

SHERRY LYNN TAMONE
Curriculum vitae

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Department of Natural Sciences
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EDUCATION:

- 1993 **Ph.D.**, Endocrinology, University of California, Davis
Thesis title: Regulation of ecdysteroids from the y-organs of the
Dungeness crab *Cancer magister*.
- 1984 **B.S.** Biochemistry, San Francisco State University
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PROFESSIONAL EXPERIENCE:

- 2006-present **Associate Professor of Biology**, University of Alaska Southeast, Jointly
appointed to the University of Alaska Fairbanks, Juneau Center for School
of Fisheries and Ocean Sciences. August 2001-present.
- 2004-present **Diving Control Board**, American Academy of Underwater Science,
University of Alaska
- 2001-06 **Assistant Professor of Biology**, University of Alaska Southeast. August
Jointly appointed to the University of Alaska Fairbanks, Juneau Center for
School of Fisheries and Ocean Sciences. August 2001-present
- 1996-99 **Lecturer**, Sonoma State University; Taught undergraduate courses in
Biology, Human Physiology, and Animal Physiology
- 1998-99 **Lecturer**, Santa Rosa Community College, Taught Human Physiology
- 1993-96 **USDA Postdoctoral Researcher**, Bodega Marine Laboratory, University
of California, Davis. Research included identification of genes regulated
by a crustacean steroid hormone.
- 1988-1993 **California Sea Grant Trainee**, Bodega Marine Laboratory, UCD.
PhD. Research dissertation on the regulation of crustacean molting
hormones. A biochemical approach to understanding endogenous factors
that regulate crustacean ecdysteroids.
- 1991 **Teaching Assistant**, Physiological Adaptations of Marine Organisms
Bodega Marine Laboratory, UCD.
- 1988-present **Research SCUBA Diver**, American Academy of Underwater Sciences
(AAUS) certification.

1982-1988 **Senior Research Associate**, Lawrence Berkeley Laboratory, Division of Physiology and Biomedicine, Endocrine studies related to the regulation of red blood cell production.

GRADUATE RESEARCH AWARDS AND HONORS

1992-93 **California Sea Grant Graduate Research Fellowship Award**
1991-92 **California Sea Grant Graduate Research Fellowship Award**
1988-1993 **California Sea Grant Traineeship**
1992 **Aubrey Gorbman Best Student Paper Award**, Honorable Mention, Meeting of the American Society of Zoologists
1991-92 **Jastro-Shields Research Scholarship Award**, University of California, Davis
1990-91 **Jastro-Shields Research Scholarship Award**, University of California, Davis
1989-90 **Humanities Graduate Research Award**, University of California, Davis
1988-89 **Humanities Graduate Research Award**, University of California, Davis
1988 **Sigma Xi Graduate Research Award**

SCIENTIFIC AFFILIATIONS

American Association for the Advancement of Science
The Crustacean Society
Society for Integrative and Comparative Biology
Bodega Marine Sciences Association
Phi Sigma Society

RESEARCH AWARDS

Funded at UAS or UAF (\$1,417,952)

2008-2010 North Pacific Research Board (NPRB)
Reproductive indices of male snow crabs, *Chionoecetes opilio* from the Bering Sea: analysis of hormones, reproductive structures, and behavior (\$166,696)

2008-2010 Alaska Sea Grant College Program
Co-PI's: Sherry Tamone and Ginny Eckert
Alaska Red King Crab Enhancement: Juvenile Growth and Field Habitat Studies (\$74,362)

2006-2007 Alaska Fisheries Development Foundation (AFDF)
Co-PI's: Sherry Tamone and David Tallmon
Comparison of population size and structure of Pacific giant octopus, *Enteroctopus dofleini* in Alaska. (\$124,594)

2004-2006 North Pacific Research Board (NPRB)
Co-PI's: Sherry Tamone and Lisa Hoferkamp

Identification of Polybrominated Diphenyl Ethers (PBDEs) in Sediments and Biota in a Pristine Southeast Alaska Watershed and Near a Municipal Waste Landfill in Juneau, Alaska. (\$48,420)

- 2002-2004 National Institute of Health
Biomedical Research Infrastructure Network (BRIN), Regulation of steroidogenesis in invertebrate models. (\$467,000)
- 2002 Commercial Fisheries Management and Development Division/Alaska Department of Fish and Game
Tagging Studies of Tanner crab, *Chionoecetes bairdi* (\$8,237)
- 2001-2004 Commercial Fisheries Management and Development Division/Alaska Department of Fish and Game
Co-PI's: Sherry Tamone, Thomas Shirley, Ginny Eckert
Reproductive biology of snow crab *Chionoecetes opilio* (\$383,211)
- 2001-2004 Commercial Fisheries Management and Development Division/Alaska Department of Fish and Game
Hormonal regulation of growth of snow crab, *Chionoecetes opilio* (\$136,465)
- 2000-2001 Commercial Fisheries Management and Development Division/Alaska Department of Fish and Game
Development of an enzyme-linked immunosorbant assay (ELISA) for crustacean growth hormones. (\$8,967)

INTERNAL RESEARCH AWARDS

- 2003 Chancellor's Special Project Fund
Video microscopy in the Biology Laboratory (\$5000)
- 2002 Chancellor's Special Project Fund
Seminars in biology (\$3100)
- 2001 Teaching and Learning Technology and Research
Replacement of a multimedia projector (\$4800)
- 2001 President's Special Project Fund
Biology Field trip to Glacier Bay (\$7,950)
- 2000 Natural Resources Fund
Aquatic invertebrate catalog (\$4700)

WORKSHOPS

- 2008 Invited Speaker. Workshop on *Hematodinium* related diseases. Charlottetown, Prince Edward Island. September 23-26.
- 2004 Techniques in Molecular Biology, University of British Columbia, Vancouver, BC August 2-16.

MEETINGS ATTENDED

- 2009 Marine Sciences Symposium, Anchorage, AK
2009 Society of Comparative and Integrative Biology, Boston MA
2008 Interagency Crab Meeting, Anchorage AK
2008 Society of Comparative and Integrative Biology, San Antonio TX
2007 Interagency Crab Meeting, Anchorage AK
2007 Society of Comparative and Integrative Biology, Phoenix, AZ
2006 Marine Sciences Symposium, Anchorage AK
2006 Interagency Crab Meeting, Anchorage AK
2006 Summer Meeting for the Crustacean Society, Juneau Alaska
2006 Society of Comparative and Integrative Biology, Orlando, FL
2005 Interagency Crab Meeting, Anchorage AK
2005 Society of Comparative and Integrative Biology, San Diego, CA
2004 Interagency Crab Meeting, Anchorage AK
2004 Society of Comparative and Integrative Biology, New Orleans LA.
2003 Interagency Crab Meeting, Anchorage AK
2002 Society of Comparative and Integrative Biology, Anaheim, CA
2002 Interagency Crab Meeting Anchorage, AK
2001 Lowell Wakefield Symposium, Anchorage AK. High Latitude Crabs. Biology, Management, and Economics.

RECENTLY PUBLISHED ABSTRACTS

S.L. Tamone, Chung, JS. and Bembe, S. (2009) Characterization of crustacean hyperglycemic hormone (CHH) form the Tanner crab, *Chionoecetes bairdi*. For presentation at the Lowell Wakefield Symposium, Anchorage AK.

S. L. Tamone and McNeel, K. (2009). Induction of late stages of bitter crab by eyestalk ablation in female Tanner crabs. For presentation at the Lowell Wakefield Symposium, Anchorage AK.

Hernandez, E.M. and **Tamone, S.L.** (2008) effect of acidification on metabolic enzymes of the lyre crab *Hyas Lyratus*. Presented at the American Society of Limnology and Oceanography, Orlando, FL

S.L. Tamone and Thomson, J.D. (2005). Eyestalk ablation leads to diverse responses in female Dungeness crab dependent upon physiological state. Society of Integrative and Comparative Biology, Orlando, Fl to be held in January 2006.

Richards, M., **Tamone, S. L.**, Shirley, T. A. (2005). Determining Growth Potential Utilizing Molting Hormone Levels in the Deep Sea Crab, *Macrorogonia macrochira*. American Society of Limnology and Oceanography. Salt Lake City, NE

S.L. **Tamone**, A. Andrews, J. Mondragon, Neilsen, J., and S.J. Taggart. (2005) Circulating Ecdysteroid Levels In Tanner Crab, *Chionoecetes bairdi* are indicators of molting probability. Society of Integrative and Comparative Biology, San Diego, CA.

Thomton, J.D., **Tamone, S. L.** and Atkinson, S. (2005) Hemolymph Ecdysteroid Concentrations in Wild and Captive Alaskan Dungeness Crabs. Society of Integrative and Comparative Biology, San Diego, CA.

S.L. **Tamone**, A. Andrews, J. Mondragon, and S.J. Taggart. (2005). Ecdysteroid Levels in Tanner Crab in Glacier Bay: Evidence for a terminal molt. Glacier Bay Science Symposium, Juneau, AK

Moselle, K. Mondragon, J. and **Tamone, S. L.** (2004) Distribution of Bitter Crab Disease in Glacier Bay Tanner crab, *Chionoecetes bairdi*. Glacier Bay Science Symposium, Juneau, AK.

S.L. **Tamone** and J.M. Dutton. (2004) Effect of eyestalk-ablation on circulating ecdysteroids in hemolymph of snow crab, *Chionoecetes opilio*: Physiological Evidence for a Terminal Molt. Society of Integrative and Comparative Biology, New Orleans, LA.

Mitchell, J.M. and **Tamone, S.L.** (2004) Effect of temperature on circulating methyl farnesoate in the snow crab, *Chionoecetes opilio*. Society of Integrative and Comparative Biology, New Orleans, LA.

Webb, J. **Tamone, S. L.**, Dutton, J. M. and Eckert, G.L. (2004) Effect of temperature on larval development in the snow crab, *Chionoecetes opilio*. Society of Integrative and Comparative Biology, New Orleans, LA.

Adams, M.A. and **Tamone S. L.** (2003). Effects of Eyestalk Ablation on Ecdysteroid Levels of the snow crab *Chionoecetes opilio*: Indications for a Terminal Molt. Southern California Conference on Undergraduate Research (SCCUR). Irvine CA

PUBLICATIONS (in Peer Reviewed Journals)

Chung, J. S., Bembe, S., **Tamone, S. L.**, Andrews, E., and Thomas, H. (2009).\ Molecular cloning of the crustacean hyperglycemic hormone (CHH) from the X-organ and identification of the neuropeptides in the sinus glands of the Alaskan Tanner crab, *Chionoecetes bairdi*. G. C. E. (in review).

Tamone, S. L. (2007). An introduction to coastal monitoring. Proceedings from the

- Aleutian Life Forum, Unalaska, Alaska. Sea Grant College Program.
- Webb, J., Eckert, G. L., Shirley T. C., **Tamone, S. L.** (2007). Changes in embryonic development and hatching in the snow crab, *Chionoecetes opilio*, with variation in incubation temperature. *Biological Bulletin* 213: 67-75.
- Tamone, S.L.**, Taggart, S. J., Andrews, A. G. Mondragon, J. and J. K. Nielsen. (2007). Ecdysteroids in Tanner crabs are compared with claw allometry: Further evidence for a terminal molt in the genus *Chionoecetes*. *J. Crust. Biol.* 24 (4) 635-642.
- Thomton, J., **Tamone, S. L.**, Adkinson, S. M. (2006). Circulating ecdysteroid concentrations in Alaskan Dungeness crab (*Cancer magister*). *J. Crust. Biol.* 26: 176-181
- Webb, J., Eckert, G. L., Shirley T. C., Tamone, S. L. (2006). Changes in zoeae of the snow crab, *Chionoecetes opilio*, with variation in incubation temperature. *J. Exp. Mar. Biol. Ecol.* 339: 96-103.
- Moselle, K., **Tamone, S. L.**, Mondragon, J., Taggart, S. J. (2006). Distribution of bitter crab disease in Tanner crabs (*Chionoecetes bairdi*) in Glacier Bay, Alaska. Proceedings from the Glacier Bay Science Symposium
- Tamone, S. L.**, Adams, M. A., Dutton, J. M. (2005). Effect of eyestalk-ablation on circulating ecdysteroids in hemolymph of snow crab, *Chionoecetes opilio*: Physiological evidence for a terminal molt. *Integr. Comp. Biol.* 45. 166-177.
- El Haj, A. J., **Tamone, S. L.**, Peake, M., Reddy, P. S., Chang, E. S. (1998). An ecdysteroid responsive gene in the crustacean similar to the *Manduca* MHR3 gene- a crustacean member of the steroid hormone superfamily. *Gene* **210**: 127-135.
- Tamone, S. L.** and Chang, E. S. 1997. Identification and characterization of methyl farnesoate binding proteins in the crab, *Cancer magister*. *Gen. Comp. Endocrinol.* **105**: 168-175.
- Chang, E. S. **Tamone, S. L.**, Lin, W. W., Oberbauer, A. M. 1995. Modification to the paradigm of the hormonal control of crustacean molting: Effects of metabolic inhibitors on the ecdysiotropic action of methyl farnesoate and evidence for an insulin-like growth factor. *Proc. Internat. Symp. Biotech. Applications in Aquaculture.* Asian Fisheries Society Special Publication No 10. pp 183-195.
- Chang, E. S., Fitzsimmons, S. L.**, Bruce, M. J. 1993. Crustacean Growth: stimulatory and inhibitory regulation. *In: Short Communications of the 1991 International Marine Biotechnology Conference, vol 2* (W. Fenical, M. Greenberg, H. O. Halvorson, and J. C. Hunter-Cevera, eds.), pp. 514-519. W C. Brown, Dubuque.
- Tamone, S. L.** and Chang, E. S. 1992. Methyl farnesoate regulates ecdysteroid secretion crab Y-organs *in vitro*. *Gen. Comp. Endocrinol.* **89**, 425-432.
- Chang, E. S., Bruce, M. J., **Tamone, S. L.** 1992. Regulation of Crustacean molting: a multi-hormonal system. *Amer. Zool.* **33**, 324-329.
- Clemons, G. K., de Manincor, D., **Fitzsimmons, S. L.**, Garcia, J. F. 1987. Immunoreactive erythropoietin studies in hypoxic rats and the role of the salivary glands. *Exp. Hematol.* **15**, 18-23.
- Clemons, G. K., **Fitzsimmons, S. L.**, DeManincor, D. (1986). Immunoreactive

erythropoietin concentrations in fetal and neonatal rats and the effects of hypoxia. *Blood* **68**: 892-299.

PUBLICATIONS (in Non-Peer Reviewed Journals)

Hoferkamp, L. and **Tamone, S. L.** (2005) Identification of polybrominated diphenyl ethers (PBDEs) in sediments and biota in a pristine Southeast watershed and near a municipal waste landfill in Juneau Alaska. Semiannual report to North Pacific Research Board.

Tamone, S. L. (2005) Hormonal regulation of growth of snow crabs, *Chionoecetes opilio*. Final report for Alaska Department of Fish and Game Final report for Alaska Department of Fish and Game. NOAA Cooperative Agreement NA17FW1274

Shirley, T. D., **Tamone, S. L.**, Eckert, G. E. (2005). Reproductive biology of snow crabs, *Chionoecetes opilio*. Final report for Alaska Department of Fish and Game. Final report for Alaska Department of Fish and Game. NOAA Cooperative Agreement NA17FW1274

Tamone, S. L. (2002). Enzyme linked immunosorbant assay for crustacean growth hormones. Final report for Alaska Department of Fish and Game Final report for Alaska Department of Fish and Game. NOAA Cooperative Agreement NA06FN0385

GRADUATE STUDENTS

My students conduct research and obtain degrees in the fields of Fisheries as well as in Marine Biology. Their projects relate to my research that encompasses crustacean physiology and specifically deals with the endocrine regulation of growth, metabolism, and reproduction.

1. Molly (Marilyn) Fox, M. S. Fisheries. Hormonal regulation of reproduction and behavior in male snow crabs *Chionoecetes opilio* from the Bering Sea
2. Miranda Westphal, M. S. Fisheries. Growth physiology and ecology of juvenile red king crab *Paralithodes camtchaticus*.
3. Patrick Barry, M. S. Fisheries. Ecological studies of the giant Pacific octopus, *Enteroctopus dofleini*. Expected graduation date is December 2009.

Graduates from my laboratory

1. Jamie Thomson, M.S. Marine Biology (2006). University of Alaska Fairbanks. Reproductive biology of Dungeness crab, *Cancer magister*.
2. Jacqueline Mitchell, M.S. Fisheries. (2007). Hormonal regulation of reproduction in Bering Sea snow crab, *Chionoecetes opilio*.

GRADUATE COMMITTEES: I serve or have served as an advisor on the follow graduate committees

1. Ron Heinz, Ph.D. Fisheries. University of Alaska Fairbanks: influence of carcasses on the lipid dynamics of juvenile steelhead (*Onchorynchus mykiss*) in Sashin Creek, Alaska.
2. Cadie Buckley, M.S. Fisheries University of Alaska Fairbanks
Physiological difference between two species of southeast Alaskan kelp
3. Jonathon Warrenchuck, M.S. Fisheries 2001, University of Alaska Fairbanks
The effects of wind chill on the snow crab, *Chionoecetes opilio*.
4. Zachary Hoyt, M.S. Fisheries 2003, University of Alaska Fairbanks. Movement of the
golden king crab (*Lithodes aquaspinus*)
5. Joel Webb, M.S Fisheries (2006) University of Alaska Fairbanks Effect of
temperature on reproductive biology of snow crab, *Chionoecetes oilio*

ACADEMIC SERVICE

Academic Year

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| 1999/2000 | Student Retention Committee |
| 2000/2001 | Student Advising
Student Retention Committee
Junior Portfolio Committee
Search Committee for Dean of Students |
| 2001/2002 | Student Advising
Search Committee for Associate Provost for Student Retention
Chair: Hiring Committee for Term Position in Biology
Search Committee for two Tenure track Mathematics positions
Representative Assembly Member for United Academics |
| 2002/2003 | Student Advising
Chair: Search Committee for Term Position for Evolution
Search Committee for Tenure Track Position in Physics
Hiring Committee for Biological Technician
Treasurer for United Academics |
| 2003/2004 | Student Advising
Chair: Search Committee for Tenure Track Position in Evolutionary
Biology
Hiring Committee for Natural Sciences Administrative Assistant
Organizational Vice President for United Academics |
| 2004/2005 | Student Advising
Faculty Senate: Representative from Natural Sciences
Organizational Vice President for United Academics |
| 2005/2006 | Student Advising
Promotion and Tenure committee
Chair: Search Committee for Tenure Track Anatomy and Physiology
position
Organizational Vice President for United Academics
Grievance Officer for United Academics |
| 2006/2007 | Student Advising |

- Meeting Organizer for The International Crustacean Society Meeting
Chair Student Support Committee, Society of Comparative and Integrative
Biology
Grievance Officer United Academics
University of Alaska Diving Control Board
- 2007/2008 Student Advising
Chair Student Support Committee, Society of Comparative and Integrative
Biology
University of Alaska Diving Control Board
- 2008/2009 University of Alaska Diving Control Board
Chair Marine Biology Search Committee
Chair Student Support Committee, Society of Comparative and Integrative
Biology

PRIMARY TEACHING RESPONSIBILITIES

- Biology 105: Fundamentals of Biology Part 1 (Lecture + Laboratory)
Biology 106: Fundamentals of Biology Part 2 (Lecture + Laboratory)
Biology 305: Invertebrate Zoology (Lecture + Laboratory)
Biology 310: Animal Physiology (Lecture + Laboratory)
Biology 375: Current Topics of Biology
Biology 415: Physiology of Marine Animals (Lecture + Laboratory)
Biology 492: Seminars in Biology
Biology 498: Independent Research in Crustacean Biology

COURSES IN WHICH I HAVE GUEST LECTURED

- Marine Ecology
Biochemistry
Evolution
Organic Chemistry
Aquatic Pollution