

Dr. M. Tim Tinker, Research Biologist, USGS  
Curriculum Vitae  
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## Academic Record

University of California, Santa Cruz, CA

PhD Ecology and Evolutionary Biology, 1998-2004

Dissertation Research: Population biology and foraging behavior of the southern sea otter

University of Waterloo, Ontario, Canada

M.Sc., Biology, 1991-1993

Thesis: Behavioral ecology and energetics of grey seals (*Halichoerus grypus*) on land-fast ice

University of Guelph, Ontario, Canada

Honors B.Sc., Zoology, 1986-1990

Specialization: Wildlife Biology

## Professional Appointments

- Research Scientist, US Geological Survey, Western Ecological Research Center, 2008 -
- Adjunct Professor, UC Santa Cruz, Ecology and Evolutionary Biology, 2008 -
- Assistant Research Biologist, UC Santa Cruz, Ecology and Evolutionary Biology, 2007-2008
- Post-doctoral researcher, UC Santa Cruz, Ecology and Evolutionary Biology, 2004-2007

## Primary Publications

Kenner, M. C., J. A. Estes, M. T. Tinker, J. L. Bodkin, R. K. Cowen, C. Harrold, B. B. Hatfield, M. Novak, A. Rassweiler, and D. C. Reed. (*in press*) A multi-decade time series of kelp forest community structure at San Nicolas Island, California. *Ecology*.

Stewart NL, Konar B, and Tinker MT. (*in press*). Testing the nutritional limitation and predator avoidance hypotheses for restricted sea otter habitat use in the Aleutian Islands, Alaska. *Oecologia*

Hughes, B. B., R. Eby, E. Van Dyke, M. T. Tinker, C. I. Marks, K. S. Johnson, and K. Wasson. 2013. Recovery of a top predator mediates negative eutrophic effects on seagrass. *Proceedings of the National Academy of Sciences*, doi:10.1073/pnas.1302805110

Oates, S.C., Miller, M.A., Hardin, D., Conrad, P.A., Melli, A., Jessup, D.A., Dominik, C., Roug, A., Tinker, M.T., Miller, W.A. 2012. Prevalence, Environmental Loading, and Molecular Characterization of *Cryptosporidium* and *Giardia* Isolates from Domestic and Wild Animals along the Central California Coast. *Applied and Environmental Microbiology*. 78(24): 8762–8772

Tinker M.T., Guimarães P.R., Novak M., Marquitti F.M.D., L. B.J., Staedler M., Bentall G. & A. E.J. 2012. Structure and mechanism of diet specialization: testing models of individual variation in resource use with sea otters. *Ecology Letters* 15(5) 475-483.

Bowen L., Miles A.K., Murray M., Haulena M., Tuttle J., Van Bonn W., Adams L., Bodkin J.L., Ballachey B., Estes J., Tinker M.T., Keister R. & Stott J.L. 2012. Gene transcription in sea otters (*Enhydra lutris*); development of a diagnostic tool for sea otter and ecosystem health. *Molecular Ecology Resources*, 12, 67-74.

Kim SL, Tinker MT, Estes JA, Koch PL (2012) Ontogenetic and Among-Individual Variation in Foraging Strategies of Northeast Pacific White Sharks Based on Stable Isotope Analysis. *PLoS ONE* 7(9): e45068. doi:10.1371/journal.pone.0045068

Newsome, Seth D., Justin D. Yeakel, Patrick V. Wheatley, M. Tim Tinker. 2012. Tools for quantifying isotopic niche space and dietary variation at the individual and population level. *Journal of Mammalogy*.93(2), 329-341

Hatfield, B.B., Ames, J.A., Estes, J.A., Tinker, M.T., Johnson, A.B., Staedler, M.M., and Harris, M.D. 2011. Sea otter mortality in fish and shellfish traps: estimating potential impacts and exploring possible solutions. *Endangered Species Research*, 13(3): 219-229.

## Dr. M. Tim Tinker, Curriculum Vitae

- Novak M, J.T. Wootton, D.F. Doak, M. Emmerson, J.A. Estes, M.T. Tinker. 2011. Predicting community responses to perturbations in the face of imperfect knowledge and network complexity. *Ecology* 92:836-846
- Harris, Heather S., Stori C. Oates, Michelle M. Staedler, M. Tim Tinker, David A. Jessup, James T. Harvey, and Melissa A. Miller. 2010. Behavior Associated with Forced Copulation of Juvenile Pacific Harbor Seals (*Phoca vitulina richardsi*) by Southern Sea Otters (*Enhydra lutris nereis*). *Aquatic Mammals* 36(4): 219-229
- Miller MA, Kudela RM, Mekebri A, Crane D, Oates SC, M. Tim Tinker, et al. 2010 Evidence for a Novel Marine Harmful Algal Bloom: Cyanotoxin (Microcystin) Transfer from Land to Sea Otters. *PLoS ONE* 5(9): e12576.
- Conrad, P. A., E. VanWormer, K. Shapiro, M. Miller, C. Kreuder-Johnson, T. Tinker, M. Grigg, J. Largier, T. Carpenter, and J. K. Mazet. 2009. TRACKING TOXOPLASMA GONDII FROM LAND TO SEA. *American Journal of Tropical Medicine and Hygiene* 81:198-198.
- Jessup, D.A., C. Kreuder-Johnson, J.A. Estes, D. Carlson-Bremer, W.M. Jarmin, S. Reese, E. Dodd, M.T. Tinker, and M.H. Ziccardi. 2010. Persistent organic pollutants in the blood of free ranging sea otters (*Enhydra lutris* sp.) in Alaska and California. *Journal of Wildlife Diseases*, 46(4):1-20
- Newsome, S.D., G.B. Benthall, M.T. Tinker, O.T. Oftedal, K. Ralls, M.L. Fogel, and J.A. Estes. 2010. Variation in  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  diet-vibrissae trophic discrimination factors in a wild population of California sea otters (*Enhydra lutris nereis*). *Ecological Applications* 20(6):1744-1752
- Estes, J.A., M.T. Tinker, and J.L. Bodkin. 2010. Using ecological function to develop recovery criteria for depleted species: Sea otters and kelp forests in the Aleutian Archipelago. *Conservation Biology* 24(3): 852-860
- Tinker, M. T., M. Mangel, and J. A. Estes. 2009. Learning to be different: acquired skills, social learning, frequency dependence and environmental variation can cause behaviorally-mediated foraging specializations. *Evolutionary Ecology Research*, 11: 841-869
- Edwards, M. S., and M. T. Tinker. 2009. Monitoring Benthic Algal Communities: A Comparison of Targeted and Coefficient Sampling Methods. *Algae* 24(2):111-120.
- Newsome, S.D., M.T. Tinker, D.H. Monson, O.T. Oftedal, K. Ralls, M. Staedler, M.L. Fogel, and J.A. Estes. 2009. Using stable isotopes to investigate individual diet specialization in California sea otters (*Enhydra lutris nereis*). *Ecology* 90: 961-974.
- Johnson, C.K., Tinker, M.T., Estes, J.A., Conrad, P.A., Staedler, M., Miller, M.A., Jessup, D.A. and Mazet, J.A.K. 2009. Prey choice and habitat use drive sea otter pathogen exposure in a resource-limited coastal system. *Proceedings of the National Academy of Sciences* 106(7): 2242-2247.
- Tinker, M. T., D. F. Doak, and J. A. Estes. 2008. Using demography and movement behavior to predict range expansion of the southern sea otter. *Ecological Applications* 18(7) 1781-1794.
- Peckham, S.H., D. Maldonado Diaz, V. Koch, A. Mancini, A. Gaos, M. T. Tinker, W.J. Nichols. 2008. High mortality of loggerhead turtles due to bycatch, human consumption and strandings at Baja California Sur, Mexico, 2003 to 2007. *Endangered Species Research* 5(2-3).
- Tinker, M.T., J.A. Estes and G. Benthall. 2008. Food limitation leads to behavioral diversification and dietary specialization in sea otters. *Proceedings of the National Academy of Sciences* 105(2) 560-565
- Doak, D.F., J.A. Estes, B.S. Halpern, U. Jacob, D.R. Lindberg, J.R. Lovvorn, D.H. Monson, M.T. Tinker, et al. 2008. Understanding and predicting ecological dynamics: are major surprises inevitable? *Ecology* 89:952-961.
- Jessup, D.A., M.A. Miller, C. Kreuder-Johnson, P. Conrad, M.T. Tinker, J.A. Estes and J.A.K. Mazet. 2007. Sea Otters in a Dirty Ocean. *Journal of the American Veterinary Medical Association* 231(11): 1648-1652
- Tinker, M.T., D.P. Costa, J.A. Estes and N. Wieringa. 2007. Individual dietary specialization and dive behaviour in the California sea otter: using archival time-depth data to detect alternative foraging strategies. *Deep Sea Research II* 54:330-342.

## Dr. M. Tim Tinker, Curriculum Vitae

- Tinker, M.T., D.F. Doak, J.A. Estes, B.B. Hatfield, M.M. Staedler, and J.L. Bodkin. 2006. Incorporating diverse data and realistic complexity into demographic estimation procedures: a case study using the California sea otter, *Enhydra lutris nereis*. *Ecological Applications* 16:2293-2312.
- Laidre, K.L., J.A. Estes, M.T. Tinker, J. Bodkin, D. Monson and K. Schneider. 2006. Patterns of growth and body condition in sea otters from the Aleutian archipelago before and after the recent population decline. *Journal of Animal Ecology* 75: 978-989
- Estes, J.A., M.T. Tinker, A.M. Doroff and D.M. Burn. 2005. Continuing sea otter population declines in the Aleutian Archipelago. *Marine Mammal Science* 21:169–172.
- Gerber, L.R., M.T. Tinker, J.A. Estes, D.F. Doak and D. Jessup. 2004. Mortality sensitivity in life-stage simulation analysis: A case study of southern sea otters. *Ecological Applications*, 14:1554–1565.
- Estes, J.A., E.M. Danner, D.F. Doak, B. Konar, A.M. Springer, P.D. Steinberg, M.T. Tinker, and T.M. Williams. 2003. Complex trophic interactions in kelp forest ecosystems. *Bulletin of Marine Science*, 74: 621-638.
- Burn, D.M., A.M. Doroff and M.T. Tinker, 2003. Carrying Capacity and pre-decline abundance of sea otters (*Enhydra lutris kenyoni*) in the Aleutian Islands. *Northwestern Naturalist* 84(3): 145-148
- Doroff, A.M., J.A. Estes, M.T. Tinker, D.M. Burn and T.J. Evans. 2003. Sea otter population declines in the Aleutian Archipelago. *Journal of Mammalogy*, 84(1): 55-64
- Estes, J.A., M.L. Riedman, M.M. Staedler M.T. Tinker, B.E. Lyon. 2003. Individual variation in prey selection by sea otters: patterns, causes, and implications. *Journal of Animal Ecology*, 72(1): 144-155
- Estes, J.A., M.T. Tinker, T.M. Williams, D.F. Doak. 1998. Killer whale predation on sea otters links oceanic and nearshore ecosystems. *Science*, 282: 473-476
- Hatfield, B.H., D. Marks, M.T. Tinker, K. Nolan, J. Pierce. 1998. Attacks on sea otters by killer whales. *Marine Mammal Science* 14(4): 888-894.
- Estes, J.A., D.F. Doak, J.R. Bodkin, R.J. Jameson, D. Monson, J. Watt, M.T. Tinker. 1996. Comparative Demography of Sea Otter Populations. *Endangered Species Update* 13(12): 11-13
- Watt, J.P., B.T. Krausse, M.T. Tinker. 1995. Bald Eagles kleptoparasitizing sea otters at Amchitka Island, Alaska. *Condor* 97(2): 588-590
- Tinker, M.T., K.M. Kovacs, M.O. Hammill. 1995. Behavior and energetics of male gray seals (*Halichoerus grypus*) breeding on landfast ice. *Behavioral Ecology & Sociobiology* 36:159-170

### Professional Activities

#### Research Positions:

- 2008- present: Principal Investigator, USGS Santa Cruz Field Station of the Western Ecological Research Center. Lead scientist in studies of sea otter population biology and near-shore ecology
- 2000-2007: Co-Principle Investigator for long-term, telemetry-based study of sea otter demography and foraging ecology in California. Supervisor: Dr. James Estes
- 1991-93: Research Assistant for studies of reproductive and behavior energetics of ice-breeding seals in eastern Canada. Advisor: Dr. Kit Kovacs

#### Teaching Positions

##### Courses Taught:

- Quantitative Ecology (BioE 148): Upper level undergraduate/graduate course on quantitative methods of analysis and modeling in ecology. UC Santa Cruz, CA, Spring quarter 2010, 2012
- Readings in Ecology (BioE 293): Core Graduate Course in Ecology and Evolutionary Biology, UC Santa Cruz, CA, 2008

##### Graduate Students Advised

- Lily Tarjan, Ph.D. student, UCSC
- Sarah McKay-Strobel, Ph.D. student, UCSC
- Ben Weitzman, M.Sc. student, UCSC
- Jessica Perry, M.Sc. student, UCSC

## Dr. M. Tim Tinker, Curriculum Vitae

- Holly MacCormick, Ph.D. student UCSC
- Michelle Staedler, M.Sc. student UCSC
- Lillian Carswell, M.Sc. graduate, UCSC
- Gena Bentall, M.Sc. graduate, UCSC

### Graduate Student Committee Memberships

- Rodrigo Beas, Ph.D. student, UCSC
- Robin Dunkin, Ph.D. student, UCSC
- Jason Hassrick, Ph.D. student, UCSC
- Nathan Stewart, Ph.D. student, UAF
- Kristen McCully, M.Sc. student, UCSC
- Kim Brewitt, Ph.D. student, UCSC
- Justine Smith, PhD student, UCSC
- Zach Randell, Ph.D. student, UA-Juneau

### Professional Society Memberships:

- Member of The Society for Marine Mammalogy, 1991-present
- Member of the Ecological Society of America, 2005-present

### Reviewer for:

- The American Naturalist
- Ecology
- Oecologia
- Marine Mammal Science
- Proceedings of the Royal Society
- Journal of Animal Ecology
- Ecological Applications
- Animal Behavior
- Population Ecology
- Canadian Journal of Fisheries and Aquatic Science
- Oikos

### Workgroup and Committee Memberships:

- Member of Southwest Alaska Sea Otter Recovery Team (SWAKSORT) convened by US FWS
- Invited participant, Marine Mammal Commission symposium to advise on the use of population viability analysis in marine mammal populations. Savannah, GA, Sept 2005 (report requested by US Congress)
- Invited participant, Marine Mammal Commission symposium to determine the ecological role of killer whales in the north Pacific. Seattle, WA, Apr. 2005 (report requested by US Congress)
- Invited participant, US Fish and Wildlife Service workshop to develop long-term monitoring plan for sea otters in south-west Alaska. Anchorage, AK, Feb. 2005.
- Invited participant, Alaska Sea Life Center/US Fish and Wildlife Service symposium to determine research priorities for the sea otter in south-west Alaska. Seward, AK, Apr. 2004.
- Invited participant, US Fish and Wildlife Service workshop to study sea otter decline in south-west Alaska. Anchorage, AK, Apr. 2002.
- Invited participant, National Center for Ecological Analysis and Synthesis working group on Ecosystem Based Management: Investigating the Roles of Top Predators, 2004-2007

### Special Certifications and continued Professional Training:

- Completed Bayesian Statistics workshop, USGS-WERC, 2010: Bayesian inference for environmental scientists, ecologists and wildlife biologists
- Certified DOI Motorboat Operator (MOCC)
- First Aid/CPR certified (current) and trained in Wilderness First Aid

### Grants, Awards and Scholarships

- Research Grant from NSF/NOAA "CAMEO" program, "Comparative Approaches to Predicting the Consequences of an Impending Invasion: Top Predator Effects on California Nearshore Fisheries.", 2010-12
- Research Grant from National Science Foundation and National Institutes of Health "Ecology of Infectious Diseases" Program: "Roles of Marine Host Cycle and Particle Aggregation in Transmission of Zoonotic Pathogens in Coastal Ecosystems." (Collaboration with Scientists from UC Davis, UC Santa Cruz, and others), 2010-12
- Research Grant from California Coastal Commission: "Investigating the Consequences of Coastal Contamination and Anthropogenic Stressors for Sea Otter Recovery", 2008-11
- Research Grant from National Science Foundation and National Institutes of Health "Ecology of Infectious Diseases" Program: Understanding the ecological determinants of transmission of T.

## Dr. M. Tim Tinker, Curriculum Vitae

gondii from terrestrial hosts to southern sea otters (Collaboration with Scientists from UC Davis, UC Berkley, Institute of Ecosystem Studies, University of British Columbia, CSU Fresno, and others), 2005-08

- Research Grants from Monterey Bay National Marine Sanctuary and Marine Mammal Commission: Nutritional composition of sea otter diets (Collaboration with Scientists from Smithsonian Institute and UC Santa Cruz), 2004
- Multi-year Research Grant from Minerals Management Service: Population biology of the southern sea otter in California (Co-Principal Investigator with Scientists from USGS, CDFG, UC Santa Cruz, Smithsonian Institute and others), 2001
- Research Grant from Friends of the Sea Otter: Development of a Spatially Explicit Population Model for the Southern Sea Otter, 2000
- Departmental Graduate Fellowship, Ecology and Evolutionary Biology Dept., UC Santa Cruz, 1998

### Professional Technical Reports:

- Tinker, M. T., et al., 2013. "Sea Otter Population Biology at Big Sur and Monterey California: Investigating the Consequences of Resource Abundance and Anthropogenic Stressors for Sea Otter Recovery". Final Report to California Coastal Conservancy and U.S. Fish and Wildlife Service. University of California Santa Cruz, CA. 242 pages
- Estes, J.A., J.L. Bodkin and M.T. Tinker. 2010. "Threatened southwest Alaska sea otter stock: delineating the causes and constraints to recovery of a keystone predator in the North Pacific Ocean". NPRB Project 717 Final Report
- Oftedal, O., K. Ralls, M.T. Tinker and A. Green. 2008. Nutritional constraints on the southern sea otter in the Monterey Bay National Marine Sanctuary, and a comparison to sea otter populations at San Nicolas Island, California and Glacier Bay, Alaska. Final Report to the Monterey Bay National Marine Sanctuary and the Marine Mammal Commission.
- Tinker, M. T., J. A. Estes, K. Ralls, T. M. Williams, D. Jessup, and D. P. Costa. 2006. Population Dynamics and Biology of the California Sea Otter (*Enhydra lutris nereis*) at the Southern End of its Range. MMS OCS Study DRAFT REPORT. Page 351. MMS Cooperative Agreement Number 14-35-0001-31063. Coastal Research Center, Marine Science Institute, University of California, Santa Barbara, California.
- Tinker, M.T., Estes, J.A., Doak, D.F. 2000. Development of a spatially explicit population model to assess potential population impacts associated with translocation of sea otters from south of Pt. Conception. Final Report for Friends of the Sea Otter, October, 2000. Monterey, California.
- Estes, J.A., Konar, B., Tinker, M.T. 1998. Sea Otter Population Biology and Subtidal Community Ecology at Shemya Island, Alaska. Final Report for Department of Defense Legacy Project Number 9401280 & 9510014
- Tinker, M.T., Estes, J.A. 1997. Summary Report on Sea Otter Captures for Blood Contaminant Analysis and Collection of Population Data in the Western Aleutian Islands, 1997. Summary Report to the Navy, U.C. Santa Cruz, CA.
- Tinker, M.T., Heaven, P.C., Ingham, L. 1997. Columbia Basin, Large Mammal Monitoring: 1994-97 Aerial Surveys, Final Report. Columbia Basin Fish and Wildlife Compensation Program, Technical Report
- Tinker, M.T., Estes, J.A. 1996. The population ecology of sea otters at Adak Island, Alaska. Final Report to the Navy, Contract # N68711-94-LT-4026, U.C. Santa Cruz, CA.

### Selected Invited Talks and Presentations at Professional Meetings

- Tinker, M.T. 2013. "A paradigm coming of age? The promises, pitfalls and ontology of the Top-down system of thought in ecology". Invited speaker for Presidential Symposium, Western Society of Naturalists Annual Meeting, Oxnard, CA, November 2013.
- Tinker, M.T. and Novak, M. 2013. "Effects of time-averaged sampling on the inferred strength and temporal consistency of intraspecific diet specialization.". Invited speaker at Special Symposium : "Intra-population Niche Variation: From Incidence to Relevance ", 98<sup>th</sup> Annual Meeting of the Ecological Society of America, Minneapolis, MN, August 2013.
- Tinker, M.T. 2013. "The sea otters of central California: keystone predators and indicators of near-shore ecosystem influences". Invited plenary speaker at "NRS day 2013: a celebration of the UC Nature Reserve System", Bren School of Environment, UC Santa Barbara, Feb 2013.
- Tinker, M.T., Hatfield, B.B., Harris, M.D. and Ames, J.A.. 2011. "Increasing mortality from white shark attacks drives decline in southern sea otters: estimating demographic impacts using a spatially structured projection model". Society for Marine Mammalogy, 19th Biennial Conference on the Biology of Marine Mammals, Tampa, Florida.

## Dr. M. Tim Tinker, Curriculum Vitae

- Tinker, M.T., Guimarães, P.R., Novak, M. "The structure and mechanisms of intraspecific diet polymorphisms". Invited speaker at Special Symposium "The Ecological Consequences of Intraspecific Variation", 96<sup>th</sup> Annual Meeting of the Ecological Society of America, Austin, Texas, August 2011.
- Tinker, M.T. "Diets and Energetics Across Sea Otter Populations". 7<sup>th</sup> Annual International Workshop on Sea Otter Conservation, Seattle, WA
- Tinker, M.T., Michelle Staedler, Gena Bentall, James Bodkin, Daniel Monson, Laura Yeates. "Using archival time-depth recorders to measure within- and between-population variation in diet and foraging success of sea otters" Carnivore Conference: Carnivore Conservation in a Changing World, Nov 2009, Denver, CO
- Tinker, M.T., Christine Kreuder-Johnson, Melissa Miller, Dave Jessup, Jonna Mazet, Daphne Carlson Bremer, Pat Conrad, James Estes. "Diet, density, disease and death in sea otters: implications for conservation and management." Carnivore Conference: Carnivore Conservation in a Changing World, Nov 2009, Denver, CO
- Tinker, M.T., Guimarães, P.R., Novak, M., Staedler, M.M., Bentall, G.B., Bodkin, J.L., Estes, J.A. Oct. 2009. Using network analysis to assess individual patterns of resource use: sea otters exhibit modularity at high density sites, providing evidence for a facultative diet polymorphism. Marine Mammal Society International Biannual Conference. Oct. 2009, Quebec City, Canada
- Tinker, M.T. Sept. 2009. Density-dependent diet diversification and individual differences in foraging behavior determine risk of disease exposure in southern sea otters. Society for Conservation Biology, Flagstaff, AZ
- Tinker, M.T. Jan 2009. Using long term research on sea otters and kelp forest food webs to study the effects of climate change on coastal ecosystems. USGS/USFWS COASTAL CLIMATE CHANGE CONFERENCE FOR CALIFORNIA, OREGON AND WASHINGTON. San Francisco, CA
- Tinker, M.T., Bodkin, J., Staedler, M.M., Esslinger, G., Monson, D.H. May 2009 "Using core temperature records from biologging records to detect reproductive events." International sea otter conservation workshop, Seattle, WA
- Invited Speaker at UC Santa Cruz EE Biology Seminar Series, June 2008: "Sea otter diets & population status: causes and consequences of individual foraging specializations"
- Tinker, M.T., Bodkin, J., Staedler, M.M., Esslinger, G., Monson, D.H. 2008 "Using TDR records to detect life history events in sea otters". Third International Biologging Science Symposium, Monterey, CA.
- Tinker, M.T., G. Bentall, A. Burdin, and J.A. Estes. 2007. Ecological and behavioral responses to K: sea otters and kelp forest ecosystems in the Aleutian and Commander islands. 17th Biennial Conference on the Biology of Marine Mammals, Cape Town, South Africa
- Invited Speaker at Bodega Marine Laboratories Seminar Series, Jan 2007: "Sea otter diets & population status: causes and consequences of individual foraging specializations"
- Tinker, M.T., C. Kreuder-Johnson, P. Conrad, M. Staedler, D. Jessup, J. Estes, M. Miller and J. Mazet. 2007. Linking Individual Behavior and Population Health: Tracking Protozoal Pathogen Exposure in Southern Sea Otters. 5th Workshop on Sea Otter Conservation, Seattle, WA.
- Tinker, M.T., C. Kreuder-Johnson. 2006. Linking Individual Behavior and population health: a multidisciplinary approach to predicting risk of disease exposure in sea otters. 20th Annual Meeting of the Society for Conservation Biology, San Jose, CA
- Tinker, M.T., J.A. Estes, M.M. Staedler, J.L. Bodkin. 2005. Alternative diet specializations in the southern sea otter: energetic implications of a behaviorally-mediated foraging polymorphism. 16th Biennial Conference on the Biology of Marine Mammals, San Diego, CA
- Tinker, M.T., D.F. Doak, J.A. Estes. 2005. Effect of demographic variation and dispersal patterns at multiple spatial scales on the population recovery and range expansion of a threatened carnivore. 90th Annual Meeting of the Ecological Society of America, Montreal, Canada
- Tinker, M.T., D.P. Costa, J.A. Estes, N. Wieringa. 2005. Individual dietary specialization and dive behavior in the California sea otter: using archival time-depth data to detect alternative foraging strategies. 2nd International Bio-logging Science Symposium, St. Andrews, Scotland.
- Gerber, L. R., M.T. Tinker, Estes, J.A., Doak, D.F. 2002. Mortality sensitivity in life-stage simulation analysis: A case study of southern sea otters. Ecological Society of America Annual Meeting Abstracts 87: 139.

## Dr. M. Tim Tinker, Curriculum Vitae

- Tinker, M.T., Doak, D.F. 2002. Southern Sea Otter Demography and Population Analyses. *Carnivores 2002 From the Mountains to the Sea: A Conference on Carnivore Biology & Conservation*, Monterey, CA
- Bodkin, J., Staedler, M.M., Tinker, M.T., Estes, J.A. 2002. Assessing Population Status Using Activity Budgets: Inter- and Intra-Population Differences in Foraging Effort. *Carnivores 2002 - From the Mountains to the Sea: A Conference on Carnivore Biology and Conservation*, Monterey, CA
- Tinker, M.T., Estes, J.A., Staedler, M.M., Bodkin, J. 2002. Sea otter Foraging Ecology: Sources of Variation in Dive Behavior, Diet and Foraging Success. *Carnivores 2002 - From the Mountains to the Sea: A Conference on Carnivore Biology and Conservation*, Monterey, CA
- Kage, A.K., Tinker, M.T., Doak, D.F. 2002. Application of Individual Based Movement Models to Movement Patterns of California Sea Otters (*Enhydra lutris nereis*). *Carnivores 2002 - From the Mountains to the Sea: A Conference on Carnivore Biology and Conservation*, Monterey, CA
- Yeates, L., Williams, T.M., Tinker, M.T. 2002. Thermoregulation and Diving Energetics of the California Sea Otter: Are They Pushing Their Psychological Limits? *Carnivores 2002 - From the Mountains to the Sea: A Conference on Carnivore Biology and Conservation*, Monterey, CA
- Tinker, M.T., Estes, J.A., Yeates, L., Staedler, M.M. 2002. Studying Sea otter Foraging Ecology. *California and the World Ocean '02*, Santa Barbara, CA
- Tinker, M.T., Estes, J.A., Mangel, M. 2001. Individual variation in diet and feeding behavior of sea otters: cultural transmission of foraging skills contributes to the persistence of alternative foraging specializations. Invited Presentation at the Workshop on Culture in Marine Mammals, Fourteenth Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia
- Doroff, A., Estes, J.A., Tinker, M.T., Burn, D., Evans, T. 2001. Sea otter decline in the Aleutian Islands. Fourteenth Biennial Conference on the Biology of Marine Mammals, Vancouver, British Columbia
- Tinker, M.T., Estes, J.A., Doak, D.F. 2000. A Model of Southern Sea Otter Population Dynamics and Range Expansion. Seventh Joint US-Russia Sea Otter Workshop, Monterey, California
- Tinker, M.T., Estes, J.A. 1999. A comparison of indices used to assess sea otter population status: scats may be worth a closer look. Thirteenth Biennial Marine Mammal Conference, Maui
- Tinker, M.T., Estes, J.A. 1997. Is food-limitation causing the sea otter population decline at Adak Island, Alaska? Contrary evidence from activity budgets, diet and prey Size. Twelfth Biennial Conference on the Biology of Marine Mammals, Monaco
- Tinker, M.T., Estes, J.A. 1997. Sea otter population decline in the western Aleutian Islands: an overview of trends, effects and possible causes. Sixth Joint US-Russia Sea Otter Workshop, Forks, Washington
- Estes, J.A., Duggins, D.O., Tinker, M.T. 1997. Sea otters as "Umbrella Species" in Kelp Forest Ecosystems. The Society for Conservation Biology 1997 Annual Meeting, Victoria, BC
- Tinker, M.T., Estes, J.A., Meehan, J. 1996. Demography, behavior and diet of sea otters at Adak Naval Reservation, Alaska. The Wildlife Society Third Annual Conference, Cincinnati, Ohio
- Tinker, M.T., Kovacs, K.M., Hammill, M.O. 1993. Reproductive behavioral tactics of male grey seals breeding on landfast ice. Tenth Biennial Conference on the Biology of Marine Mammals, Galveston, Texas