquarium Research Institute MARS cable laying. Bird and Mammal observers during cable laying. Contract with MBARI (July -December 2006).  
 Golden State Bridge Co. Contract to provide observers during the construction of the two-lane bridge in Moss Landing, CA. (March 2005 – December 2006).  
 Monterey breakwater retrofit. Sergeant Mechanical Systems. 2009. Biological Monitors for the repair of the USCG station, Monterey breakwater. \$5,060. Bird and mammal observations (December 2008 – January 2009).

Moss Landing Harbor Aids to Navigation retrofit. 2013. Associated Pacific Constructors, Inc.  
\$1993.00 (SJSURF Acct No. 24-1509-5145).