

Curriculum Vitae: Michael G. Hadfield

Education:

University of Washington, Seattle, A.B., 1959, Zoology
University of Washington, Seattle, M.S., 1961, Zoology
University of Copenhagen, 1961-1962, Marine Biology
Stanford University, California, Ph.D., 1967, Biological Sciences

Fellowships:

Fulbright Fellow, 1961-1962, Danish Marine Laboratory, University of Copenhagen.
NIH Predoctoral Fellow, 1962-1966, Stanford University.

Positions:

Assistant Professor of Zoology, Pomona College, Claremont, California, 1966-1968.
Assistant Professor of Cytology and Zoology, Pacific Biomedical Research Center, University of Hawaii, 1968-1975.
Associate Professor of Cytology and Zoology, Department of Zoology and Pacific Biomedical Research Center, University of Hawaii, 1975-1979.
Professor of Cytology and Zoology, Department of Zoology and Pacific Biosciences Research Center, University of Hawaii, 1979 – 2013.
Director, Kewalo Marine Laboratory, Pacific Biosciences Research Center, University of Hawaii, 1996 - 2007.
Professor of Biology Emeritus, 2013 - .
Researcher, non-compensated, Pacific Biosciences Research Center, 2013 - .

Other Professional Experience and Activities:

Fulbright Fellow, Marine Laboratory, University of Copenhagen, studied marine invertebrate larvae with Prof. G. Thorson, 1961-62.
Participant, Stanford University "Te Vega" Expedition, Tropical Pacific, Summer 1963.
Scientist, U.S. Antarctic Program Research Ship "Eltanin", Summer 1964.
NSF Summer Institute, Chofu, Japan, Co-teaching "Environmental Biology", Summer 1971.
Visiting Professor, Invertebrate Zoology: University of Washington, Friday Harbor Labs, Summer 1981.
Visiting Professor, Advanced Invertebrate Embryology: Friday Harbor Laboratories, University of Washington, 1968, 1978, 1983, 1988, 1994, 1998; Catalina Island Marine Biological Laboratory, May 1971.
Visiting Professor, Larval Ecology: University of Washington, Friday Harbor Lab, Spring, 1984, 1986.
Visiting Professor, Cell Biology of Invertebrate Development: Hopkins Marine Station (Stanford University), Summer 1989.
Visiting Professor, Invertebrate Life Histories: University of Guam Marine Laboratory, Summer 1980, 1991, 1995.
Associate Editor, Pacific Science. 1985 – 2004.
Panelist, U. S. Department of Agriculture, Small Business Innovative Research Grants in Aquaculture. 1990.
Member, Review Committee for Smithsonian Institution, National Museum of Natural History; reviewing the Smithsonian Marine Station at Link Port, Florida. April 5-8, 1990.

Plenary Lecturer, Biology of Marine Larvae in: Biotechnology in Marine Biology, a short course sponsored by the Organization of American States, Santiago, Chile. Jan. 10-15, 1992.

Member, Animal Species Advisory Commission, State of Hawaii, appointed by Gov. John Waihee, 1988-93.

Member, National Science Foundation Task Group on Invertebrate Teaching, 1991-93.

Member, National Research Council Committee on Molecular Marine Biology, 1992-1993.

Participant, National Science Foundation, Division of Ocean Sciences, Workshop on Biological Diversity in Marine Systems (BioMar): A Proposed National Research Initiative. 1993.

Associate Editor, Journal of Experimental Zoology, 1990-1993.

Regional Editor, Marine Biology, International Journal on Life in Oceans and Coastal Waters, 1988-1993

Workshop Participant, The roles of marine laboratories in the implementation of the nation's emerging priorities for research and monitoring in the coastal zone. Sponsored by the National Association of Marine Laboratories. 1995.

Visiting Committee, Department of Organismic and Evolutionary Biology, Harvard University, 1991-1996.

Natural Area Reserves Commission, State of Hawaii, 1992-96, Chair, 1993-96.

Member, National Research Council, Working Group on New Models for Biomedical Research, 1997.

Ballast-water Task Force, Hawaii Departments of Land and Natural Resources and Agriculture, 1997- 99.

Ad hoc committee on governance, Society for Integrative and Comparative Biology, 1999.

International Workshop on the Census of Marine Life, Heraklion, Crete, Nov. 2000.

Chair, Search Committee for Head of Department of Invertebrate Zoology, U.S. National Museum of Natural History, Smithsonian Institution, 2000.

Chair, Search Committee for Director, the Smithsonian Marine Station, Smithsonian Institution, U.S. National Museum of Natural History, 2001.

Board of Directors, Pacific Institutes of Marine Science (International), 2002; President 2007 - 2009.

Member, External Review Committee for the Department of Biology, University of Oregon, May 2013.

Member, Scientific Advisory Board: Biodiversity Research Center, Academia Sinica, Taipei, Taiwan, 2008 -2017.

Member, International Review Panel, Singapore Center for Environmental Life Sciences Engineering, Nanyang Technological University and National University of Singapore, 2018-2022.

Member, Scientific Advisory Panel, Marine Climate Change Science Program, Singapore National Research Foundation. 2021-2023.

Current:

Research Associate, Bernice P. Bishop Museum, 1983 -.

Associate of Marine Biology in the Museum of Comparative Zoology, Harvard University, 1994 - .

Member, Mollusc Specialist Group, Species Survival Commission, International Union for The World Conservation Union, 1985 -.

Member. Hawaii State Alien Aquatic Species Taskforce, 2002 -.

Frontiers in Marine Science, Review Editor, 1915 - .

Member, Scientific Advisory Panel, Marine Climate Change Science Program, Singapore, 2021 – 2028.

Member, International Union for the Conservation of Nature, Mollusc Specialist Group, 2021-2025.

Membership in Professional Societies:

American Association for the Advancement of Science; American Institute of Biological Sciences; American Malacological Society; American Microscopical Society; Hawaii Academy of Science; International Society on Invertebrate Reproduction and Development; Malacological Society of London;

Sigma Xi; Society for Integrative and Comparative Biology; Unitas Malacologica; Western Society of Naturalists.

Offices:

Conservation Council for Hawaii (affil. Nat. Wildlife Fed.), Oahu Chapter: President, 1981-82.
Society of Sigma Xi, Hawaii Chapter: Councilor, 1989-90, President, 1991-92.
Western Society of Naturalists: President, 1993.
American Society of Zoologists, Division of Invertebrate Zoology: Chairman 1991 and 1992.
Society for Integrative & Comparative Biology (formerly American Society of Zoologists): President, 1995 and 1996; Executive Committee, 1991 - 1998.
Western Association of Marine Laboratories, Treasurer, 1997 - 2015.
Hawaii Academy of Science. President, 2004 – 2005.
Pacific Institutes of Marine Science. President, 2007 – 2012.

Honors:

Fellow, American Association for the Advancement of Science (1985)
Matsuda Scholar, University of Hawaii (1989)
Recipient of the first M. Patricia Morse Award for Excellence and Innovation in Science Education, from the Society for Integrative and Comparative Biology (2014)

Research Interests:

Settlement and metamorphosis of marine invertebrate larvae; comparative life history studies; chemical interactions in marine animals; marine biofilm bacteria; evolutionary and conservation biology of endemic Pacific-Island tree snails.

Peer-reviewed publications:

- Hadfield, M. G. 1963. The biology of nudibranch larvae. *Oikos*, 14(1):85-95.
Hadfield, M. G. 1963. *Coryphella parva* n. sp., a new nudibranch from the Oresund. *Vidensk. Medd. Dansk naturh. Foren.* 125: 371-376.
Hadfield, M. G. 1964. Opisthobranchia: The veliger larvae of the Nudibranchia. *Zooplankton Sheet No. 106. Fiches d'Identification, Conseil Intern. L'Exploration Mer.* 2 pp.
Hadfield, M. G. and R. H. Karlson. 1969. Externally induced metamorphosis in a marine gastropod. *Amer. Zool.* 9(4): 1122.
Hadfield, M. G. 1970. Observations on the anatomy and biology of two vermetid gastropods. *The Veliger* 12(3): 301-309.
Hadfield, M. G., E. A. Kay, M. U. Gillette, and M. G. Lloyd. 1972. The Vermetidae (Mollusca: Gastropoda) of the Hawaiian Islands. *Marine Biology* 12(1): 81-98.
Hadfield, M. G. 1974. Chapter 7, Hemichordata. Pp. 185-240, in: "Reproduction of Marine Invertebrates, Vol.2," A. C. Giese and J. S. Pearse, eds. Academic Press.
Bonar, D. B. and M. G. Hadfield. 1974. Metamorphosis of the marine gastropod *Phestilla sibogae*. I. Light and electron microscopic analysis of larval and metamorphic stages. *J. Exp. Mar. Biol. Ecol.* 16: 227-255.
Hadfield, M. G. 1975. Continuous laboratory culture of two *Aplysia* species. (Progress in Mariculture). *Lab Animal* 4(3): 17.
Hadfield, M. G. 1976. Molluscs associated with living tropical corals. *Micronesica* 12(1): 133-148.

- Hadfield, M. G. 1977. Chemical interactions in larval settling of a marine gastropod. Pp. 403-413, in: "Marine Natural Products Chemistry," D. J. Faulkner and W. H. Fenical, eds., Plenum, N. Y.
- Manen, C.-A., M. G. Hadfield, and D. H. Russell. 1977. Polyamine biosynthesis and accumulation during the early development of the nudibranch, *Phestilla sibogae*. *Develop. Biol.* 57: 454-459.
- Switzer-Dunlap, M., and M. G. Hadfield. 1977. Observations on development, larval growth and metamorphosis of four species of Aplysiidae (Gastropoda, Opisthobranchia) in laboratory culture. *J. Exp. Mar. Biol. Ecol.* 29: 245-261.
- Hadfield, M. G. 1978. Metamorphosis in marine molluscan larvae: an analysis of stimulus and response. Pp. 165-175, in: "Settlement and Metamorphosis of Marine Invertebrate Larvae," F.-S. Chia and M. E. Rice, eds. Elsevier.
- Hadfield, M. G. 1978. Growth and metamorphosis of planktonic larvae of *Ptychodera flava* (Hemichordata: Enteropneusta). Pp. 247-254, in: "Settlement and Metamorphosis of Marine Invertebrate Larvae," F.-S. Chia and M. E. Rice, eds. Elsevier.
- Hadfield, M. G. and L. S. Ciereszko. 1978. Action of cembranolides derived from octocorals on larvae of the nudibranch *Phestilla sibogae*. Pp. 145-159, in: "Drugs and Food from the Sea," P. N. Kaul and C. J. Sinderman, eds. Univ. of Oklahoma Press, Norman.
- Switzer-Dunlap, M., and M. G. Hadfield. 1979. Reproductive patterns of Hawaiian aplysiid gastropods. In: "Reproductive Ecology of Marine Invertebrates," S. Stancyk, ed., B. W. Baruch Library of Marine Sciences, Vol. 9: 199-210.
- Hadfield, M. G. 1979. Aplacophora. Chapter 1. Pp. 1-25, in: "Reproduction of Marine Invertebrates Vol. V," A. C. Giese and J. S. Pearse, eds. Academic Press.
- Austin, W. C. and M. G. Hadfield. 1980. Ophiuroidea. Pp. 144-159, in: "Marine Invertebrates of California Shores," R. H. Morris and D. P. Abbott, eds. Stanford University Press.
- Hadfield, M. G. and C. N. Hopper. 1980. Ecological and evolutionary significance of pelagic spermatophores of vermetid gastropods. *Marine Biology* 57: 315-325.
- Hadfield, M. G. and B. S. Mountain. 1980. A field study of a vanishing species, *Achatinella mustelina* (Gastropoda, Pulmonata), in the Waianae Mountains of Oahu. *Pac. Sci.* 34: 345-358.
- Switzer-Dunlap, M. F. and M. G. Hadfield. 1981. Laboratory culture of *Aplysia*. Pp. 199-216, in: "Marine Invertebrates, Laboratory Animal Management," R. E. Hinegardner and R. Fay, eds. *Natl. Acad. Sci.*
- Hadfield, M. G. and R. E. Young. 1983. Planctosphaera (Hemichordata: Enteropneusta) in the Pacific Ocean. *Marine Biology* 73: 151-153.
- Hadfield, M. G. and M. F. Switzer Dunlap. 1984. Reproduction in Opisthobranchs. Pp. 209-350, in: "The Mollusca, Vol. 7, Reproduction," K. Wilbur, ed. Academic Press, N.Y.
- Hadfield, M. G. 1984. Settlement requirements of molluscan larvae: new data on chemical and genetic roles. *Aquaculture* 39: 283-298.
- Kempf, S. C. and M. G. Hadfield. 1985. Planktotrophy in the lecithotrophic larvae of a nudibranch, *Phestilla sibogae* (Gastropoda). *Biol. Bull.* 169: 119-130.
- Hadfield, M. G. and D. Scheuer. 1985. Evidence for a soluble metamorphic inducer in *Phestilla*: ecological, chemical and biological data. *Bull. Mar. Sci.* 37(2): 556-566.
- Hadfield, M. G. 1986. Extinction in Hawaiian Achatinelline snails. *Malacologia*, 27: 67-81.
- Hadfield, M. G. 1986. Settlement and recruitment of marine invertebrates: a perspective and some proposals. *Bull. Mar. Sci.* 39: 418-425.
- Hirata, K. Y. and M. G. Hadfield. 1986. The role of choline in metamorphic induction of *Phestilla* (Gastropoda, Nudibranchia). *J. Comp. Biochem. Physiol.* 84C: 15-21.
- Miller, S. E. and M. G. Hadfield. 1986. Ontogeny of phototaxis and metamorphic competence in larvae of the nudibranch *Phestilla sibogae* Bergh (Gastropoda: Opisthobranchia). *J. Exp. Mar. Biol. Ecol.* 96: 1-18.
- Yool, A. J., S. M. Grau, M. G. Hadfield, R. A. Jensen, D. A. Markell and D. E. Morse. 1986. Excess potassium induces larval metamorphosis in four marine invertebrate species. *Biol. Bull.* 170: 255-266.

- Hadfield, M. G. and S. E. Miller. 1987. On developmental patterns of opisthobranchs. *Amer. Malac. Bull.* 5: 197-214.
- Safriel, U. N. and M. G. Hadfield. 1988. Sibling speciation by life-history divergence in *Dendropoma* (Gastropoda; Vermetidae). *Biol. J. Linnean Soc.* 35: 1-13.
- Hadfield, M. G. and S. E. Miller. 1989. Demographic studies on Hawaii's endangered tree snails: *Partulina proxima*. *Pacific Science* 43: 1-16.
- Hadfield, M. G. 1989. Latitude, juvenile size and fecundity in *Petalococonchus* (Gastropoda). *Bull. Mar. Sci.* 45(2): 369-376.
- Hadfield, M. G. and D. K. Iaea. 1989. The velum of encapsulated veligers of *Petalococonchus* (Gastropoda) and the problem of re-evolution of planktotrophic larvae. *Bull. Mar. Sci.* 45(2): 377-386.
- Pennington, J. T. and M. G. Hadfield. 1989. Larvae of a nudibranch mollusc (*Phestilla sibogae*) metamorphose when exposed to common organic solvents. *Biol. Bull.* 177: 350-355.
- Pennington, J. T. and M. G. Hadfield. 1989. A simple, non-toxic method for decalcification of living invertebrate larvae. *J. Exp. Mar. Biol. Ecol.* 130: 1-7.
- Woollacott, R. M. and M. G. Hadfield. 1989. Larva of the sponge *Dendrilla cactus* (Demospongiae: Dendroceratida). *Trans. Am. Microsc. Soc.* 108: 410-413.
- Hadfield, M. G., S. E. Miller and A. H. Carwile. 1989. Draft recovery plan for endangered O`ahu tree snails, *Achatinella* spp. (U. S. Fish and Wildlife Service, April, 1993). 64 pp.
- Hadfield, M. G. and M. F. Strathmann. 1990. Heterostrophic shells and pelagic development in trochoideans: implications for classification, phylogeny and paleoecology. *J. Molluscan Studies* 56: 239-256.
- Bieler, R. and M. G. Hadfield. 1990. Reproductive biology of the sessile gastropod *Vermicularia spirata* (Cerithioidea: Turritellidae). *J. Molluscan Studies* 56: 205-219.
- Hadfield, M. G. and J. T. Pennington. 1990. The nature of the metamorphic signal and its internal transduction in larvae of the nudibranch *Phestilla sibogae*. *Bull. Mar. Sci.* 46(2): 455-464.
- Miller, S. E. and M. G. Hadfield. 1990. Developmental arrest during larval life and life-span extension in a marine mollusc. *Science* 248: 356-358.
- Hadfield, M. G. and M. F. Switzer-Dunlap. 1990. Environmental regulation of lifespan and reproduction in *Aplysia juliana*. *Advances in Invertebrate Reproduction* 5: 247-255.
- Pires, A. and M. G. Hadfield. 1991. Oxidative breakdown products of catecholamines and hydrogen peroxide induce partial metamorphosis in the nudibranch *Phestilla sibogae* Bergh (Gastropoda: Opisthobranchia). *Biological Bulletin* 180:310-317.
- Todd, C. D., J. P. Thorpe and M. G. Hadfield. 1991. Genetic structure of populations of the aplysiid opisthobranch *Stylocheilus longicaudus* (Quoy & Gaimarde) around the shores of O`ahu Hawaii. *Journal of Molluscan Studies* 57:153-166.
- Kempf, S. C., G. V. Chun and M. G. Hadfield. 1992. An immuno-cytochemical search for potential neurotransmitters in larvae of *Phestilla sibogae* (Gastropoda, Opisthobranchia). *Comparative Biochemistry and Physiology* 101C: 299-305.
- Rittschof, D., A. S. Clare, D. J. Gerhart, J. Bonaventura, C. Smith and M. G. Hadfield. 1992. Rapid field assessment of antifouling and foul-release coatings. *Biofouling* 6:181-192.
- Pires, A. and M. G. Hadfield. 1993. Responses of isolated vela of nudibranch larvae to inducers of metamorphosis. *Journal of Experimental Zoology* 266:234-239.
- Hadfield, M. G., S. E. Miller and A. H. Carwile. 1993. Decimation of endemic Hawaiian tree snails by alien predators. *American Zoologist* 33(6): 610-622.
- Hadfield, M. G., C. Unabia, C. M. Smith and T. M. Michael. 1994. Settlement preferences of the ubiquitous fouler *Hydroides elegans*. Pp. 65-74, in, "Recent Developments in Biofouling Control," M. Fingerman, R. Nagabhushanam and R. Sarojini, eds. Oxford & IBH, New Delhi.
- Pechenik, J. A., M. G. Hadfield and L. S. Eyster. 1995. Assessing whether larvae of the opisthobranch gastropod *Phestilla sibogae* become responsive to three chemical cues at the same age. *Journal of Experimental Marine Biology and Ecology* 19:1-17.

- Hadfield, M. G. 1995. Variability, plasticity and flexibility: multiple paths to reproductive success for benthic marine invertebrates (invited review). *Prog. Nat. Determinisme Recruitment (France), Informations*, 22: 2-7.
- Hadfield, M. G. and M. F. Strathmann. 1996. Variability, Flexibility and Plasticity in Life Histories of Marine Invertebrates. *Oceanologica Acta* 19(3-4):323-334.
- Kobayashi, S. R. and M. G. Hadfield. 1996. An experimental study of growth and reproduction in the Hawaiian tree snails, *Achatinella mustelina* and *Partulina redfieldii* (Achatinellinae). *Pacific Science* 50:339-354.
- Woollacott, R. M. and M. G. Hadfield. 1996. Induction of metamorphosis in larvae of a sponge. *Invertebrate Biology* 115:257-262.
- Walters, L. J., M. G. Hadfield and C. M. Smith. 1996. Waterborne chemical compounds in tropical macroalgae: positive and negative cues for larval settlement. *Marine Biology* 126:383-393.
- Walters, L. J., M. G. Hadfield and K. A. del Carmen. 1997. The importance of larval choice and hydrodynamics in creating aggregations of *Hydroides elegans* (Polychaeta: Serpulidae). *Invertebrate Biology* 116(2):102-114.
- Pires, A., S. L. Coon and M. G. Hadfield. 1997. Catecholamines and dihydroxyphenylalanine in metamorphosing larvae of the nudibranch *Phestilla sibogae* Bergh (Gastropoda: Opisthobranchia). *Journal of Comparative Physiology A* 181:187-194.
- Hadfield, M. G., M. F. Strathmann and R. R. Strathmann. 1997. Ciliary currents of non-feeding veligers in ancient clades of gastropods. *Invertebrate Biology* 116(4):313-321.
- Todd, C. D., M. G. Hadfield and W. A. Sneddon. 1997. Juvenile mating and sperm storage in the tropical coralivorous nudibranch *Phestilla sibogae*. *Invertebrate Biology* 116(4):322-330.
- Murphy, B. F. and M. G. Hadfield. 1997. Chemoreception in the nudibranch gastropod *Phestilla sibogae*. *Comparative Biochemistry and Physiology* 118A: 727-735.
- Hadfield, M. G. 1998. The D. P. Wilson Lecture, Research on settlement and metamorphosis of marine invertebrate larvae: past, present and future. *Biofouling* 12(1-3): 9-29.
- Carpizo-Ituarte, E. and M. G. Hadfield. 1998. Stimulation of metamorphosis in the polychaete *Hydroides elegans* Haswell (Serpulidae). *Biological Bulletin* 194:14-24.
- Holm, E., B. Nedved, E. Carpizo-Ituarte and M. G. Hadfield. 1998. Metamorphic-signal transduction in *Hydroides elegans* Haswell (Polychaeta: Serpulidae) is not mediated by a G protein. *Biological Bulletin* 195:21-29.
- Boudko, D. Y., M. Switzer-Dunlap and M. G. Hadfield. 1999. The cellular and subcellular structure of anterior sensory pathways in *Phestilla sibogae* (Gastropoda, Nudibranchia). *Journal of Comparative Neurology* 403: 39-53.
- Unabia, C. and M. G. Hadfield. 1999. The role of bacteria in larval settlement and metamorphosis of the polychaete *Hydroides elegans*. *Marine Biology* 133:55-64.
- Hadway, L. J. and M. G. Hadfield. 1999. Conservation status of tree snail species in the genus *Partulina* (Achatinellinae) on the island of Hawai'i: a modern and historical perspective. *Pacific Science* 53:1-14.
- Hadfield, M. G., E. Meleshkevitch and D. Boudko. 2000. The apical sensory organ of a gastropod veliger is a receptor for settlement cues. *Biological Bulletin* 198(1):67-76.
- Pires, A., R. P. Croll and M. G. Hadfield. 2000. Catecholamines modulate metamorphosis in the opisthobranch gastropod *Phestilla sibogae*. *Biological Bulletin* 198(3):319-331.
- Holm, E. R., B. T. Nedved, N. Phillips, K. L. Deangeles, M. G. Hadfield and C. M. Smith. 2000. Temporal and spatial variation in the fouling of silicone coatings in Pearl Harbor, Hawaii. *Biofouling* 15:95-107.
- Thacker, R. and M. G. Hadfield. 2000. Mitochondrial phylogeny of extant Hawaiian tree snails (Achatinellinae). *Molecular Phylogenetics and Evolution* 16:263-270.
- Hadfield, M. G. 2000. Why and how marine invertebrate larvae metamorphose so fast. *Seminars in Cell and Developmental Biology* 11(6):437-443.

- Leise, E. M. and M. G. Hadfield. 2000. An inducer of molluscan metamorphosis transforms activity patterns in a larval nervous system. *Biological Bulletin* 199:241-250.
- Swain, G., A. C. Anil, R. E. Baier, F.-S. Chia, E. Cone, A. Cook, M. Hadfield, E. Haslbeck, E. Holm, C. Kavanagh, D. Kohrs, B. Kovach, C. Lee, L. Mazzella, A. E. Meyer, P.-Y. Qian, S. S. Sawant, M. Schultz, J. Sigurdsson, C. Smith, L. Soo, A. Terlizzi, A. Wagh, R. Zimmerman, and V. Zupo. 2000. Biofouling and barnacle adhesion data for fouling-release coatings subjected to static immersion at seven marine sites. *Biofouling* 16: 331-344
- Hadfield, M. G. and V. J. Paul. 2001. Natural chemical cues for settlement and metamorphosis of marine invertebrate larvae. *In*, Marine Chemical Ecology, J. B. McClintock and W. Baker, eds. CRC Press pp. 431 - 461.
- Hadfield, M. G. 2001. Hemichordata. *In*, Atlas of Marine Invertebrate Larvae, C. M. Young, M. E. Rice and M. Sewell, eds. Academic Press. Pp. 553-564.
- Hickman, C. S. and M. G. Hadfield. 2001. Larval muscle contraction fails to produce torsion in a trochoidean gastropod. *Biological Bulletin* 200:257-260.
- Croll, R. P., D. Y. Boudko and M. G. Hadfield. 2001. Histochemical survey of transmitters in the central ganglia of the gastropod mollusc *Phestilla sibogae*. *Cell and Tissue Research* 305:417-432.
- Hadfield, M. G., E. J. Carpizo-Ituarte, K. del Carmen and B. T. Nedved. 2001. Metamorphic competence, a major adaptive convergence in marine invertebrate larvae. *American Zoologist* 41:1123-1131.
- Holland, B. S. and M. G. Hadfield. 2002. Islands within an island: phylogeography and conservation genetics of the endangered Hawaiian tree snail *Achatinella mustelina*. *Molecular Ecology* 11:365-375.
- Zabin, C. and M. G. Hadfield. 2002. Do locals rule? Interactions between native intertidal animals and a Caribbean barnacle in Hawai'i. *Pacific Science* 56:235-236.
- Hofmann, D. K. and M. G. Hadfield. 2002. Hermaphroditism, gonochorism, and asexual reproduction in *Cassiopea* sp. - an immigrant in the islands of Hawai'i. *J. Invertebrate Reproduction & Development* 41: 215-221.
- Carpizo-Ituarte, E. J. and M. G. Hadfield. 2003. Transcription and translation inhibitors permit metamorphosis up to radiole formation in the serpulid polychaete *Hydroides elegans* Haswell. *Biol. Bull.* 204:114-125.
- Pettengill, J. G., M. G. Hadfield, M. D. Schug and D. E. Wendt. 2003. Characterization of six polymorphic microsatellites for the polychaete tubeworm *Hydroides elegans* and cross-species amplification in the congener *Hydroides hexagonus*. *Molecular Ecology Notes* 3(3): 369-371.
- Huang, S. and M. G. Hadfield. 2003. Composition and density of bacterial biofilms affect metamorphosis of the polychaete *Hydroides elegans*. *Marine Ecology Progress Series* 260:161-172.
- Croll, R. P., D. Y. Boudko, A. Pires and M. G. Hadfield. 2003. Transmitter contents of cells and fibers in the cephalic sensory organs of the gastropod mollusc *Phestilla sibogae*. *Cell and Tissue Research* 314: 437-448.
- Walters, L. J., C. M. Smith and M.G. Hadfield. 2003. Recruitment of sessile marine invertebrates on Hawaiian macrophytes: do pre-settlement or post-settlement processes keep plants free from fouling? *Bull. Mar. Sci.* 72(3):813-839.
- Holland, B. S. and M. G. Hadfield. 2004. Origin and diversification of endemic Hawaiian tree snails (Achatinellidae: Achatinellinae) based on molecular evidence. *Molecular Phylogeny and Evolution* 32:588-600.
- Hadfield, M. G., B. S. Holland and K. J. Olival. 2004. Contributions of *ex situ* propagation and molecular genetics to conservation of Hawaiian tree snails. *Experimental Approaches to Conservation Biology*, M. Gordon and S. Bartol, eds. University of California Press. Pp. 16 – 34.
- Koehl, M. A. R. and M. G. Hadfield. 2004. Soluble settlement cue in slowly moving water within coral reefs induces larval adhesion to surfaces. *Journal of Marine Systems* 49: 75-88.
- Hadfield, M. G. and M. A. R. Koehl. 2004. Rapid behavioral responses of an invertebrate larva to dissolved settlement cue. *Biol. Bull.* 207:28-43.
- Zardus, J. D. and M. G. Hadfield. 2004. Larval development and complementary males in *Chelonibia testudinaria*, a barnacle commensal with sea turtles. *Journal of Crustacean Biology* 24(3): 409-421.

- Zardus, J. d. and M. G. Hadfield. 2005. Population history of the Atlantic barnacle *Chthamalus proteus* and the genetic origins of its introduction to the Pacific. *Molecular Ecology* 14: 3719-3733.
- Buckland-Nicks, J. and M. G. Hadfield. 2005. Spermatogenesis in *Serpulorbis* (Mollusca: Vermetoidea) and its implications for phylogeny of gastropods. *Journal of Invertebrate Reproduction and Development* 48(1-3): 171 – 184.
- Hadfield, M. G., A. Faucci and M. A. R. Koehl. 2006. Measuring recruitment of minute larvae in a complex field environment: the corallivorous nudibranch *Phestilla sibogae* (Bergh). *Journal of Experimental Marine Biology and Ecology* 338: 57 – 72.
- Shikuma, N. J. and M. G. Hadfield. 2006. Temporal variation of an initial marine biofilm community and effects on larval settlement and metamorphosis of the tubeworm *Hydroides elegans*. *Biofilms* 2(4): 231-238.
- Bishop, C. D., D. F. Erezylmaz, T. Flatt, C. D. Georgiou, **M. G. Hadfield**, A. Heyland, J. Hodin, M. W. Jacobs, S. A. Maslakova, A. Pires, A. M. Reitzel, S. Santagata, K. Tanaka and J. H. Youson. 2006. What is metamorphosis? *Integrative & Comparative Biology* 46(6): 655 – 661.
- Holland, B. S. and **M. G. Hadfield**. 2007. Molecular Systematics of the Endangered Oahu Tree Snail *Achatinella mustelina* (Mighels, 1845): Synonymization of Subspecies and Estimation of Gene Flow Between Chiral Morphs. *Pacific Science* 61: 53 – 66.
- Faucci, A., R. J. Toonen and M. G. Hadfield. 2007. Host shift and speciation in a coral-feeding nudibranch. *Proceeding of the Royal Society of London, B* 274: 111 – 119.
- Miles, C. M., **M. G. Hadfield** and M. L. Wayne. 2007. Heritability for egg size in the serpulid polychaete *Hydroides elegans*. *Marine Ecology Progress Series* 340:155-162.
- Zabin, C. J., J. Zardus, F. B. Pitombo, V. Fread and **M. G. Hadfield**. 2007. A tale of three seas: consistency of natural history traits in a Caribbean-Atlantic barnacle introduced to Hawaii. *Biological Invasions* 9(5): 523 - 544.
- Koehl, M. A. R. K., Strother, J. A., M. A. Reidenbach, J. R. Koseff, and **M. G. Hadfield**. 2007. Individual-based model of larval transport to coral reefs in turbulent, wave-driven flow: Effects of behavioral responses to dissolved settlement cues. *Marine Ecology Progress Series* 335:1-18.
- Pettengill, J. B., D. E. Wendt, M. D. Schug, and **M. G. Hadfield**. 2007. Biofouling likely serves as a major mode of dispersal for the polychaete tubeworm *Hydroides elegans* as inferred from microsatellite loci. *Biofouling* 23: 161 – 169.
- Hadfield, M. G.** 2007. A 70th birthday tribute to an outstanding marine biologist: John S. Pearse. *Bull. Mar. Sci.* 81(2): 160-165.
- Zardus, J. D, B. T. Nedved, C. Tran, Y. Huang and **M. G. Hadfield**. 2008, Microbial Biofilms Facilitate Adhesion in Biofouling Invertebrates. *Biological Bulletin* 214: 91–98.
- Bishop, C. D., A. Pires, S.-W. Norby, D. Boudko, L. L. Moroz and **M. G. Hadfield**. 2008. Analysis of nitric oxide-cyclic guanosine monophosphate signaling during metamorphosis of the nudibranch *Phestilla sibogae* Bergh (Gastropoda: Opisthobranchia). *Evolution and Development* 10(3): 288 – 299.
- Erickson, P. B. and **M. G. Hadfield**. 2008. Isolation and characterization of eight polymorphic microsatellite loci in the endangered Hawaiian tree snail *Achatinella sowerbyana*. *Molecular Ecology Resources* 8:808-810.
- Nedved, B. T. and **M. G. Hadfield**. 2009. *Hydroides elegans* (Annelida: Polychaeta): a model for biofouling research. Pp. 203 - 217 *in*: *Marine and Industrial Biofouling*, H.C. Flemming, R. Venkatesan, S.P. Murthy, K. Cooksey, Eds. Springer Series on Biofilms, Springer-Verlag, Berlin.
- Schlesinger, A., R. Goldschmid, **M. G. Hadfield**, E. Kramarsky-Winter and Y. Loya. 2009. Laboratory culture of the aeolid nudibranch *Spurilla neopolitana* (Mollusca, Opisthobranchia): life history aspects. *Marine Biology* 156(4): 753 – 761.
- Huggett, M. J., B. T. Nedved and **M. G. Hadfield**. 2009. Effects of initial surface wettability on biofilm formation and subsequent settlement of *Hydroides elegans*. *Biofouling* 25(5): 387 – 399.
- Hadfield, M. G.** and J. E. Saufler. 2009. The demographics of destruction: isolated populations of arboreal snails and sustained predation by rats on the island of Moloka`i 1982 – 2006. *Biological Invasions* 11:1595-1609.

- Hall, K. T. and **M. G. Hadfield**. 2009. Application of harmonic radar technology to monitor tree snail dispersal. *Invertebrate Biology* 128: 9 – 15.
- Chen, J.-Y., D. J. Bottjer, E. H. Davidson, G. Li, F. Gao, A. C. Cameron, **M. G. Hadfield**, D.-C. Xian, P. Tafforeau, Q.-J. Jia, H. Sugiyama and R. Tang. 2009. Phase contrast synchrotron X-ray microtomography of Ediacaran (Doushantuo) metazoan microfossils: Phylogenetic diversity and evolutionary implications. *Precambrian Research* 173: 191-200.
- Chen, J.-Y., D. J. Bottjer, G. Li, **M. G. Hadfield**, F. Gao, A. R. Cameron, C.-Y. Zhang, D.-C. Xian, P. Tafforeau, X. Liao and Z.-J. Yin. 2009. Complex embryos displaying characters from Precambrian Doushantuo phosphate deposits, Weng'an, Guizhou, China. *Proc. Nat. Acad. Sci.* 106(45): 19056 - 19060.
- Shikuma, N.J. and **M. G. Hadfield**. 2010. Marine biofilms on submerged surfaces are a reservoir for *Escherichia coli* and *Vibrio cholera*. *Biofouling* 26: 39 – 46.
- Hall, K. T. and **M. G. Hadfield**. 2010. Using dispersal rates to guide translocation across impermeable wildlife reserve boundaries: Hawaiian tree snails as a practical example. *Malacologia* 52(1): 67 - 80.
- Koehl, M. A. R. and **M. G. Hadfield**. 2010. Hydrodynamics of larval settlement from a larva's point of view. *Integr. Comp. Biol.* 50(4): 539 - 551.
- Strathmann, R. R., M. F. Strathmann, G. Ruiz-Jones and **M. G. Hadfield**. 2010. Effect of plasticity in hatching on duration as a precompetent swimming larva in the nudibranch *Phestilla sibogae*. *Invertebrate Biol.* 129(4): 1 - 10.
- Pelep, P. O. and **M. G. Hadfield**. 2011. The status of the endemic snails of the genus *Partula* (Gastropoda: Partulidae) on Pohnpei, Federated States of Micronesia. *Micronesica* 41(2):253–262.
- Hadfield, M. G.** 2011. Biofilms and Marine Invertebrate Larvae: What Bacteria Produce That Larvae Use to Choose Settlement Sites. *Annual Review of Marine Science* 3: 453-470.
- Ruiz-Jones, G. J. and **M. G. Hadfield**. 2011. The loss of sensory elements in the apical sensory organ during metamorphosis in the nudibranch *Phestilla sibogae*. *Biol. Bull.* 22:39-46.
- Tran, C. and **M. G. Hadfield**. 2011. Larvae of *Pocillopora damicornis* (Anthozoa) settle and metamorphose in response to surface-biofilm bacteria. *Marine Ecology Progress Series* 433: 85-96.
- Huang, Y., S. Callahan and **M. G. Hadfield**. 2012. Recruitment in the sea: bacterial genes required for inducing larval settlement in a marine worm. *Scientific Reports* 2:228 | DOI: [10.1038/srep00228](https://doi.org/10.1038/srep00228).
- Tran, C. and **M. G. Hadfield**. 2012. Are G-protein-coupled receptors involved in mediating larval settlement and metamorphosis of coral planulae? *Biol. Bull.* 222:128-136.
- Hadfield, M. G.** 2012. Molecular clue links bacteria to the origin of animals. *eLife* 2012; 1:e00242.
- McFall-Ngai, M., **M. G. Hadfield**, Thomas Bosch, et al. 2013. Animals in a bacterial world, a new imperative for the life sciences. *Proceedings of the National Academy of Sciences* [doi/10.1073/pnas.1218525110](https://doi.org/10.1073/pnas.1218525110).
- Tran, C. and **M. G. Hadfield**. 2013. Sensory mechanisms utilized by coral planulae to detect settlement cues. *Invertebrate Biology*. *Invertebrate Biology* 132(3): 195-206.
- Shikuma, N. J., M. Pilhofer, G. L. Weiss, **M. G. Hadfield**, G. J. Jensen, and D. K. Newman. 2014. Marine tubeworm metamorphosis induced by arrays of bacterial phage tail-like structures. *Science* 343: 529 – 533.
- Erickson, P. B. and **M. G. Hadfield**. 2014. Population structure and genetic signs of population bottlenecks in the endangered Hawaiian tree snail *Achatinella sowerbyana*. *Conservation Genetics* 15(5):1209-1217. DOI [10.1007/s10592-014-0612-1](https://doi.org/10.1007/s10592-014-0612-1).
- Hadfield, M.G.**, B. Nedved, S. Wilbur and M. A. R. Koehl. 2014. Biofilm cue for larval settlement in *Hydroides elegans* (Polychaeta): is contact necessary? *Marine Biology*, 161(11): 2577-2587. DOI: [10.1007/s00227-014-2529-0](https://doi.org/10.1007/s00227-014-2529-0).
- Asahina, A. Y., and **M. G. Hadfield**. 2014. Complete genome sequence of *Cellulophaga lytica* HI1 using PacBio single-molecule real-time sequencing. *Genome Announcement*, 2(6): 1-2 (e01148-14).
- Price, M. E. and **M. G. Hadfield**. 2014. Population genetics and bottleneck effects in an *ex situ* population of critically endangered Hawaiian tree snails. *PLoS ONE*, DOI:[10.1371/journal.pone.0114377](https://doi.org/10.1371/journal.pone.0114377).
- Hadfield, M.G.** 2015. The Tree Snail *Partula gibba* in the Northern Mariana Islands with a focus on Pagan

- Island. Bishop Museum Bulletin in Zoology 9: 147-167.
- Hadfield, M. G.**, A. Asahina, S. Hennings and B. Nedved. 2015. The bacterial basis of biofouling: a case study. *Indian Journal of Geomarine Science*, 43 (11): 2075-2084.
- Asahina, A. Y. and **M. G. Hadfield**. 2015. Draft Genome of *Pseudoalteromonas luteoviolacea* H11 using Roche 454 and PacBio Single Molecule Real-Time Hybrid Sequencing. *Genome Announcement* 3(1): e01590-14. doi:10.1128/genomeA.01590-14.
- Price, M. R., D. Sischo, M. Pascua and **M. G. Hadfield**. 2015. Demographic and genetic factors in the recovery or demise of *ex situ* populations following a severe bottleneck in fifteen species of Hawaiian tree snails. *PeerJ*: DOI 10.7717/peerj.1406.
- Sischo, D., M. R. Price, and **M. G. Hadfield**. 2016. Genetic and Demographic Insights into the Decline of a Captive Population of the Endangered Hawaiian Tree Snail *Achatinella fuscobasis* (Achatinellinae) *Pacific Science*, 70: 133-141. DOI 10.2984/70.2.1.
- Price, M. R., Z. H. Forsman, I. Knapp, **M. G. Hadfield**, R. J. Toonen. 2016. The complete mitochondrial genome of *Achatinella mustelina* (Gastropoda: Pulmonata: Stylommatophora). *Mitochondrial DNA Resources*: DOI 10.1080/23802359.2016.1149787.
- Price, M. R., R. O'Rorke, A. S. Amend, and **M. G. Hadfield**. 2016. Diet selection at three spatial scales: Implications for conservation of an endangered Hawaiian tree snail. *Biotropica*, DOI: 10.1111/btp.12339
- Price, M.R., Z. H. Forsman, I. Knapp, R. J. Toonen, and **M. G. Hadfield**. 2016. The complete mitochondrial genome of *Achatinella sowerbyana* (Gastropoda: Pulmonata: Stylommatophora: Achatinellidae). *Mitochondrial DNA Resources, Part B*, 1:1. 666-668, DOI: 10.1080/23802359.2016.1219631
- Batzel, G., B.T. Nedved and **M. G. Hadfield**. 2016. Expression and localization of carbonic anhydrase genes in the serpulid polychaete, *Hydroides elegans*. *Biol. Bull.* 231:175-184.
- Freckelton, M., B. T. Nedved and **M. G. Hadfield**. 2017. Induction of Invertebrate Larval Settlement; Different Bacteria, Different Mechanisms? *Scientific Reports*, DOI: 10.1038/srep42557
- Sischo, D. R. and **M. G. Hadfield**. 2017. Phylogeographic relationships among multi-island populations of the tree snail *Partula gibba* (Partulidae) in the Mariana Islands. *Biol. J. Linnean Soc.* 20:1-10.
- Strathmann, R.R., M. Strathmann and **M. G. Hadfield**. 2018. Development of a vermetid gastropod that involves encapsulated nurse eggs, variously arrested veligers, and cannibalism is a case of brood reduction, not poecilogony. *Biological Bulletin* 235: doi: 10.1086/699324.
- Laumer, C., H. Gruber-Vodicka, **M. G. Hadfield**, V. B. Pearse, A. Riesgo, J. C. Marioni and G. Giribet 2018. Support for a clade of Placozoa and Cnidaria in genes with minimal compositional bias. *eLife* 2018:7:e36278 DOI: 10.7554/eLife.36278.
- Hadfield, M.G.** 2018. Book review: *Evolutionary Ecology of Marine Invertebrate Larvae*. *The American Midland Naturalist*, 180(2):318-319. doi.org/10.1674/0003-0031-180.2.318.
- Summers, S., M. Freckelton, B. Nedved, S. Rice, and **M.G. Hadfield**. 2018. The full Genome sequence of *Thalassotalea euphylliae* H1, isolated from a *Montipora capitata* coral located in Hawai'i. *Microbiology Resource Announcements*, DOI:10.1128/MRA.01244-18.
- Kerr, J. Q., D. J. Hess, C. M. Smith and **M.G. Hadfield**. 2018. Recognizing and reducing barriers to science and math education and STEM careers for Native Hawaiians and Pacific Islanders. *CBE – Life Sciences Education*, 17(4): doi.org/10.1187/cbe.18-06-0091
- Vijayan, N., K.A. Lema, B. Nedved and **M. G. Hadfield**. 2018. Microbiomes of the polychaete *Hydroides elegans* across its life-history stages. *Marine Biology*, 84:31-42. DOI: 10.1007/s00227-019-3465-9.
- Summers, S., M. Freckelton, B. Nedved, S. Rice, and **M.G. Hadfield**. 2019. The full Genome sequence of *Thalassotalea euphylliae* H2 strain. *Microbiology Resource Announcements*, DOI: 10.1128/MRA.01608-18.
- Hadfield, M.G.** and D. J. Haraway. 2019. The Tree-Snail Manifesto. *Current Anthropology*, 60, suppl. 20: S209 – S235. DOI: 10.1086/703377.
- Gruber-Vodicka, H.R., N. Leisch, M. Kleiner, T. Hinzke, M. Liebeke, M. McFall-Ngai, **M. G. Hadfield**, and N. Dubilier. 2019. Two intracellular and cell type-specific bacterial symbionts in the placozoan *Trichoplax* H2. *Nature Microbiology* doi.org/10.1038/s41564-019-0475-9.

- Lema, K.A., F. Constancias, S. A. Rice and **M. G. Hadfield**. 2019. High bacterial diversity in near-shore and oceanic biofilms and their influence on larval settlement by *Hydroides elegans* (Polychaeta). *Environmental Microbiology*, 21(9): 3472–3488. doi.org/10.1038/s41564-019-0475-9.
- Vijayan, N. and **M. G. Hadfield**. 2020. Characterizing the microbial diversity of a natural biofilm that induces larval settlement of *Hydroides elegans*. *Aquatic Microbial Ecology*, 84:31-42. doi.org/10.3354/ame01925
- Hadfield, M. G.** 2020. Snails that eat snails. *The Feral Atlas* (Stanford University Press). <https://feralAtlas.supdigital.org/poster/snails-that-eat-snails>
- Hadfield, M. G.** and M. J. McFall-Ngai. 2021. Trichoplax and its bacteria: How many are there? Are they speaking? Ch. 3, pp. 35-48, in: *Cellular dialogues in the holobiont*, M. G. Hadfield and T. C. G. Bosch, eds. CRC/Taylor and Francis.
- Hadfield, M. G.** and T. C. G. Bosch. 2021. Cellular dialogues between hosts and microbial symbionts: generalities emerging. Ch. 17, pp. 287-290, in: *Cellular dialogues in the holobiont*, M. G. Hadfield and T. C. G. Bosch, eds. CRC/Taylor and Francis.
- Hadfield, M. G.** 2021. Developmental Symbiosis: A Sponge Larva Needs Symbiotic Bacteria to Succeed on the Benthos. *Current Biology*, Jan. 2021. doi.org/10.1016/j.cub.2020.11.007
- Price, M. R., **M. G. Hadfield**, I. S. S. Knapp, R. J. Toonen and Z. H. Forsman. 2021. Evolutionary genomics of endangered Hawaiian tree snails (Achatinellidae: Achatinellinae) for conservation of adaptive capacity. *PeerJ* 9:e10993. DOI [10.7717/peerj.10993](https://doi.org/10.7717/peerj.10993)
- Huggett, M. J., E. J. Carpizo-Ituarte, B. T. Nedved and **M. G. Hadfield**. 2021. Formation and function of the primary tube during settlement and metamorphosis of the marine polychaete *Hydroides elegans* Haswell (Serpulidae). *Biological Bulletin*. 240:82-94. doi.org/10.1086/713623
- Sischo, D. R. and **M. G. Hadfield**. 2021. The tree snail on Rota Island, Northern Mariana Islands, long identified as *Partula gibba*, is a different species. *ZooKeys* 1037: 105–118. doi: [10.3897/zookeys.1037.56303](https://doi.org/10.3897/zookeys.1037.56303)
- Hadfield, M. G.**, M. F. Freckelton and B. T. Nedved. 2021. The natural sequence of events in larval settlement and metamorphosis of *Hydroides elegans* (Polychaeta; Serpulidae). *PLoS One* doi.org/10.1371/journal.pone.0249692
- Nedved, B. T., M. L. Freckelton and **M. G. Hadfield** 2021. Laser ablation of the apical sensory organ of *Hydroides elegans* (Polychaeta) does not inhibit detection of metamorphic cues. *J. Exp. Biol.* doi.org/10.1242/jeb.242300
- McEntire, K. D., M. Gage, R. Gawne, **M. G. Hadfield**, C. Hulshof, M. A. Johnson, D. L. Levesque, J. Segura and N. Pinter-Wollman. 2021. Understanding drivers of variation and predicting variability across levels of biological organization. *Integrative & Comparative Biology*. doi.org/10.1093/icb/icab160
- Song, H., T. Zhang and **M. G. Hadfield**. 2021. Letter. Metamorphosis in warming oceans: a microbe-larva perspective. *Trends in Ecology and Evolution*, 2 pp. doi.org/10.1016/j.tree.2021.07.010
- Koehl, M. A. R. K., E. Perotti, D. Sischo, T. Hata and **M. G. Hadfield**. 2022. Effects of currents, waves, and biofilms on motion and surface contacts by tubeworm larvae swimming above or below surfaces. *Mar. Ecol. Prog. Ser.* 686: 107–126. doi.org/10.3354/meps14001
- Croll, R. P. and **M. G. Hadfield**. 2022. Development and metamorphic loss of the musculature in larvae of the nudibranch *Phestilla sibogae*: a functional ontogeny. *Acta Zoologica*, 103 (3):1-24. doi.org/10.1111/azo.12419
- Freckelton, M. L., B. T. Nedved, Y.-S. Cai, S. Cao, H. Turano, R. A. Alegado and **M. G. Hadfield**. 2022. Bacterial lipopolysaccharide induces settlement and metamorphosis in a marine larva. *Proc. National Academies of Science*, 119(18): e220795119. doi.org/10.1101/851519
- Gilbert, S. F. and **M. G. Hadfield**. 2022. Symbiosis of disciplines: how can developmental biologists join conservationists in sustaining and restoring the earth’s biodiversity? *Development* 149. dev199960. [doi:10.124/dev.199960](https://doi.org/10.124/dev.199960).

Freckelton, M., B. Nedved and **M. G. Hadfield**. 2024. O-antigen is a potential conserved cue in the stimulation of settlement and metamorphosis in larvae of *Hydroides elegans* (Polychaeta). Communications Biology. doi.org/10.1038/s42003-024-06585-9

Books:

Bosch, T. C. G. and **M. G. Hadfield**, eds. 2022. Cellular Dialogues in the Holobiont. CRC/Taylor & Francis, 299 pp.

Popular-Science Publications:

Hadfield, M. G. and E. A. Kay. 1981. The multiple villainies of *Euglandina rosea* (or its human proponents). Hawaiian Shell News, Apr. 1981:5-6.

Hadfield, M. G. 2001. From hatching to finding the right home for metamorphosis: How do invertebrate larvae do it? Science in Africa, Sept. 2001: 1 - 3.

Shikuma, N. and M. G. Hadfield. 2005. Marine biofilms: a hidden reservoir for human microbial pathogens. Voice of the Pacific (PACON Newsletter). Fall 2005.

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