

David Alan Krupp
Curriculum Vitae

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PROFESSIONAL TITLES

Interim Dean of Academic Affairs
Windward Community College (WCC)
University of Hawai'i
46-720 Kea'ahala Road
Kāne'ohe, HI 96744

Affiliate Faculty
Hawai'i Institute of Marine Biology (HIMB)
University of Hawai'i at Mānoa (UHM)
46-007 Lilipuna Road,
Kāne'ohe, HI 96744

EDUCATIONAL BACKGROUND

Ph.D., Zoology, University of Hawai'i at Mānoa, 1982
B.A., Biology, University of California at Los Angeles, 1976

TEACHING EXPERIENCE

Professor, Biological and Marine Sciences. 1985-present (lecturer & part-time, 1983-1984). Full-time, Tenured. WCC.
Instructor in Coral Reef Biology. Summers 1991, 1994 & 1997. Part-time. HIMB.
Lecturer in Biology. 4/1987-7/1987, 10/1982-12/1984. Part-time. Chaminade University, Honolulu, HI.
Lecturer. Summer 1985. Part-time. College of Continuing Education, UHM.
Instructor in Biology. 2/1984-5/1984, 2/1982-5/1982. Part-time. Hawai'i Loa College (bought out by Hawai'i Pacific University), Kāne'ohe, HI.
Assistant Instructor in Coral Reef Biology. Summer 1983 Part-time. HIMB.
Teaching Assistant in Biology and Zoology. 8/1976-12/1980. Part-time. UHM.

RESEARCH EXPERIENCE

Affiliate Faculty. Coral Reef Biology and Ecology. 1994-present. HIMB.
Research Affiliate. Coral Reproductive Biology. 1985-1992. HIMB.
Visiting Researcher. Sea Cucumber Collagen & Larval Biology Study (R. Richmond, PI). Summer 1989. University of Guam Marine Laboratory, Mangilao, Guam.
Research Associate. Lobster Population Biology (C. MacDonald, PI). 4/1983-12/1984. HIMB.
Research Associate/Assistant. Coral Reef Photobiology (R. Kinzie III, PI). 1/1981-12/1982. HIMB.

ADMINISTRATIVE EXPERIENCE

Interim Dean. Academic Affairs, Division II. 2/2019-present. WCC.
Director. Pacific Center for Environmental Studies (PaCES). 6/2004-present. WCC.
Faculty Coordinator. Marine Option Program. 8/1984-12/2019. WCC.
Chair. Department of Natural Sciences. 1989-1993, 1999-2002, 2006-2008, 2016-2018. WCC.
Director. National Science Foundation Undergraduate Faculty Enhancement Program Workshop on the Biology and Ecology of Corals and Coral Reefs. Summer 1992. WCC & HIMB.
Director. The Summer Program for the Enhancement of Basic Education in Marine Science/Oceanography. Summers 1985, 1986, 1987, 1988, 1989, & 1990. HIMB.

University Governance

Co-Chair. All Campus Council of Faculty Senate Chairs. 2014-2016. University of Hawai'i System.

Off-Campus Chair. Faculty Senate. WCC. 2013-2017

Member. All Campus Council of Faculty Senate Chairs (ACCFSC). University of Hawai'i System. 2013-2017.

Member. Community Colleges Council of Faculty Senate Chairs (CCCFSC) University of Hawai'i System. 2013-2017.

Member. University of Hawai'i Community Colleges Strategic Planning Council. University of Hawai'i System. 2013-2017.

Member. University Council on Articulation. University of Hawai'i System. 2014-2015.

Member. University of Hawai'i System Sustainability Curriculum Council. University of Hawai'i System. 2015-2016.

Chair. Accreditation Standard I.B (Improving Institutional Effectiveness) Committee. 2011-2012.

Member. Various Academic Committees: Career and Technical Education (CTE) Deans, Kāko'o Ko'olau Community Leaders, Planning and Budget Council, Master Plan and Space Allocation Committee, Foundations Board, Writing Advisory Board, Academic Affairs Advisory Committee, Division Personnel Committee, Institutional Effectiveness Committee, Enrollment Management Committee, Curriculum Committee, AA Degree SLO Task Force, Various Tenure and Promotion Review Committees, Various Selections Committees. Various years.

AWARDS AND SPECIAL RECOGNITIONS

Recipient. University of Hawai'i Excellence in Teaching Award. 2004.

Recipient. Hung Wo & Elizabeth Lau Ching Faculty Service to the Community Award. 2004.

Honorary Member. Phi Theta Kappa, International Honor Society of the Two Year College.

Member. Sigma Xi, The Scientific Research Society.

GRANTS

Co-Principal Investigator (J. Kelly, Co-PI). Hybrid Veterinary Technology Program – Serving Students throughout the State,. Perkins. 7/1/2020–6/30/2021. **\$191,854.**

Co-Principal Investigator (S. Dickerson, Co-PI). CTE Student Support Program for Outreach, Retention & Completion. 7/1/2020–6/30/2021. **\$98,994.**

Principal Investigator. 'Ao Kahi - Growing Truth and Light - Cybersecurity Program. Perkins funded through Alu Like, Inc. 2018-2021. **\$585,000.**

Co-Principal Investigator (B. Fox, Co-PI). Development Of Sustainable Agriculture Program At Windward Community College. Perkins. 7/1/2019–6/30/2020. **\$49,825.**

Co-Principal Investigator (S. Dickerson, Co-PI). CTE Student Support Program For Outreach, Retention & Completion. Perkins. 7/1/2019–6/30/2020. **\$113,380.**

Principal Investigator. Human Impacts and Hawai'i's Coral Reef Health: An Environmental Science Education, Stewardship and Research Program for High School Juniors and Seniors in Hawai'i. Donations made to PaCES UH Foundation accounts. Omidyar Ohana Fund of Hawaii Community Foundation. 2014-2020. **\$55,000.** Harold K.L. Castle Foundation. 2008–2013. **\$85,000.** Ameron Hawai'i (now HC&D). 2008–2017. **\$85,000.** Minami Foundation. 2008–2019. **\$165,000.** Cultural Surveys Hawai'i. 2010–2017. **\$24,000.** Hawai'i Community Foundation. 2008–2009. **\$15,000.**

Principal Investigator. Kulia Natural Resources Stewardship Program for Native Hawaiian Middle and High School Students of Windward Oahu. Subaward contract from the Pacific American Foundation. 9/1/2014–8/31/2017. **\$295,375.**

Principal Investigator. Re-Use of Fish Processing Wastes for a Supplemental Fish Feed and a

Liquid Fish Fertilizer. Subaward from Aquafeed.com (original sponsor = NOAA). 8/1/2016–7/31/017. **\$53,051.**

Principal Investigator. Hawaii P-20 Funding for IUCN-Related Online Course Development. 6/1-8/15/2016). **\$8,101.**

Principal Investigator. Kāneʻohe Ahupuaʻa Ridge-to-Reef Project (KARRP): An Environmental Science Education, Stewardship and Research Program for High School Juniors and Seniors in Hawaiʻi. NOAA B-WET Program and additional sponsors. 8/1/2014–7/31/2015. **\$187,048.**

Principal Investigator (L. Priskitt & G. Aeby, Co-PIs). Eyes of the Reef (EOR) Community Reporting Network and Volunteer Monitoring Program. Awarded by the Hawaiʻi Tourism Authority to Reef Check Hawaiʻi. 1/2011-12/2011. **\$15,000.**

Principal Investigator (M. Rivera, Co-PI). Human Impacts and Hawaiʻi's Coral Reef Health: An Environmental Science Education, Stewardship and Research Program for Teachers in Hawaiʻi. NOAA B-WET Program. 6/1/2008–5/31/2009. **\$99,998.**

Principal Investigator. Research Experiences in GIS and Environmental Restoration for Undergraduates. Mini-proposal funded through UH Hilo IOA-LSAMP. 2011–2016. **\$74,375.**

Co-Principal Investigator (J. Leong, PI). Kāneʻohe Bay Ahupuaʻa Watershed to Coral Reef Ecosystem Health. NOAA B-WET Program. 9/1/2006–8/31/2007. **\$99,929.**

Principal Investigator (F. McCoy, Co-PI). Pacific Initiative for Environmental Studies. Harold K.L. Castle Foundation. 6/1/2004–6/30/2007. **\$225,000.**

Co-Coordinator for UH Community Colleges Environmental Science Focus (D. McClain, PI). Biodiversity in an Integrated Island Environment. Awarded by the National Science Foundation Experimental Program to Stimulate Competitive Research (NSF EPSCoR). 2003-2004. **\$11,250** awarded to Windward Community College.

Principal Investigator. Travel Request to Present Research Results at the 10th International Coral Reef Symposium, Okinawa, Japan, June 28 - July 2, 2004. Awarded by the University of Hawaiʻi Community College System EPSCoR Mini Grant Program 2004-05. 6/1/2004-8/31/2004. **\$3,182.50.**

Principal Investigator. Biomedical Research Infrastructure Network Faculty Development Grant: Summer Research in the Molecular Biology of Corals. Subaward by the U.H. Biomedical Research Infrastructure Network. 6/2003–8/2003. **\$3,090.**

Principal Investigator. Biomedical Research Infrastructure Network Equipment Grant: Request for an Ultra Freezer for Education and Research in Cell and Molecular Biology. Subawarded by the U.H. Biomedical Research Infrastructure Network. 6/2003– 8/2003. **\$12,789.**

Principal Investigator. Human Biology Lab (BIOL 100L) for Distance Education. Awarded by the University of Hawaiʻi Community Colleges Alternative Delivery Funds Program. 6/2002-12/2002. **\$4,494.**

Principal Investigator. Nesting Success of Wedge-Tailed Shearwaters on Kapapa Island, Oʻahu, Hawaiian Islands. Pacific Marine Life Foundation. 8/2001-9/2002. **\$3,000.**

Project Coordinator. Bio-Resource Development and Management Program for the Bio-Resources and Technology Academic Subject Certificate (I. White, PI). U.S. Department of Agriculture Cooperative State Research Education & Extension Service. 9/2001- 12/2002. **\$159,648.**

Principal Investigator. Establishing a GIS for the Waimanalo Stream Drainage Basin. Hawaiʻi State Department of Health via a Federal EPA grant. 8/1999–3/2000. **\$15,000.**

Co-Investigator (J. Ciotti, PI). Establishing a RS/GIS Educational Training and Environmental Monitoring Center in Hawaiʻi. NASA. 1/1998-6/1999. **\$93,014.**

Principal Investigator. Regeneration of Coral Fragments. U.H. College Sea Grant Program. 6/1995-12/1995. **\$6,728.**

Principal Investigator. Benthic Surveys of the Coconut Island Reef. Department of the Navy.

Summer 1993. **\$2,000.**

Principal Investigator. National Science Foundation Undergraduate Faculty Enhancement Program Workshop on the Biology and Ecology of Corals and Coral Reefs. National Science Foundation. 1991-1993. **\$77,963.**

Principal Investigator. Hawaiian Backyard Aquaculture. Aquaculture Development Program, Dept. Land and Natural Resources, State of Hawai'i. 1991-1992. **\$23,938.**

Principal Investigator. Summer Program for the Enhancement of Basic Education (SPEBE) in Oceanography. Hawai'i State Department of Education. 1985-1990. **\$157,375.**

Associate Investigator (S. Maynard, PI). Undergraduate Ocean Internships. U.H. College Sea Grant Program. 1986-1991. **\$147,185.**

PUBLICATIONS

Rivera, M.A.J., M.M. Manning, **D.A. Krupp**. 2013. A Unique Marine and Environmental Science Program for High School Teachers in Hawai'i: Professional Development, Teacher Confidence, and Lessons Learned. *International Journal of Environmental & Science Education* 8(2): 217-239.

Schnitzler, C., L.L. Hollingsworth, **D.A. Krupp** and V.M. Weis. 2012. Elevated temperature impairs onset of symbiosis and reduces survivorship in larvae of the Hawaiian coral, *Fungia scutaria*. *Marine Biology* 159(3):633-642.

deBoer, M.L. **D.A. Krupp** and V.M. Weis 2007. Proteomic and transcriptional analyses of coral larvae newly engaged in symbiosis with dinoflagellates. *Comp. Bioc. Phys. D.: Genomics and Proteomics* 2(1):63-73.

Rodriguez-Lanetty, M., E.M. Wood-Charlson, L.L. Hollingsworth, **D.A. Krupp** and V.M. Weis. 2006. Temporal and spatial infection dynamics indicate the presence of recognition events in the early hours of a dinoflagellate/coral symbiosis. *Marine Biology* 149(4):1432-1793.

Wood-Charlson, E.M., L.L. Hollingsworth, **D.A. Krupp**, V.M. Weis. 2006. Lectin/glycan interactions play a role in recognition in a coral-dinoflagellate symbiosis. *Cellular Microbiology* 8(12):1985–1993.

deBoer, M., **D.A. Krupp** and V.M. Weis. 2006. Two atypical carbonic anhydrase homologues from the planula larva of the scleractinian coral *Fungia scutaria*. *Biological Bulletin* 211(1):18-30.

Krupp, D.A., L.L. Hollingsworth, and J. Peterka. 2006. Elevated temperature sensitivity of fertilization and early development in the mushroom coral, *Fungia scutaria*. *Proc. 10th Inter. Coral Reef Symp.*, Japan, 2004, pp. 71-77.

Hollingsworth, L.L., T.D. Lewis, **D.A. Krupp**, and J.C. Leong. 2006. Early onset and expression of fluorescent proteins in the larvae of the mushroom coral, *Fungia scutaria*. *Proc. 10th Inter. Coral Reef Symp.*, Japan, 2004., pp. 99-105.

Hagedorn, M., R. Pan, E.F. Cox, L.L. Hollingsworth, **D.A. Krupp**, T.D. Lewis, J.C. Leong, P. Mazur, W.F. Rall, D.R. MacFarlane, G. Fahy and F.W. Kleinhans. 2006. Coral larvae conservation: physiology and reproduction. *Cryobiology* 52(1):33-47.

Hollingsworth, L.L., R.A. Kinzie III, T.D. Lewis, **D.A. Krupp** and J.C. Leong. 2005. Phototaxis of motile zooxanthellae to green light may facilitate symbiont capture by coral larvae. *Coral Reefs* 24:523.

Rodriguez-Lanetty, M., **D.A. Krupp**, and V.M. Weis. 2004. Evidence that fine-scale ITS diversity of *Symbiodinium* confers functionality in cnidarian host/endosymbiont specificity. *Mar. Ecol. Prog. Ser.* 275:97-102.

Beatson, B., and **D.A. Krupp**. 2002. Students study green fluorescing proteins in coral larvae. *Hawai'i State BRIN News* 1(2):2.

Weis, V.M., W.S. Reynolds, M.D. deBoer, and **D.A. Krupp**. 2001. Evidence of host-symbiont

- specificity during symbiosis onset between the dinoflagellate *Symbiodinium* spp. and planula larvae of the scleractinian coral *Fungia scutaria*. *Coral Reefs* 20:301-308.
- Krupp, D.A.** 2000. A Geographic information system for water flow and land use in the Waimanalo Stream drainage basin. Technical report prepared for the Hawai'i State Department of Health.
- Schwarz, J.A., **D.A. Krupp**, and V.M. Weis. 1999. Late larval development and onset of symbiosis in the scleractinian coral, *Fungia scutaria*. *Biol. Bull.* 196:70-79.
- Ashizawa, D.J., and **D.A. Krupp**. 1999. Using GIS and the internet for watershed education and outreach. *UCOWR Proceedings. Water: Lessons of World Development.* pp. 151-162.
- Hill, R.W., J.W.H. Dacey and **D.A. Krupp**. 1995. Dimethylsulfoniopropionate in reef corals. *Bull. Mar. Sci.* 57:487-492.
- Koba, M., T. Kaigara, H. Iwata and **D.A. Krupp**. 1995. A preliminary dating of coral limestones in Oahu Island by the electron spin resonance (ESR) method. In: Kenkyukai, C., (ed.). *Contemporary Societies of the Pacific Region: Environment, Development, and Culture. A Preliminary Report.* Kansai University pp.1-3.
- Krupp, D.A.**, and J. Blanck. 1995. Preliminary report on the occurrence of mycosporine-like amino acids in the eggs of the Hawaiian scleractinian corals *Montipora verrucosa* and *Fungia scutaria*. In: Gulko, D., and P.L. Jokiel (eds.), *Ultraviolet Radiation and Coral Reefs.* HIMB Tech. Rep. No. 41, UNIH-Sea Grant-CR-95-03, pp. 129-134.
- Krupp, D.A.** 1995. Iowa symposium proceedings reviewed. *National Center for Science Education Reports* 15(2):6.
- Krupp, D.A.** 1995. Why should we teach about evolution in biological science? *Humanists Hawaii Journal* 1(5):2-3.
- Krupp D.A.** 1994. The Biology and Ecology of Corals and Coral Reefs. In: Cuniff PA, CJ Hieggelke, BL Smith (eds.), *Putting the pieces together: a guide book for leaders of coalitions of two- and four-year colleges and universities.* Faculty Coalition Workshop, October 14-15, 1993, Arlington, VA. Prince George's Community College and the NSF Division of Undergraduate Education. p. 59.
- Krupp, D.A.**, P.L. Jokiel and T.S. Chartrand. 1993. Asexual reproduction by *Fungia scutaria* on dead coralla. *Proc. 7th Inter. Coral Reef Symp.*, Guam, 1992 1:527-534.
- Krupp, D.A.** 1992. Marine science education across the Pacific. In: *Beyond the Classroom: International Education and the Community College.* Honolulu: Kapiolani Community College. pp.83-92.
- Glynn, P.W., and **D.A. Krupp**. 1986. Feeding biology of a Hawaiian sea star corallivore, *Culcita novaeguineae* Muller and Troschel. *J. Exp. Mar. Biol. Ecol.* 96:75-96.
- Krupp, D.A.** 1985. An immunochemical study of the mucus from the solitary coral *Fungia scutaria* (Scleractinia, Fungiidae). *Bull. Mar. Sci.* 35:163-175.
- Krupp, D.A.** 1984. Mucus production by corals exposed during an extreme low tide. *Pac. Sci.* 38:1-11.
- Krupp, D.A.** 1983. Sexual reproduction and early development of the solitary coral *Fungia scutaria* (Anthozoa: Scleractinia). *Coral Reefs* 2:159-164.
- Krupp, D.A.** 1982. The composition of the mucus from the mushroom coral *Fungia scutaria*. *Proc. 4th Inter. Coral Reef Symp.*, Manila, 2:69-73.
- Krupp, D.A.** 1982. Composition and production of the mucus of the solitary mushroom coral, *Fungia scutaria* (Lamarck). Ph.D. Dissertation. University of Hawai'i. 228 pp.

PAST AND CURRENT COMMUNITY SERVICE ACTIVITIES

Scientific Advisor. Waikalua Loko Fishpond, Pacific American Foundation. 2014-present.

Advisor. NALU Studies. NALU Studies Environmental Science Education for At-Risk and High-Risk Youth in Hawai'i. 2010-present.

Counselor. Sigma Xi The Scientific Research Society, University of Hawai'i Chapter. 2012-2018.

Council Member and Chair. Kāne'ohe Bay Regional Council. 2002-2011.

Board Member. Waikalua Loko Fishpond Preservation Society. 2007-2014.

President and Scientific Advisor, Reef Check Hawai'i. 2001-2012.

Director. Windward Regional Science Olympiad. 2009-2017.