CURRICULUM-VITA

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EDUCATION

1997-98 Post-Doctoral Fellow, Consortium of Oceanographic Research and Education, Naval Research Laboratory, Stennis Space Center, Mississippi.

1993-97 Ph.D. Oceanography, Texas A&M University, TX

1990-93 M.S. Oceanography, Texas A&M University, TX

1985-89 B.S. Earth Science, Minor in Chemistry, Millersville University, PA

PROFESSIONAL EXPERIENCE

Primary appointment

2019-P Professor, Department of Marine Biology, Texas A&M University Galveston.

Other current positions

2021-P Faculty (courtesy joint appointment), Department of Ecology and Conservation Biology, Texas A&M University.

2021-P Guest Editor, *Climate*, journal of the Multidisciplinary Digital Publishing Institute, special issue “Resilience and Adaptation to Climate Change of Aquatic Populations and Communities, and its Impact on Ecosystem Functioning”.

2015-P Associate Editor, *Marine & Freshwater Research*, journal of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia.

2005- P Faculty, Water Management and Hydrologic Sciences, Interdisciplinary Degree Program, Texas A&M University.

2005- P Faculty, Ecology and Evolutionary Biology, Interdisciplinary Degree Program, Texas A&M University.

Past positions

2019-23 Department Head, Department of Marine Biology, Texas A&M University Galveston.

2017-20 Guest Editor, *Marine & Freshwater Research*, journal of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia, special issue "Aspects of new monitoring, reporting, modeling and ecological research on cyanobacteria in inland waters".

2016-19 Guest Editor, *Estuarine, Coastal and Shelf Science*, journal of the Estuarine Coastal Sciences Association (ECSA), United Kingdom, special issue "Coastal systems in transition: From a 'natural' to an 'anthropogenically-modified' state".

1998-19 Assistant/Associate/Full Professor, Department of Wildlife and Fisheries Sciences, Texas A&M University, with a joint appointment in the Department of Oceanography.

2018 Visiting Scientist, School of the Environment, University of Technology Sydney, Australia.

2012-17 Editorial Board, *Marine Science and Technology Bulletin*, published by Canakkale Onsekiz Mart University, Canakkale, Turkey.

2010-16 Member, National Harmful Algal Blooms Committee, USA.

2007-16 Associate Editor, *The American Naturalist*, journal of the American Society of Naturalists.

2011-15 Member, Institute for Applied Mathematics and Computational Science, Texas A&M University and King Abdullah University of Science and Technology, Saudi Arabia.

2013-15 Executive Committee, Institute of Applied Mathematics and Computational Sciences, Texas A&M University.

2012 Visiting Scientist, School of the Environment, University of Technology Sydney, Australia.

2012 Visiting Scientist, Department of Marine Sciences, University of the Aegean, Greece.

2010-11 Associate Chair, Ecology and Evolutionary Biology, Interdisciplinary Research Program, Texas A&M University.

2008-11 Faculty Senator, Texas A&M University.

2005-08 Board Member, Texas River and Reservoir Management Society.

2006 Visiting Scientist, US Environmental Protection Agency, Western Ecology Division, Hatfield Marine Science Center, Oregon.

HONORS/AWARDS/ACKNOWLEDGMENTS

2023 Featured EPA webinar speaker, Numeric Nutrient Criteria Seminar Series, titled "Linking phytoplankton assemblage emergent properties to harmful algal bloom resistance – theory, modeling tools, empirical data", October 10, 2023.

2023 Research project titled "Factors critical to long-term lake and reservoir management: Relationships between land-use, nutrient loading, inflows, HABs and anoxia" chosen as a featured achievement in USACE's annual report of Research Development, 2023.

2021 Invited to serve a 3rd term on the editorial board of *Marine and Freshwater Research*

2018 Invited to serve a 2nd term on the editorial board of *Marine and Freshwater Research*

2015 Invited to serve a 1st term on the editorial board of *Marine and Freshwater Research*

2015 Recipient of the Texas A&M University Wildlife and Fisheries Sciences Department "Outstanding Graduate Teaching" Award

2015 Recipient of the Texas Chapter American Fisheries Society "Outstanding Fisheries Educator" Award

2014 Invited to serve a 3rd term on the editorial board of *The American Naturalist*

2013 Re-elected to the National Harmful Algal Bloom Committee (USA)

2010 Elected to the National Harmful Algal Bloom Committee (USA)

2010 Invited to serve a 2nd term on the editorial board of *The American Naturalist*

2009 Invited to serve as "Opponent" in the dissertation defense of Andreas Brutemark (E. Graneli, Chair), University of Kalmar Sweden

2009 Invited to organize a special session for the 30th Annual Conference of the Society of Environmental Toxicology and Chemistry (SETAC), New Orleans, LA, USA focused on ecohydrology and the fate of phycotoxins

2008 Invited to write a chapter for the multivolume Treatise on Estuarine and Coastal Science (vol. 9, Elsevier) focused on the incidence of hypoxia in coastal waters

2008 Elected to the Faculty Senate, Texas A&M University

2007 Invited to join the editorial board of *The American Naturalist*

1998 Invited to participate in the International Council for the Exploration of the Sea: Young Scientists Conference on Marine Ecosystem Perspectives (limited to 2 participants per country)

1997 Awarded a Consortium of Oceanographic Research and Education (CORE) Postdoctoral Fellow

MEMBERSHIPS/SOCIETIES

Current

Association for the Sciences of Limnology and Oceanography (ASLO)

Coastal and Estuarine Research Federation (CERF)

Gulf Estuarine Research Society (GERS)

Past

American Society of Naturalists (ASN)

American Fisheries Society, Texas Chapter (TAFS)

Honor Society of Phi Kappa Phi

Phycological Society of America (PSA)

Society of Environmental Toxicology and Chemistry (SETAC)

Texas River and Reservoir Management Society (TRRMS)

ADMINISTRATIVE – DEPARTMENT HEAD, MARINE BIOLOGY, TEXAS A&M UNIVERSITY (2019-23)

This was a tumultuous period for the department, which saw three different Chief Academic Officers rotate through the campus, a multi-year pandemic, several hurricanes and other natural disasters, and a continuous, full-on, sometimes hostile, faculty resistance towards an administration attempting to merge the department with another department. Still, much was accomplished, as documented below.

Development of a Departmental Strategic Plan and Implementation

- Planned, organized, and conducted the first-ever faculty retreat, which led to the first-ever strategic plan for the period 2020-2025. This document had 11 goals.

- Towards the 1st goal, build our faculty's research expertise and diversity:

    - A department-wide and individual Intercultural Development Inventory Assessment was completed;
    - A hiring plan was developed and executed (see section further below);
    - A MARB all-hands meeting was devoted to having each faculty present their ongoing and near-term plans for research to the COO and CAO, followed by the Department Head presenting how MARB's research plans encompassed the blue economy, what the faculty hiring plan was, and what resources were needed to support this effort;
    - Multiple investments in research capacity were completed (see section further below);
    - Participated in a networking function with Pacific Northwest National Laboratory (PNNL) hosted by TAMUG to build collaborative relationships;
    - Participated in a networking function with the University of Texas Medical Branch Galveston (UTMB) hosted by TAMUG to build collaborative relationships.

- Towards the 2nd goal, establish an inter-institutional, research-focused mechanism for diversifying our graduate student population:

    - Contacted colleagues at TAMU-Prairie View (designated Black-serving institution) and TAMU-International (designated Latino-serving institution) to gauge interest in developing multi-disciplinary research proposals involving faculty from their institutions and MARB, with an initial focus on the food/water/energy nexus;
    - Followed up with TAMU-Prairie View and identified a research team leader at TAMU-Prairie View (Dr. Ali Fares), hosted Dr. Fares at TAMUG to give a seminar, met with MARB faculty for brainstorming, and met with MARB and MCES Department Heads to discuss expanded collaborative research opportunities;

- Identified an RFP for proposal submission by the expanded team, then developed and submitted a preliminary proposal;
- Visited TAMU-Prairie View to meet with their Provost and discussed steps forward, which included hosting additional speakers and planning to leverage the TAMU PRISE program;
- Met on multiple occasions with a potential donor associated with the George and Cynthia Mitchell Foundation who was interested in supporting a joint project between TAMUG and TAMU-Prairie View focused on algal production and sustainable aquaculture.

- Towards the 3rd goal, establish an intra-institutional, research-focused mechanism for advancing TAMUG's "Blue Economy" initiative:

  - An interdisciplinary proposal development project was launched, involving four departments and facilitated by the TAMU Division of Research that involved compiling information on participating faculty's ongoing research and planned research, as well as brainstorming activities;
  - The idea of having a professional proposal writer was socialized on several occasions to the COO, CAO, CFO, the TAMUG Executive Team, and the Academic Leadership Team.

- Towards the 4th goal, strengthen ties with local agencies and the private sector:

  - On separate occasions, met with personnel from NOAA and TXSG to discuss future opportunities in oyster research, leading to a financial investment in the TAMUG Sea Life Facility to enhance capacity for oyster research;
  - On separate occasions and multiple times, met with personnel from Moody Gardens and the Flower Garden Banks National Marine Sanctuary to discuss future opportunities in coral reef research, education, and outreach, which led to financial investment in the TAMUG Sea Life Facility to enhance capacity for coral research;
  - Met with personnel from Moody Gardens to discuss future opportunities in jellyfish research, education, and outreach, which led to financial investment in the TAMUG Sea Life Facility to enhance capacity for jellyfish research.

- Towards the 5th goal, build a better relationship with TAMUG's Research and Graduate Studies Office:

  - The idea of having a professional proposal writer was socialized (mentioned previously);
  - A co-production roadmap resource was begun that involved creating a database with points of contact for funding programs receptive to co-production, descriptions of the programs, and past funding records.

- Towards the 6th goal, build a better relationship with TAMU Foundation

    - A presentation was given to the TAMU Foundation giving each faculty's ongoing and near-term plans for research, MARB's plan for blue economy-focused research, the faculty hiring plan, and the resources needed;
    - Compiled a wish list from the MARB faculty and discussed it with TAMU Foundation;
    - Working with TAMU Foundation, created an endowment for shrimp fishery research and education;
    - Working with TAMU Foundation, grew an endowment that supports the TAMUG Sea Life Facility to include invertebrate fishery research and coral reef research projects;
    - Working with TAMU Foundation, initiated a multi-institutional algal feed for aquaculture project;
    - Working with TAMU Foundation, initiated a project focused on utilizing sewage treatment effluent to oyster reef capacity.

- Towards the 7th goal, build a better relationship with TAMUG Marketing and Communications

    - Completed and made accessible a MARB Departmental Guide for recruiting and promotion purposes;
    - A presentation was given to TAMU Marketing and Communications giving each faculty's ongoing and near-term plans for research, MARB's plan for blue economy-focused research, the faculty hiring plan, and resources needed.

- Towards the 8th goal, enhance the mentorship of junior faculty

    - A MARB mentoring program was created and implemented that guided the advancement of Assistant Professors toward promotion to Associate Professor, and the advancement of Associate Professors toward promotion to Professor. It included:

        - Quarterly meetings between mentee and assigned mentor to provide guidance to the mentee regarding their progress and planning in research, teaching, and service;
        - Peer evaluation of teaching every semester that provides written feedback addressing the effectiveness of the lecture, being sure to mention strong points, areas that could be improved, and high-impact learning techniques employed;
        - Participation in special departmental mentorship programs when offered, like the Mentorship Through Collaboration Program;
        - Clear communication of expectations for promotion, being quantitative in regard to publications and grantsmanship;
        - Involvement in departmental functioning through service on standing and ad hoc committees, including the Graduate Affairs Committee, Undergraduate Affairs Committee, P&T Committee (for Associate Professors), and the DH Faculty Advisory Board;

        - Annual evaluations by the DH;
        - Independent mid-term evaluations by the DH and P&T Committee;
        - Independent promotion evaluations by the DH and P&T Committee.

    - A 'Mentorship Through Collaboration Program' was created and implemented that involved faculty pairs comprised of one junior faculty and a faculty of higher rank, who developed pilot projects in the form of mini-proposals where the primary deliverable of the activity was the submission of a proposal of greater scope to an extramural funding source. The mini-proposals were peer-reviewed and ranked, with the top two proposals receiving full support for a graduate student (salary, tuition, and fees) for one year and a $5K research budget;

    - Beginnings of a 'Shared Prospectus Platform' was developed. The multidisciplinary proposal development project (described previously), and the presentation of MARB faculty's current and planned research to the COO and CAO, served this purpose;

    - During the first cycle of annual review meetings between junior faculty and the DH, publication and grantsmanship quantitative targets were communicated for each junior faculty, above which the DH would support promotion;

    - Attended a co-production workshop hosted by Texas Parks and Wildlife Department that was attended by several state and federal agencies that regularly fund research conducted by MARB faculty. Some of the information from the deliberations of this workshop were communicated to MARB faculty and to RGSO;

    - Hosted multiple social events during each year, e.g., a welcome back event held at the start of the fall semester and a Holiday social, retirement events, etc.;

    - A monthly 'Kudos Corner' was sent to MARB faculty and staff acknowledging significant accomplishments of MARB faculty and staff for the previous month. In addition, with the help of some MARB faculty, the DH has nominated several MARB faculty for awards at various levels (see section below).

- Towards the 9th goal, create and secure graduate programs

    - Oversaw the development and submission of MARB M.S. and Ph.D. degree program proposals to THECB, which involved, in part, introducing 12 new stand-alone graduate classes to our course catalog;
    - Changed the undergraduate schedule of classes, specifically the upper-level classes (300 and 400) from an annual cycle to a two-year cycle to accommodate the new graduate-level classes;
    - Doubled the population of MARB NTO graduate students from ~10 to ~20 and enhanced the NTO program by creating a clearer and more effective structure,

communication of expectations, and timeline for professional paper writing and presenting.

- Towards the 10th goal, increase first-year retention

    - Oversaw the expansion of Succeeding in Science, MARB 101, into a three-credit class from a one-credit class. The content of this class, among other things, now introduces first-year students to the faculty of MARB and MCES through lecture materials and lab tours, exploratory sampling field trips, and a culminating social networking event;
    - Provided input for the creation of a new class, MARS 102, Earth and Ocean Systems (four credits), that introduces first-year students to the major ecosystems of the world ocean, emphasizing the form and functioning;
    - Co-developed and implemented a shared first-year curriculum between MARB, MARF, MARS, and CESS that enabled students to switch between these four degrees up to the beginning of their second year without losing credits;
    - Formed an 'Introductory FSCI Science Classes Assessment' committee to determine how math, chemistry, and physics classes could be offered in a way that enhances learning and retention for MARB freshmen.

- Towards the 11th goal, sustain undergraduate enrollment

    - Shepherded the merging of the Academic Advising Offices of MARB and MCES;
    - Secured and created space in OCSB for the MARB/MCES Academic Advising Office, which included a student lounge and soft-learning space;
    - Reviewed syllabi of all classes offered by our department, focused on the hands-on and field activities offered;
    - Oversaw the MARB curricula assessment through the TAMU Office of Institutional Effectiveness and Evaluation;
    - With MARB's UG Affairs Committee and Academic Advisors, created and submitted a proposal for the department to offer a MARF minor;
    - Planned and hosted a game-based learning workshop with college-wide participation;
    - Served on President Banks Path Forward Life Sciences Meta-Major Committee tasked with characterizing and comparing all undergraduate degree programs at TAMU falling within the realm of life sciences, which resulted in several TAMUG degrees to be considered for incorporation into the Life Sciences Meta-Major;
    - Invested in teaching laboratory infrastructure that involved replacing bench countertops, purchasing several microscopes, and purchasing a 3-D printer.

Culture Change

- Oversaw the creation of departmental bylaws;

- Created and implemented a transparent policy of shared governance involving formalized, iterative information exchanges between the DH, standing and ad-hoc committees, and the greater faculty and staff;

- Created a process where monthly departmental all-hands meetings were conducted that involved a formal agenda development process occurring before meetings;

- Created and formalized a transparent annual review process that involved development and faculty feedback for a rubric to be used for the annual review process, providing individual feedback with guidance for junior faculty for what they need to accomplish to attain DH support for promotion, and providing departmental feedback so that faculty could place their performance relative to others in the department;

- Created and maintained a safe space for pedagogy experimentation for MARB faculty. This was achieved by reducing the weight of student evaluation scores during annual evaluations, and increasing the value of peer reviews of teaching, implementation of HITS, and comments left by students;

- Created and maintained greater parity in teaching loads among MARB faculty (mentioned previously);

- Created and implemented, and followed a formalized "Allocation of Graduate Teaching Assistantships" policy (mentioned previously);

- Created and implemented, and followed a formalized "Mentoring of Junior Faculty" policy (mentioned previously);

- Started and ran "Kudos Corner" (mentioned previously).

Faculty and Staff Advancement and Hiring

- Receiving Awards

    - Dr. Robyn Tanguay (from OSU), was awarded a five-year Hagler Fellow position;
    - Ms. Rachel Ball, was awarded a university-level Association of Former Students Award for Individual Student Engagement;
    - Dr. David Hala, award a university-level Montague Center for Teaching Excellence Award;
    - Dr. Jamie Steichen, was awarded a college-level Association of Former Students Award for Teaching Excellence;
    - Dr. Anja Schulze, was awarded a college-level Association of Former Students Award for Teaching Excellence;

- Dr. Antonietta Quigg, was awarded an Association for the Sciences of Limnology and Oceanography Fellow Award;
- Dr. David Wells, was awarded an Edges Fellowship (with included a $300,000 stipend);
- Dr. Anna Armitage, was awarded a college-level Association of Former Students Award for Teaching Excellence;
- Dr. Jessica Labonte, was awarded a university-level Montague Center for Teaching Excellence Award.

- Receiving Promotions and Award of Tenure

  - Dr. David Wells, was promoted to Professor
  - Dr. Ana Sirovic, was awarded tenure as an Associate Professor
  - Dr. Maria Pia Miglietta, was promoted to Associate Professor, with tenure awarded
  - Dr. Jessica Labonte, was promoted to Associate Professor, with tenure awarded
  - Dr. David Hala, was promoted to Associate Professor, with tenure awarded
  - Dr. Lene Petersen, was promoted to Instructional Associate Professor
  - Dr. Philip Matich, was promoted to Instructional Associate Professor
  - Dr. Jamie Steichen, was promoted to Instructional Associate Professor
  - Ms. Rachel Ball, was promoted to Academic Advisor II

- Hiring

  - Dr. Sheila Kitchen, was hired as Assistant Professor, tenure-track
  - Dr. Vivienne Foroughirad, was hired as Assistant Professor, tenure-track
  - Dr. Jamie Steichen, was hired as Instructional Assistant Professor
  - Ms. Mona Hochman, was hired as Lecturer
  - Ms. Jodie Martin, was hired as Business Administrator I
  - Ms. Gretchen Childers, was hired as Business Administrator I
  - Ms. Kiersten Hall , was hired as Business Administrator I
  - Ms. Rachel Sellers, was hired as Academic Advisor I
  - Ms. Brianna Zabawa, was hired as Academic Advisor I

Routine Tasks

- Executive responsible for all departmental operations, academics, and finances;

- Coordinated with the Offices of the Chief Operating Officer (COO), the Executive Associate Vice President for Academic Affairs and Chief Academic Officer (CAO), and the Chief Finance and Compliance Officer (CFO);

- Coordinated with the Research & Graduate Studies Office, the Academic Operations Office, the Office of Administration and Auxiliary Services, the Office of Student Affairs, the Office of Civic Literacy, Inclusion, Diversity, and Equity; the Office of Foundation Development; the

Office of Human Resources; and the Office of Marine Education Support and Safety Operations;

- Approved expense reports (several hundred transactions per year, totaling ~$4 million);
- Approved travel requests (100-150 submissions per year);
- Approved proposal submissions (~20 submissions per year);
- Performed annual reviews of faculty and staff (~18 faculty, ~4 staff);
- Performed evaluations for promotion, mid-term reviews, and post-tenure reviews;
- Decided annual merit raises and one-time bonuses;
- Prepared award nomination packets of faculty and staff;
- Performed faculty credentialling;
- Performed research and teaching staff hiring and terminations;
- Performed quarterly 'check-ins' with faculty mentors and mentees, providing additional mentoring;
- Organized and conducted monthly faculty meetings;
- Biannual assignment of tasks for departmental committees;
- Oversaw operation of three undergraduate degrees (~550 students);
- Recruited into undergraduate programs through event organized by the Academic Affairs Office;
- Decided undergraduate student re-admissions;
- Approved class offerings;
- Provided departmental news monthly to SGA, TAMUG's undergraduate student council;
- Participated in Freshman Networking Activities as part of MARB 101 Succeeding in Science;
- Approved graduate admissions;

- Chaired the committees of non-thesis option M.S. students (see Students section of CV);
- Determined faculty teaching assignments;
- Determined faculty committee appointments;
- Participated in graduation ceremonies.

PUBLICATIONS

The underlined name indicates the author was a graduate student supervised by Roelke at the time of research; *the double-underlined name* indicates the author was an undergraduate supervised by Roelke or held a B.S. at the time of research and worked out of Roelke's lab; and when there are multiple authors the '*' indicates senior author.

Peer-reviewed journal articles

106. Kieley, C.M. **D.L. Roelke***, R. Park, K.L. Campbell, N.H. Klobusnika, J.R. Walker, S.E. Cagle, M.L. Kneer, K.M. Stroski, B.W. Brooks, J.M. Labonté. Microcystins concentrations associate with nitrate and nitrite, and may disrupt the nitrogen cycle, in warm-monomictic lakes of southcentral United States. Harmful Algae. (*accepted with minor revisions*)
105. Cagle, S.E., **D.L. Roelke***, J. Bhattacharyya. 2023. A spatially explicit, multi-nutrient, multi-species plankton model for shallow bay systems. Estuaries and Coasts. 46:1573–1589.
104. Grover*, J.P., J.T. Scott, **D.L. Roelke**, B.W. Brooks. 2022. Competitive superiority of N-fixing cyanobacteria when fixed N is scarce: Reconsiderations based on a model with heterocyst differentiation. Ecological Modelling. 466 (online, 109904), 17 pages.
103. Cagle, S.E., **D.L. Roelke***. 2021. Relative roles of fundamental processes underpinning PEG dynamics in dimictic lakes as revealed by a self-organizing, multi-population plankton model. Ecological Modelling. 462 (online, 109793), 16 pages.
102. Cagle, S.E., **D.L. Roelke***, C. Hernández-Zepeda, G. Rosiles-González, V.H. Carrillo-Jovel, D. Ortega-Camacho, E. Cejudo. 2021. Cyanobacteria and nitrates in karstic systems of Yucatan (Mexico) and Texas (USA). Aquatic Sciences. 83:74 (online), 12 pages.
101. Cagle, S.E., **D.L. Roelke***, R.M.W Muhl. 2021. Allelopathy and micropredation paradigms reconcile with system stoichiometry. Ecosphere. 12, e03372. 13 pages.
100. Sim, D.Z.H., M.A.D. Mowe, Y. Song, J. Lu, H.T.W. Tan, S.M. Mitrovic, **D.L. Roelke**, D.C.J. Yeo*. 2021. Tropical macrophytes promote phytoplankton community shifts in lake mesocosms: relevance for lake restoration in warm climates. Hydrobiologia, 848:4861–4884.
99. **Roelke*, D.L.**, S.E. Cagle, R.M.W. Muhl, A. Sakavara, G. Tsirtsis. 2020. Resource fluctuation patterns influence emergent properties of phytoplankton assemblages and their resistance to harmful algal blooms. Marine and Freshwater Research. 71: 56-67.
98. Bhattacharyya, J., **D.L. Roelke***, J.R. Walton, S. Banerjee. 2020. Using YY supermales to destabilize invasive fish populations. Theoretical Population Biology. 134: 1-14.

97. Grover*, J.P., J.T. Scott, **D.L. Roelke**, B.W. Brooks. 2020. Dynamics of nitrogen-fixing cyanobacteria with heterocysts: a stoichiometric model. Marine and Freshwater Research. 71: 644–658.

96. Mitrovic*, S.M., T. Kobayashi, **D.L. Roelke**. 2020. Cyanobacteria in inland waters: new monitoring, reporting, modelling and ecological research. Marine and Freshwater Research. 2020: i-iv.

95. Thayer, A.W., A. Vargas, A.A. Castellanos, C.W. Lafon, B.A. McCarl*, **D.L. Roelke**, K.O. Winemiller, T.E. Lacher. 2020. Integrating agriculture and ecosystems to find suitable adaptations to climate change. Climate. 8, 10; doi:10.3390/cli8010010 (20 pages).

94. Bhattacharyya, J., **D.L. Roelke***, S. Pal, S. Banerjee. 2019. Sliding mode dynamics on a prey-predator system with intermittent harvesting policy. Nonlinear Dynamics. 98: 1299–1314

93. Cagle, S.E., **D.L. Roelke***, R.M.W Muhl. 2019. Compounding effects of co-occurring disturbances on populations of a harmful bloom-forming mixotrophic protist. Hydrobiologia. 831: 23–31.

92. Mazaheri Kouhanestani, Z., **D.L. Roelke***, R. Ghorbani, M. Fujiwara. 2019. Assessment of spatiotemporal phytoplankton composition in relation to environmental conditions of Gorgan Bay, Iran. Estuaries and Coasts. 42: 173–189.

91. Spatharis*, S., V. Lamprinou, A. Meziti, K.A. Kormas, D.D. Danielidis, E. Smeti, **D.L. Roelke**, R. Mancy, G. Tsirtsis. 2019. Everything is not everywhere: Marine compartments shape phytoplankton assemblages. Proceedings of the Royal Society B, 286: 20191890. *http://dx.doi.org/10.1098/rspb.2019.1890*.

90. **Roelke, D.L.** 2018. Grazers, pathogens and shelf-shading enhance phytoplankton species richness more and reduce productivity less when environments are less dynamic: A theoretical study. Estuarine, Coastal and Shelf Science. 211: 152-165.

89. Bhattacharyya, J., **D.L. Roelke***, R.M.W. Muhl, F.G. Withrow. 2018. Exploitative competition of invaders differentially influences the diversity of neutral, lumpy and intransitive phytoplankton assemblages in spatially heterogeneous environments. Ecological Modelling. 370: 59-66.

88. Muhl, R.M.W., **D.L. Roelke***, T. Zohary, M. Moustaka-Gouni, U. Sommer, G. Borics, U. Gaedke, F.G. Withrow, J. Bhattacharyya. 2018. Resisting annihilation: Relationships between functional trait dissimilarity, assemblage competitive power and allelopathy. Ecology Letters. 9: 1390-1400.

87. Nordhaus*, I., **D.L. Roelke**, R. Vaquer-Sunyer, C. Winter. 2018. Coastal systems in transition from a 'natural' to an 'anthropogenically-modified' state. Estuarine, Coastal and Shelf Science. 211: 1-5.

86. Papanikolopoulou, L.A., E. Smeti, **D.L. Roelke**, P.G. Dimitrakopoulos, G.D. Kokkoris, D. Danielidis, S. Spatharis*. 2018. Interplay between r- and K-strategists leads to phytoplankton underyielding under pulsed resource supply. Oecologia. 186: 755–764.

85. Sakavara, A., G. Tsirtsis, **D.L. Roelke**, R. Mancy, S. Spatharis*. 2018. Lumpy species coexistence arises robustly in fluctuating resource environments. Proceedings of the National Academy of Sciences, USA. 115: 738–743.

84. Smeti, E., **D.L. Roelke***, G. Tsirtsis, S. Spatharis. 2018. Species extinctions strengthen the relationship between biodiversity and resource use efficiency. Ecological Modelling. 384: 75-86.

83. Withrow, F.G., **D.L. Roelke***, R.M.W. Muhl, J. Bhattacharyya. 2018. Water column processes differentially influence richness and diversity of neutral, lumpy and intransitive phytoplankton assemblages. Ecological Modelling. 370: pp. 22-32.

82. **Roelke, D.L.** 2017. Applying principles of resource competition theory to microalgae biomass production: A more refined relationship between species richness and productivity. Algal Research. 25: 431–438.

81. **Roelke*, D.L.**, H-P. Li, C.J. Miller-DeBoer, G.M. Gable, S.E. Davis. 2017. Regional shifts in phytoplankton succession and primary productivity in the San Antonio Bay System (USA) in response to diminished freshwater inflows. Marine and Freshwater Research. 68: 131-145.

80. Grover*, J.P., **D.L. Roelke**, B.W. Brooks. 2017. Population persistence in flowing-water habitats: Conditions where flow-based management of harmful algal blooms works, and where it does not. Ecological Engineering. 99: 172-181.

79. Pinckney*, J.L., A. Quigg, **D.L. Roelke**. 2017. Interannual and seasonal patterns of estuarine phytoplankton diversity in Galveston Bay, Texas, USA. Estuaries and Coasts. 40: 310-316.

78. **Roelke*, D.L.**, A. Barkoh, B.W. Brooks, J.P. Grover, K.D. Hambright, J.W. La Claire II, P.D.R. Moeller, R. Patino. 2016. A chronicle of a killer alga in the west: Ecology, assessment and management of *Prymnesium parvum* blooms. Hydrobiologia. 764: 29–50.

77. Hitchcock, J.N., S.M. Mitrovic*, W.L. Hadwen, **D.L. Roelke**, I.O. Growns and A.M. Rohlfs. 2016. Terrestrial dissolved organic carbon subsidizes estuarine zooplankton: an in-situ mesocosm study. Limnology and Oceanography. 61: 254-267.

76. Smeti*, E., S. Spatharis, **D.L. Roelke**. 2016. Spatial averaging and disturbance lead to high productivity in aquatic metacommunities. Oikos. 125: 812-820.

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"Meet a scientist: Daniel Roelke" Conservation Matters, May 2016, an online publication of Texas Water Resources Institute (written by Eva Vigh).

"Protecting the Red Sea's Coral Reefs" tamuTimes, June 17, 2014, an online publication of Texas A&M University. Also featured in the College of Agriculture and Like Sciences Newsletter posted on June 12, 2014 (written by Angel Futrell).

"Lower lake to bring more algae" – Hood County News (regional newspaper), June 15, 2011. Also, online article brief - "Golden algae will thrive with low lake levels"

"Texas scientists publish needed golden algae research" - New Waves, Texas Water Resources Institute's E-Newsletter, Agrilife Research and Extension, Texas A&M University, April 2011.

"Battling golden algae Results suggest preventative lake management approaches – tx H_2O, Publication of the Texas Water Research Institute, 2011.

"Toxic and Deadly Working to manage algae in Lake Granbury" – tx H_2O Special Edition, Publication of the Texas Water Research Institute, 2011.

"Researchers Identify What Makes Deadly Algae More Toxic" - Science Daily, Online Publication (http://www.sciencedaily.com), November 11, 2009.

"Researchers Identify What Makes Deadly Algae More Toxic" - New Waves, Texas Water Resources Institute's E-Newsletter, Agrilife Research and Extension, Texas A&M University, December 4, 2009

"More Than A Drop In The Bucket", True Maroon, Publication of Texas A&M University Associate of Former Students, September Issue, 2009.

"A golden opportunity", tx H_2O, Publication of the Texas Water Research Institute, Texas, 2008.

"Researchers study harmful golden algae", The Lariat online, Publication of Baylor University, April 18, 2008.

"Study Identifies Variables That Contribute to High Golden Algae Blooms; Awarded, New Grant", Baylor In the News, April 8, 2008.

"Researchers Cast for Answers to Algae Problems", Lifescapes, Publication of the College of Agriculture and Life Sciences, Spring Issue, 2007.

"Group trying to prevent widespread lake pollution", Hood County News Online, March 29, 2006.

"Texas Researchers Casting for Answers to Stop Alga Problem in Texas Lakes", AgNews, Publication of TAMU Ag Program, Oct. 6, 2006.
(http://agnews.tamu.edu/dailynews/stories/WFSC/Oct0606a.htm)

"What's the Plan: Groups tackling water quality problems on Lake Granbury", tx H_2O, Publication of the Texas Water Research Institute, Texas, 2006.

"Texas' Natural Lake: Research to help restore environmental flows to Caddo Lake", tx H_2O, Publication of the Texas Water Research Institute, 2006.

"Texas Gold Rush: Scientists seek to understand and control golden algae", tx H_2O, Publication of the Texas Water Research Institute, Texas, 2005.

"Caddo Studied", Newspaper Article, Marshall News Messenger, May 5, 2005.

"Texas the State of the Water, Finding a Balance: Narrated by Walter Cronkite", Documentary, Texas Parks and Wildlife, Aired February 3, state wide on PBS stations, 2005.

"Reports indicate golden algae no longer active", Newspaper Article, Lake Country Sun, May 23, 2003.

"Who Will Win", Internet news report, Scientific American, May 29, 2001.

GRANTS AND CONTRACTS

(The $-number is the total award and the %-number) is the proportion of funds that directly went to the Roelke lab)

2023-25 Expanding a multispecies, multi-nutrient plankton model into the Matagorda and Baffin Bay Systems, Texas, with C. Cagle, Texas Commission on Environmental Quality, $369,267 ($65,425, 18%) – co-PI.

2023-26 Win-Win-Win: Leveraging Microalgae – Oyster Interactions for Coastal Protection, Cinthia and George Mitchell Foundation, $225,000 – sole-PI.

2023-26 TAMUG pilot research in a microalgae production supporting the PVAMU Algae Center of Excellence (PACE), Cinthia and George Mitchell Foundation, $136,521 – sole-PI.

2021 Centramate™ Lab Tangential Flow Systems Equipment Purchase, Texas Comprehensive Research Fund (TCRF), with J. Labonte and P. Santschi, $4,767 ($0, 0%) – co-PI.

2021-24 Factors critical to long-term lake and reservoir management: Relationships between land-use, nutrient loading, inflows, HABs and anoxia, with J. Labonte, U.S. Army Corps of Engineers, $1,431,009 ($606,112, 42%) – lead-PI.

2020-22 Improving a multispecies, multinutrient plankton model for the San Antonio and Copano/Aransas Bay Systems with development of forms to enter and retrieve information. Texas Commission on Environmental Quality, $327,584 – sole-PI

2019-20 Better Water-Use Efficiency Through Coupled Microalgae Production And Horticulture Industries. Triad Program, Texas A&M University, $35,115 ($17,558, 50%) – lead PI.

2018-19 Linkages between land use, ground water pollution, and cyanotoxins: a comparison between lake-like and stream-like systems, and between urban and rural landscapes, with C. Hernández Zepeda, Consejo Nacional de Ciencia y Tecnología (abbreviated CONACYT), $50,000 ($32,745, 65%) – lead-PI.

2016-17 Water quality in sink-hole lakes (cenotes) of the Yucatan, Mexico, with C. Munster, Yucatan Initiative, Consejo Nacional de Ciencia y Tecnología (abbreviated CONACYT) and AgriLife Research Texas A&M University, $15,000 (100%) – lead-PI.

2016 Spatiotemporal variation in plankton assemblages and water quality parameters in Lake Conroe, Texas, San Jacinto River Authority, $16,859 (100%) – sole-PI

2015-17 Relationships between inflows, nutrient loading, phytoplankton and dissolved oxygen in two bay systems of the western Gulf of Mexico: A numerical modeling study, with A. Quigg, Texas Commission on Environmental Quality, $322,825 ($278,489, 86%). – lead-PI

2015-16 A Prototype Information System for Monitoring and Predicting Phytoplankton Productivity over Galveston Bay, with H. Gao, NOAA Coastal Management Program, $95,475 ($16,607, 17%). – co-PI

2015-16 Phytoplankton assemblage composition and productivity in the middle-Trinity River, Texas Water Development Board, $35,570 (100%). – sole-PI

2015 Efficacy of Flumioxazin as a golden algae bloom inhibitor, NuFram Inc., $10,000 (100%) – sole-PI.

2014-15 Mechanisms for bloom formation of *Karenia breve* and *Prymnesium parvum* in Texas bays. National Fish and Wildlife Foundation, Conservation Scholars Program, $36,416 (100%). – Investigator (this award was for graduate student research, Rika Muhl)

2014-15 The relative roles of niche and neutral mechanisms in controlling phytoplankton genetic and morphological diversity – "ECOGENE", Greek Secretariat of Research and Technology (GSRT) as an Action of Excellence through the European Union, $472,290 ($30,000, 6%) – Investigator (non-Greeks could not be listed as co-PIs)

2012-13 Coupling water-column bio-optics and coral reef ecology to predict the impacts of climate change and coastal zone development on the Red Sea – beginning steps in research, with Jay Walton, Christian Voolstra, Cornelia Roder. TAMU Institute for Applied Mathematics and Computational Science, King Abdullah University of Science and Technology, $40,000 ($40,000, 100%). – lead PI

2011-12, Golden Algae Control: Efficacy of Cove Manipulations, with J. Grover, B. Brooks, US Army Corps of Engineers, $300,000 ($208,335, 69%). - lead PI

2010-14 Mathematical modeling in ecology, subprogram of KAUST Global Research Partnership: TAMU Institute for Applied Mathematics and Computational Science, with J. Walton (lead PI), King Abdullah University of Science and Technology, $1,600,000 ($65,000, 4%). – collaborating scientist (I was added on after award was won)

2010-11, Testing approaches to Golden Algae control: In-lake mesocosm experiments, with J. Grover, B. Brooks, US Army Corps of Engineers, $450,000 ($289,502, 64%). - lead PI

2008-09, Water Quality Program for Lakes Granbury, Whitney and Waco, TX, with J. Grover, B. Brooks, US Department of Energy, $424,848 ($215,000, 51%). - lead PI

2007-09, Refining a Predictive Understanding of Physical, Chemical and Biological Factors Influencing *Prymnesium parvum* Population Dynamics, with B. Brooks, J. Grover, Texas Parks and Wildlife Department, $490,445 ($200,000, 41%). - co-lead PI

2007-09, Freshwater inflows: influence of nutrient and sediment load on our ability to define beneficial flows for Galveston Bay, with A. Quigg, S. Davis, Texas Sea Grant, $281,012 ($20,000, 7%). - co-PI

2007-08, Pan-Caribbean Climate Change and Marine Ecosystem Management Program - Marine Ecosystem Assessment and Management, TAMU sub-team (Planning Period), with S. Davis, A. Filippi, Stanford Family, $164,449 ($50,000, 30%). - co-PI

2007-08, Phytoplankton Responses to Freshwater Inflows in the Trinity-San Jacinto Estuary, with A. Quigg, S. Davis, Texas Water Development Board, $32,000 ($10,000, 31%). - co-PI

2007-08, Phytoplankton Responses to Freshwater Inflows in Galveston Bay, with A. Quigg, S. Davis, Galveston Bay Estuaries Program, $70,021 ($20,000, 29%). - co-PI

2007-08, Freshwater inflows and the health of Galveston Bay: influence of nutrient and sediment load on the base of the food web, with A. Quigg, S. Davis, NOAA Coastal Management Program, $94,704 ($30,000, 32%). - co-PI

2007-08 Antigua and Barbuda Coastal and Marine Ecosystem Management Program – Marine Ecosystem Assessment and Management, TAMU sub-team (Interim Period), with S. Davis, A. Filippi, Stanford Family, $100,000 ($30,000, 30%). - co-PI

2006-07, Lake Granbury Water Quality Assessment, with B. Brooks, J. Grover, S. Davis, R. Kiesling, US Department of Energy, $384,800 ($200,000, 52%). - lead PI

2006-07, Advancing the predictive understanding of bloom formation and toxicity in *Prymnesium parvum,* with J. Grover, B. Brooks , R. Kiesling, Texas Parks and Wildlife Department, $529,023 ($200,000, 38%). - co-lead PI

2004-06, Reduced Freshwater Inflows and Productivity in the Guadalupe Estuary: Use of High-Resolution Spatial Mapping, with S. Davis, Texas Sea Grant (award number NA16RG1078), $208,746 ($104,000, 50%). - co-lead PI

2004-06, Bridging the Gap Between Plankton Dynamics and Spatial Variability in Water Quality in the Guadalupe Estuary (Texas): The Importance of Freshwater Pulses, with S. Davis, National Institute Water Resources/U.S. Geological Survey, National Competitive Grant Program (award number 03HQGR0122), $233,953 ($115,000, 49%). - co-lead PI

2004-06, Monitoring ecosystem health with bioindicators: mapping seasonal changes in primary productivity & the primary producers in Galveston Bay, with A. Quigg, S. Davis, Coastal Management Program, $70,000 ($23,000, 33%). - co-PI

2004-06, Use of High-Resolution Spatial Mapping to Estimate Plankton Response to Freshwater Inflows Entering Galveston Bay: Importance to Watershed Development and Ecosystem Health, with S. Davis, J. Pinckney, Galveston Bay Estuaries Program (582-4-65034), $131,717 ($50,000, 38%). - co-PI

2004-05, Developing a predictive understanding of *Prymnesium parvum* toxic bloom formation and its control, with R. Kiesling, B. Brooks, J. Grover, Texas Parks and Wildlife Department, $565,000 ($200,000, 35%). - co-lead PI

2004-05, Developing inflow recommendations for Caddo Lake, TX, with K. Winemiller, S. Davis, A. Chin, B. Wilcox, The Nature Conservancy, $67,000 ($7,000, 10%). - co-PI

2003-06, Undergraduate Research in Biodiversity and Ecological Processes in Fluctuating Environments, with R.L. Honeycutt, J. Bonner, R. Autenrieth, J. Bickam, and C. Page, National Science Foundation, Division of Environmental Biology (EEC-9912278), $268,397 ($53,000, 20%). - co-PI

2001-04, Variable Effects of Nutrients, Productivity, Consumption, and the Flood Pulse on Floodplain River Ecosystems, with K.O. Winemiller and J.B. Cotner, National Science Foundation, Ecology/Ecosystems Program (DEB-0089834), $318,000 ($109,000, 34%). - co-PI

2000-03, Productivity and Structure of a Coastal Wetland: Response to Fluctuating Freshwater Inflow, with J.L. Heilman, K.J. McInnes, and D.A. Zuberer, U.S. Department of Agriculture, National Research Initiative (00-35101-9275), $215,000 ($100,000, 46%). - co-lead PI

2000-02, Undergraduate Research in Biodiversity and Ecological Processes in Fluctuating Environments, with R.L. Honeycutt, J. Bonner, T. Lacher, and R. Autenrieth, National Science Foundation, Division of Environmental Biology (EEC-9912278), $194,760 ($38,952, 20%). - co-PI

1999-04, Water Quality Monitoring of Lake Somerville, TX, US Army Corps of Engineers, $118,682 (100%). - sole PI

1999-02, Health of a Texas Estuary: Influence of Freshwater Inflow and Nutrient Loading, Texas Sea Grant (NA86RG0058), $47,697 (100%). - sole PI

TEACHING

(*the year the class was offered and the student evaluations on a scale of 0-5 are shown in parentheses*)

WFSC 404, Aquatic Ecosystems

(15-4.76, 16-4.70, 17-4.72, 18-4.59, 19-4.65)

WFSC 414, Ecology of Lakes and Rivers - formerly called Limnology

(98-4.07, 99-4.32, 00-4.74, 01-4.64, 02-4.23, 03-4.76, 04-4.15, 06-4.60, 08-n/a [PICA failure], 10-4.58, 11-4.88, 13-4.73)

WFSC 418, Ecology of the Coastal Zone

(05-4.51, 07-4.90, 09-4.96, 11-4.71, 13-4.80)

WFSC 449, Professional Aspects of Aquatic Sciences

(14-5.00, 15-4.74, 17-4.67)

WFSC 484, Undergraduate Internships

(see list of students in 'Student Supervision' section)

WFSC 611, Estuarine Ecology

(03-4.79, 07-4.89, 08-4.73, 09-4.96, 10-4.62, 12-4.46, 14-4.67)

WFSC 621, Aquatic Ecology - formerly called Lower Foodweb Dynamics of Aquatic Ecosystems cross-listed with OCNG 629

(99-4.75, 00-4.49, 01-4.67, 05-4.90)

WFSC 685, Chaos in Plankton Ecosystems

(02-4.81)

UPAS, 181 Killer Algae: Ecology and Management (First Year Seminars through the Dean of Undergraduate Programs)

(09-quality of freshman seminars in this program are not evaluated)

Guest lectures

EEBL 603, Community Ecology, Biodiversity Mechanisms Module (2017)

MATH 442, Mathematical Modeling (2011, 2012, 2013)

MATH 469, Mathematical Biology (2012, 2013)

WFSC 101, Introduction to Wildlife and Fisheries Sciences (1998-2001, 2015-17)

STUDENT SUPERVISION

Graduate Students, Chair or co-Chaired Committee

2021-P Royoung Park (Ph.D., Marine Biology, TAMUG)

2021-P Crista Kieley (Ph.D., Marine Biology, TAMUG)

2014-19 Cagle, Sierra (Ph.D., Wildlife and Fisheries Sciences)

2013-17 Bloomer, Tymon (M.S., Wildlife and Fisheries Sciences)

2013-17 Méndez-Jiménez, Adriana (Ph.D., Wildlife and Fisheries Sciences – transferred to Lacher)

2013-17 Withrow, Frances (M.S., Wildlife and Fisheries Sciences)

2012-14 Davis, Stephen (M.S., Wildlife and Fisheries Sciences)

2011-18 Muhl, Rika (Ph.D., Wildlife and Fisheries Sciences)

2010-14 Smeti, Evangelia (Ph.D., Department of Marine Sciences, U. Aegean, Greece)

2010-12 Umphres, George (M.S., Wildlife and Fisheries Sciences)

2010-14 Neisch, Michael (M.S., Wildlife and Fisheries Sciences)

2009-11 Hayden, Natanya (M.S., Wildlife and Fisheries Sciences)

2008-11 Hewitt, Natalie (M.S., Wildlife and Fisheries Sciences)

2004-09 Hsiu-Ping Li (Ph.D., Wildlife and Fisheries Sciences – transferred, finished under Santschi)

2004-07 Miller, Carrie (M.S., Wildlife and Fisheries Sciences)

2004-07 Gable, George (M.S., Wildlife and Fisheries Sciences)

2003-05 Errera, Reagan (M.S., Wildlife and Fisheries Sciences)

2001-08 Montoya Ceballos, Jose (Ph.D., Wildlife and Fisheries Sciences)

2000-03 Fejes, Elizabeth (M.S., Wildlife and Fisheries Sciences)

2000-02 Murdock, Justin (M.S., Wildlife and Fisheries Sciences)

1998-03 Buyukates, Yesim (Ph.D., Wildlife and Fisheries Sciences)

Graduate Students, Member of Committee

2023-P Alyssa Antolak (Ph.D., Marine Biology, TAMUG)

2022-P Bailey Armos (M.S., Oceanography, TAMU)

2019-22 Chengxue Li (Ph.D., Marine Biology, TAMUG)

2019-21 Tiffany Chin (M.S., Marine Sciences, TAMU-CC)

2017-22 James Fiorendino (Ph.D., Oceanography, TAMU)

2015-17 Xiao Shen (M.S., Civil Engineering, TAMU)

2015-16 Gesundheit, Pablo (Ph.D., WFSC, TAMU) – stopped graduate school, health

2015-17 Preischel, Hannah (M.S., Oceanography, TAMUG)

2015-17 Yang, Mingyue (Ph.D., WMHS, TAMU) – did not finish

2013-17 Sandoval, Christopher (M.S., Wildlife and Fisheries Sciences, TAMU)

2010-17 Burgess, Allyson (M.S., Oceanography -TAMUG)

2010-16 Rose, Emily (Ph.D., Biology Department, TAMU)

2010-13 Chouly, Ou (Ph.D., Wildlife and Fisheries Sciences, TAMU)

2009-15, Weaver, Carolyn (Ph.D., TAMUG)

2008-11, Miller, Carrie (Ph.D., Biology Department, University of Oklahoma)

2008-12, Leavitt, Daniel (Ph.D., Wildlife and Fisheries Sciences, TAMU)

2006-12, Steichen, Jamie (Ph.D., TAMUG)

2005-09, Knight, Trevor (M.S., Wildlife and Fisheries Sciences, TAMU)

2004-07, Baker, Jason (Ph.D., University of Texas, Arlington)

2003-07, Hoehinghouse, David (Ph.D., Wildlife and Fisheries Sciences)

2003-07, Papadopoulos, Anthony (Ph.D., Wildlife and Fisheries Sciences)

2002-04, Romigh, Melissa (M.S., Wildlife and Fisheries Sciences)

2002-04, Salazar , Alicia (M.S., Oceanography)

2000-02, Lumson, Beth (M.S., Oceanography)

2000-04, Fletcher, William (M.S., Oceanography)

2000-03, Charbonnet, Danielle (M.S., Agricultural Engineering)

1999-04, Layman, Craig (Ph.D., Wildlife and Fisheries Sciences)

1999-02, Healy, Brian (M.S., Wildlife and Fisheries Sciences)

1999-06, Cramer, Nicholas (M.S., Soil and Crop Science)

1998-02, Ornolfsdottir, Erla (Ph.D., Oceanography)

1998-02, Arrington, Albrey (Ph.D., Wildlife and Fisheries Sciences)

1998-02, Heinsch, Faith-Ann (Ph.D., Soil and Crop Science)

Graduate Students, Chair or co-Chaired Committee (non-research)

2023-P Kaleigh Phelps (non-thesis M.S., Marine Biology, TAMUG)

2023-P Nicolas Ledesma-Lubertino (non-thesis M.S., Marine Biology, TAMUG)

2023-P Isidro Putiz (non-thesis M.S., Marine Biology, TAMUG)

2022-P Sarahanne Murray (non-thesis M.S., Marine Biology, TAMUG)

2022-P Kylee Patterson (non-thesis M.S., Marine Biology, TAMUG)

2022-P Brittany McWhorter (non-thesis M.S., Marine Biology, TAMUG)

2022-P Ashlann “Claire” Jones (non-thesis M.S., Marine Biology, TAMUG)

2021-23 Chance Byars (non-thesis M.S., Marine Biology, TAMUG)

2021-23 Mikayla Childs (non-thesis M.S., Marine Biology, TAMUG)

2021-23 Avery Franklin (non-thesis M.S., Marine Biology, TAMUG)

2021-23 Mia Bennett (non-thesis M.S., Marine Biology, TAMUG)

2021-22 Joshua Cavazos (non-thesis M.S., Marine Biology, TAMUG)

2021-23 Kyler Carl (non-thesis M.S., Marine Biology, TAMUG)

2021-P Case Sloan (non-thesis M.S., Marine Biology, TAMUG)

2021-22 Kailey Snead (non-thesis M.S., Marine Biology, TAMUG)

2021-22 Mei Ling Valdes (non-thesis M.S., Marine Biology, TAMUG) – transferred to MCES

2021-22 Halle Velasquez (non-thesis M.S., Marine Biology, TAMUG)

2020-21 Shannon Ainsworth (non-thesis M.S., Marine Biology, TAMUG)

2020-22 Adrienne Ashe (non-thesis M.S., Marine Biology, TAMUG)

2020-21 Jordan Civay (non-thesis M.S., Marine Biology, TAMUG) – left for Mississippi State

2020-22 Caitlin Ellison (non-thesis M.S., Marine Biology, TAMUG)

2020-22 Christian Hockley (non-thesis M.S., Marine Biology, TAMUG)

2020-21 Erin Johnson (non-thesis M.S., Marine Biology, TAMUG) – transferred into MS thesis program under Dr. Wells

2020-22 Haleigh Meck (non-thesis M.S., Marine Biology, TAMUG)

2020-22 Christy Pittman (non-thesis M.S., Marine Biology, TAMUG) – transferred to another faculty

2020-21 Justin Wilson (non-thesis M.S., Marine Biology, TAMUG) – transferred into MS thesis program under Dr. Marshall

2020-21 Jodi Witek (non-thesis M.S., Marine Biology, TAMUG) – John S. is chair?

2019-21 Veronica Houck (non-thesis M.S., Marine Biology, TAMUG)

Graduate Students, Member of Committee (non-research)

2020-23 Justin Tirpak (non-thesis M.S., Marine and Coastal Environmental Sciences, TAMUG)

2020-21 Ava Cares (non-thesis M.S., Marine and Coastal Environmental Sciences, TAMUG)

2020-23 Gregory Grimm (non-thesis M.S., Marine and Coastal Environmental Sciences, TAMUG)

2019-21 Ryan Septelka (non-thesis M.S., Marine Biology, TAMUG)

2019-20 Alan Salamonovitz (non-thesis M.S., Marine Biology, TAMUG)

Substituted Into Committee

2013 Mendoza, Maria (M.S., Wildlife and Fisheries Sciences)

1998 Wilson, Amela (Ph.D., Electrical Engineering)

Graduate Council Representative for Committee

2000-03, Scherer, Andrew (Ph.D., Anthropology)

1998-03, Van Tassel, William (Ph.D., Health Education)

Undergraduate Student Research and Mentoring

2019 Pierce, Leus (WFSC, Texas A&M University, only mentored)

2018 Depew, Alexandra (GEOL, Texas A&M University, TX)

2018 Walker, Kyle (WFSC, Texas A&M University, only mentored)

2017-18 Haile, Margaret (WFSC, Texas A&M University, TX)

2017 Coe, Sarah (WFSC, Texas A&M University, only mentored)

2017 Jozwiak, Ryan (WFSC, Texas A&M University, only mentored)

2017 Loveland, Richard (WFSC, Texas A&M University, only mentored)

2017 Oakley-Fajardo, Stephanie (WFSC, Texas A&M University, only mentored)

2016 Clark, Stuart (WFSC, Texas A&M University, only mentored)

2016 Stamps, Brittany (WFSC, Texas A&M University, only mentored)

2016 Baker, Alexis (WFSC, Texas A&M University, only mentored)

2016 Johnston, Jacob (WFSC, Texas A&M University, only mentored)

2015 Alvarado, Genaro (WFSC, Texas A&M University, only mentored)

2015 Thompson, John (WFSC, Texas A&M University, only mentored)

2015 Haile, Margaret (WFSC, Texas A&M University, TX)

2014-15 Gwinn, Jesse (WFSC, Texas A&M University, TX)

2013 Bodiford, Hailey (MATH, Texas A&M University, TX)

2013 Rogers, Danielle (MATH, Texas A&M University, TX)

2012 Withrow, Frances (MATH, Texas A&M University, TX)

2011-12 Baty, Tomas (Texas A&M University, TX)

2009-10 Neisch, Michael (Texas A&M University, TX)

2007-10 Umphres, George (Texas A&M University, TX)

2006 Dean, Patrick (AGLS 105, Texas A&M University, TX)

2006 Vendrell-Velez, Rebecca (AGLS 105, Texas A&M University, TX)

2005 Martinez, Alexis (New Mexico Tech, NM)

2003-04 Gable, George (Texas A&M University, TX)

2003 Fong, Allison (University of Rhode Island, RI)

2003 Hurley, Leah (University of Akron, OH)

2005 Ludwig, Merissa (Texas A&M University, TX)

2003-05 Snider, Jennifer (Texas A&M University, TX)

2001-02 Augustine, Sarah (Texas A&M University, TX)

2001 Birnbaum, Jenny (University of Texas at Austin, TX)

2000 Jean, Jason (University of Texas at Austin, TX)

2000 Williams, Michael (Mercyhurst College, PA)

TRAINING AND MENTORING OF OTHER PROFESSIONALS

2023-P Pal, Smita (Postdoc, Ph.D. from National Environmental Research Institute, India)(co-advised with Dr. Jessica Labonte)

2023-P Pálmai, Tamás (Postdoc, Ph.D. from University of Pannonia, Hungary)

2022-P Cagle, Sierra (Assistant Research Scientist, Texas A&M University)

2021-22 Motamedi, Shahrzad (Postdoc, Ph.D. from University of Utah)(co-advised with Dr. Jessica Labonte)

2019-22 Cagle, Sierra (Postdoc, Ph.D. from Texas A&M University)

2017-18 Mazaheri Kouhanestani, Zohre (Postdoc, Ph.D. from Gorgan University, Iran)

2015-17 Bhattacharyya, Joydeb (Postdoc, Ph.D. from Calcutta University, India)

2013-14 Gao, Huilin (Assistant Professor, Civil Engineering)

2013-14 Linhart, Jean Marie (Assistant Professor, Central Washington University)

2012-13 Witmer, Angela (Lecturer, Georgia Southern University, GA)

2012-13 Lungren, Veronica (Postdoc, Ph.D. from Linnaeus University, Sweden)

2012-14 Spatharis, Sophia (Lecturer, Glasgow University, Scotland)

2011-12 Kutlu, Banu (Assistant Professor, Tunceli University, Turkey).

2005-08 Schwierzke-Wade, Leslie (Research Associate, B.S. from Texas A&M University, TX)

SERVICE AT TEXAS A&M UNIVERSITY

Department-level

Department of Wildlife and Fisheries

2017-19 Committee Member, Wildlife and Fisheries Departmental Bylaws Develop

2017 Committee Member, Wildlife, Fisheries and Ecological Sciences Building Grand Opening

2016-17 Committee Member, rubric post-tenure evaluation development

2016-19 Faculty Mentor, Kevin Conway (Associate Professor)

2016-19 Faculty Mentor, Jessica Yorzinski (Assistant Professor)

2016 Chair, Departmental Strategic Plan revision

2016-17 Committee Member, Fish Ecologist Search

2004-13, 16-19 Committee Member, Promotion and Tenure Committee

2013-17 Committee Member, Legacy Committee

2012-17 Committee Member, WFSC Faculty Advisory Board

2013-16 Chair, Promotion and Tenure Committee

2001-07, 09-16 Committee Member, Undergraduate Affairs

2015 Committee Member, Application Selection, Applied Biodiversity Sciences Conservation Scholars Program

2015 Committee Member, Avian Wetland Ecologist Search

2014 Committee Member, Large Mammal Ecologist Search

2013-14 Analyst, within university and national departmental assessments through Academic Analytics software

2013-14 Contributing Developer, electronic tool for assessing Faculty Achievement Reports auto-linked to a Faculty Evaluation Matrix for use during annual evaluations

2012-14 Subcommittee Chair, Fisheries Undergraduate Curriculum Revision, Subcommittee of the WFSC Undergraduate Affairs Committee

2006-13 Faculty Mentor, Mariana Mateos (Assistant Professor)

2011-12 Committee Member, WFSC Department Head Search

2010-12 Faculty Mentor, Thom DeWitt (Associate Professor)

2009-10 Advisor, Graduate Student Departmental Seminar Series Committee

2008-10 Committee Member, Extension and Research Facilitation

2008-09 Committee Member, Support Staff Search

2007-08 Chair, Quantitative Ecologist Search

2004-07 Chair, Departmental Seminar Series

2005 Committee Member, Biocomplexity Scientist Search - *rescinded*

2005 Committee Member, Department Name Change

2004-05 Committee Member, Kleberg Chair Search

2004-05 Committee Member, Microbiologist Search (Soil and Crop Sciences)

1998-01 Committee Member, Graduate Program Enhancement Fund

College-level

<u>TAMU Galveston</u>

2022-23 Chair, search committee, Maritime Business Administration Department Head

2021-22 Member, Chief Academic Officer's Strategic Enrollment Committee

2020-21 Co-Planner, merging of the Businesses Offices of the Department of Marine Biology and the Department of Marine and Coastal Environmental Sciences

2020 Participant, networking function with Pacific Northwest National Laboratory (PNNL) hosted by TAMUG

2019-20 Co-Chair, "Strengthen and Harness Our Research Enterprise" (SHORE) sub-committee, a part of the TAMUG Strategic Planning Committee

2019-20 Member, “Enhance Undergraduate Success” sub-committee, a part of the TAMUG Strategic Planning Committee

2019-20 Member, TAMUG Strategic Planning, Executive Committee

2019-20 Chair, search committee for the Marine Transportation Department Head

2019 Participant, networking function with the University of Texas Medical Branch Galveston (UTMB) hosted by TAMUG

2019 Participant, co-production workshop hosted by National Oceanic and Atmospheric Administration (NOAA)

2019 Participant, “Big Ideas” session with Vice President for Research Office

2019 Participant, Department Head Convening through Office of the Provost

2019-23 Member, Chief Academic Officer’s Council of the Built Environment

2019-23 Member, Chief Operating Officer’s Incident Command Team

2019-23 Member, Undergraduate Curriculum Committee

2019-23 Member, Graduate Instructional Committee

2019-23 Member, Chief Academic Officer’s Academic Affairs Coordination Committee

2019-23 Member, Chief Academic Officer’s Academic Heads Committee

<u>College of Agriculture and Life Sciences</u>

2017-19 Member, College of Agriculture and Life Sciences Promotion and Tenure Committee

2013 Participant, Graduate Program Council deliberations on implementation and impacts of Ecology and Evolutionary Biology Interdepartmental Ph.D. Degree Program

2010-11 Member, Texas Sea Grant Director Search Committee

2008 Ex-officio Advisor, Agriculture Program Faculty Advisory Committee

2007 Chair, Agriculture Program Faculty Advisory Committee

2005 Chair, TAES Science Roadmap Attainment Indicators, Agriculture Program Faculty Advisory Subcommittee

2005-06 Member, Agriculture Program Faculty Advisory Committee

2003 Member, Association of Former Students Distinguished Teaching Awards

University-level

2023-P Member, University P&T Committee

2022 Member, President’s ‘Path Forward Working Group Elevate Remote Locations’ as a part of TAMU’s restructuring

2022 Member, President's 'Path Forward Working Group Life Sciences Meta-Major' as a part of TAMU's restructuring

2020-23 Member, Department Heads Steering Committee to the Provost

2019-23 MARB curricula assessment through the TAMU Office of Institutional Effectiveness and Evaluation.

2015 Participant, TAMU Strategic Planning Forums: Message for Departmental Representatives: Primary obstacles that will inhibit the attainment of objectives and thus vision, and opportunities on which to capitalize to achieve objectives and vision.

2010-11 Associate Chair, Ecology and Evolutionary Biology, Interdisciplinary Research Program

2008-11 Faculty Mentor, Colleague Circle Mentors Program

2009-11 Graduate Student Assessment Committee, Marine Biology Interdisciplinary Program

2009 Committee Chair, Bush Excellence Award for Faculty in Public Service

2008-11 Faculty Senator, Texas A&M University Faculty Senate

Legislative Affairs Committee (2008-2011)
International Programs Committee (2008-10)
Elections Committee (2008-09, 2010-2011)

2008 Committee Member, Bush Excellence Award for Faculty in Public Service

OTHER PROFESSIONAL SERVICE

Editorships (all listed previously)

2015-P Associate Editor, *Marine & Freshwater Research*, journal of the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia.

2012-17 Editorial Board, *Marine Science and Technology Bulletin*, published by Canakkale Onsekiz Mart University, Canakkale, Turkey.

2007-16 Associate Editor, *The American Naturalist*, journal of the American Society of Naturalists, University of Chicago, USA.

National Committee

2010-16 Member, National Harmful Algal Blooms Committee, USA. (listed previously)

Organized Symposia, Dedicated Journal Issues, Book Consulting

2021-P Guest Editor, *Climate*, journal of the Multidisciplinary Digital Publishing Institute, special issue "Resilience and Adaptation to Climate Change of Aquatic Populations and Communities, and its Impact on Ecosystem Functioning".

2020 Scientific Consultor, children's book, Discover Biology: Food Chains, E. Huddleston, Abdo Publishing, Minneapolis, Minnesota, 32 pages.

2017-P Guest Editor, special issue of *Marine and Freshwater Research*, "Inland harmful algal blooms, new management technologies" (year, volume).

2016-19 Guest Editor, special issue of *Estuarine, Coastal and Shelf Sciences*, "Coastal Systems in Transition from a Natural to Anthropogenically Modified State" (2018, volume 211).

2012-13 Co-Organizer, a session titled "Plankton Ecology-Phytoplankton", Association for the Sciences of Limnology and Oceanography, New Orleans (February 2013).

2012-13 Co-Organizer of an international workshop, "Red Sea Center Research and Collaborations", a workshop series supported by King Abdullah University of Science and Technology (KAUST), Saudi Arabia (May 2013).

2011 Co-Organizer of an international workshop, "Ecosystem Modeling, Simulation and Assessment - Assessing Effects of Climate Change and Human Population Growth on Natural Living Resources: The Red Sea as a Model Case Study", workshop series supported through King Abdullah University of Science and Technology (KAUST), Saudi Arabia. College Station, TX, September.

2010-12 Lead-Organizer of a special issue of the *Canadian Journal of Fisheries and Aquatic Sciences* showcasing themed papers under the titled section "A new hydrology: inflow effects on ecosystem form and functioning" (2012, volume 69).

2010-11 Lead-Organizer of the special session and Moderator, "A New Hydrology: Inflow effects on ecosystem form and functioning", Annual Conference of the American Society of Limnology and Oceanography, Aquatic Sciences, San Juan, Puerto Rico. February.

2009-11 Lead-Organizer of a special issue of the *Journal of Plankton Research*, Oxford University Press, titled "Effects of inflow on harmful algal blooms" (2011, volume 33).

2009-09 Lead-Organizer of the special session and Moderator, "Ecohydrology, eutrophication and salinization of aquatic systems, and the function and fate of phycotoxins", 30th Annual Conference of the Society of Environmental Toxicology and Chemistry (SETAC), New Orleans, LA, USA. November.

Expert Recognition

2017 Session Moderator, "Plant Succession & Disturbance", Society of Wetland Scientists. San Juan, Puerto Rico. June.

2016 Session Moderator, "Coastal Systems in Transition from a natural to anthropogenically modified state", Estuarine Coastal Sciences Association (ECSA), United Kingdom, Bremen, Germany, September.

2014 Session Moderator, "Biogeography, dispersal and colonization", 17th Workshop of the International Association of Phytoplankton Taxonomy and Ecology. Kastoria, Greece. September.

2014 Panelist and Reviewer. National Aeronautics and Space Administration, Pre-Aerosol, Clouds, and Ocean Ecosystem Program. Washington D.C. May.

2010 Workshop Participant. Texas Wildlife Management Plan – Harmful Algal Bloom Update Workshop, Texas Parks and Wildlife Department. Austin, TX. February.

2009 Workshop Participant. Texas Wildlife Management Plan – Harmful Algal Bloom Update Workshop, Texas Parks and Wildlife Department. Corpus Christi, TX. November.

2009 Opponent, Ph.D. defense of Andreas Brutemark, "Contribution of phagotrophy by microalgae to carbon flow in marine food webs", University of Kalmar, Sweden. August.

2009 Speaker, "Joining a Community of Learners and Scholars", First Year Seminar Program, New Student Conference program, Texas A&M University, TX, USA. June.

2009 Panelist, "How to get into graduate school", Texas A&M Chapter of the Wildlife Society, Texas A&M University, TX, USA. March.

2008 Panelist, "Early career development", 35th Annual Great Plains Limnology Conference & 3rd Triennial Oklahoma-Texas Oklahoma Biological Station, OK, USA. September.

2008 Steering Committee Member, Joint Great Plains Limnology and Oklahoma-Texas Aquatics Research Group Conference, Oklahoma Biological Station. October.

2006 Panelist, "NOAA/Center for Sponsored Coastal Ocean Research/Coastal Ocean Program's South Florida Research and Monitoring Program", Larry Pugh (Program Director). Marathon Key, FL, USA. January.

2004 Panelist, "NOAA Monitoring and Event Response for Harmful Algal Bloom (MERHAB) program", Washington, DC, USA. January.

2004 Session Moderator, "Neotropical River Ecology", 89th Annual Meeting of the Ecological Society of America, Portland, OR, USA. August.

1999 Panelist, "Academic Job Search for Graduate Students", Workshop of the Texas A&M University Career Center, College Station, TX, USA. October.

1999 Session Moderator, High School National Ocean Sciences Bowl. College Station, TX, USA. February.

INVITED SEMINARS AND PRESENTATIONS

2023 Daniel Roelke, Linking phytoplankton assemblage emergent properties to harmful algal bloom resistance – theory, modeling tools, empirical data, EPA Webinar Series On Numeric Nutrient Criteria, October 2023.

2023 Daniel Roelke, Feedbacks, alternative stable states, and ecosystem hysteresis, CyFare High School Teachers Professional Development Series, August 2023.

2023 Daniel Roelke, Recurrent variations in hydrology and nutrient loading stoichiometry influence phytoplankton community emergent properties, including resistance to harmful algal blooms, In'ha University, South Korea, June 2023.

2023 Daniel Roelke, Recurrent variations in hydrology and nutrient loading stoichiometry influence phytoplankton community emergent properties, including resistance to harmful algal blooms, Korea Polar Research Institute, South Korea, June 2023.

2023 Daniel Roelke, Recurrent variations in hydrology and nutrient loading stoichiometry influence phytoplankton community emergent properties, including resistance to harmful algal blooms, Geo System Research, South Korea, June 2023.

2023 Daniel Roelke and Sierra Cagle, Factors critical to lake and reservoir management and cyanoHABs: Steps toward predictive modeling, US Army Corps of Engineers, Harmful Algal Bloom Workshop, May 2023.

2023 Daniel Roelke, Factors Critical to Long-Term Management of Warm Monomictic Lakes, US Army Corps of Engineers, Ecological Research Division, February 2023.

2022 Daniel Roelke and Sierra Cagle, MUMPS – A modeling tool for the prediction of algal biomass and dissolved oxygen in Texas bays, Texas Commission on Environmental Quality, August 2022.

2018 Daniel Roelke, Fundamental ecological principles revealed in pond scum biodiversity. Ef yeah!! TAMU post-tenure review process. March 2018.

2017 Daniel Roelke, [keynote] Killer Algae: It's here, now what? Pond Boss 7th National Conference, October 2017.

2017 Daniel Roelke, Relationships between inflows, nutrient loading, phytoplankton and dissolved oxygen in two bay systems of the western Gulf of Mexico: A numerical modeling study, Texas Commission on Environmental Quality, August 2017.

2016 Daniel Roelke and Sierra Cagle, Towards an understanding of linkages between Lake Conroe water quality and water treatment plant operation, San Jacinto River Authority, April 2016.

2016 Daniel Roelke, Rika Muhl, Joydeb Bhattacharyya, Fragility of biodiversity sustaining mechanisms: A focus on neutrality, lumpy coexistence and non-hierarchical competition, Glasgow University, UK, September 2016.

2016 Huilin Gao, Daniel Roelke, Freshwater Inflows, Phytoplankton Productivity, and Coastal Ecosystem Sustainability – a Modeling and Remote Sensing Perspective, Texas Master Naturalist, Houston/Galveston, October 2016.

2014 Daniel Roelke, *Prymnesium parvum*: killer invasion into inland waters. Plenary talk for the 17th Workshop of the International Association of Phytoplankton Taxonomy and Ecology. Kastoria, Greece. September 2014.

2013 Daniel Roelke, Aquatic Ecology in the Roelke Lab: Teaching and Research. Fish and Wildlife Department, University of Idaho. December 2013.

2013 Daniel Roelke, Administration is not sexy. Fish and Wildlife Department, University of Idaho. December 2013.

2013 Daniel Roelke, Research and Management Progress in Mitigating and Controlling Toxic Algae Blooms. Aquatic Plant Management Society, San Antonio, TX. July 2013.

2012 Daniel Roelke, Golden algae: A killer in our waters. School of the Environment, University of Technology Sydney. November, Sydney, Australia.

2011 Daniel Roelke, [keynote address] Water quality: The importance of multispecies modeling of plankton environments. Institute for Applied Mathematics and Computational Science (IAMCS), Texas A&M University, College Station, TX. September 2011.

2011 Daniel Roelke, Human Population and Climate Change, Anticipated Effects to Harmful Algal Blooms of Southcentral USA. 51st Annual Meeting of the Aquatic Plant Management Society (APMS), Baltimore, MD. July 2011.

2011 Daniel Roelke, Fish-killing haptophyte blooms in south-central USA: Importance of inflows, threat of climate change, management strategies. Department of Environmental Sciences, Baylor University, Waco, TX. February 2011.

2011 Daniel Roelke, Fish-killing haptophyte blooms in south-central USA: Importance of inflows, threat of climate change, management strategies. Brazos River Authority, Waco, TX. February 2011.

2010 Daniel Roelke, Finding the edge of Ockham's Razor: A need for complexity in plankton modeling. Department of Marine Sciences, University of the Aegean, Greece. November 2010.

2010 Daniel Roelke, Finding the edge of Ockham's Razor: A need for complexity in plankton modeling. Department of Mathematics, Texas A&M University. October 2010.

2010 Daniel Roelke, Finding the edge of Ockham's Razor: A need for complexity in plankton modeling. Department of Oceanography, Texas A&M University. September 2010.

2009 Daniel Roelke, *Prymnesium parvum* blooms in Texas lakes and the importance of instream flows. Yigal Allon Kinneret Limnological Laboratory, Migdal, Israel, August 2009.

2009 Daniel Roelke, *Prymnesium parvum* blooms in Texas lakes and the importance of instream flows. Marine Sciences Centre, University of Kalmar, Kalmar, Sweden, August 2009.

2009 Daniel Roelke, Where have all the mermaids gone? The need for complex models in biodiversity science. Department of Biology Seminar Series, University of Texas at Arlington, Arlington, TX, February 2009.

2009 Daniel Roelke, Factors influencing *Prymnesium parvum* population dynamics during bloom initiation: Results from in-lake mesocosm experiments. Golden Algae Symposium, Texas Parks and Wildlife Department, Fort Worth, TX, January 2009.

2006 Daniel Roelke, Large-scale disturbances and the predictability of complex aquatic ecosystems. Center for Coastal Fisheries and Habitat Research, NOAA, Beaufort, N.C. November 8, 2006.

2006 Daniel Roelke, Hypoxia in the northern Gulf of Mexico: Theoretical considerations regarding phytoplankton assemblage structure and chaos. Department of Marine Science, University of South Alabama, Dauphin Island, Alabama. October 26, 2006.

2006 Daniel Roelke, Hypoxia in the northern Gulf of Mexico: Theoretical considerations regarding phytoplankton assemblage structure and chaos. Department of Oceanography, Oregon State University, Corvallis, Oregon. May 11, 2006.

2006 Daniel Roelke, Large-scale disturbances and the predictability of complex aquatic ecosystems. US EPA, Western Ecology Division, Corvallis, Oregon. March 22, 2006.

2005 Daniel Roelke, Regional species richness and supersaturation: The role of migration and disturbance of chaotic communities. Zoology Department, University of Oklahoma Seminar Series, OK, USA. October 12, 2005.

2004 Daniel Roelke, Complex behavior and community dynamics of plankton assemblages from a semi-arid coastal wetland. Department of Marine Biology Seminar Series, Texas A&M University at Galveston, TX, USA. April 27, 2004.

2004 Daniel Roelke, Complex behavior and community dynamics of plankton assemblages from a semi-arid coastal wetland. Kinneret Limnological Laboratory Seminar Series, Migdal, Israel. February 19, 2004.

2004 Daniel Roelke, Complex behavior and community dynamics of plankton assemblages from a semi-arid coastal wetland. Department of Wildlife and Fisheries Sciences Seminar Series, Texas A&M University, TX, USA. September 2, 2004.

2004 Daniel Roelke, System hysteresis and selection of alternate stable community states: A case study using the 34-year plankton record from Lake Kinneret (Sea of Galilee), Israel. Kinneret Limnological Laboratory Seminar Series, Migdal, Israel. June 29, 2004.

2003 Daniel Roelke, Modeling Complex Behavior Workshop. Oklahoma Biological Station. University of Oklahoma Seminar Series, OK, USA. October 13, 2003.

2002 Daniel Roelke, Deterministic and Chaotic Phytoplankton Dynamics: Management Hopes and Hurdles. Biology Department Seminar Series, Baylor University, TX. Waco, TX, USA. March 27, 2002.

2001 Daniel Roelke, *Prymnesium parvum*, what do we know? "Golden Algae" Workshop to devise research agenda for *Prymnesium parvum* research in Texas. Governor's Office and Texas Parks and Wildlife Department. Possum Kingdom, TX, USA. August 21, 2001.

2000 Daniel Roelke, Ecological Indicators of Bloom Development and Preventative Management Approaches. 5th Symposium of the National Health and Environmental Effects Research Laboratory, Environmental Protection Agency. Research Triangle Park, NC, USA. June 6-8, 2000.

1999 Daniel Roelke, Synchronization of Bottom-Up and Top-Down Controls, and "Prey-Quality" Thresholds: A Modeling Study with Management Implications. Young Scientists Conference on Marine Ecosystems Perspectives, International Council for the Exploration of the Sea (ICES). Gilleleje, Denmark. November 20-24, 1999.

1999 Daniel Roelke, Pulsing nutrient discharges and phytoplankton diversity: A proactive HAB management plan. Gulf Ecology Division. Environmental Protection Agency, Gulf Breeze, FL, USA, 1999.

1999 Daniel Roelke, Emerging technologies in hyperspectral optics *in-situ*: Application to harmful algal blooms and mine warfare. Oceanography 50th Anniversary Seminar Series. Department of Oceanography, Texas A&M University, TX, USA. 1999.

1998 Daniel Roelke, Managing aquatic ecosystems: A view into the 21st century. Department of Wildlife and Fisheries Sciences, Texas A&M University, TX, USA. May 12, 1998.

1997 Daniel Roelke, Influence of pulsing nutrient supply on phytoplankton succession and copepod growth. Naval Research Laboratory, Stennis Space Center, MS, USA. September 23, 1997.

1997 Daniel Roelke, Nutrient loading into the Nueces River Estuary, TX: Implications for phytoplankton management. Texas Parks and Wildlife Department, Austin, TX, USA. July 12, 1997.

1993 Daniel Roelke, Amnesic shellfish poisoning: An overview. National Institute of Polar Research, Tokyo, Japan. 1993.

1993 Daniel Roelke, *Crassostrea virginica* Gmelin feeding experiments with two forms of *Pseudonitzschia pungens*: Behavior and toxicity. Inha University, Seoul, South Korea. 1993.

1993 Daniel Roelke, A history of North American domoic acid outbreaks, and their causative organisms. Korean Oceanographic Research and Development Institution, In'chon, South Korea. 1993.

1993 Daniel Roelke, Laboratory and field procedures employed by Greta Fryxell's laboratory for toxic phytoplankton research, 1992. Jinan University, Guangzhou, China. 1993.

HOST FOR VISITING SCIENTISTS

2011-12 Banu Kutlu. Assistant Professor. Department of Fisheries, Tunceli University, Tunceli, Turkey.

2005-06 Luzmila Sanchez. Research Scientist. Estación Hidrobiológica de Guayana, Fundación La Salle de Ciencias Naturales. (Guayana's Hydrobiological Station, Natural Resource Foundation).

OTHER PROFESSIONAL DEVELOPMENT

2021 Small vessel operations certification, Texas A&M University Galveston.

2021 Small vessel operations certification, Texas Parks and Wildlife Department.

2021 Cardiopulmonary resuscitation (CPR) Re-certification, Dive Program, Texas A&M University Galveston.

2019 Texas A&M University System Department Head Convening, offered by the Chancellor's Office, Hilton College Station and Conference Center, June

2018-19 Advanced Agricultural Leadership Training (Cohort V), offered by the College of Agriculture and Life Sciences, Texas A&M University.

2016 Recruitment and retention for faculty diversity, search committee training, offered by the Office of the Dean of Faculties, February.

2016 Improving Departmental Climate through Evidence-Based Practices workshop, hosted by ADVANCE LEAD Program and The Office of the Dean of Faculties, January.

2013 Training on use of Academic Analytics for peer-institution analyses.

2012 Faculty Development Leave (Sabbatical) with the University of Technology, Sidney (Australia) and University of the Aegean (Greece).

2009 Integrative Learning Workshop, Texas A&M University, Student Affairs and Academic Affairs, April.

2009 Issues in Creating Equity for Faculty, Joint meeting of the Texas A&M and University of Texas Faculty Senates, Austin, TX, USA.

2009 Faculty Professional Development Series, Is This the Right Time or Not? Preparing for Promotion to Full Professor. Texas A&M University, TX, USA.

2006 Faculty Development Leave (Sabbatical) with the US Environmental Protection Agency, Western Ecology Division, Hatfield Marine Science Center, OR, USA.

2003 Developed a Teaching Portfolio through the Texas A&M University Office of Teaching Excellence, TX, USA.

2002 Training on use of WebCT for distance education delivery.

1993 Flow and Imaging Cytometry Certification. Bigelow Laboratory for Ocean Sciences, Boothbay Harbor, ME, USA.

1988 Cardiopulmonary resuscitation (CPR) Certification, Y.M.C.A.

1988 Licensed for Scuba Diving. Y.M.C.A., Millersville, PA, USA.