

CURRICULUM VITAE

Anja Schulze, Ph. D.

Professor and Assistant Department Head for Graduate Affairs, Department of Marine Biology, Texas A&M University at Galveston, P.O. Box 1675, Galveston, TX 77554
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Education

- Ph. D. 2001 Biology, University of Victoria, Canada.
Dissertation: *Phylogeny of Vestimentiferan Tubeworms* (Advisor: Dr. Verena Tunnicliffe)
- Diplom 1995 Biology, University of Bielefeld, Germany.
Thesis: *Histological Studies of the Flabellinidae (Opisthobranchia, Nudibranchia) with Aspects of Anatomy, Morphology and Phylogeny* (Advisor: Dr. Heike Wägele)

Professional Development

- 2004-2006 Postdoctoral Fellow, Smithsonian Marine Station at Fort Pierce, FL.
Project: *Structure and Development of the Nervous System in Sipuncula*
- 2002-2004 Postdoctoral Fellow, Harvard University, Museum of Comparative Zoology and Department of Organismic and Evolutionary Biology.
Project: *Phylogeny, Biogeography and Systematics of the Sipuncula*
- 2001-2002 Postdoctoral Fellow, Smithsonian Institution, National Museum of Natural History and Laboratory of Molecular Systematics.
Project: *Phylogeography of Palolo Worms (Palola, Eunicidae, Polychaeta)*

Academic Appointments

- 2021- Assistant Department Head for Graduate Affairs
2019- Professor, Marine Biology
2019-2020 Chair, Marine Biology Interdisciplinary Degree Program
2012-2019 Associate Professor, Marine Biology and Oceanography
2006-2012 Assistant Professor, Marine Biology (and Oceanography)
2010- Core faculty, Ecology and Evolutionary Biology

Teaching

Years	Course #	Title	Level	Credits	Students/ semester
2006-	MARB 435	Marine Invertebrate Zoology, writing-intensive	UG	4	45-70
2015-2019	MARB 635	Marine Invertebrate Zoology, stacked with MARB 435	G	4	1-8
2009-	MARB 668	Marine Evolutionary Biology	G	3	10-22
2020-	MARB 689	Caribbean Marine Ecology	G	3	10-20
2018-2019	MARB 340	Tropical Marine Ecology, 2-week Study Abroad field course in Mexico	UG	4	16
2018	EEBL 612	Open Source for Open Science, instructor of record	G	1	10
2010-2014	MARB 640	Ecosystem Functions in Marine Environments (co-instructor)	G	3	10-20
2011	MARB 6333	Benthic Ecology (co-instructor)	G	3	5
2007-2018	MARB 300	Scientific Methods (guest lecturer)	UG	2	10-15
2008	BIOL 665	Biology of the Invertebrates (co-instructor)	G	4	5

Workshops taught

- 2018 Open Source for Open Science Workshop, Ecology and Evolutionary Biology, TAMU College Station. Invited and organized speakers; instructor of record.
- 2017 Invited Expert: "Benthic Invertebrate Taxonomy, Metagenomics, and Bioinformatics (BITMaB) Workshop", Harte Research Institute, Texas A&M University – Corpus Christi (5 days)
- 2016 Instructor: Florida Association of Benthologists Fall Taxonomy Workshop, University of Tampa Marine Science Field Station (2.5 days)
- 2013 Lead-instructor: "Training in Tropical Taxonomy: Systematics and Biology of Annelids", Smithsonian Tropical Research Institute, Bocas del Toro field station (12 days)

Outreach

- 2017-2019 Chair for Training and Outreach, Ecology and Evolutionary Biology (EEB) Interdisciplinary Degree Program: organized annual "Darwin Day" outreach events for ~350 visitors from the local community
- 2017-2019 Oppe Elementary School, Coastal Studies Campus, Galveston: organized invertebrate-themed outreach event for STEM club (2 events for ~30 4th graders each)
- 2011-2016 Community sequencing project for annelids under NSF AToL grant "WormNetII: Assembling the Annelid Tree of Life"
- 2015 Volunteer Expert Docent, International Polychaete Day (July 1), National Museum of Natural History, Smithsonian Institution
- 2013 Sigma Xi reviewer for "Outstanding Science Educator Award"
- 2011 Assisting TPWD with organization of TexRAT Galveston: weeklong workshop to screen for marine invasive species
- 2006-2010 Faculty Mentor for Davidson Young Scholar Program for profoundly gifted young people

Current graduate students (Committee Chair)

Vanessa Fernandez Rodriguez	Ph.D. student	Marine Biology
Daniel Fanning	M.S. student	Marine Biology
Samantha Blaine	M.S. student (non-thesis)	Marine Biology

Former Graduate Students (Committee Chair)

Mary Colleen Hannon	Ph.D.	Marine Biology	2023	Postdoc, Smithsonian National Museum of Natural History (starting Sept. 2023)
Marissa Hajduk	M.S.	Marine Biology	2022	Applying for Ph.D. in Biomedical Science
Candace Grimes	Ph.D.	Marine Biology	2020	Postdoc, University of North Carolina, Wilmington
Justin Hilliard	Ph.D.	Marine Biology	2020	Lecturer, Baldwin Wallace University
Russell Carvalho	Ph.D.	Oceanography	2013	Faculty, Santa Ana College, Santa Ana, CA
Nathan Johnson	M.S.	Marine Biology	2015	Oceana, Manager of Writing and Research
Marissa Nuttall	M.S.	Marine Biology	2013	MARB Ph.D. student; researcher at Flower Garden Banks National Marine Sanctuary (NOAA)

Joseph Ahrens	M.S.	Marine Biology	2013	Postdoc, University of Colorado at Denver
Heidi Jane de Guzman	Ph.D.	Marine Biology	Deceased	Deceased
Sara Mellard	Ph.D.	Marine Biology	Withdrawn	Product Development Project Manager, Ball Horticultural Company, Chicago, IL
Lerin Odom	M.S.	Wildlife and Fisheries Sciences	Withdrawn	Teacher, Oppe Elementary School of Coastal Studies.

Postdocs

Dr. Elizabeth Borda 2011-2013 Assistant Professor at Texas A&M University San Antonio

Undergraduate Research Scholars

Edsel Santoni	2020-2021	Currently applying for graduate school
Jacqueline Keleher	2017-2018	Graduated with M.S. from Appalachian State University
Ren Shirai	2014-2015	Currently in Medical School
Camille Perrigo	2014-2015	Graduated from Medical School, U.S. Virgin Islands
Marissa Borrego	2013-2014	Entrepreneur
Laura Timm	2012-2013	Postdoc, Auke Bay Genetics Program, Juneau, AK

Total Undergraduate Students Mentored

~80 since 2006

Funding

Funding Period	Title	Source	Role	Total	TAMUG
2022-2023	Mentorship through Collaboration: Regeneration and microbiome of the upside-down jellyfish <i>Cassiopea</i> (Scyphozoa, Cnidaria)	MARB/RGSO	Co-PI		~\$60,000
2022-2023	Mentorship through Collaboration: Short-term visitors or here to stay? Non-native serpulid worms (<i>Ficopomatus</i> spp.) in Galveston Bay	MARB/RGSO	PI		~\$60,000
2021	Equipment and Materials for DNA and RNA Sequencing	TCRF	PI	\$15,000	\$15,000
2021	Identification of benthic invertebrates from Rollover pass	Michael Baker International	PI	\$3,456	\$3,456
2021-2022	Diversity of grass shrimp (<i>Palaemon</i> sp.) and their parasites (<i>Microphallus</i> spp.) in Gulf of Mexico wetlands	Panther RISE	PI	\$30,000	\$10,000
2019-2021	Bioluminescence in marine worms (Annelida): molecular pathways and evolution	TAMU-FAPESP	PI	\$20,000	\$10,000
2019	Faculty Development Leave support funds	TAMU Dean of Faculties	PI	\$5,000	\$5,000

2017-2018	A model of diversity: <i>Capitella</i> spp. (Annelida: Capitellidae) in the Gulf of Mexico	TAMU-CONACYT	PI	\$24,000	\$12,000
2016-2017	Gene expression profiles in response to low dissolved oxygen in the bearded fireworm, <i>Hermodice carunculata</i>	TAMU-CAPES	PI	\$50,000	\$50,000
2016-2018	Sex and violence in marine worms: Eunicidae (Annelida) in Indonesia	National Geographic Society	PI	\$23,050	\$23,050
2012	Faculty Development Leave travel support	TAMU Dean of Faculties	PI	\$5,000	\$5,000
2011-2016	Collaborative Research - WormNet II: Assembling the Annelid Tree of Life	NSF DEB	TAMUG PI	\$2,990,000	\$386,326
2011-2013	Genetic diversity in three sipunculan species from the Sea of Japan and the Northeast Pacific	FEBRAS – CRDF Global	PI	\$41,000	\$15,000
2010-2011	Rangia clam responses to freshwater inflows in Galveston Bay	TPWD	Co-PI	\$28,163	\$28,163
2011-2013	Fauna and Flora responses to freshwater inflows in Galveston Bay	TCEQ	Co-PI	\$200,000	\$200,000
2010	International Research Travel Assistance Grant: Predicting marine species distributions based on Ecological Niche Modeling and phylogeographic analyses	TAMU Division of Research	PI	\$1,975	\$1,975
2009-2010	Macrofaunal species boundaries in the Sigsbee Abyssal Plain, Gulf of Mexico	TAMU-CONACYT	PI	\$24,000	\$12,300
2008-2009	Detection of non-indigenous marine invertebrates in Galveston Bay, TX by DNA barcoding	TX Seagrant	PI	\$10,000	\$10,000
2008-2009	Pathways to the Doctorate Program: support for Lerin Odom	TAMU	PI	\$36,000	\$36,000

Awards and Recognition

2022	Association of Former Students College Level Distinguished Achievement Award (Teaching); \$2,000
2018	“Advisor of the Year” for a student organization (TAMUG Dive Club)
2019	Faculty Development Leave: Collaboration with Australian Museum and Museum and Art Gallery of the Northern Territory, Australia
2012	Faculty Development Leave: Collaboration with Federal University of Rio de Janeiro, Brazil
2008	Faculty Abroad Seminar: seminar in Mexico City in May 08 (unspecified amount)
2004-2006	Smithsonian Marine Station Postdoctoral Fellowship
2002-2004	MarCraig Postdoctoral Fellowship, Harvard University
2001-2002	Smithsonian Postdoctoral Fellowship
1997-1998	German Academic Exchange Service (DAAD) Fellowship
1996-1997	Government of Canada Award to pursue Ph.D. in Canada

Peer-reviewed Journal Articles

Total: 56; First-authored: 23; First-authored by student: 13; Papers with undergraduate authorship: 9

Total citations (Google Scholar, 5/22/2023): 1656; H-index 21.

*TAMUG undergraduate student; **graduate student (mine); ***graduate student (someone else's); **** my postdoc

- Oliveira, A. G., Amaral, D. T., **Hannon, M. C., **Schulze, A.** 2021. First record of bioluminescence in a sipunculan worm. *Frontiers in Marine Science* 8:762706.
<https://doi.org/10.3389/fmars.2021.762706>
- **Grimes, C. J., Petersen, L. H. and **Schulze, A.** 2021. Differential gene expression indicates modulated responses to chronic and intermittent hypoxia in corallivorous fireworms (*Hermodice carunculata*). *Scientific Reports* 11, 11110. <https://doi.org/10.1038/s41598-021-90540-9>
- Schulze, A.**, **Hajduk, M. M., **Hannon, M. C., ***Hubbard, E. A. 2021. Invertebrate Film Festival: Science, creativity, and flexibility in a virtual teaching environment. *Invertebrate Biology* 140: e12328. <http://doi.org/10.1111/ivb.12328>
- Gunton L. M., Kupriyanova E., Alvestad T., Avery L., Blake J.A., Biriukova O., Böggemann M., Borisova P., Budaeva N., Burghardt I. Capa, M., Georgieva M.N., Glasby C.J., Hsueh, P. -W., Hutchings P., Jimi N., Kongsrud J.A., Langeneck J., Meißner K., Murray A., Nikolic M., Paxton H., Ramos D., **Schulze A.**, Sobczyk R., Watson C., Wiklund H., Wilson R., Zhadan A., Zhang J. 2021. Annelids of the eastern Australian abyss collected by RV *Investigator*. *Zookeys* 1020:1-198.
<https://doi.org/10.3897/zookeys.1020.57921>
- Moraes, G. V., **Hannon, M. C., Soares, D. M. M., Stevani, C. V., **Schulze, A.** Oliveira, A. G. 2021. Bioluminescence in polynoid scale worms (Annelida: Polynoidae). *Frontiers in Marine Science* 8:643197. <https://doi.org/10.3389/fmars.2021.643197>
- Schulze, A.**, Kawauchi, G. Y. 2021. How many sipunculan species are hiding in our oceans? *Diversity* 13: 43. <https://doi.org/10.3390/d13020043>
- **Hilliard, J. H., Karlen, D., Dix, T., Markham, S., **Schulze, A.** 2020. Comparative species abundance modeling of Capitellidae (Annelida) in Tampa Bay, Florida. *Marine Ecology Progress Series* 653: 105-119. <https://doi.org/10.3354/meps13484>
- **Grimes, C. J., *Capps, C., Petersen, L. H., **Schulze, A.** 2020. Oxygen consumption during and post hypoxia exposure in bearded fireworms (Annelida: Amphinomidae). *Journal of Comparative Physiology B* 190: 681-689. <https://doi.org/10.1007/s00360-020-01308-y>
- **Grimes, C.J, Peterson, L., Paiva, P.C., **Schulze, A.** 2020. Rapid plastic responses to chronic hypoxia in the bearded fireworm, *Hermodice carunculata* (Annelida: Amphinomidae). *Marine Biology* 167: 140. <https://doi.org/10.1007/s00227-020-03756-0>
- Schulze, A.**, Erdner, D.L., **Grimes, C.J., Holstein, D.M., Miglietta, M.P. 2020. Artificial reefs in the northern Gulf of Mexico: community ecology amid the 'ocean sprawl'. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2020.00447>
- Méndez, N., **Hilliard, J.L., **Schulze, A.** 2019. Early development of two *Capitella* species (Annelida: Capitellidae) from the Gulf of Mexico. *Journal of the Marine Biological Association of the UK*, 1-12. <https://doi.org/10.1017/S0025315419000687>
- Schulze, A.**, *Hipes, J., ****Borda, E. and Rice, M. E. 2018. Who's who in sipunculans: matching larvae and adults using DNA. *Smithsonian Contributions to the Marine Sciences* 42: 83-93.
<https://doi.org/10.5479/si.1943-667X.42>
- Del Pasqua, M., **Schulze, A.**, Tovar-Hernandez, M. A., Keppel, E., Lezzi, M., Giangrande, A. 2018. Clarifying the taxonomic status of the alien species *Branchiomma bairdi* and *Branchiomma boholense* (Annelida: Sabellidae) using molecular and morphological evidence. *PLoS ONE* 13(5): e0197104. <https://doi.org/10.1371/journal.pone.0197104>
- Wäge, J, Valvassori, G., Hardege, J. **Schulze, A.**, Gambi, M. C. 2017. The sibling polychaetes *Platynereis dumerilii* and *Platynereis massiliensis* in the Mediterranean Sea: are phylogeographic patterns related to exposure to ocean acidification? *Marine Biology* 164: 199.
<http://dx.doi.org/10.1007/s00227-017-3222-x>
- GIGA Community of Scientists. 2017. Leveraging the power of community cooperation to advance invertebrate genomics - updates from the GIGA consortium. *Invertebrate Systematics* 31:1-7.
<http://dx.doi.org/10.1071/IS16059>

- Schulze, A.**, **Grimes, C. J., *Rudek, T. E. **2017.** Tough, armed and omnivorous: *Hermodice carunculata* (Annelida: Amphinomidae) is prepared for ecological challenges. *Journal of the Marine Biological Association of the UK* 97: 1075-1080.
<http://dx.doi.org/10.1017/S0025315417000091>
- **Hilliard, J., **Hajduk, M., **Schulze, A.** **2016.** Species delineation in the *Capitella* species complex: geographic and genetic variation. *Invertebrate Biology* 135: 415-422.
<http://dx.doi.org/10.1111/ivb.12152>
- **Johnson, N. D., **Schulze, A.** **2016.** Genetic structure of in two *Phascolosoma* species in the Pacific Ocean and implications for larval dispersal. *Marine Biology Research* 12: 739-747.
<http://dx.doi.org/10.1080/17451000.2016.1196819>
- Magelhaes, W.F., Weidhase, M., **Schulze, A.** and Bailey-Brock, J, H. **2016.** Taxonomic remarks on the genus *Ctenodrilus* (Annelida: Cirratulidae) including description of a new species from the Pacific Ocean. *Zootaxa* 4103: 325–343. <http://doi.org/10.11646/zootaxa.4103.4.2>
- **Johnson, N. D., *Sanders, C., Maiorova, A. and **Schulze, A.** **2016.** Cryptic speciation in a Pacific sipunculan (Sipuncula: Phascolosomatidae): East-west divergence between non-sister taxa. *Zoologica Scripta* 45: 455-463. <http://dx.doi.org/10.1111/zsc.12158>.
- Schulze, A.** **2015.** Six genetically distinct clades of *Palola* (Eunicidae, Annelida) from Lizard Island, Great Barrier Reef, Australia. *Zootaxa* 4019: 695-706.
<http://dx.doi.org/10.11646/zootaxa.4019.1.23>
- Lucey, N. M., Lombardi, C., De Marchi, L., **Schulze, A.**, Gambi, M. C., Calosi, P. **2015.** To brood or not to brood: are marine organisms that protect their offspring more resilient to ocean acidification? *Scientific Reports* 5: 12009. <http://dx.doi.org/10.1038/srep12009>
- ****Borda, E., Yañez-Rivera, B., *Ochoa, G., Sánchez-Ortíz, C, **Schulze, A.** and Rouse, G. W. **2015.** Revamping Amphinomidae (Annelida: Amphinomida) with a description of a new species of *Notopygos* from the Gulf of California. *Zoologica Scripta* 44: 324-333.
<http://dx.doi.org/10.1111/zsc.12099>
- ***Steichen, J. L., Brinkmeyer, R., **Schulze, A.** and Quigg, A. **2014.** All aboard! A biological survey of ballast water onboard vessels entering the Port of Houston, Texas (USA). *Marine Pollution Bulletin* 87:201-210. <http://dx.doi.org/10.1016/j.marpolbul.2014.07.058>
- **Ahrens, J. B., Kudenov, J., Marshall, C. D., **Schulze, A.** **2014.** A histological analysis of the bearded fireworm, *Hermodice carunculata* (Annelida: Amphinomidae): Regeneration of posterior segments and terminal structures. *Journal of Morphology* 275: 1103-1112.
<http://dx.doi.org/10.1002/jmor.20287>
- GIGA Community of Scientists. **2014.** The Global Invertebrate Genomics Alliance (GIGA): Developing community resources to study diverse invertebrate genomes. *Journal of Heredity* 105: 1-18.
<http://dx.doi.org/10.1093/jhered/est084>
- ****Borda, E., Kudenov, J., Blake, J. A., Chevalloné, P., Desbruyères, D., Hourdez, S., Fabri, M-C, Pleijel, F., **Schulze, A.**, Shank, T., Wilson, N. G. and Rouse, G. W. **2013.** Cryptic species of *Archinome* (Annelida: Amphinomida) from hydrothermal vents and cold seeps. *Proceedings of the Royal Society of London B: Biological Sciences* 280, 20131876.
<http://dx.doi.org/10.1098/rspb.2013.1876>
- Calosi, P., Rastrick, S. P. S., Lombardi, C., **de Guzman, H. J., Davidson, L., Jahnke, M., Giangrande, A., Hardege, J.D., **Schulze, A.**, Spicer, J. I., Gambi, M.C. **2013.** Acclimatization to ocean acidification in marine ectotherms: an in situ transplant experiment at a shallow CO₂ vent system. *Philosophical Transactions of the Royal Society B* 368, 20120444.
<http://dx.doi.org/10.1098/rstb.2012.0444>
- **Carvalho, R. G., ***Wei, C.-L., Rowe, G. and **Schulze, A.** **2013.** Complex depth-related patterns in the taxonomic and functional diversity of polychaetes in the Gulf of Mexico. *Deep Sea Research I* 80: 66-77. <http://dx.doi.org/10.1016/j.dsr.2013.07.002>
- **Ahrens, J. B., ****Borda, E., Barroso, R., Paiva, P. C., *Campbell, A. M., Wolf, A., Nugues, M. M., Rouse, G. W. and **Schulze, A.** **2013.** The curious case of *Hermodice carunculata*: evidence for genetic homogeneity throughout the Atlantic Ocean and adjacent basins. *Molecular Ecology* 22: 2280-2291. <http://dx.doi.org/10.1111/mec.12263>. **COVER ARTICLE**

- Schulze, A.**, Maiorova, A., *Timm, L. E. and Rice, M. E. **2012**. Sipunculan larvae and “cosmopolitan” species. *Integrative and Comparative Biology* 52: 497-510. <http://dx.doi.org/10.1093/icb/ics082>
- Schulze, A.** and *Timm, L. **2012**. *Palolo* and *un*: distinct clades in the genus *Palola* (Eunicidae, Polychaeta). *Marine Biodiversity* 42: 161-171. <http://dx.doi.org/10.1007/s12526-011-0100-5>
- Gonzalez, B. C., ****Borda, E., **Carvalho, R. G. and **Schulze, A.** **2012**. Polychaetes from the Mayan underworld: phylogeny, evolution, and cryptic diversity. *Natura Croatica* 21: 51-53 (extended abstract).
- Schulze, A.** **2011**. The Bobbit worm dilemma: a case for DNA. Reply to Salazar-Vallejo et al. 2011: Giant eunicid polychaetes (Annelida) in shallow tropical and temperate seas. *Revista de Biología Tropical* 59: 1475-1477. http://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S0034-77442011000400003&lng=en&nrm=iso
- Gambi, M. C., **Schulze, A.** and Amato, E. **2011**. Record of *Lamellibrachia* (Annelida, Siboglinidae, Vestimentifera) from a deep shipwreck in the Western Mediterranean Sea (Italy). *JMBA2 - Marine Biodiversity Records* 4: e24. <http://dx.doi.org/10.1017/S1755267211000261>.
- *Adkins, M. & **Schulze, A.** **2011**. Development of *Capitella* sp. G from Galveston Bay, Texas. *Marine Biology Research* 7: 202-207. <http://dx.doi.org/10.1080/17451000.2010.489612>
- Schulze, A.** & Rice, M. E. **2009**. *Nephasoma pellucidum* – a model species for sipunculan development? *Smithsonian Contributions to Marine Science* 38:209-217. <https://repository.si.edu/handle/10088/8299>
- Schulze, A.** & Rice, M. E. **2009**. Musculature in sipunculan worms: ontogeny and ancestral states. *Evolution & Development*, 11: 97-108. <http://dx.doi.org/10.1111/j.1525-142X.2008.00306.x>
- Varela, C. and **Schulze, A.** **2008**. Updated checklist of sipunculans (Phylum Sipuncula) of Cuba. *Cocuyo*, 17: 9-10. http://www.caribbeanahigroup.org/pdf/cocuyo/Cocuyo_17_2008.pdf
- Schulze, A.**, Cutler, E. B. & Giribet, G. **2007**. Phylogeny of sipunculan worms: a combined analysis of four gene regions and morphology. *Molecular Phylogenetics and Evolution*, 42: 171-192. <http://dx.doi.org/10.1016/j.ympev.2006.06.012>
- Schulze, A.** **2006**. Phylogeny and genetic diversity of palolo worms (*Palola*, Eunicidae) from the tropical north Pacific and the Caribbean. *Biological Bulletin*, 210: 25-37. <http://www.biolbull.org/content/210/1/25.full?sid=6c2763a9-0563-4d11-b569-f6a5c9ebb36b>
- Schulze, A.** **2005**. Sipuncula from Bocas del Toro (Panama). *Caribbean Journal of Science*, 41: 523-527. http://caribjsci.org/pdf/41_TOC41n3.pdf
- Collin, R., Diaz, M.C., Norenburg, J., Rocha, R.M., Sanchez, J.R., **Schulze, A.**, Schwartz, M. and Valdes, A. **2005**. Photographic identification guide to some common marine invertebrates of Bocas del Toro, Panama. *Caribbean Journal of Science*, 41: 638-707. http://caribjsci.org/pdf/41_TOC41n3.pdf
- Southward, E. C., **Schulze, A.** and Gardiner, S. L. **2005**. Pogonophora (Annelida): form and function. *Hydrobiologia*, 535/536: 227-251. http://link.springer.com/chapter/10.1007/1-4020-3240-4_13
- Schulze, A.**, Cutler, E. B. and Giribet, G. **2005**. Reconstructing the phylogeny of the Sipuncula. *Hydrobiologia*, 535/536: 277-296. http://link.springer.com/chapter/10.1007/1-4020-3240-4_15
- Schulze, A.** and Rice, M. E. **2004**. Sipunculan diversity at Twin Cays, Belize with a key to the species. *Atoll Research Bulletin*, 521:1-9. <http://www.sil.si.edu/digitalcollections/atollresearchbulletin/issues/00521.pdf>
- Cutler, E. B. and **Schulze, A.** **2004**. Sipuncula from Barbados, including two new for the island plus *Siphonosoma vastum*; first record from the Atlantic Ocean. *Bulletin of Marine Science*, 74: 225-228. <http://www.ingentaconnect.com/search/article?option1=tka&value1=siphonosoma+vastum&pageSize=10&index=1>
- Cutler, E. B., **Schulze, A.** and Dean, H. K. **2004**. The Sipuncula of sublittoral New Zealand with a key to all New Zealand species. *Zootaxa*, 525: 1-19. <http://www.mapress.com/zootaxa/2004f/z00525f.pdf>
- Schulze, A.** and Halanych, K. **2003**. Siboglinid evolution shaped by habitat preference and sulfide tolerance. *Hydrobiologia*, 496: 199-205. <http://link.springer.com/article/10.1023/A%3A1026192715095>

- Schulze, A. 2003.** Phylogeny of Vestimentifera (Siboglinidae, Annelida) inferred from morphology. *Zoologica Scripta*, 32: 321-342. <http://dx.doi.org/10.1046/j.1463-6409.2003.00119.x>
- Schulze, A. 2002.** Histological and ultrastructural characterization of the intravasal body in Vestimentifera (Siboglinidae, Annelida). *Cahiers de Biologie Marine*, 43: 355-358. <http://www.sb-roscoff.fr/cbm/article.htm?execution=e14s1>
- Southward, E., **Schulze, A.** and Tunnicliffe, V. **2002.** Vestimentiferans (Pogonophora) in the Pacific and Indian Oceans: a new genus from Lihir Island (Papua New Guinea) and the Java Trench, with the first report of *Arcovestia ivanovi* from the North Fiji Basin. *Journal of Natural History*, 36: 1179-1197. <http://dx.doi.org/10.1080/00222930110040402>
- Schulze, A. 2001.** Ultrastructure of opisthosomal chaetae in Vestimentifera and implications for phylogeny. *Acta Zoologica*, 82: 127-138. <http://dx.doi.org/10.1046/j.1463-6395.2001.00074.x>
- Schulze, A. 2001.** Comparative anatomy of excretory organs in vestimentiferan tube worms (Obturata, Pogonophora). *Journal of Morphology*, 250: 1-11. <http://dx.doi.org/10.1002/jmor.1054>
- Schulze, A. 1998.** Morphological, anatomical and histological study of *Flabellina pedata* (Montagu, 1815) with regard to the phylogeny of the Flabellinidae. *Archiv für Molluskenkunde*, 127: 57-67.
- Schulze, A.** and Wägele, H. **1998.** Morphology, anatomy and histology of *Flabellina affinis* (Gmelin, 1791) (Nudibranchia, Aeolidioidea, Flabellinidae) and its relation to other Mediterranean *Flabellina* species. *Journal of Molluscan Studies*, 64: 195-214. <http://dx.doi.org/10.1093/mollus/64.2.195>

Book Chapters

- Schulze, A. 2023 (in press).** Worms, Annelida. In: Encyclopedia of Biodiversity. Elsevier
- Schulze, A.**, Kawauchi, G. Y., Migotto, A. E. **2020.** Chapter 9. Sipuncula. In: Schmidt-Rhaesa, A. (ed.) Guide to the determination of marine meiofauna. Pfeil-Verlag, Hamburg, Germany.
- Schulze, A.**, Boyle, M. J., Kawauchi, G. Y. Amphinomida/Sipuncula. **2019.** In: Handbook of Zoology, pp. 177-215. De Gruyter, Berlin.
- Schulze, A. 2019.** Cold Seep Ecosystems, In Cochran, J. Kirk; Bokuniewicz, J. Henry; Yager, L. Patricia (eds.) Encyclopedia of Ocean Sciences, 3rd Edition, vol. 2, pp. 677-683. Oxford: Elsevier.
- Schulze, A. 2019.** Sipuncula. In *McGraw-Hill Encyclopedia of Science and Technology* [revised from Cutler and Schulze 2007]
- Schulze, A. 2019.** Siboglinidae. In *McGraw-Hill Encyclopedia of Science and Technology Vol 16.* McGraw-Hill Publishers, New York [revised from Schulze & Cutler 2007]
- Schulze, A.** and Cutler, E. G. **2007.** Pogonophora (Siboglinidae). In *McGraw-Hill Encyclopedia of Science and Technology, Vol 14.* McGraw-Hill Publishers, New York (pp. 92-93)
- Cutler, E. B. and **Schulze, A. 2007.** Sipuncula. In *McGraw-Hill Encyclopedia of Science and Technology Vol 16.* McGraw-Hill Publishers, New York (pp. 525-527)
- Cutler, E. B. and **Schulze, A. 2007.** Sipunculans. In *Encyclopedia of Tidepools and Rocky Shores.* University of California Press, Berkeley, CA (pp. 524-525)
- Schulze, A. 2003.** Sipuncula – Peanut worms. In: Gale Research Staff (eds.), *Grzimek's Animal Life Encyclopedia Vol 2: Protostomes* (pp. 97-101).

Conference Presentations

- Schulze, A.,** Zanol, J., Glasby, C. J. **2019.** Sex on the reef: the swarming polychaetes of Timor-Leste. International Polychaete Conference in Long Beach, CA (oral presentation)
- Schulze, A. 2017.** Conserved oxygen sensing mechanisms in the bearded fireworm, *Hermodice carunculata* Annelida: Amphinomidae). *Biogenomics2017* in Washington, DC (poster presentation)
- Schulze, A. 2017.** Conserved mechanisms of oxygen sensing in the bearded fireworm, *Hermodice carunculata* Annelida: Amphinomidae). *Society of Integrative and Comparative Biology Annual Meeting 2017* in New Orleans, LA. (oral presentation)
- Schulze, A. 2016.** Short and long-term responses to low dissolved oxygen in the bearded fireworm, *Hermodice carunculata* (Annelida: Amphinomidae). *12th International Polychaete Conference* in Cardiff, UK (poster presentation)

- Schulze, A.** and Glasby, C. J. **2016.** Genetic and reproductive diversity of palolo worms (*Palola*, Eunicidae, Annelida) around the world. *Society of Integrative and Comparative Biology Annual Meeting 2016* in Portland, OR. (oral presentation).
- Schulze, A.** **2015.** COI sequencing of marine annelids: where do we stand? *Society of Integrative and Comparative Biology Annual Meeting 2015* in West Palm Beach, FL. (poster presentation).
- Lucey, N. M., Lombardi, C., De Marchi, L., **Schulze, A.**, Gambi, M. C., Calosi, P. **2014.** Marine species that protect their offspring are more tolerant to the long-term impacts of ocean acidification. *Gordon Research Conference - Ocean Global Change Biology* in Waterville Valley, NH (poster presentation)
- Schulze, A.** and Anderson, F. E. **2013.** Latest news from the WormNet II Community Sequencing Project. 10th International Polychaete Conference in Sydney, Australia (oral presentation)
- Schulze, A.** **2013.** Advances in genomics and transcriptomics of annelids. *Global Invertebrate Genome Alliance (GIGA)*, meeting in Fort Lauderdale, FL (oral presentation)
- Schulze, A.** and Rice, M. E. **2012.** Who's who in the Sipuncula: matching larvae and adults. 2nd *International Symposium on the Biology of the Sipuncula* in Fort Pierce, FL (oral presentation).
- Schulze, A.** **2012.** Being cosmopolitan: dispersal, species ranges and genetic connectivity – examples from the worm world. *Brazil TAMU Conference* in Porto de Galinhas, PE, Brazil (oral presentation)
- Schulze, A.** **2012.** Sipunculan larvae and “cosmopolitan” species. *Society of Integrative and Comparative Biology Annual Meeting 2012* in Charleston, SC (invited symposium talk)
- Schulze, A.** **2010.** Population structure of the bearded fireworm, *Hermodice carunculata*, in the Northern Gulf of Mexico and the Mediterranean Sea, *International Polychaete Conference* in Lecce, Italy (poster presentation)
- Gambi, M. C., **Schulze, A.** and Amato, E. **2010.** Record of *Lamellibrachia* (Polychaeta, Siboglinidae, Vestimentifera) from a deep shipwreck in the Western Mediterranean Sea (Italy), 9th *International Polychaete Conference* in Lecce, Italy (poster presentation)
- Schulze, A.** and Odom, L. **2010.** Detection of non-indigenous species in Galveston Bay, TX by DNA barcoding. *of Integrative and Comparative Biology Annual Meeting 2010* in Seattle, WA (poster presentation).
- Schulze, A.** & Rice, M. E. **2007.** Development and evolution of the musculature in sipunculan worms. *Smithsonian Marine Science Symposium* in Washington, DC (poster presentation).
- Schulze, A.** & Rice, M. E. **2007.** Matching larvae and adults in sipunculans using three molecular markers and morphology. *International Congress of Invertebrate Reproduction and Development* in Panama City, Panama (oral presentation).
- Schulze, A.**, Cutler, E. B. & Giribet, G. **2006.** Molecular and morphological evolution of sipunculan worms. *Society of Integrative and Comparative Biology Annual Meeting 2006* in Orlando, FL (oral presentation)
- Schulze, A.** & Rice, M. E. **2006.** Myogenesis and neurogenesis in sipunculan worms. *Society of Integrative and Comparative Biology Annual Meeting 2006* in Orlando, FL (poster presentation)
- Rice, M. E. & **Schulze, A.** **2005.** Molecular and morphological species identification of sipunculan pelagosphaera larvae. *Society of Integrative and Comparative Biology Annual Meeting 2005* in San Diego, CA (poster presentation)
- Schulze, A.** **2004.** Genetic diversity of palolo worms (*Palola*, Eunicidae) from the Pacific and the Caribbean Sea. 8th *International Polychaete Conference* in Madrid, Spain (oral presentation)
- Schulze, A.** & Rice, M. E. **2004.** Muscle development in larvae and juveniles of four sipunculan species. *Society of Integrative and Comparative Biology Annual Meeting 2004* in New Orleans, LS (poster presentation)
- Schulze, A.** & Rice, M. E. **2003.** Sipunculan diversity at Twin Cays. Symposium *The Twin Cays Mangrove Ecosystem, Belize: Biodiversity, Geological History, and Two Decades of Change*, Ft. Pierce, FL (poster presentation)
- Schulze, A.**, Cutler, E. B. & Giribet, G. **2002.** Sipuncula in the 21st century. Symposium *Morphology, Molecules, Evolution and Phylogeny in Polychaeta and related taxa* in Osnabrück, Germany (invited oral presentation)

- Southward, E. C., **Schulze, A.** & Gardiner, S. L. **2002.** Pogonophora – form and function. Symposium *Morphology, Molecules, Evolution and Phylogeny in Polychaeta and related taxa* in Osnabrück, Germany (invited oral presentation)
- Schulze, A. 2002.** Phylogeography of Palolo worms (*Palola*, Eunicidae, Polychaeta) from the Caribbean, Eastern Pacific and Micronesia. *6th International Congress of Systematic and Evolutionary Biology* in Patras, Greece (poster presentation)
- Schulze, A. 2001.** Phylogeny of vestimentiferan tube worms based on morphology. *7th International Polychaete Conference* in Reykjavik, Iceland (oral presentation)
- Schulze, A. 2001.** Phylogeny of Vestimentifera. *2nd International Symposium on Hydrothermal Vent Biology* in Brest, France (oral presentation)

Invited Talks and Lectures

2020. Glowworms in the Sea. National Geographic Explorer water meet-up.
2019. Sex on the Reef: the swarming annelids of Timor-Leste (and elsewhere). Oregon Institute of Marine Biology.
2019. Diversity, evolution and functional adaptations in marine annelids. University of São Paulo.
2019. Sex on the reef: the Meci worms of Timor-Leste. Australian Museum.
2016. Tough, armed and omnivorous: fireworms are prepared for ecological challenges. Clemson University
2014. Global worming: genetic diversity and cryptic species in marine annelids. Colgate University
2014. Worldwide worms: species distribution and dispersal in (some) marine annelids. Auburn University
2014. Dispersal and species distributions in the sea: examples from marine annelids. Southern Illinois University
2014. Phylum Annelida. Guest lecturer in Marine Biodiversity, Osher Lifelong Learning Institute (OLLI), University of Texas Medical Branch
2013. Being cosmopolitan: dispersal, species ranges and genetic connectivity – examples from the worm world. Texas A&M University at Galveston
2012. Who's who in Sipuncula: matching larvae and adults using DNA. Federal University of Rio de Janeiro.
2012. Being cosmopolitan: dispersal, species ranges and genetic connectivity – examples from the worm world. Nova Southeastern University.
2011. Cryptic diversity, dispersal and genetic connectivity: expected and unexpected results from marine worms. Department of Oceanography, TAMU.
2010. Detection of exotic species in Galveston Bay by DNA barcoding of zooplankton. Texas A&M University at Galveston.
2009. Phylogeny and life history of sipunculan worms – a small phylum in the big picture. Rice University.
2008. Evolutionary history and population genetics of marine invertebrates from the Gulf of Mexico and beyond. Instituto de Ciencias del Mar y Limnología, Universidad Nacional Autónoma de México.
2007. All about peanut worms: evolution, development and larvae in the Sipuncula. University of Colorado at Denver and Health Sciences Center.
2007. All about peanut worms: evolution, development and larvae in the Sipuncula. Department of Oceanography, TAMU.
2006. Peanut and palolo worms: phylogeny, phylogeography and larvae. Department of Marine Biology, Texas A & M University at Galveston and Department of Biology, Texas A & M University at College Station.
2006. Peanut and palolo worms: phylogeny, phylogeography and larvae. Department of Biology, Dalhousie University.
2005. A small phylum in the big picture: molecular and morphological evolution in sipunculan worms. Royal Ontario Museum.
2005. Phylogeny and genetic diversity of palolo worms. Smithsonian Marine Station.
2002. Phylogeography of Palolo Worms (*Palola*, Eunicidae, Polychaeta); Department of Organismic and Evolutionary Biology, Harvard University.
2001. Phylogeny and Biogeography of vestimentiferan tube worms. Department of Systematic Biology, National Museum of Natural History, Smithsonian Institution.

2001. Phylogeny and Biogeography of vestimentiferan tube worms. Biology Department, University of Hawaii.
2000. Phylogeny of vestimentiferan tube worms. Bamfield Marine Station.
1999. Vestimentifera – morphology and phylogeny. University of Victoria, 1st Invertebrate Symposium.

Reviewer and Editorial Service

I review 6-12 manuscripts per year in a wide range of journals

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| 2022-present | <i>Diversity</i> , Editorial Board |
| 2020-2022 | <i>Diversity</i> , Review Board |
| 2019-present | <i>Journal of the Marine Biological Association of the UK</i> , Associate Editor |
| 2017-present | <i>Journal of Natural History</i> , Editorial Board |
| 2015-2020 | <i>Proceedings of the Biological Society of Washington</i> , Associate Editor |
| 2014-present | <i>Frontiers in Marine Science</i> , Review Editor |

Leadership in Professional Organizations

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| 2019-present | Vice President, International Polychaetological Association |
| 2017-present | National Geographic Explorer |
| 2016-present | Executive Committee, Member-at-Large, American Microscopical Society |
| 2014-2021 | Steering Committee, Global Invertebrate Genomics Alliance (GIGA) |

Professional Memberships

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|--------------|--|
| 2015-present | Texas OneGulf Network of Experts (TONE) |
| 2015-present | American Microscopical Society |
| 2004-present | Society of Integrative and Comparative Biology, Division of Invertebrate Zoology |
| 2002-present | Sigma Xi Society |
| 2001-present | International Polychaetology Association |