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EDUCATION:

Ph.D. (Zoology), University of Alberta, Canada, 1982. (Dissertation: *Larval behavior, predation, and early post-settlement mortality as determinants of spatial distribution in subtidal ascidians of the San Juan Islands, Washington.* 260 pp.)

M.S. (Zoology), Brigham Young University, Utah, 1978. (Thesis: *Studies on solitary ascidians: larval ecology and functional morphology.* 96 pp.)

B.S. (Zoology, Botany Minor), Brigham Young University, Utah, 1975.

Additional Graduate Work: University of Washington (Friday Harbor Laboratories), 1977-1981; Stanford University (Hopkins Marine Station), California, 1975, 1977.

RESEARCH INTERESTS:

- Invertebrate zoology, marine biology, oceanography and ecology, with an emphasis on early life-history stages of marine benthic invertebrates.
- Larval ecology, behavior, dispersal, and locomotion.
- Embryology, reproduction, and ecology of benthos in the deep-sea, including hydrothermal vents, seamounts and cold seeps.
- Fjords, deep reefs, subtidal rock wall communities.
- Systematics and functional morphology of ascidians, polychaetes, sponges, cnidarians and echinoderms.
- History of marine biology, oceanography, light microscopy, and religion.

ACADEMIC POSITIONS:

University of Oregon:

Professor of Biology and Director, Oregon Institute of Marine Biology (2002-)

Harbor Branch Oceanographic Institution:

Senior Scientist, Division of Marine Science (1993-2002).
Acting Director, Division of Marine Science (intermittently, 1993-2002).
Associate Scientist, ECOS Division & Division of Marine Science (1988-1993).
Assistant Research Scientist, Division of Marine Science (1985-1988).
Department Head, Department of Larval Ecology (1985-2002).

Other University Faculty Appointments:

Honorary Fellow, Southampton Oceanography Centre, U.K. (1999-2011)
Visiting Professor of Life Sciences, Kings College London (1995-2005).
Professor of Biol. Sciences, Florida Institute of Technology (1991-2002).
Courtesy Professor of Biol. Sciences, Florida State University (1985-1999).
Courtesy Professor of Biology, Florida Atlantic University (1991-2002).
Associate in Research, Dept. of Biology, Florida State University (1982-1985).
Sessional Lecturer, Department of Zoology, University of Alberta (1981-1982).

Short-term Visiting Faculty Appointments:

Course Instructor, Friday Harbor Laboratories, Univ. of Washington, 2002
Course Instructor, Sandgerdi Marine Lab, Univ. of Reykjavik, Iceland, 2004
Course Instructor, Darling Marine Center, University of Maine, 1993.
Course Instructor, Kristineberg Marine Biological Station, Sweden, 1993.
Course Instructor, Marine Biological Laboratory, Woods Hole, 1988.
Course Instructor, Bamfield Marine Station, British Columbia, 1984, 1985.
Course Instructor, Leon and Madison County Schools, Florida, 1984-1985.

Graduate Assistantships:

Research Assistant, Eyring Research Institute, Utah, 1978.
Teaching Assistant, University of Alberta, 1978-1979.
Research Assistant, University of Alberta, 1980-1981.
Teaching Assistant, Brigham Young University, 1975-1977.
Research Assistant, Brigham Young University, 1977-1978.

AWARDS AND HONORS

National Oceanographic Partnership Award (2015)
Featured article in Science Magazine Science Shot (May, 2014)
Partner in Conservation Award, U.S. Department of the Interior (2013)
Fellow, American Association for the Advancement of Science (2011)
American Men and Women of Science (2012-)
Nomination to Sigma Xi Scientific Research Honor Society (2021)
Honored Alumnus Award, Brigham Young Univ. College of Life Sciences (2009)
Research and Innovation Award, University of Oregon (2011)
Donald P. Abbott Memorial Lecturer, Stanford University (2010)
All Academy Lecture, Darwin Sesquicentennial, Ohio Academy of Science (2009)
Discover Magazine top 100 scientific discoveries of the year (2005)
Leslie Cooper Memorial Lecturer, Marine Biological Association of the U.K. (1997)
Best Student Paper Hon. Mention: Western Society of Naturalists (1978, 1982)
Best Paper Award, Honorable Mention: American Society of Zoologists (1980)
Best Student Paper Award, A.A.A.S. Pacific Division (1978)
Species name: *Notocrater youngi* (deep-sea limpet from Bahamas)
Species name: *Circeaster pullus* (deep-sea starfish from Hawaii) “pullus” translates
“chick” or “nursling” connoting “young” in Latin)
Book dedication: Rebecca L. Johnson (2011), “Journey into the Deep: Discovering
Deep Ocean Creatures”

GRANT SUPPORT (Total: \$8,048,397)

Federal Funding for Research and Infrastructure (Total: \$6,542,147 + ship time)

NSF Biological Oceanography: Collaborative research: dispersal depth and the transport of deep-sea, methane seep larvae around a biogeographic barrier. (P.I. Craig Young). 2019-2022. \$595,010 plus ship/sub time.

NSF (Biological Oceanography). Collaborative research: the impact of symbiont-larval interactions on species distributions across southwest Pacific hydrothermal vents. 2019-2022. (P.I.: Craig Young) \$404,331 plus ship/rov time.

NSF (Field Stations and Marine Laboratories): Modernization and expansion of seawater facilities at the Oregon Institute of Marine Biology. 2012-2014. (P.I.: Craig Young). \$124,495.

NSF (Biological Oceanography): Collaborative Research: Connectivity in western Atlantic seep populations: Oceanographic and life-history processes

- underlying genetic structure. 2010-2014. (P.I.'s Craig Young, Svetlana Maslakova). \$610,720 plus ship time
- NSF (Field Stations and Marine Laboratories): FSML: A safe sampling and survey tool for subtidal research and education on the Oregon coast. 2010-2012. (P.I. Craig Young) \$175,590.
- NOAA (Hawaii Undersea Research Laboratory). Distribution and trophic biology of megafauna at Vailulu'u Seamount, Samoa. 2010-2012 (P.I.: Craig Young). Ship and sub time.
- BOEMRE (Dept. of Interior). Atlantic Deep-water Canyons. 2011-2013. (P.I.: Sandra Brooke, Co-PI: Craig Young). \$270,000. plus ship time valued at approximately \$300,000.
- NSF (Biological Oceanography): OCE-0527139: "Collaborative Research: Deep-sea larvae as grazers in the midwater microbial loop" 2006-2010 (P.I.'s: C.M. Young, A. M. Wood, R.B. Emlet) (\$1,028,887 + ship time costs for 3 cruises).
- NSF (Biological Infrastructure) "Research experience for teachers supplement. (P.I.: C.M. Young) (\$9,715).
- NOAA CICEET: *In situ* multichannel wireless sensor networks and ibutton temperature logger arrays for characterizing habitat drivers in tidal wetland reference sites. 2006-2007. (P.I.'s: C.M. Young, C. Cornu) \$213,167.
- NSF (Biological Infrastructure): FSML 2005-041: Housing and facility improvements for visiting investigators and students at the Oregon Institute of Marine Biology. 2006-2008. (P.I.: C.M. Young). \$274,856.
- Mineral Management Service (Dept. of Interior). "Characterization of Northern Gulf of Mexico deepwater hard bottom communities with emphasis on *Lophelia* coral." (P.I.'s: S. Viada, C.M. Young, S. Brooke, W. Schroeder, C. Fisher). 2004-2006. (U. Oregon portion: \$229,847 plus 16 days ship and sub time).
- NOAA (Office of Ocean Exploration). Macrobiological Characterization of Vailulu'u Seamount, an Active Volcano off American Samoa (P.I.'s C.M. Young, R. Lee). 2005. (\$84,097).
- NOAA (National Undersea Research Program, University of Hawaii). "Ecological patterns in deep-sea macro- and microbial communities on Vailulu'u and Ta'u seamounts, eastern Samoa." (P.I.'s: C.M. Young and Adele Pile). 2004-2005. (Ship time and travel support)
- NOAA (Office of Ocean Exploration). " Mapping and characterization of deep-sea coral ecosystems of the Florida Shelf." (P.I.'s S. Brooke and C.M. Young) 2005-2006. (\$101,571 plus ship and sub time).
- NOAA (National Undersea Research Program, Wilmington). "Ecological consequences of egg production in cold-seep polychaetes." (2003-2004) (\$59,996.00).
- NMFS (Auke Bay Lab, Alaska). "Reproductive ecology of deep-water hydrocorals and stony corals from the Aleutian Islands. (P.I.'s: C.M. Young and S. Brooke). 2003-2004. (\$20,000).

- NOAA (Oregon Seagrant, Oregon State University). Participant support for graduate student training in ecology of deep-sea organisms. (P.I.'s: C.M. Young and S. Rumrill). 2003. (\$4,000).
- NSF (Biological Oceanography): Grant OCE-0118733: "Energy sources for reproduction and development in a cold-seep mixotrophic mussel 2002-2007 (P.I.'s: C.M. Young, S. Macko) (\$421,897 + 11 cruises).
- NSF (Biological Oceanography): OCE-0118733: Supplement for ship and submersible support in 2003-2004 (\$60,000 + 3 days shiptime).
- NOAA (Caribbean Marine Research Center). "Reproduction, dispersal and recruitment of coral-associated sponges." (P.I.'s: C.M. Young, M. Maldonado, A. M. Sole Cava, J. Wulff). 2001-2002 (\$30,000.00 plus 12 man-months of full support at field station).
- NOAA (National Undersea Research Program, University of Hawaii) "Ecological roles and faunal associates of abundant hexactinellid sponges on the Hawaiian Slope." 2001 (submersible time and ROV time).
- NMFS (MARFIN) "Maintenance of critical fish spawning habitat: reproduction of the ivory tree coral, *Oculina varicosa*." (P.I.'s: C.M. Young and S. Brooke). 1999-2001 (\$68,396).
- NSF (Biological Oceanography): Grant OCE-9619606: "Dispersal potential of hydrothermal vent animals: larval energetics, depth regulation and field distribution." 1997-2001. (P.I.'s: D.T. Manahan, L.S. Mullineaux, C.M. Young). (\$1,174,994.00 + Alvin & ship time; Young's portion: \$397,608.00)
- NSF (Biological Oceanography): Grant OCE-9633784: "Reproductive responses to phytodetrital pulses in deep-sea invertebrates with seasonal and continuous breeding." 1997-2000. (\$347,650.00 + 527,000 ship time = \$874,650.00).
- NOAA (Caribbean Marine Research Center). "Reproductive success, larval dispersal and recruitment of an endangered sea star, *Oreaster reticulatus*." 1996-1997. (P.I.'s: C.M. Young, R.B. Scheibling, A. Metaxas) (\$26,000.00).
- NOAA (National Undersea Research Program, University of North Carolina, Wilmington). "Larval biology and gametogenesis in a deep-sea community with continuous nutrient input: cold seeps on the Louisiana Slope." 1995-1996 (submersible time plus \$37,000.00 science funding).
- NOAA (Caribbean Marine Research Center). "Reproductive biology and the limits of bathymetric distribution in lithistid sponges and stalked crinoids." 1995-1996 (submersible time plus \$12,000.00 science funding).
- NSF (Biological Oceanography): Grant OCE-9116560: "Entrainment of seasonal reproductive cycles in echinoderms living below the euphotic zone" 1992-1995 (\$201,268.00 + \$390,000.00 ship time = \$591,268.00).
- NOAA (National Undersea Research Program, University of Hawaii) "Limits of bathymetric distribution in deep-sea echinoderms: the role of embryonic pressure tolerances. ROV. 1994. (ROV time plus \$2,822.00 in science funding).
- NATO (International Scientific Exchange Programmes). "Experimental reproductive

- biology of deep-sea invertebrates." 1993-1994 (P.I.'s: C.M. Young, P.A. Tyler, R.L. Emson) (renewal funding: \$5,000.00).
- NOAA (National Undersea Research Program) "Limits of bathymetric distribution in deep-sea echinoderms: the role of embryonic pressure tolerances II. Pisces V. 1993. (submersible time).
- NATO (International Scientific Exchange Programmes). "Experimental reproductive biology of deep-sea invertebrates." 1992-1993 (P.I.'s: C.M. Young, P.A. Tyler) (renewal funding: \$5,389.00).
- NSF (Biotic Systems and Resources): Grant DIR-9013181: "A laboratory for the culture of oceanic and deep-sea organisms" 1990-1993. (P.I.'s: C.M. Young, E.A. Widder, K.J. Eckelbarger) (\$47,979).
- NOAA (National Undersea Research Program) "Limits of bathymetric distribution in deep-sea echinoderms: the role of embryonic pressure tolerances I. Sea Cliff. 1992 (submersible time plus \$2750.00 in science funding).
- NSF (Biological Oceanography): Grant OCE-8916264: "Fertilization Ecology and Kinetics of Deep-Sea Echinoderms" 1990-1992 (P.I.'s: C.M. Young, K.J. Eckelbarger) (\$340,230.00 + ship time).
- NATO (International Scientific Exchange Programmes). "Experimental reproductive biology of deep-sea invertebrates." 1990-1991. (P.I.'s: C.M. Young, P.A. Tyler) (\$9,547.00).
- NSF (Biological Oceanography) Grant OCE-8717922: "Reproduction and Larval Ecology of Bathyal Echinoderms" 1988-1990 (P.I.'s: C.M. Young, J.L. Cameron) (\$263,329.00).
- NOAA (National Undersea Research Program, University of Hawaii). "Reproduction, Fertilization and Development of Abyssal Echinoderms" 1990 (P.I.'s: C.M. Young, J.L. Cameron & K.J. Eckelbarger) (submersible time).
- NSF (Biological Oceanography) (awarded as a supplement to OCE-8717922): "Symposium on Field Inferences in the Ecology of Marine Invertebrate Larvae" 1988-1990 (\$3000.00).
- NOAA (National Undersea Research Program, U. of Hawaii). "Reproductive Ecology of Deep-Sea Echinoderms." 1988 (P.I.'s: C.M. Young & J.L. Cameron)
- NSF (Biological Oceanography) Grant OCE-8544845: "Consequences of Larval Predation in a Marine Epifaunal Community" (transfer & extension) 1985-1987.
- NSF (Biological Oceanography) Grant OCE-8400406: "Consequences of Larval Predation in a Marine Epifaunal Community" 1984-1985 (\$54,000.00).

Foundation Grants and Miscellaneous Funding (Total: \$1,048,550)

Oregon Legislative Appropriation: New research vessel for the University of Oregon, 2020. \$500,000.

Coos County Economic Development Grant: New research vessel for OIMB. 2018 (P.I. Craig Young) \$50,000.

- Pacific Seafood and Department of Environmental Quality. Dock improvements and estuarine displays for the Charleston Marine Life Center 2015. (P.I. Craig Young) \$14,000
- Coos County Economic Development Grant: Charleston Marine Life Center. 2014 (P.I. Craig Young) \$10,000.
- Three Rivers Foundation. Integration of Native American themes into displays for the Charleston Marine Life Center. 2014. \$9500.00. (C.M. Young, P.I.)
- Blue Sky Program of Pacific Power. Wind turbine for the Charleston Marine Life Center 2014. \$86,000. (S. Mital and C.M. Young, P.I.'s).
- Wild Rivers Coast Alliance: Recreational fisheries exhibits for the Charleston Marine Life Center, 2013. \$10,000.
- Oregon Dungeness Crab Commission, Albacore Commission, Salmon Commission. Fisheries exhibits for the Charleston Marine Life Center. 2013-14. \$17,000.
- Coos County Economic Development Grant: Charleston Marine Life Center. 2013 (P.I.: Craig Young). \$151,000.
- The Ford Family Foundation. Construction funds for the Charleston Marine Life Center 2012-2013 (P.I. Craig Young) \$267,000.
- Lazar Foundation. Breaking the stalemate: educating the public about the value of marine reserves. 2010-2011 (P.I. Craig Young): \$13,500.
- Luvass Fund of Oregon Community Foundation: Charleston marine life center. \$40,000.
- Keiser Family Foundation: Charleston marine life center (P.I. Craig Young): \$50,000.
- Oregon Community Foundation: Charleston marine life center (P.I. Craig Young): \$65,000.
- Rippey Family Foundation: Funds for Charleston Marine Life Center (P.I. Craig Young) \$25,000.
- Pacific Power Foundation: Funds for reconstruction of a killer-whale skeleton for the Charleston Marine Life Center (P.I.'s C.M. Young, P. Elstone) \$10,000.
- Coquille Tribal Community Enhancement Fund: Construction of the Charleston Marine Life Center. 2008. (P.I.'s C.M. Young, P. Elstone) \$90,000
- Royal Caribbean/Celebrity Cruise Lines Ocean Fund: Construction of a Marine Mammal Gallery in the Charleston Marine Life Center at the Oregon Institute of Marine Biology. 2008. (P.I.'s C.M. Young, P. Elstone) \$50,000
- Royal Caribbean/Celebrity Cruise Lines Ocean Fund: Scanning electron microscopy as a tool for marine environmental science on the Oregon Coast 2007 (P.I.'s C.M. Young, P. Elstone). \$45,000.
- Barker Foundation. New dissecting microscopes for teaching laboratories at OIMB. 2006-2007. (P.I.'s C.M. Young and P. Elstone). \$30,000.
- World Bank: March for Conservation, Sri Lanka. "Biodiversity skills enhancement project." 1996-1997 (\$6000.00 travel grants).
- Scottish Association for Marine Sciences: Travel Bursary, 1993. (\$850.00).
- Swedish Royal Academy of Sciences: "Subtidal research on larvae of fjord ascidians." 1990 (\$8000.00 travel grant).

Lerner-Gray Fund for Marine Research: "The relationship between larval behavior and fitness in a subtidal bryozoan, *Rhyncozoon rostratum*" 1983 (\$1200.00).

INVITED SEMINARS:

Western Washington University, 2021
Brigham Young University, Idaho (University Forum, 2014)
North Carolina State University, Raleigh, North Carolina (2011)
Duke University Marine Laboratory, North Carolina (2011)
Hopkins Marine Station (Stanford University), Pacific Grove (1982, 2004, 2010)
University of Washington, Tacoma (2009)
Moss Landing Marine Laboratory, California (2008)
Jacksonville University, Florida (2007)
Osher Lifetime Learning Institute, U. of Oregon (2 seminars: 2007)
University of Puget Sound (2007)
Port Orford and Langlois Public Libraries (public lecture, 2007)
Hatfield Marine Science Center, Oregon State University (2007)
Bodega Marine Laboratory, University of California (1982, 2006)
Bandon Public Library, Oregon (public lecture, 2006)
Romberg Tiburon Marine Center, San Francisco State University (2006)
Scripps Institute of Oceanography, California (2003)
Southwestern Oregon Community College (2003)
Hatfield Marine Science Center, Oregon State University (2002)
Smithsonian Marine Station at Ft. Pierce (2002)
University of Oregon, Eugene (2001)
Brigham Young University, Utah (1998, 2009)
Monterey Bay Aquarium Research Institute, California (1998)
Kings College, University of London, U.K. (1997)
Georgia Southern University (1997)
Shoals Marine Laboratory, Maine (1996)
University of Bergen, Norway (1996)
Woods Hole Oceanographic Institution, Massachusetts (1996)
Kings College, University of London, U.K. (1995)
British Antarctic Survey, Cambridge, U.K. (1995)
Southampton Oceanography Center, U.K. (1995)
Monterey Bay Aquarium Research Institute, California (1993)
University of Connecticut, Avery Point (1993)
University of New Hampshire, Durham (1993)
University of Oregon, Eugene (1991)
Florida Atlantic University, Boca Raton (1991)
Oregon Institute of Marine Biology, Charleston (1991, 2001, 2002, 2003, 2005, 2007, 2008, 2009,)

Scripps Institute of Oceanography, California (1991)
Institute of Oceanographic Sciences (Deacon Laboratory), England (1991)
University of Southampton, England (1991)
University of Massachusetts, Boston (1991)
Kristineberg Marine Biological Station, Sweden (1990)
Zoological Museum, University of Copenhagen, Denmark (1990)
University of Stockholm, Sweden (1990)
Tjarno Marine Laboratory, Sweden (1990)
Dauphin Island Marine Laboratory, Alabama (1990),
University of Sydney, Australia (1989)
University of Wollongong, Australia (1989)
Florida Atlantic University, Boca Raton (1989)
Kewalo Marine Laboratory, University of Hawaii (1988)
Kristineberg Marine Biological Station, Sweden (1986)
Zoological Museum, University of Copenhagen, Denmark (1986)
Brigham Young University, Utah (1986, 2009)
Florida Institute of Technology, Melbourne (1986, 1991, 1993, 1994, 1996)
Louisiana State University, Baton Rouge (1985)
University of Florida, Gainesville (1985)
University of Southwestern Louisiana, Lafayette (1985)
Harbor Branch Foundation, Ft. Pierce (1985)
Florida State University, Tallahassee (1982, 1984, 1988, 2000)
Bamfield Marine Station, British Columbia (1984, 1985)
University of California, Santa Cruz (1982)
Friday Harbor Laboratories, Washington (1981)
Ohlone College, California (1971)

INVITED PLENARY, KEYNOTE AND SYMPOSIUM TALKS:

XII International Larval Biology Meetings, Melbourne, Australia, August 2019
(Symposium address in honor of Professor Mick Keough), invited and declined.

EuroMar (European Union) workshop on studying larvae in the deep ocean.
Plenary speaker, University of Aveiro, Portugal, May, 2019.

Symposium on “The ecology of larvae in the plankton” XI International Larval Biology Meetings, Honolulu HI, August 2017.

Plenary address (Student Symposium), Centennial Meeting of Western Society of Naturalists, Monterey CA, November 2016.

U.O. Grebes symposium speaker for series “Oceans, depths unexplored.” 2015.

University Forum Address (University-wide talk for all students and faculty), Brigham Young University, Idaho, October 2014.

Symposium on “Larval Dispersal and Connectivity”, Society for Integrative and Comparative Biology, Charleston, SC, January 2012
Plenary Address, Larval Biology Meetings, Berkeley 2014
Keynote (Presidential) Address, American Microscopical Society (at SICB).
Salt Lake City, January 2011.
Keynote Talk, HERMIONE (European Union) workshop on Challenges in the study of deep-sea ecosystem connectivity, University of Aviero, Portugal, September 2010.
Plenary Speaker, 12th Deep-Sea Biology Symposium, Reykavik Iceland, June 2010.
Donald P. Abbott Memorial Lecture, Hopkins Marine Station of Stanford University, February, 2010
College of Life Sciences Honored Alumni Speaker, Brigham Young University, October 2009
All Academy (Keynote) Speaker, Ohio Academy of Sciences, Wittenberg University, Ohio, April 2009 (commemorating 200th birthday of Darwin).
Plenary Speaker, Northwest Biology Educators Conference, Chemeteka Community College, Salem, April 2008.
DIWOOD Symposium on ecology of deep-sea wood falls, sponsored by Govt. of France, Guadeloupe (2007).
Plenary speaker, WSN graduate student association symposium, Western Society of Naturalists, Seattle (2006)
Symposium on environmental control of reproduction. International Society of Invertebrate Reproduction. (Panama, 2007) (declined).
Symposium on Biogeography of the Atlantic Equatorial Belt, Sloan Foundation, Barcelona Spain (2006).
Invited speaker, Mineral Management Service symposium on Gulf of Mexico, New Orleans, 2005.
Plenary speaker, Larval Biology Meetings (Hong Kong, 2004)
Plenary speaker, Larval Biology Meetings (Vigo, Spain, 2002)
Opening ceremonies for new marine lab, Hong Kong University of Science and Technology (Hong Kong, 2002)
International Congress of Invertebrate Reproduction and Development (South Africa, July 2001) (declined).
North American Echinoderm Symposium (Maine, August 2001).
Symposium on ontogenetic strategies in aquatic organisms, Society of Integrative and Comparative Biology (Chicago, Illinois, January 2001).
International Congress of Zoology (Athens, Greece, September 2000);
symposium on Zoology at geothermally driven communities.
International Echinoderm Conference (Dunedin, New Zealand, January 2000);
plenary speaker for symposium on reproduction and ecology.
The Leslie Cooper Memorial Lecture, Marine Biological Association of the United Kingdom (Plymouth, U.K., April 1997); plenary speaker for

symposium on reproductive responses to variable environments.
International Conference "Simposio Sobre Oceanographia, Instituto Oceanographico" (Sao Paulo, Brazil, 1996). (invitation declined).
Symposium on "Reproduction in the Deep Sea" 7th International Congress on Invertebrate Reproduction (Santa Cruz, California, 1995).
"Echinoderm Reproduction" session, Fourth European Echinoderms Colloquium (London, England, 1995).
Symposium on "Life processes in the deep sea" Western Society of Naturalists (Monterey, California, 1994).
International Symposium on "Ecology and pollution of the Mediterranean Sea" (Cagliari, Sardinia, Italy, 1994).
Symposium on "Dispersal of Marine Invertebrates." Fourth International Symposium on Marine Biogeography and Evolution in the Indo-Pacific (Perth, Australia, 1992) (invitation accepted; meeting cancelled).
Symposium "From Loch to Abyss." HMS Porcupine Society Meeting (Oban, Scotland, 1992).
First international symposium on "Ecology of Temperate Reefs" (Melbourne, Australia, 1989).
Symposium on "Invertebrate Reproduction," 23rd European Marine Biology Symposium (Swansea, Wales, 1988).
Donald P. Abbott Memorial Symposium (Pacific Grove, California, 1987).

INVITED WORKSHOP PARTICIPANT

EuroMar (European Union) workshop on studying larvae in the deep ocean. Plenary speaker, University of Aveiro, Portugal, May, 2019.
ATLAS (European Union) Workshop on particle tracking in the deep sea, University of Edinburgh, Scotland, January, 2019.
Marine Studies Initiative workshop, Port Orford Field Station, OR (September, 2016)
DESCEND 2. NSF & UNOLS workshop on deep submergence science. Harvard University. (February, 2015)
INDEEP workshop on morphological and molecular identification of deep-sea invertebrates, National Oceanography Center, Southampton, U.K. (June, 2013)
NOAA workshop on research priorities in the Mariana Trench National Marine Monument, Waikoloa, Hawaii (September, 2011).
Workshop on challenges in the study of deep-sea ecosystem connectivity, Aviero, Portugal (September, 2010).
Sloan Foundation Census of Marine Life workshop on siboglinid tubeworms. Honolulu, Hawaii (November, 2008)
UNOLS Workshop on deep submergence needs in ocean observatories. Seattle, Washington (February, 2008)

- Sloan Foundation Census of Marine Life workshop commemorating the discovery of hydrothermal vents. Puerto Ayora, Galapagos Islands, Ecuador (June 2007)
- Sloan Foundation Census of Marine Life workshop on biogeography of the Atlantic Equatorial Belt. Barcelona, Spain, (2006).
- Sloan Foundation Census of Marine Life workshop on biogeography of chemosynthetic ecosystems (Southampton, England, 2004).
- NSF LARVE/RIDGE Program results workshop. (Ogden, Utah, May 2001).
- U.S. Department of Energy workshop on CO₂ disposal in the deep sea. (Moss Landing, California, February 2001).
- Sloan Foundation Census of Marine Life workshop on biodiversity of deep-sea chemosynthetic communities. Woods Hole, Massachusetts, March 2001.
- N.S.F./UNOLS workshop, Developing Submergence Science For the Next Decade (Arlington, Virginia, October 1999).
- NOAA/NURP workshop on "Undersea Research Priorities in the Hawaiian Islands" (San Francisco, California, 1996) (invitation declined).
- Workshop on taxonomy of coral reef invertebrates in the Indian Ocean (Univ. of Colombo, Sri Lanka, 1996).
- NSF-Ridge Workshop for "Larvae at Hydrothermal Vents" initiative (Woods Hole, Massachusetts, 1995).
- Workshop on "Global Ocean Ecosystems Dynamics" sponsored by N.S.F. and Joint Oceanographic Institutions (Wintergreen, Virginia, 1988).
- Workshop on "The interactions of biotic and abiotic factors on larval and adult marine invertebrates" (Nice, France and Villefranche-sur-mer, France, 1994).
- NSF-Ridge Workshop on "Reproduction, larval biology and dispersal at hydrothermal vents" (Lake Tahoe, California, 1994).
- Workshop on Larval Biology (Friday Harbor, Washington, 1985).

PROFESSIONAL SERVICE ACTIVITIES AND ADMINISTRATION:

Conferences and Symposia organized:

- Organizer: 7th International Larval Biology Meetings (Coos Bay, Oregon, August, 2006)
- Scientific Committee Chair: 3rd International Vent and Seep Symposium (La Jolla, California, September 2005)
- Organizer: 10th International Deep-Sea Biology Symposium (Coos Bay, Oregon, August 2003).
- Scientific Committee Member: International Symposium on Benthic Processes in the Deep Arabian Sea: Edinburgh, Scotland, July 1998.
- Scientific Committee Member: Workshop on "Biotic and abiotic interactions

- regulating life cycles of marine invertebrates (Villefranche-sur-Mer, France, 1994)
- Organizing Committee Chairman: Retirement Festschrift for Professor Fu-Shiang Chia (Friday Harbor, Washington, November 1997).
- Organizing Committee Chairman: 2nd International Larval Biology Meetings (Ft. Pierce, Florida, 1995).
- Co-Organizer: Symposium on "Deep-sea Reproduction." International Society of Invertebrate Reproduction (Santa Cruz, California, 1995).
- Co-Organizer: Symposium on "Reproduction, Larval Biology and Recruitment of the Deep-Sea Benthos." American Society of Zoologists (Atlanta, Georgia, 1991).
- Organizer: Symposium on "Cracking a black box: field inferences in the ecology of marine invertebrate larvae." American Society of Zoologists and Western Society of Naturalists (San Francisco, California, 1988).
- Organizer: 2nd North American Echinoderm Symposium (Florida, 1992).

Editor and Editorial Boards (see also book section of publications):

- Editor in Chief: Marine Ecology (the oldest marine biology journal, founded in 1870 as Publications of the Naples Zoological Station) (2012-present)
- Acting Editor: Marine Ecology, an Evolutionary Perspective (2010-2012)
- Editor: Journal of Marine Biology (open access journal, 2008-2017)
- Guest Editor: Biological Bulletin (special issue on Larval Biology, 2009)
- Editor: Marine Ecology (special issue on chemosynthetic ecosystems, 2007)
- Associate Editor: Marine Ecology, An evolutionary perspective (2006-2011)
- Editorial Advisor: Advances in Marine Biology (2006-present)
- Co-Editor: Advances in Marine Biology (1997-2006).
- Editorial Board: Marine Ecology, An Evolutionary Perspective (formerly Marine Ecology, PSZN I) (2005-2006)
- Editorial Board: Invertebrate Biology (1994-2006).
- Guest Editorial Board: Oceanologica Acta (1994-1996): special volume on Invertebrate Life Histories.
- Guest Editor: Ophelia (1991): special volume on marine larval ecology.

Miscellaneous Community Service:

- Advisory board for European Union's Atlas Program (A Trans-Atlantic assessment and deep-water ecosystem-based spatial management plan for Europe) (2019-20).
- Dean's advisory board, School of Biological Science, University of Hong Kong (2017-18)
- Outside review committee, Marine and Coastal Studies Program, University of California, Davis, 2018.

External examiner on review committee, University of Hong Kong, Swire Institute of Marine Science (2016)

Visiting review committee, University of California Davis, Bodega Marine Laboratory (2014)

Oregon shiptime oversight council, Oregon State University (appointed by OSU president; position designated in Oregon Law; 2014-present)

Search Committees (reserve manager, research coordinator), South Slough National Undersea Research Reserve.

Connectivity Working Group Member, INDEEP (International Network for Scientific Investigation of Deep-sea Ecosystems), 2011-present

Science Advisor, Fisheries and Oceans Canada (Committee on protection of hexactinellid sponge reefs, 2012)

Tenure Review Visiting Committees: Woods Hole Oceanographic Inst. 1996, 2003, 2012

Oregon Sea Grant Citizens Advisory Committee, 2012-present

Ocean Experts Committee, Leading Edge and New Initiatives Funds (LEF/NIF) competition, Canadian Foundation for Innovation, 2012

Visiting Experts Panel, Canadian Foundation for Innovation, St. Johns, Newfoundland, March 2011.

Oregon Nearshore Task Force (Oregon legislative appointee), 2009-2010.

Visiting Experts Panel, Canadian Foundation for Innovation (Oceanographic Infrastructure), Vancouver, January 2009.

UNOLS (University National Oceanographic Laboratory System) Deep Submergence Science (DESSC) Oversight Committee, 2004-2010.

NSF/NOAA/UNOLS committee writing new safety standards for U.S. manned submersibles (2004-2009).

STAC (Scientific and Technical Advisory Committee) to Oregon Governor's Ocean Policy Advisory Committee & Oregon Department of Fish and Wildlife, 2006-present

Search Committee, Director of Oregon Seagrass, Oregon State University, 2007

Fellowship committee chair, Pacific Institutes of Marine Science (2006-present)

Visiting Review Committee: Swedish Royal Academy of Science, Kristineberg Marine Research Station (Fiskebackskil, Sweden, October 2006).

Citizen's advisory committee, Charleston master plan (Port of Coos Bay) (2006-2007; 2012-2013).

N.S.F. Panelist (Biological Infrastructure): 2003, 2005.

Board Member, National Association of Marine Laboratories, 2004-2005.

Member at Large, Western Association of Marine Laboratories, 2004-2005.

NSF RIDGE 2000 Steering Committee, 2001-2004.

Board of Directors, Pacific Institutes of Marine Science (2002-2006)

South Slough National Marine Estuary Management Commission (Governor

appointed, position designated in Oregon Statute): 2002-2015
Chemosynthetic Ecosystems Steering Committee (CHESS), Census
of Marine Life . 2001-2010.
Shallow submergence subcommittee of the UNOLS National Deep
Submergence Committee (1999-2004)
National Membership Committee Chair, Society for Integrative and
Comparative Biology, 1998-2000.
Nominee for chair, Division of Invertebrate Zoology, SICB, 1999.
Technical Consultant: National Geographic Film, "The Shape of Life," 1999
Technical Consultant: BBC television and Oxford Scientific Films, 1997-2000.
Confidential promotion and tenure reviews: 20 universities in U.S. & Europe
Steering Committee Member: NSF-Ridge LARVE initiative, 1995-2000.
Deep-sea Newsletter: Eastern North America Representative, 1995-2002.
Technical Consultant: "Ocean Planet" exhibit, Smithsonian Institution, 1994.
Technical Consultant: National Geographic Film, "Ocean Drifters," 1993.
N.S.F. Panelist (Biological Oceanography): 1989, 1989, 1991, 1997.
Judging committee Chair, Zoology, Florida State Science Fair, 1991.
Presidential nominating committee, American Soc. of Zoologists (Division of
Invertebrate Zoology), 1990.
Best Student Paper Committee, American Society of Zoologists (Division of
Invertebrate Zoology), 1989, 1999, 2001.
Judge for best student paper awards, American Society of Zoologists, 1988,
1989, 1999, 2011
Judge for best student paper award, Deep-sea Biology symposium, 2018
Judge for best student paper award, Western Society of Naturalists, 2016
Taxonomic Consultant: Continental Shelf Associates Inc., 1984-1992.
Technical Consultant: General Offshore Inc., 1993.
Florida State University Diving Control Board, 1983-1985.

Reviewer of Grant Proposals:

N.S.F. (Ocean Sciences, Polar Programs, Facilities Support, Systematics,
International Programs)
N.O.A.A. (National Undersea Research Program: Hawaii, Alaska, Wilmington,
Caribbean Marine Research Center)
American Chemical Society
U.S. Dept. of Agriculture, Small Business Innovation Research Program
Seagrant (Maryland, Connecticut, Florida).
Australian Research Council
National Institutes of Health (National Cancer Institute)
National Environmental Research Council (U.K.)
Marsden Fund (New Zealand)

Reviewer of Journal Manuscripts:

American Naturalist	Ecological Monographs
Ecology	Marine Biology
Biological Bulletin	Bulletin of Marine Science
Ophelia	Marine Ecology Progress Series
Australian Journal of Ecology	Limnology and Oceanography
Journal of Experimental Zoology	American Zoologist
Living Marine Resources	Oceanologica Acta
Coral Reefs	Acta Zoologica
Bioscience	Invertebrate Biology
Evolution	Marine Ecology
Naturwissenschaften	Journal of Exp. Mar. Biol. Ecol.
J. Mar. Biol. Assoc. U.K.	

Reviewer of Book Proposals and manuscripts:

Academic Press	Oxford University Press
Chapman and Hall	University of Hawaii Press
Alaska Northwest Publishing Co.	University of South Carolina Press

External dissertation examiner:

University of Adelaide (Australia), 1987.
University of Sydney (Australia), 1989.
University of California, Santa Cruz, 1992.
Virginia Institute of Marine Science, 1996.

Session Chairman at Scientific Meetings:

American Geophysical Union (San Francisco) 2005
3rd International vent and seep symposium (La Jolla, California) 2005
6th Larval Biology Meetings (Hong Kong) 2004
2nd International vent and seep symposium (Brest, France) 2002
International symposium on Reproductive responses in variable environments
(Plymouth, U.K.), 1997.
International workshop on Biotic and abiotic Interactions during larval and
adult stages of benthic marine invertebrates, (Nice, France), 1994.
Larval Ecology Meetings (Stony Brook), 1994.
American Society of Zoologists (SICB), 1984, 1988, 1991, 1999

23rd European Marine Biology Symposium (Swansea, Wales), 1988.
Sixth International Echinoderm Symposium (Victoria, B.C., Canada), 1987.
Western Society of Naturalists, 1982, 1985.

Administrative Assignments & Service

University of Oregon

New vessel planning committee (2018)
Co-Chair, OIMB Strategic Planning Committee (2018)
Biology Dept. Executive Committee (2002-present)
Personnel Committee (2009-2010, 2016-2017)
Graduate Recruiting Committee (2006-2015)
Research Centers and Institutes Directors Council (2002-present)
Director, OIMB (2002-present)
New Faculty Search Committee (2006-2007, 2013-14, 2014-2015)
New staff search committees (several, 2002-2018)

Harbor Branch Oceanographic Institution

Department Head, Department of Larval Ecology (1985-2002)
Chairperson, Institutional Research Council (1994-2002)
Acting Director, Marine Science Division (1993, 1994, 1995, 1997)
Electron Microscope Lab supervisor (2000-present)
Diving Control Board (1990-1991)
Board of Education Management (1990-1992)
Supervisor of Marine Science shop (1986-present)
Education Director Search committee chairman (1992)
Division Director search committee (1987)
New faculty search committees (1988, 1990, 1994)
Promotion committee (1989)
Supervisor: oceanic and deep-sea culture laboratory (1990-present)
Research Council Representative (1991)
Histology Laboratory manager (1991-present)
Public Lectures for HBOI Associates Program (yearly, 1991-2001)
Teacher Curriculum Training for JASON project (1992)

COURSES TAUGHT:

University of Oregon

Subtidal & Deep-sea Ecology (2011,2012,2013,2014, 2015, 2016, 2018, 2019,

2020, 2021)
Biology of the Deep-Sea Benthos (taught at sea) (2002, 2008, 2009)
Comparative Embryology and Larval Biology (2004, 2005, 2006, 2007, 2008, 2009)
Graduate Seminar in field sampling statistics (2007)
Graduate Seminar in microscopy (2003, 2008)
Graduate Seminar in scientific communication (2004, 2013)
Graduate Seminar in history of science (2016, 2019)
Independent Research (2002-2019)
Marine Biology Seminar (2003, 2005, 2006, 2007, 2009, 2012, 2013, 2015, 2018, 2020)

Friday Harbor Laboratories, University of Washington

Larval Ecology (2002)

University of Alberta:

Honors Invertebrate Zoology (1981-82)
Marine Biology (1982)

Florida State University:

Experimental Marine Biology (1983)
Field Methods in Marine Ecology (1983)
Advanced Biological Oceanography (1984)
Summer Science Institute for Teachers (1983, 1984)

Bamfield Marine Station, Vancouver Island, Canada:

Marine Invertebrate Zoology (1984)
Biology of the Ascidiacea (1985)

Marine Biological Laboratories, Woods Hole, Mass.:

Marine Ecology (1988)

H.B.O.I. (accreditation: Florida Institute of Technology):

Reproductive and Larval Ecology of Marine Invertebrates (1990, 1991, 1992, 1994, 1996, 1998, 2001)
Biology of the Deep-sea Benthos (1993, 1995, 1997, 1999)
Marine Invertebrate Zoology (1995, 1996, 2002)

Functional Biology of Invertebrates (2000)

H.B.O.I. Semester-by-the-sea (accreditation: Florida Atlantic University):

Marine Ecology (2001, 2002)
Marine Biodiversity (2001, 2002)
Functional Biology (2001)

Nordic Council for Marine Biology Courses:

Biology of Ascidiars (Kristineberg Marine Biological Station, Sweden, 1993)
Deep-Sea Biology (University of Reikjavik, Iceland, 2001)

University of Colombo, Sri Lanka

Taxonomy of Coral Reef Invertebrates (Biodiversity Skills Enhancement Project, funded by World Bank, 1996)

University of Alberta (as teaching assistant):

Evolutionary Biology (1978)
Invertebrate Zoology (1979)
Honors Marine Biology (1979)

Brigham Young University (as teaching assistant):

Natural History for Elementary School Teachers (1978)
Environmental Biology (1976)
Invertebrate Zoology (1976, 1977, 1978)
Marine Biology (1976, 1977, 1978)
Directed Research in Zoology (1976, 1977, 1978)

SUPERVISION OF STUDENTS AND POSTDOCTORAL FELLOWS:

Graduate Students (33):

Shawn Arellano (Ph.D., 2008, Univ. of Oregon). *Recruitment ecology of cold-seep mussels*. Present position: Associate Professor, Western Washington University.

Ahna Van Gaest (M.S., 2006, Univ. of Oregon) "*Developmental mode of Bathynnerita naticoidea, a deep-sea cold-seep gastropod.*". Present position: genomics technician, Western Washington University.

Tracey Smart (Ph.D., 2008, Univ. of Oregon): "Embryology of *Owenia fusiformis*

- and the biology of mitraria larvae.*” Present position: senior scientist, South Carolina Department of Fisheries.
- Maya Wolff (Ph.D. 2010, Univ. of Oregon). “*The reproductive ecology of a NE Pacific nudibranch*”) Present position: Education coordinator, OIMB
- Michael Holmes (M.S., 2006, Univ. of Oregon). *Ecology of a deep-sea coral, Lophelia pertussa*. Present position: Assistant Professor, Coastal Carolina University.
- Jennifer Head (Ph.D., 2006, Univ. of Oregon). *Regulation of hypoxia in Dungeness crabs.*) Present Position: Founder of charter school on Oregon Coast.
- Ana Hilario (Ph.D., 2006, University of Southampton, U.K.). *Fecundity and fertilization in deep-sea tube worms.* (as co-supervisor). Present position: Research Scientist, University of Aveiro, Portugal.
- Johanna Jarnegren (Ph.D., 2006, University of Trondheim, Norway). *Ecology and reproduction of deep-sea file shells, Acesta spp .* (as co-supervisor). Present position: Senior researcher, Norwegian Institute for Nature Research, Trondheim, Norway
- Paul Dunn (Ph.D., 2011, University of Oregon). *Nemertean ecology and development.* Present position: Associate professor, Utah Valley State University.
- Heather Austin (M.S., 2009, University of Oregon). *The effect of hypo-osmotic stress on mortality and regulation of volume, osmolality, and magnesium ion concentrations in the sea anemone Metridium senile in South Slough, Coos Bay, Oregon.*
- Myndee McNeil (M.S., 2011, University of Oregon). *Predation avoidance behaviors, oviposition and distribution of the intertidal gastropod Lirularia succincta.* Present position: Mother of 3.
- Kristina Sawyer (M.S., 2011, University of Oregon). *Settlement preference and the timing of settlement of the Olympia oyster, Ostrea lurida, in Coos Bay, Oregon.* Present position: school teacher, Illinois.
- Mark Oats (M.S., 2013, University of Oregon) *Reproductive timing and gametogenesis in the native oyster Ostrea lurida.* Present position: Staff Biologist, Alluvial Biological Consulting, San Francisco.
- Amy Burgess (Ph.D. Student, University of Oregon, withdrew) *Effects of wave action and other physical factors on the zonation of subtidal benthos.* Present position: Biology Instructor, Southwestern Oregon Community College.
- Kirstin Meyer (Ph.D., 2016). *Community assembly rules on insular deep-sea substrata.* Present position: Assistant Scientist, Woods Hole Oceanographic Institution.
- Caitlin Plowman (M.S., 2017). *Depth-related gametogenic patterns in deep-sea chemosynthetic bivalves.*
- Caitlin Plowman (current Ph.D. student). *Reciprocal subsidies: phytodetrital*

influence on the reproduction of methanotrophic mussels, and the contribution of mussel larvae to planktonic food webs in the Gulf of Mexico and western Atlantic.

- Lauren Rice (current Ph.D. student). Dissertation topic. *Reproductive consequences of epibiosis in deep-sea invertebrates.*
- Brian L. Bingham (Ph.D, 1990, F.S.U.: "*The ecology of epifaunal communities on prop roots of the red mangrove, Rhizophora mangle*") current position: Director of Marine Sciences and Professor, Western Washington University & Director, Shannon Point Marine Center.
- Nicholas J., Gotelli (co-supervised Ph.D., 1985, F.S.U.: "*Factors influencing the recruitment of two subtidal invertebrates*"). Current position: Professor, University of Vermont).
- James Dalby (M.S., 1988, F.S.U.: "*Distribution and abundance patterns of oysters and ascidians in Florida fouling communities: variable outcomes of competition and role of early post-settlement mortality*") Current position: researcher, Nanaimo Fisheries Laboratory, Canada
- Patricia L. Richards (M.S., 1993, F.I.T.: "*Feeding behavior and morphology of the deep-sea terebellid polychaete Biremis blandi*"). Current position: research biologist, U.S. Fish & Wildlife Service.
- Daniel A. McCarthy (M.S., 1995, F.S.U.: "*Gametogenesis and reproductive behavior in the sea urchin Lytechinus variegatus (Lamarck)*"). Current position: Professor of Marine Science, Jacksonville University.
- Peter J. Barile (M.S., 1993, F.I.T.: "*Ontogeny of phototaxis and vertical migration behavior of the queen conch Strombus gigas L. veliger larvae.*") Current position: Director of Environmental Engineering, Top Line Energy Systems.
- Daniel A. McCarthy (Ph.D, 2001, Kings College London: "*Life-history patterns and the role of disturbance in intertidal and subtidal populations of the polychaete Phragmatopoma lapidosa. (Kinberg 1867) in the tropical Western Atlantic*"). Current position: Professor of Marine Science and marine lab director, Jacksonville University.
- Michael Devin (M.S., 1998, F.I.T.: "*A laser-based method for quantifying patterns of megafaunal species diversity on the Bahamian slope*"). Current position: State Congressman, Maine.
- Tracy Griffin (M.S., 2000, F.I.T.: "*The influence of temperature, salinity and food abundance on the growth rate and timing of sex change in Crepidula cf. plana (Hoagland 1984) of the Indian River Lagoon*". Current position: Educator, Florida Atlantic University HBOI Education Center.
- John C. Bauer (deceased as Ph.D. student, Kings College, University of London: "*Internal bacterial floras of bathyal echinoids*").
- Mohammed Qurban (M.S. 2000, F.I.T.: "*The population dynamics and life history of Bittolum varium (Gastropoda: Cerithiidae)*". Current position: professor, Jeddah University, Saudi Arabia.
- Teresa Nelson (M.S. 1998, F.I.T.: "*Recruitment and survival of epifaunal*

- organisms in impounded and unimpounded mangrove forests*").
- Sandra Brooke (Ph.D., 2002, Univ. of Southampton, U.K. *Reproduction and recruitment of deep and shallow-water populations of Oculina*. Current position: Senior Research Scientist, Florida State University.
- Eva Ramiriz (Ph.D., 2000, Univ. of Southampton, U.K. "*Reproductive patterns of deep-sea invertebrates related to energy availability*"). Current position: Senior Research Scientist, Norwegian Institute for Water Research.
- Jeff Watanabe (Ph.D., 2002, F.I.T.: "*Energetics and ecology of feeding and reproduction in gastropods of intertidal sabellariid reefs*"). Current position: Professor of Biology, Ohlone College, California.

Honors Thesis Advisor, Clark Honors College, U. of Oregon (7)

- Nicholas Haymon (B.S. Honors, 2010). *The shallow rocky bottom subtidal invertebrate fauna off Cape Arago,, Oregon: Implications for the Oregon Marine Reserve designation process*. Present position: Ecotoxicologist, SPAWAR Systems Center, Pacific.
- Dylan Cottrell (B.S. Honors with distinction, 2013) *The subtidal bryozoan fauna off Cape Arago, Oregon*. Present position: Ph.D. Student, Stony Brook University.
- Shannon Reiser (B.S. Honors, 2013). *Sea anemone behavior studied with time-lapse photography*.
- Sandra Dorning (B.S. Honors with distinction, 2017). *Factors influencing the distribution of botryllid ascidians in Coos Bay*. Present position: Marshall Fellow, Ph.D student, York University, U.K.
- Ellie Jones (B.S. Honors with distinction, 2019). *Distribution and abundance of microplastics in deep-sea canyon, estuarine and shoreline sediments*. Present position: conservation biologist, Arizona State University.
- Jackson Hoeke (B.S. Honors, 2020). *Biodiversity of hydroids on the Oregon Shelf*. Present position: Masters student, Moss Landing Marine Laboratory
- Carmen Sanchez-Reddick (B.S. Honors expected, 2022). *Equatorial submergence in the subtidal ascidian Boltenia villosa*.

Postdoctoral and other visiting fellows (21)

- F. Scott McEuen (Ph.D., University of Alberta, Canada). HBI postdoc: *Holothurian reproduction*. Current position: Independent Environmental Consultant, Seattle, WA.
- R. Randy Olson (Ph.D., Harvard University) HBI postdoc: *Feeding biology of asteroid larvae from the great barrier reef*. Current position: Biological Sciences lecturer, University of Southern California (Author and Hollywood filmmaker).
- Andrew R. Davis (Ph.D., University of Adelaide, Australia). HBI postdoc: *Chemical*

- mechanisms inhibiting overgrowth and settlement of bryozoans.* Current position: Professor, University of Wollongong, Australia.
- J. Lane Cameron (Ph.D., Simon Fraser University, Canada). HBOI research associate: *Reproduction of deep-sea echinoderms; recruitment of seagrass epifauna.* Retired Biologist, National Park Service.
- Isidro Bosch (Ph.D., University of California, Santa Cruz). HBI postdoc: *Asexual reproduction in starfish larvae; feeding biology of Antarctic and deep-sea larvae.* Current position: Professor of Biology, SUNY, Geneseo.
- Catherine Hurlbut (Ph.D., University of Hawaii). HBI postdoc: *Role of light in settlement and survival of epifaunal sponges and ascidians.* Current position: biology teacher in private secondary school, Jacksonville, FL.
- Sophie George (Ph.D., University of Paris, France). HBI postdoc: *Egg quality and larval nutrition in deep-sea and shallow-water echinoderms.* Current position: Professor of Biology, Georgia Southern University.
- Elsa Vazquez Otero (Ph.D., University of Santiago, Spain). Spanish government postdoc: *Responses of compound ascidian larvae to haloclines.* Current position: V.P. for Research and Professor, University of Vigo, Spain.
- Manuel Maldonado (Ph.D., University of Blanes, Spain). Fulbright postdoc: *Larval and juvenile ecology of shallow-water sponges; vertical distribution of bathyal sponges.* Current position: Senior Research Scientist, Institute of Advanced Studies, Blanes, Spain.
- Anna Metaxas (Ph.D., Dalhousie University, Canada). HBI postdoc: *Effects of dietary conditioning and food patchiness on responses of echinoderm larvae to discontinuity layers.* Current position: Professor of Oceanography, Dalhousie University.
- Mary Sewell (Ph.D., Univ. of Alberta, Canada). HBI postdoc: *Energetics of brooding in synaptid holothurians.* Current position: Professor of Zoology, University of Auckland, New Zealand.
- Suki Ekaratne (Ph.D., University of Wales, Bangor, U.K.). Fulbright sabattical exchange: *Salinity and temperature tolerances of deep-sea and shallow-water echinoid larvae.* Current position: Professor, University of Colombo, Sri Lanka; professor Emeritus, University of Bath.
- Adele Pile (Ph.D., Virginia Institute of Marine Science, College of William and Mary). HBI postdoc: *Role of the microbial loop in deep-sea benthic-pelagic coupling.* Assistant Professor of Marine Biology, University of Sydney, Australia (retired).
- James Welch (Ph.D., Duke University). HBI postdoc: *Effects of turbulence and water flow on larval release in bryozoans and ascidians.* Current position: Professor of Biology, Wittenburg College, Ohio.
- Cathy Allen (Ph.D., Univ. of Southampton, U.K.). *Lipid biomarkers of energy sources at hydrothermal vents.* postdoctoral fellow, Institute of Marine Science, Rutgers University, New Jersey. Now stay-home mother.
- Sandra Brooke (Ph.D., Univ. of Southampton, U.K.). Deep-water coral ecology

- and genetics. (2002-2007) Current position: Senior Research Scientist, Florida State University Marine Lab.
- Isabel Tarjuelo (Ph.D., Univ. of Barcelona, Spain). Ascidian population genetics and development. (2002-2003, with Fulbright funding). Science teacher, Barcelona, Spain.
- Maya Wolf-Watts (Ph.D., Univ. of Oregon). Biological assemblages of Atlantic deep-water canyons. Current position: educational coordinator, OIMB.
- Luciana Genio (Ph.D., University of Aveiro, Portugal). Shell geochemistry in deep-sea mussel larvae. (present position: Scientist, United Nations International Seabed Authority, Jamaica)
- Corrina Breusing (predoctoral fellow, 2014, Geomar, Germany. Present position: postdoctoral fellow, School of Oceanography, University of Rhode Island)
- Sinja Rist (PhD. Technological University of Denmark). Present position: current postdoc, U. Oregon.

Undergraduate Interns and Research Assistants Mentored:

- Pamela Pape (Univ. of Miami; Ph.D., Univ. South Carolina)
- Lisa Dilling (Harvard Univ.; Ph.D., U.C. Santa Barbara)
- Todd Graham (College of the Atlantic)
- Julie Lambert (Old Dominion University)
- Tanya Michaud (College of the Atlantic)
- Nathan Allen (Gordon College)
- Katie Koval (U. of Oregon)
- Kristy Stumbo (U. of Oregon)
- Ashley Hueckstadt (U. of Oregon)
- Alex Holland (Southwestern Oregon Community College)
- Kara Robins (U. of Oregon)
- Livier Enciso (U. of Oregon)
- Kathryn Medina (U. of Oregon)
- Christina Ellison (U. of Oregon)
- Nicole Wegrzyniak (U. of Oregon)
- Kaitlin Beard (U. of Oregon)
- Alyssa Mische (U. of Oregon)
- Camille Clausen (U. of Oregon)
- Clay McKean (U. of Oregon)
- Karina Thiel-Klare (U. of Oregon)
- Matthew Mullins (U. of Oregon)
- Kaylee Wilkinson (U. of Oregon)
- Maddie Hicks (U. of Oregon)
- Nicole Milligan (U. of Oregon)
- Morgan Janes (U. of Oregon)
- Autumn Pruzynski (U. of Oregon)

Leo Zaklikowski (U. of Oregon)
Serena McCoard (U. of Oregon)
Kandace Wheeler (U. of Oregon)
Tralee Chapman (U. of Oregon)
Natalie Contreras (U. of Oregon)
Lizzie Nelson-Harrington (U. of Oregon)
Taylor Herman (U. of Oregon)
Kelsey Nelson (U. of Oregon)
Mitchell Hebner (U. of Oregon)
Amanda Ludtke (U. of Oregon)
Chase Kazee (U. of Oregon)
Aubrey Taradash (U. of Oregon)
Gianna Paden (U. of Oregon)
Melody Lemche (U. of Oregon)
Emma Burke (U. of Oregon)
Alexandra Urrutia (U. of Oregon)
Jordyn Major (U. of Oregon)
Sebastian Bergen (U. of Oregon)
Marcus Chaknova (U. of Oregon)

FELLOWSHIPS AND SCHOLARSHIPS:

Smithsonian Postdoctoral Fellowship, 1982 (declined for faculty position).
University Dissertation Fellowship Award, University of Alberta, 1981-1982.
Zoology Department Scholarships, Brigham Young University, 1977-1978.

MEMBERSHIP IN PROFESSIONAL SOCIETIES (not all are current):

Deep-sea Biology Society
American Association for the Advancement of Science
National Association of Marine Laboratories
Western Association of Marine Laboratories
Pacific Institutes of Marine Science
Society for Comparative and Integrative Biology (formerly A.S.Z.)
Western Society of Naturalists
American Society of Limnology and Oceanography
Ecological Society of America
Scottish Association for Marine Science
American Microscopical Society
Marine Biological Association of the United Kingdom
International Society for Invertebrate Reproduction and Development

FIELD RESEARCH EXPERIENCE:

Chief scientist on oceanographic vessels:

R/V Oceanus (4 cruises, Oregon shelf and slope)
R/V Atlantis w/ Alvin submersible (5 cruises: East Pacific Rise, Central America; Western Atlantic Margin, Gulf of Mexico)
R/V Thompson w/Jason ROV and Sentry AUV (1 Cruise, Western Atlantic and Gulf of Mexico)
R/V Seward Johnson w/JSL submersibles (16 cruises: Bahamas, Caribbean, Gulf of Mexico).
R/V Edwin Link w/JSL submersibles (17 cruises: Bahamas, Gulf of Mexico).
R/V Sea Diver w/JSL submersible, Hi-Sub R.O.V. (2 cruises: Bahamas).
R/V Kila w/Pisces V submersible (2 cruises: Hawaii).
DSVSS Laney Chouest w/U.S. Navy Sea-Cliff submersible (1 cruise: Hawaii).
R/V Kaimikai O' Kanaloa w/Pisces V submersible (4 cruises: Hawaii, Samoa).
R/V Sea Diver w/ Clelia submersible (1 cruise: Bahamas)
R/V Exuma Hunter w/ Nekton Gamma submersible (3 cruises: Bahamas)
R/V Pelican (2 cruises, Northern Gulf of Mexico)
R/V Walton Smith (2 cruises, Gulf of Mexico)

Additional cruises and submersible work (not as chief scientist):

RV Atlantis w/Alvin submersible (2 cruises: Gulf of Mexico, Atlantic Continental Margin)
RV Endeavor (1 cruise: Blake Ridge)
RV Atlantis w/Jason ROV (1 cruise: Barbados Accretionary Prism)
RV Oceanus (1 cruise: Barbados Accretionary Prism)
R/V Atlantis w/Alvin submersible (1 cruise: East Pacific Rise, Central America)
R/V Atlantis II w/Alvin submersible (2 cruises: East Pacific Rise)
R/V Seward Johnson II with JSL submersible (3 cruises: Gulf of Mexico)
R/V Pender w/Pisces IV submersible (1 cruise: Western Canadian Fjords).
R/V Pandora w/Pisces IV submersible (1 cruise: Vancouver Island).
RRS Challenger (3 cruises: Rockall Trough, North Atlantic).
R/V Point Lobos w/ Ventana ROV (1 cruise: Monterey Bay, California).
R/V Miss Linda w/ROV (1 cruise: Oregon)
R/V Pluteus (numerous day cruises, Oregon)
R/V Hydah (8 day cruises: San Juan Islands, Washington).
R/V Nectes (5 day cruises: Gulf of Mexico).
R/V Strickland (6 day cruises: Barkley Sound, British Columbia).
RRS Discovery (1 cruise: Arabian Sea, Indian Ocean, 1994).

Intertidal and subtidal field work:

California, Washington, Oregon, Alaska, British Columbia, Massachusetts, Maine, Ireland, Sweden, Florida, Bahamas, Barbados, Mexico, Australia, Japan, Okinawa, Hawaii, Scotland, Wales, France, Norway, Sri Lanka, Iceland, Samoa.

Visiting Investigator at Marine Laboratories and Universities:

Swire Institute of Marine Science, University of Hong Kong (2016)
Coastal Marine Laboratory, Hong Kong (2003,2004)
Sandgerdi Marine Laboratory, University of Reykavik, Iceland (2002, 2009)
Marine Biological Association of the United Kingdom, Plymouth, U.K. (1997, 1998, 1999, 2000, 2002)
Department of Zoology, University of Colombo, Sri Lanka (1996, 1997)
Institute for Marine Biology, University of Bergen, Norway (1996)
British Antarctic Survey, Cambridge, U.K. (1995)
Southampton Oceanography Center, U.K. (1995, 1997, 1999, 2000)
Station Zoologique, Villefranche sur Mer, France (1994)
Dunstaffnage Marine Laboratory, Scotland (1991, 1992, 1993)
Kings College, London (1991, 1992, 1993, 1995, 1997, 1999, 2000)
Oceanography Dept., University of Southampton, England (1991, 1992, 1994)
University of Melbourne, Australia (1989, 1998)
Darling Marine Center, University of Maine (1993, 2003)
Kristineberg Marine Biol. Station, Sweden (1986, 1988, 1990, 1991, 1993)
Friday Harbor Laboratories, Washington (1975-1983, 1990)
Hopkins Marine Station, California (1975, 1978)
Oyster Research Institute, Japan (1976)
Bamfield Marine Station, Canada (1979, 1983, 1985)
Marine Biological Laboratories, Woods Hole, Mass. (1988, 1989, 1991).
Pigeon Key Marine Laboratory, Florida (1985, 1995).

PUBLICATIONS (233 total)

Edited Books and Volumes (23)

- Boyle, M. and **C.M. Young** (2021). Atlas of Marine Invertebrate Larvae, second edition. Elsevier, New York (in press)
- Emlet, R.B., S.A. Maslakova, A.L. Shanks and **C.M. Young** (2009). Biology of Marine Invertebrate Larvae. Biological Bulletin, Volume 216.
- Levin, L.A., J. Barry, H. Felbeck, C. Smith and **C.M. Young** (2007). Ecology of vents, seep and whale fall communities. Marine Ecology, an Evolutionary Perspective, Vol. 28.
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Western Soc. of Naturalists: 1977, 1978, 1979, 1981*, 1982, 1985, 1987, 1995, 2006, 2008*, 2016*, 2020
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International Deep-Sea Biology Meetings: 1991*, 1994*, 1997*, 2000*, 2003*, 2006*, 2010*, 2012*, 2015*, 2018, 2021*
International Conference on Chemosynthetic Ecosystems: 1999*, 2002*, 2005, 2009*, 2012, 2017
Benthic Ecology Meetings: 1983, 1994*, 1998*, 1999*, 2002*, 2005*
Larval Biology Meetings: 1993*, 1995*, 1998*, 2002*, 2004*, 2006*, 2008*, 2012
American Association for the Advancement of Science: 1978
International Echinoderm Conference: 1984, 1987*, 1993*, 1996*, 2000*
European Echinoderm Colloquium: 1995, 1998
North American Echinoderm Colloquium: 1992, 1998
Canadian Society of Zoologists: 1980
Ecology of Temperate Reefs: 1989