

GEORGE ISEO MATSUMOTO

EDUCATION

- University of California, Los Angeles (1985–1990)
Ph.D degree conferred Dec. 1990
- University of California at Berkeley (1980–1984)
A.B. degree conferred May 1984; Marine Biology emphasis

CURRENT RESEARCH INTERESTS

- ◆ Open ocean and deep sea communities with particular emphasis on invertebrates
- ◆ Ecology and biogeography of open ocean and deep sea organisms
- ◆ Functional morphology, natural history, and behavior of pelagic and benthic organisms
- ◆ Systematics and evolution of ctenophores and cnidarians (molecular phylogeny)
- ◆ Education at the undergraduate and graduate level

PROFESSIONAL EMPLOYMENT

- 2003 – current Senior Education and Research Specialist, MBARI
- ◆ 2002 – Adjunct Faculty, Monterey Peninsula College
- ◆ 1996-03 Education and Research Specialist, MBARI
- ◆ 1994-96 Lecturer Level B, Flinders University of South Australia
- ◆ 1993-94 Visiting Scientist, MBARI
- ◆ 1993 NSF Postdoctoral Fellow, Stanford University, Hopkins Marine Station
- ◆ 1992 Research Fellow (NSF-SGER), Stanford University Hopkins Marine Station
- ◆ 1991-93 Research Assistant, MBARI
- ◆ 1991 Lecturer, University of California, Los Angeles
- ◆ 1989-90 Intern, MBARI; MBA Husbandry and Collection Instruction
- ◆ 1988-90 Teaching Fellow, University of California, Los Angeles
- ◆ 1985-88 Teaching Assistant/Associate, University of California, Los Angeles

HONORS

- 2017 ASLO Fellow
- 2010 QuikScience Ocean Leadership Award for Commitment to Ocean Education
- 1996 Honorary member–Golden Key Society
- 1990 AAAS–Robert I. Larus Travel Award
- 1990 PDAAAS–Geraldine K. Lindsay Award in the Natural Sciences
- 1990 PDAAAS–Outstanding Student Paper award

GRANTS

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|---------|--|---------------------|
| 1996–97 | South Australian Environmental Protection Agency | \$ 54,000 AUS |
| 1996 | Visiting Research Fellowship | \$ 2,500 AUS |
| 1996 | University Research Board Grant | \$ 5,500 AUS |
| 1995–97 | Australian National Antarctic Research Expeditions | \$ 233,000 AUS/year |
| 1995–96 | Australian Research Council | \$ 9,600 AUS |
| 1995 | University Research Board Grant | \$ 4,900 AUS |
| 1994 | University Research Board Grant | \$ 16,000 AUS |
| 1993–95 | NSF–Biotechnology Fellowship | \$ 84,000 US |
| 1992–93 | NSF–Systematics–SGER | \$ 39,995 US |

COLLABORATORS AND OTHER AFFILIATIONS

Dr. Lisa Adams – Kennesaw State University
Dr. Allen Collins – Smithsonian Institution
Dr. Steven Haddock – Monterey Bay Aquarium Research Institution
Dr. William Hamner – Professor Emeritus, University of California, Los Angeles
Michael Lang – Smithsonian Marine Science Network
Dr. Larry Madin – Woods Hole Oceanographic Institution
Dr. Erika Montague – OceanGate Research Institute
Mr. Tom Potts – NOAA Aquarius Reef Base
Dr. Bruce Robison – Monterey Bay Aquarium Research Institution
Dr. Edie Widder – Ocean Research and Conservation Association
Dr. Corey Garza – California State University, Monterey Bay

Dr. William Hamner – PhD Advisor, Professor Emeritus, University of California, Los Angeles
Dr. Dennis Powers (deceased) – PostDoctoral Advisor, Stanford University

GRADUATE STUDENTS

- ◆ Kerri Scolardi, MSc 2004 (University of South Florida). Committee member
- ◆ Anthony Dyer, PhD 2000 (Flinders University of South Australia). Quantitative RT-PCR for the determination of IGF-1 in the red snapper, *Pagrus auratus*.
- ◆ Sylvia Nitschke, MSc 2001 (Flinders University of South Australia). Life history and behavior of the blue-ringed octopus, *Hapalochlaena maculosa*.
- ◆ Yuri Shiraki, MSc 2001 (Flinders University of South Australia). Reproductive ecology of the introduced fan worm, *Sabella spallanzani*.

HONORS STUDENT PROJECTS

- ◆ Jason Nicols, Bioencapsulation of fatty acids by earthworms (*Eisenia foetida*) and their effects upon fish (*Macquaria ambigua*) growth.
- ◆ Sylvia M. Rapo, The effects of impact on the Phylum Gastrotricha.
- ◆ Benjamin Baghurst, Ballast water transport of marine invertebrate larvae, their occurrence, viability and disposal.
- ◆ Tiffany Stodart, The effects of different cell concentrations of the dinoflagellate *Alexandrium minutum* on the toxicity levels of the blue mussel *Mytilus edulis planulatus*.
- ◆ Sheralee Joynes, Condition of the King George Whiting (*Sillaginodes punctatus*) over time in the field and in the laboratory.
- ◆ Leah Page, Investigation of the behavioural ecology and visual capabilities of the cubozoan *Carybdea rastoni*.

PUBLICATIONS (*NOT PEER REVIEWED)

- Acevedo, M.J., I. Straehler-Pohl, A.C. Morandini, S.N. Stampar, B. Bentlage, **G.I. Matsumoto**, A. Yanagihara, S. Toshino, C. Borderhore, V.L. Fuentes. submitted. Revision of the genus *Carybdea* (Cnidaria: Cubozoa: Carybdeidae): the identity of its type species *Carybdea marsupialis*. *Zootaxa*.
- Haddock, S.H.D., L.M. Christianson, W.R. Francis, S. Martini, C.W. Dunn, P.R. Pugh, C.E. Mills, K.J. Osborn, B.A. Seibel, C.A. Choy, C.E. Schnitzler, **G.I. Matsumoto**, M. Messié, D.T. Schultz, J.R. Winnikoff, M.L. Powers, R. Gasca, W.E. Browne, S. Johnsen, K.L. Schlining, S. von Thun, B.E. Erwin, J.F. Ryan, and E.V. Thuesen. 2017. Insights into the biodiversity, behavior, and bioluminescence of deep-sea organisms using molecular and maritime technology. *Oceanography* 30(4):38–47, <https://doi.org/10.5670/oceanog.2017.422>.
- Lodes, K., **G.I. Matsumoto**, and J. Magnusson. 2018. Education And Research: Testing Hypotheses (EARTH). Marine Technology Society. Volume 52, Issue 1.
- Lewis, A. & **Matsumoto, G.** (2017) Science Educator Professional Development: Big Data and Inquiry Learning in *Optimizing STEM Education with Advanced ICTs and Simulations: Tools and Solutions for Inquiry-Based STEM Learning.* Edited by Ilya Levin & Dina Tsybulsky. IGE Global p.219-244.
- Straehler-Pohl, I., **G.I. Matsumoto**, and M. Acevedo. 2017. Recognition of the Californian cubozoan population as a new species – *Carybdea confusa* n. sp. (Cnidaria, Cubozoa, Carybdeida). *Plankton and Benthos Research* 12(2):129-138.

- *Lewis, Anna and **G.I. Matsumoto**. 2016. The 21st Century Science Education Challenge. Proceedings of the 10th annual International Technology, Education, and Development Conference (INTED) Valencia (Spain). ISBN: 978-84-608-5617-7. pp. 2146-2156. <https://library.iated.org/view/LEWIS201621S>
- ***Matsumoto, G.I.** 2016. EARTH: GETTING REAL DATA INTO THE CLASSROOM. Association for the Study of Limnology and Oceanography Ocean Sciences Meeting.
- Matsumoto, G.I.** 2015. A different approach to the research internship. Marine Technology Society. 49(4):35-44. DOI: 10.4031/MTSJ.49.4.1
- Kevin Raskoff and **G.I. Matsumoto**. 2015. *Caveat lector*: the perils of critical thinking for today's students. California Classroom Science. 27(6). <http://www.classroomscience.org/caveat-lector-the-perils-of-critical-thinking-for-todays-students>
- William J. Kirkwood, Peter M. Walz, Edward T. Peltzer, James P. Barry, Robert A. Herlien, Kent L. Headley, Chad Kacey, **George I. Matsumoto**, Thom Maughan, Thomas C. O'Reilly, Karen A. Salamy, Farley Shane, Peter G. Brewer. 2014. Design, Construction, and Operation of an Actively Controlled Deep-Sea CO2 Enrichment Experiment Using a Cabled Observatory System. Deep Sea Research Part I: Oceanographic Research Papers (97):1-9. Published online in November 2014.
- Jones, Megan H. and **G.I. Matsumoto**. 2014. Education And Research: Testing Hypotheses (EARTH) – Bringing scientific research into the classroom using near-real-time data from ocean observatories. Geological Society of America. Poster Session #153. Vancouver, BC, Canada
- Matsumoto, G.I.**, C. Needham, M. Opheim, and G. Chen. 2014. A collaborative and mutually beneficial tribal marine science workshop format for tribal natural resource professionals, marine educators, and researchers. Journal of Geoscience Education. 62:74-85.
- Sigman, M., R. Dublin, A. Anderson, and **G.I. Matsumoto**. 2014. Using large marine ecosystems and cultural responsiveness as the context for professional development of teachers and scientist in ocean sciences. Journal of Geoscience Education. 62: 25-40.
- Madin, L.P., W.M. Hamner, S.H.D. Haddock, **G.I. Matsumoto** (2013) Scuba diving in blue-water. In *Research and Discovery: The Revolution of Science through Scuba*. M.A. Lang, R.L. Marinelli, S.J. Roberts, and P.R. Taylor, eds. Pages 71-82. [\[PDF\]](#)
- *Edward T Peltzer, Thom Maughan, James P Barry, Peter G Brewer, Kent L Headley, Robert Herlien, William J Kirkwood, **George I Matsumoto**, Thomas C O'Reilly, Karen A Salamy, Jim Scholfield, Farley F Shane, Peter M Walz (2012), Long-term, High Frequency, High Precision pH Measurements on the MBARI deep-water FOCE Experiment at the MARS Cabled Observatory in Monterey Bay, CA , Abstract OS53C-1989 , Poster presented at 2012 Fall Meeting, AGU, San Francisco, CA, 3-7 Dec.
- *Kirkwood, W.J., E.T. Peltzer, P.M. Walz, F. Shane, C. Kacey, K. Headley, R. Herlien, T. Maughan, J. Scholfield, K.A. Salamy, T. O'Reilly, **G.I. Matsumoto**, C. Lovera, J. Barry, and P.G. Brewer. 2011. The Free Ocean OC2 Enrichment in Situ Delivery System for Carbon Dioxide Saturated Sea Water. AGU Poster. OS33B-1660.
- Adams, L.G. and **G.I. Matsumoto**. 2011. The Benefits and Challenges of Using Real-time Data in the Classroom: Perspectives From the Students, Educators, and Researchers. Marine Technology Society Journal, September/October 2011. 45(5):55-58.
- ***Matsumoto, G.I.** and T.A. Potts. 2011. Two ways of researching the underwater world. Brooks/Cole Enrichment Module. 26pp.
- Moro, L., R. Riera, **G. Matsumoto**, and J. Ortea. 2011. *Primera cita de Vallicula multiformis Rankin, 1956 (Ctenophora: Platyctenida) para Canarias Y Cuba*. Rev. Acad. Canar. Cienc., XXII (3): 79-84.
- Kahn, A.S., **G.I. Matsumoto**, Y.M. Hirano, A.G. Collins. 2010. *Haliclystus californiensis*, a "new" species of stauromedusa (Cnidaria: Staurozoa) from the northeast Pacific. Zootaxa 2518:49-59.
- ***Matsumoto, G.I.**, E. Widder, L. Kuhn, E. Raymond. 2009. Challenges of the Deep. Survival at extreme depths. 16 minute DVD narrated movie.
- Adams, L. and **G.I. Matsumoto**. 2009. Enhancing Ocean Literacy using Real-Time Data. Oceanography. 22(2):12-13.
- Adams, L. and **G.I. Matsumoto**. 2007. Investigating Coastal Processes and Nitrate Levels in the Elkhorn Slough using Real-Time Data. Oceanography. 20(1): 200-204.

- ***Matsumoto, G.I.** 2007. Midwater Life: Survival in a Harsh Environment. Chapter in *The Deep*, the extraordinary creatures of the abyss. University of Chicago Press.
- ***Matsumoto, G.I.** 2006. Midwater Life: Survival in a Harsh Environment. Chapter in *Abysses* (France – Fayard; 16,000 copies; Grand Livre du Mois; 1000 copies; France Loisirs; 3000 copies); *The Deep*, *Leben in der Tiefsee* (Knesebeck Verlag; 10,000 copies); *Abissi* (Ippocampo; 6,000 copies).
- McDonnell, J., L. Hotaling, **G.I. Matsumoto**, C. Parsons, B. Meeson, and R. Bell. 2006. Exploring the merit and feasibility of using observing system data in education. *Marine Technology Society Special Winter 2006 issue*. 39(4): 21-28.
- Havenhand, J.N.H., **Matsumoto, G.I.**, and E. Seidel. 2006. *Megalodicopia hians* in the Monterey submarine canyon: Distribution, larval development, and culture. *Deep-Sea Research I*(53):215-222.
- Collins, A.G., B. Bentlage, **G.I. Matsumoto**, S.H.D. Haddock, K. Osborn, and B. Scheirwater. 2006. Solution to the phylogenetic enigma of *Tetraplatia*, a worm-shaped cnidarian. *Biology Letters* 2:120-124. (published online October 2005)
- McDonnell, J., L. Hotaling, **G.I. Matsumoto**, C. Parsons, B. Meeson, and R. Bell. MTS/IEEE 2005 Proceedings. Using Ocean Observing Systems Data in K-12 Classrooms: Proceedings from a workshop exploring the merit and feasibility of developing a National Ocean Observing Systems (NOOS) Education Product
- ***Matsumoto, G.I.** and R. Bell. 2005. EARTH Program providing resources for educators. *ORION Newsletter* 1(4):4-5.
- Matsumoto, G.I.** 2005. Education And Research: Testing Hypotheses (EARTH). *The Science Teacher*. September issue: pp. 56-58.
- Matsumoto, G.I.** 2004. Cubozoa. *Grzimek's Animal Life Encyclopedia*. Schlager Publishing, Illinois. Pp. 147-152.
- Matsumoto, G.I.** 2004. Ctenophora. *Grzimek's Animal Life Encyclopedia*. Schlager Publishing, Illinois. Pp. 169-177.
- Raskoff, K.A. and **G.I. Matsumoto**. 2004. *Stellamedusa ventana*, a new mesopelagic scyphomedusae from the eastern Pacific representing a new subfamily, the Stellamedusinae. *J. Mar. Biol. Ass. U.K.* 84(4274):1-6.
- Matsumoto, G.I.** 2004. White paper on Informal Education. Ocean Research Interactive Observatories Networks (ORION) meeting.
- ***Matsumoto, G.I.** 2003. Educational outreach efforts of the Monterey Bay Aquarium Research Institute (MBARI). *Oceans Conference Record (IEEE)*. 4:1982-1985.
<http://ieeexplore.ieee.org/iel5/9015/28617/01282747.pdf?isNumber=28617&arnumber=1282747>
- Matsumoto, G.I.** and R. Kochevar. 2003. An Educational Partnership in the Ocean Sciences: Benefits and Lessons Learned. *EOS*. 84(26):241-246.
- Matsumoto, G.I.**, K.A. Raskoff, and D. Lindsay. 2003. *Tiburonia granrojo*, a new mesopelagic scyphomedusa from the Pacific Ocean representing the type of a new subfamily (Class Scyphozoa, Order Semaestomeae, Family Ulmaridae, Subfamily Tiburoniidae subfam nov.). *Marine Biology*. 143 (1): 73-77.
- Matsumoto, G.I.**, G. L. Crow, P. F. S. Cornelius and B. A. Carlson. 2002. Discovery of the cubomedusa *Carybdea sivickisi* (Cubozoa: Carybdeidae) in the Hawaiian Islands. *Bishop Museum Occasional Papers Records of the Hawaii Biological Survey for 2000 Part 2: notes* 69: 44-46.
- Harbison, G.R., **G.I. Matsumoto**, and B.H. Robison. 2001. *Lampocteis cruentiventer* fam. nov, gen. nov., sp. nov., A mesopelagic ctenophore from the California Current. *Bulletin of Marine Science*. 68(2): 299-311.
- Anthony Dyer, K. Soole, and **G.I. Matsumoto**. 2001. Quantitative TaqMan PCR Without a Real-Time Thermal Cycler: An Assay for Fish Insulin-like Growth Factor I Messenger RNA. *Marine Biotechnology*. 3(1): 16-21.
- Matsumoto, G.I.** 1999. *Coeloplana thomsoni* sp. nov., a new benthic ctenophore (Phylum Ctenophora, Order Platyctenida) from Western Australia. *The Seagrass Flora and Fauna of Rottnest Island, Western Australia*. Pp. 385-393.
- Matsumoto, G.I.** 1999. Ctenophora. *Encyclopedia of Reproduction*. Knobil, E. and J. D. Neill (eds). Academic Press, California. 1:792-800.
- Cheshire, A.C., J.N. Havenhand, S.J. Hall, **G.I. Matsumoto**, and A.J. Butler 1998. Assessing the status of temperate reefs in Gulf St. Vincent I: Background and methodology for assessments. *Report to the Environment*

Protection Authority. 53 pp. [ISBN 0 86396 630 6 (v1);
<http://sciweb.science.adelaide.edu.au/marecol.nsf/pages/reefhome>

- Dyer, A.R., P. Hall, and **G.I. Matsumoto** 1997. A new method of non lethal sampling in fish: needle biopsy of the liver in the snapper (*Pagurus auratus*). *Journal of Aquaculture Research*. 20:463-466.
- Matsumoto, G.I.**, C. Baxter, and E. Chen 1997. Observations of the deep-sea trachymedusa *Benthocodon pedunculata*. *Invertebrate Biology*. 116(1):17-25.
- Matsumoto, G.I.** and K. Gowlett-Holmes 1996. *Coeloplana scaberi* sp. nov., a new benthic ctenophore (Phylum Ctenophora, Order Platyctenida) from South Australia. *Records of the South Australian Museum*. 29(1):33-40.
- Matsumoto, G.I.** 1995. Observations on the anatomy and behaviour of the cubozoan *Carybdea rastonii* Haacke. *Marine and Freshwater Behaviour and Physiology*. 26:139-148.
- ***Matsumoto, G.I.** 1995. Life in moving fluids, a book review. *Aquatic Botany*. 51:343-344.
- ***Matsumoto, G.I.** 1995. Jetties: Our valuable resource. *South Australian Fisheries*. 3(1):30-31.
- Matsumoto, G.I.** and G.R. Harbison 1993. In situ observations of feeding, foraging, and escape behavior in three orders of oceanic ctenophores: Lobata, Cestida, and Beroida. *Marine Biology*. 117:279-288.
- Larson, R.L., **G.I. Matsumoto**, L.P. Madin, and L.M. Lewis 1992. Deep-sea benthic and benthopelagic medusae: recent observations using submersibles and a remotely operated vehicle. *Bulletin of Marine Science*. 51(3):277-286.
- Matsumoto, G.I.** and B.H. Robison 1992. *Kiyohimea usagi* sp. nov. (P. Ctenophora; Fam. Kiyohimeidae), a new species of lobate ctenophore from the Monterey Submarine Canyon. *Bulletin of Marine Science*. 51(3):19-29.
- Matsumoto, G.I.** 1991. Functional morphology and locomotion of the Arctic ctenophore *Mertensia ovum* Fabricius. *Sarsia*. 76:177-185.
- Matsumoto, G.I.** 1991. Swimming movements of ctenophores and the mechanics of propulsion by ctene rows. *Hydrobiologia/Dev. Hydrobiol.* 216/217:319-326.
- *Hamner, W.M., **G.I. Matsumoto**, M. Ghiselin, N. Holland, V. Holland, J. Pearse, and V. Pearse 1991. The Living Invertebrates: The Ctenophores". Office of Instructional Development, University of California at Los Angeles. 16 mm film (also available on videotape).
- Matsumoto, G.I.** 1990. Phylum Ctenophora (Orders Lobata, Cestida, Beroida, Cydippida, and Thalassocalycida): Functional morphology, locomotion, and natural history. PhD Dissertation. UCLA. 249 pp.
- ***Matsumoto, G.I.** and S.W. Strand 1988. Life in the open ocean. Biology 6 Laboratory Manual. UCLA.
- Matsumoto, G.I.** 1988. A new species of lobate ctenophore, *Leucothea pulchra* sp. nov., from the California Bight. *Journal of Plankton Research*. 10(2):301-311.
- Matsumoto, G.I.** and W.M. Hamner 1988. Modes of water manipulation by the lobate ctenophore *Leucothea* sp. *Marine Biology*. 97:551-558.
- Matsumoto, G.I.** 1987. Manipulation of water flow by ctenophores (Phylum Ctenophora). In: Lang, M. L. (ed.), Proceedings of the American Academy of Underwater Sciences, Coldwater diving for science symposium, Seattle, Washington, USA. pp. 175-188.
- Hamner, W.M., S.W. Strand, **G.I. Matsumoto**, and P.P. Hamner 1987. Ethological observations on foraging behavior of the ctenophore *Leucothea* sp. in the open sea. *Limnology and Oceanography*. 32:645-652.

MEMBERSHIP

National Science Teachers Association (2010 – 2016)
National Marine Educators Association (2003 – current)
American Society of Limnology and Oceanography (1997 – current)
American Geophysical Union (1997 – current)
Monterey Bay Aquarium Charter Member (1985 – current)
Society of Integrative and Comparative Biology (1990 – 2000)
American Behavioral Society (1985 – 1999)
Marine Molecular Biology and Biotechnology (1993 – 1997)
Australian Association Environmental Education (1994 – 1997)
Australian Littoral Society (1994 – 1997)
Australian Marine Science Association (1994 – 1997)
American Microscopical Society
Ecos (Commonwealth Scientific and Industrial Research Organisation) (1994 – 1997)

REVIEWER (GRANTS AND/OR MANUSCRIPTS)

Australian Journal of Zoology
Bulletin of Marine Science
Current: The Journal of Marine Education
Deep-Sea Research
Ecology
Environmental Biology of Fishes
Harbor Branch Oceanographic Institution, Inc.
Hydrobiologia
Invertebrate Biology
J. Mar. Biol. Assoc., UK
Marine and Freshwater Behaviour and Physiology
Marine Biology
Marine Biodiversity Marine Molecular Biology and Biotechnology
Marine Technology Society
Maryland, Mississippi/Alabama, Oregon, Washington, and USC Sea Grant Programs
NASA Virtual Learners CAN Program
National Science Foundation: Office of Polar Programs; Division of Ocean Sciences; Department of Geosciences; Education; ATM – National Center for Atmospheric Research; COSEE; DLESE
NOAA – Ocean Exploration proposals; B-WET proposals
Packard Foundation
Publications of the Seto Marine Biological Laboratory
The Biological Bulletin
TheScientificWorld
Zootaxa

MBARI - SERVICE

1997 – current Seminar Coordinator
1997 – current Internship Coordinator

2008-2010 MBARI masterplanning committee (new buildings)
2006-2007 Chaired committee to develop MBARI Education Strategic Plan

FLINDERS UNIVERSITY OF SOUTH AUSTRALIA - SERVICE

1996 Departmental Space committee
Student counselor
Lincoln Marine Science Centre Management Advisory Group
Course Advisory group for Aquaculture
Selection committee for Lecturer A position, Aquaculture Lecturer B positions, Technical Officer positions, Flinders Childcare positions
Departmental Curriculum committee
First year student-staff consultative committee
1995 Departmental Budget committee
Student counselor
Lincoln Marine Science Centre Management Advisory Group
Course Advisory group for Aquaculture
Selection committee for Biotechnology Lecturer B position, Technical Officer position

PUBLIC SERVICE

2018 NSF Integrative Programs Committee of Visitors
2017 Gulf of Mexico Research Initiative (GoMRI) Research Proposal panel
2015-2018 Organizing committee for the 15th Deep Sea Biology Symposium in Monterey 2018
2014 Gulf of Mexico Research Initiative (GoMRI) Research Proposal panel.
2014 External reviewer of National Academy of Sciences Board on Science Education (BOSE) workshop summary on *Exploring the Overlap between "Literacy in Science" and the Practice of Obtaining, Evaluating, and Communicating Information: A Workshop*.
2014-2016 External Advisory Board for CSUMB Applied Marine and Watershed Science Masters Degree (AMWS)
2014 Coordinated special K-12 poster session at ASLO 2014 Ocean Sciences Meeting
2013-2014 Committee on the Value and Sustainability of Biological Field Stations, Marine Laboratories, and Natural Resources in 21st Century Science, Education, and Public Outreach
2013-2014 National Research Council Roundtable on Public Interfaces of the Life Sciences
2010-2015 Chair of the ASLO Margalef Education Award Committee
2010-current National Marine Educators Association Committee Member (Traditional knowledge and Education)
2010-2016 National Marine Educators Association Board Member
2008-current Forest Theater Foundation Board
2008-2013 National Ocean Sciences Board Member
2008-2013 Center for Microbial Oceanography: Research and Education (C-MORE) Education Advisory Panel
2008-2011 ASLO Education Session co-chair
2008-2010 National Research Council Committee on the Review of NOAA's Education Programs
2008 March 12 - co-organizer of a special NSF session of educators
2006 Education Session Chair for US Ocean Research Priorities Plan Workshop
2006 ORION Design and Implementation Workshop Organizing Committee
2005-2007 ORION Education And Public Awareness Committee Chair
2005-2006 National Academy of Sciences Committee to review the Sea Grant Review Process
2004-2013 Centers for Ocean Science Education Excellence (COSEE) Advisory Board
2004-2010 Camp SEALAB Advisory Board
2004 NSF Sensors Workshop
2004-2005 DLESE Steering Committee
2004 NMEA Ad Hoc committee on National Ocean Science Standards
2003-2005 ASLO Education Subcommittee Member
2003-2004 Steering Committee for Integrated Ocean Observing System (IOOS) education workshop

SELECTED PRESENTATIONS 2010-17 (OVER 200 PRESENTATIONS, LECTURES, SEMINARS, INVITED TALKS TO various groups, details available upon request)

2017

- Invited: January 16, 2017. MBA Guide Class presentation on *Cnidarians and Ctenophores*.
- Invited: March 31- April 2. The second Google EdFOO event on the Google campus. I was invited to the first one (2016) but had to decline.
- Invited: August 4-6. The Google Science FOO event
- Invited: August 16 – Kelp Forest enrichment (MBA)
- February 28 - March 3, 2017. Oral presentation at ASLO meeting (Honolulu). *Satellite EARTH workshops increase reach, sustainability, and growth of EARTH (Education And Research: Testing Hypotheses): a truly collaborative workshop model between researchers and educators to get real data into the classroom.*

2016

- Invited: January 11, 2016. Panelist for a Scientist/Engineer Panel discussion at Pajaro Valley High School (professional development work day for the district)
- Invited: Feb 18, 2016. MBA Coastal Systems Teacher Institute. Virtual Follow-up Workshop, Gave talk on *MBARI and the Deep Sea*.
- Invited: March 14/15, 2016. Ctenopalooza meeting (Florida). *Benthic Ctenophores*.
- Invited: April 11th, 2016. MBA Guide Class presentation on *Cnidarians and Ctenophores*.
- Invited: April 23rd, 2016. Association of Defense Trial Attorneys (Annual meeting, Monterey, Monterey Plaza Hotel) Plenary Presentation on *MBARI*.
- Invited: May 9-11, 2016. Keynote presentation for the 2nd European Conference on Scientific Diving (Kristineberg, Sweden) on *Blue-water diving techniques*.
- Invited: May 20, 2016. Panelist for MBNMS screening and discussion of *Racing toward Extinction*. (Carmel)
- Invited: July 9, 2016. Coastal Margins Teacher Institute (MBA) Ocean Chemistry lecture from Kelp Forest Exhibit (dive show).
- Invited: August 1, 2016. MBA Project Based Science Institute presentation on *How science is done*.
- Invited: August 30, 2016. MBA Evening enrichment for MBA staff and volunteers on *Ctenophores*.
- Invited: Sept 17, 2016. OCEANS 16 teacher workshop at MBARI. Presentation on *MBARI outreach efforts*.
- Invited: Sept. 27th, 2016. Presentation on MBARI education opportunities for the Bite of Science program (Gilroy).
- Invited: Oct. 1, 2016. SpectorDance fundraiser presentation on *MBARI and the state of the ocean*. (Monterey)
- Invited: Oct/Nov 2016. Enrichment on Ocean Acoustics to all the MBA volunteer guide shifts.
- Invited: November 14th, 2016. Keynote presentation on MBARI at the International Association of Amusement Parks and Attractions. Orlando, Florida
- February 21-26, 2016. Poster presentation at ASLO meeting (New Orleans). *Satellite EARTH workshops increase reach, sustainability, and growth of EARTH (Education And Research: Testing Hypotheses): a truly collaborative workshop model between researchers and educators to get real data into the classroom.*

2015

- Invited: Dec 17 - Webinar on *Ocean Acidification* for the SouthWest Marine Educators Association (SWMEA)
- Invited: October 17-18 - Panelist for MBA screening and discussion of *Most Likely to Succeed*.
- Invited: Oct 2 - Plenary presentation at the California Science Teachers Association annual meeting, Sacramento California.
- Sept 2015 – Deep Sea Biology meeting. **Matsumoto GI**, Robison BH, Sherlock RE, Reisenbichler KR - A new coronat e species (*Atolla* sp. nov.) in Monterey Bay, California
- Invited: July 8th – Presentation for Canterbury Woods, Pacific Grove. *MBARI*
- Invited: June 30th – Presentation for MBA volunteer update. MBARI and the GOC Expedition.
- Invited: June 23rd – Presentation for MBA CSTI (Coastal Systems Teacher Institute) II. Robert Louis Stevenson. *Project-based science*.
- Invited: June 11th – Presentation for an evening event with Zymergen at Monterey Bay Aquarium. *Monterey Bay Aquarium Research Institute: current research projects*.
- Invited: May 28th – Presentation at the Kiwanis Club, Palo Alto. *MBARI current and future research*
- Invited: April 28th – Presentation at the Foothill Club in Saratoga. *MBARI current and future research*.
- Invited: March 26 – Presentation for an Ocean Acidification Panel following showing of the *Lethal Seas* documentary. NOAA organized, Carmel High School.

2014

- Invited: November 22, 2014 – *MBARI* presentation to MENSA
- Invited: Week of Nov 19, 2014 – *MBARI* Enrichment to MBA volunteer guides
- Invited: October 9, 2014 – *MBARI* presentation to 6th grade at Elkhorn School.
- Invited: October 2nd – COS-MARINE and C-DEBI career panel workshop for 40 graduate students/postdocs
- Invited: Sept 14, 2014 – *Plastics* - MBA Dive show on
- Invited: July 23, 2014 – *Kelp Forest Ecology* - MBA Dive show on
- Invited: July 18, 2014 – *Marine Biology*. Stevenson School
- Invited: June 23, 2014 – *Scientific Process* - MBA Project-Based Science Institute I.
- Invited: May 21st – *Bringing the lab to the ocean: a new tool to aid scientists and policy makers* - MBA Research and Conservation Seminar program. Joint presentation with Jamie Duncley (COS)
- Invited: May 3rd – *Scientific Process* presentation to MBA Problem based Institute teacher program
- Invited: March 24th – *Habitats*. MBA Guide Class presentation
- Invited: March 19th – *MBARI*. Sons In Retirement (SIR). Mountain View.
- Invited: March 4th - North Monterey County High School Career Day Panelist
- Invited: Feb 22, 2014 – *MBARI*. MBA Educator Open House
- Invited: January 14th – *MBARI*. Foothill Womens Club

2013

- Invited: Nov. 6 – *MBARI* – *Research and education* CSUMB
- Invited: July 2 – *MBARI*. Palo Alto Fellowship Forum
- Invited: May 30 – *Exploring the Ocean*. Pacific Whale Foundation (Skype)
- Invited: May 3rd – *MBARI*. Monterey Peninsula Underwater Club, MBA
- Invited: April 21-27 – *Plankton and Ocean Exploration*. Seldovia Tribal Marine Science Workshop, AK
- Invited: April 20 – *MBARI*. Ocean Guardian School Workshop, Aptos
- Invited: April 3 – *Ocean Acidification, SpectorDance*. Robert Louis Stevenson Ocean Symposium -
- Invited: April 3 – *MBARI and Technology*. Robert Louis Stevenson Ocean Symposium - ROV
- Invited: Feb 2013 – Invited talk for the special session on: **Sensor Networks in Aquatic Systems: Research and Education** to be held at the ASLO Aquatic Sciences Meeting in New Orleans, Feb. 18-22, 2013.
- Invited: Jan. 30 – PhoBOS camera system to MBA Programs Team, MBA
- Invited: Jan. 21 – *MBARI*. Invited talk for the Palo Alto Women Republican's Club.

2012

- Invited: Nov 26 – *MBARI*. CSUMB Graduate Seminar
- Invited: Nov 13 – *The latest from MBARI*. Foothill Club of Saratoga
- Invited: Oct. 12-13 – *Jellies*. MBA JellyFest talks
- Invited: Sept 19 – *Gap Analysis of Environmental Sciences: Issues and Problems Now and In the Future. Where do we need Environmental Sciences PSM Graduates* National Professional Science Masters Association – Keynote presentation (Portola Hotel)
- Invited: Aug 2 – *MBARI*. Earth System Science Education Alliance (Portola Hotel)
- Invited: June 22 – *Deep Sea*. Pacific Whale Foundation (Maui)
- Invited: May 24 – *MBARI*. Carmel River School Ocean Night
- Invited: May 17 – *The Science of the Great Pacific Garbage Patch: Is Earth's largest landfill floating in the ocean?* Lafayette Library and Learning Center.
- Invited: April 28 – *Jellies* – MBA Members night
- Invited: April 11-15 – *Plankton*. Alaskan Tribal Marine Science Workshop
- Invited: March 28 – *MBARI*. Monterey Bay Sea Otter Dive Club
- Invited: March 3 – *Jellies and other creatures*. MBA Members Night Presentation
- Invited: March 1 – *OCEAN*. SpectorDance
- Invited: Feb 7 – *Cnidarians and Ctenophores*. MBA Guide Class

2011

- Invited: Oct 31 – *Leave No Scientist Behind!* CSUMB Watershed Institute
- Invited: July 18 – *Librarians and Library Staff Appreciation*. Monterey Bay Aquarium (MBA)
- Invited: July 11 – *The Nature of Science*. Monterey Bay Aquarium Teacher Institute (MBA)

- Invited: April 3-6 – *Plankton*. Seldovia Village Tribal Marine Science Workshop (Alaska).
- Invited: March 18th – *Creatures of the Abyss*. Lawrence Hall of Science, California
- Invited: Mar 1st – *Ctenophores, Cnidarians, and other Gelata*. Monterey Bay Aquarium, California.
- Invited: Feb 24th – *Japanese-Americans and the War Relocation Authority*. Robert Louis Stevenson School, California
- Invited: Feb 26th – *The Great (or maybe not so great) Pacific Garbage Patch*. San Jose Tech Museum, CA
- Feb 16th – Little Red Jellies in the Eastern Pacific (Family Rhopalonematidae). ASLO, San Juan Puerto Rico
- Feb 16th – Student Engagement in Education and Public Outreach. ASLO, San Juan Puerto Rico
- Feb 16th – Workshop: Use of Real Data in the Classroom. ASLO, San Juan Puerto Rico.
- January 27th, 2011 – Dissection of Humboldt squid – Robert Louis Stevenson 7th grade class
- Invited: January 20th – The Bering Sea Ecosystem Professional Development Workshop: Transforming BEST-BSIERP Science into Educational Resources. Alaska Marine Science Symposium, Anchorage AK

2010

- Invited: Dec 9th – Immersion webcast program (4 presentations)
- Invited: Oct 3rd – *Welcome to the Creatures of the Abyss*. Bishop Museum, Hawaii
- Sept. 15 – Hartnell College
- July 28 – National Girl Scouts
- July 20 – UCSC marine biology class
- Invited: June 28th – *MBARI and MARS*. Carmel Valley Manor
- Invited: June 5th – *Steinbeck and Ricketts*. Santa Monica High School California Literature Experience
- June 3 – *Deep-Sea Discoveries*. Junipero Serra 6th grade
- Invited: May 24th – *The importance of SCUBA for in situ manipulations*. Smithsonian Scientific Diving Symposium. Smithsonian, D.C.
- May 19 – *MBARI*. Discovery Charter School (80 6th graders)
- Invited: May 15th – *Plankton in Alaska*. Seldovia Tribal Marine Science Workshop, Alaska.
- Invited: May 11th, 2010 – COSEE Webcast on *use of real data in education*
- April 30 – *Deep-Sea Biology*. CSUMB Marine biology class
- Invited: March 23 – *Cnidaria and Ctenophora*. MBA Guide training class
- March 17th 2010 – *Exploring the Deep* – 6th grade
- February 22 – *MBARI*. West Valley College Marine Biology
- Feb 19th – *Ocean Observatories and MBARI*. Cal Poly SLO
- Feb 19th – *Japanese internment camp* Robert Louis Stevenson 7th Grade
- Feb 18th – *MBARI past, present, and future*. Capitola/Aptos rotary club
- February 5 – *MBARI*. Spring Hill School Marine Ecology 7th grade
- January 28 – *Deep-Sea Biology*. Pajaro Middle School Watershed Academy
- January 27th, 2010 – *MBARI*. Update for MBA Linkers
- Invited: January 18th, 2010 - Alaska Marine Science Symposium – *Centers for Ocean Science Education Excellence (COSEE): the National Perspective*, Alaska.
- Invited: January 18th, 2010 – Alaska Marine Science Symposium – *Research and Social Media*, Alaska
- January 15th, 2010 – *Sanctuaries, Fishing Laws, Aquaculture, and Sustainability* – Robert Louis Stevenson 6th grade science class
- January 15th, 2010 – Dissection of Humboldt squid – Robert Louis Stevenson 7th grade class

TEACHING EXPERIENCE

2004. Tjärnö Marine Biological Laboratory, Göteborg University. Sweden
Deep-Sea Biology Workshop

2002-current. Monterey Peninsula College (Adjunct Faculty)
Environmental Biology
Biology for Majors

April 1996. University of Adelaide Extension course (series of two lectures)
Antarctica—the frozen continent.

Oct. 1995. University of Adelaide Extension course (series of four lectures)
Deep-Sea Biology: past, present and future.

Sept. 1995. Flinders University Foundation Course
Deep-Sea Biology.

Lecturer (Jan. 1994 – Dec. 1996)	[FLINDERS UNIVERSITY OF SOUTH AUSTRALIA]
Biology 1112	Biology and Society
Biology 2120	Evolution and Heredity
Biology 2270	Biology of Marine Organisms
Biology 3190	Topics in Biotechnology
Biology 3220/1	Plant Evolution and Speciation
Biology 3330	Functional Ecology of Marine Organisms
Biology 3350	Human Impact & Use of the Marine Environment
Biology 3360	Marine Biological Experimentation
Biology 3364	Marine Biodiversity
Biology 3380/1	Animal Behaviour
Biology 3914	Field Projects in Marine Biology
Biology 3916	Marine Habitats and Pollution

Lecturer (July 1992–Aug. 1992)	[STANFORD UNIVERSITY]
Biology 164H	Deep-Sea Biology: Benthic Boundary Layers

Lecturer (Aug. 1991–Sept. 1991)	[UNIVERSITY OF CALIFORNIA AT LOS ANGELES]
Biology 25	Oceans

Lecturer (Jan. 1991–Mar. 1991)	[UNIVERSITY OF CALIFORNIA AT LOS ANGELES]
Biology 5L	Introductory Biology Laboratory

Faculty Advisor (Jan. 1991–Mar. 1991)	[UNIVERSITY OF CALIFORNIA AT LOS ANGELES]
Biology 495	Preparation for Teaching Biology

Teaching Fellow (Dec. 1988–Dec. 1989)	[UNIVERSITY OF CALIFORNIA AT LOS ANGELES]
HC 10	Honors College: Chemical Ecology and Plant Life
Biology 123	Invertebrate Biology–Field course
Biology 5L	Introductory Biology Laboratory

Teaching Assistant/Associate (Jan. 1986–Dec. 1988)	[UNIVERSITY OF CALIFORNIA AT LOS ANGELES]
Biology 123	Invertebrate Biology–Field course
Biology 105	Invertebrate Biology
Biology 6	Ecology, Evolution, and Behavior
Biology 170	Environmental Physiology
Biology 5L	Introductory Biology Laboratory
Biology 5	Biology of Organisms
Biology 5	Biology of Organisms
Biology 5L	Introductory Biology Laboratory
Biology 5	Biology of Organisms