TEXAS STATE VITA

I. Academic/Professional Background

A. **Jennifer (Jenn) Idema** Title: **Assistant Professor of Instruction**
Supple Science Building
601 University Dr.
San Marcos, TX 78666
Email: jennidema@txstate.edu
Phone: 512.245.7244

B. Educational Background

Degree	*Year*	*University*	*Major*
Ph.D.	2021	Texas State University	Aquatic Resources and Integrative Biology

Dissertation: *Exploring the communication of climate change socioscientific issues in aquarium exhibits*
(Chair: Dr. Kristy Daniel)

CERT	2015	Texas Tech University	Informal Science Education
M.Ed.	2015	Texas Tech University	Curriculum and Instruction

Thesis: *The impact of science-themed community events on families over time*
(Chair: Dr. Patricia Patrick)

B.S.	2003	Texas A&M University	Journalism

C. University Experience

Position	*Institution*	*Dates*
Assistant Professor of Instruction, Lab Coordinator	Texas State University	2024–Present
Lecturer, Lab Coordinator	Texas State University	2022–2024
Graduate Instructional Assistant	Texas State University	2017–2021

Couse Taught: *BIO 1130 Functional Biology*

Graduate Research Assistant	Texas State University	2017–2019

2019: Determinants of private landowner participation in Houston Toad Safe Harbor Agreement: Dr. Chris Serenari
2019: Factors that influence persistence of STEM Majors at a Hispanic Serving Institution: Dr. Shetay Ashford-Hanserd
2018: Minding the Hill Country: Dr. Kristy Daniel
2017: Towards a framework for representational competence in science education: Dr. Kristy Daniel

Graduate Research Assistant	Texas Tech University	2015

2015: Informal Science Education: Dr. Patricia Patrick

D. Relevant Professional Experience

Position	*Entity*	*Dates*
R/V Manta Deckhand/Steward	NOAA	2016-2018
Research Lead and Consultant	Qualia Analytics, LLC	2016
Substitute Teacher	Santa Fe ISD	2015
Visitor Studies Researcher	Chester Zoo	2014
Program Development Assistant	Houston Zoo	2014
Education Interpretative Naturalist	Moody Gardens	2011
Pre-School Teacher and Recreation Aide	City of Texas City	2000-2001

E. Other Professional Credentials (licensure, certification, etc.)

2023 CITI Certification
2022 Allies of Texas State Training
2022 Allies for Individual with Disabilities
2024 Texas State University Risk Management Training
2024 Texas State University Cyber Security Training
2022 Certified Interpretive Guide, National Association for Interpretation
2019 STEM Undergraduate Research Experience Mentor Training
2018 Texas State University Counseling Center Mental Health Training
2016 Conservation & Environmental Education Evaluation Certification
2016 Texas Parks & Wildlife Angler Education Instructor Certification
2016 Texas Parks & Wildlife Boater Safety Instructor Training
2010 PADI Rescue Diver Certification

II. TEACHING

A. Teaching Honors and Awards:

Outstanding Graduate Student for the College of Science & Engineering, Doctoral-Level (2020). This award is presented one College of Science and Engineering doctoral-level graduate student at Texas State University each year who possesses outstanding characteristics in scholarship, research, teaching, and service.

Outstanding Instructional Assistant (2018). Each year the Texas State University Biology Department awards this honor to one graduate student instructional assistant each year with a record of exceptional teaching Nominated and chosen by faculty.

B. Courses Taught:

Texas State University – BIO1130: Functional Biology Lab; BIO1330: Functional Biology Lecture; BIO5100/7100 Professional Development, BIO3371: Marine Resources; RES3399: Research and Creative Expression; RES4399: Mentored Research and Creative Expression; US1100 University Seminar

C. Graduate Theses/Dissertations, Honors Theses, or Exit Committees:

Supervisor, Undergraduate Students (Non-Thesis Research):

Andrew Allen San Miguel, TXST, 2024, *Mentor for RES3399/RES4399, How aquariums can change public perceptions about sharks.*

Ale Roman, TXST, 2024, *Co-Mentor for RES3399, Echoes of tomorrow.*

Margaret Pappano, TXST, 2022-2023, *Flowing conversations: Navigating intergenerational discourse on water sustainability using the socioscientific issues framework.*

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

1. Chapters in Books:

   Idema, J. L. & Daniel, K. L. (2023). Socioscientific issues and the potential for fostering engagement through exhibits. In P.G. Patrick (Ed.) *Applying learning theories in research outside the classroom: How people learn science in informal environments.* Springer.

   Daniel, K.L., Bucklin, C.J., Leone, E.A., & **Idema, J.L.** (2018). Towards a definition of representational competence. In K.L. Daniel (Ed.) *Towards a framework for representational competence in science education* (Chapter 1). Springer.

2. Refereed Journal Articles:

   Messick, J. A., Serenari, C., Daniel, K. L., & **Idema, J. L.** (2025). Testing an in-person segmentation approach to enhance wildlife conservation partnerships between agencies and private landowners. *Journal of Extension,* 63(2).

   Daniel, K. L., Ament, R., McConnell, M., Marty, B., & **Idema, J. L.** (2023). Using 3MT storytelling approaches to improve science communication. *Bioscene*, 49, 26–38.

   Messick, J.A., Serenari, C., Daniel, K.L., **Idema, J.L.,** Bates, E., Crump, P., & Lute, M.L. (2021). Determinants influencing recruitment in the Houston toad programmatic safe harbor agreement. *Human Dimensions of Wildlife*, 1-17. doi.org/10.1080/10871209.2021.1959961

   Ashford-Hanserd, S., Daniel, K. L., Garcia, D., & **Idema, J**. (2020). Factors that influence persistence of STEM Majors at a Hispanic Serving Institution. *Journal of Research in Technical Careers, 4,* 47. doi.org/10.9741/2578-2118.1048

   Leone, E. A., Salisbury, S., Nolen, Z. L., **Idema, J. L**., Parsley, K., Stefanik, K. L., & Daniel, K. L. (2019). Identifying the breakdowns in how students and faculty interpret course learning objectives. *Bioscene: Journal of College Biology Teaching*, 45, 16-23. ERIC Number: EJ1223956

   Cuddeback, L., **Idema, J**., & Daniel, K.L. (2019) Exploring the influence of teen volunteer opportunities on science perceptions and pathways. *International Zoo Educators Journal, 55, 29-35.*

Idema, J., & Patrick, P. G. (2019). Experiential learning theory: Identifying the impact of an Ocean Science Festival on family members and defining characteristics of successful activities. *International Journal of Science Education, Part B*, 1-19. doi.org/10.1080/21548455.2019.1614238

Idema, J., & Patrick, P. (2016). Family conversations at an orangutan exhibit: The influence of zoo educators. *International Zoo Educators Journal, 52*, 61-63.

3. Refereed Conference Proceedings:

Ocampo, D., **Idema, J.L**., & Daniel, K.L. (2021, April). *Exploring the presentation of climate change in virtual aquarium exhibits.* Proceedings of the Annual Meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, Orlando, FL.

Idema, J., Daniel, K.L., Ashford, S., & Garcia, D. (2020, March). *Factors influencing biology majors' persistence in their degree.* Proceedings of the Annual Meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, Portland, OR.

Reyes, V., **Idema, J.,** & Daniel, K.L. (2020, March). *Family interpretations of conservation messaging at an aquarium exhibit.* Proceedings of the Annual Meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, Portland, OR.

Idema, J., Nolen, Z., Leone, A., Parsley, K., Salisbury, S., & Daniel, K. (2017, November) *Comparing learning objective communication between professors and students in the classroom.* In Electronic Proceedings of the NABT 2017 Conference. Science Education Research.

Idema, J. & Patrick, P. (2017, April) Sense of Conservation: *When is a black rat snake (Elaphe obsolete) really just a snake?* Proceedings of the Annual Meeting of NARST: A Worldwide Organization for Improving Science Teaching and Learning through Research, San Antonio, Texas.

Idema, J., & Patrick, P. (2016). *Visitor experiences during a science-themed community event.* In Electronic Proceedings of the ESERA 2015 Conference. Science Education Research: Engaging Learners for a Sustainable Future, Part II (9). 270-279.

4. Reports:

Serenari, C., Daniel, K., Forstner, M., Lute, M., Messick, J., **Idema, J. L.,** Covington, B., & Payne, G. (2019). *Investigating determinants influencing recruitment into Houston Toad Safe Harbor Agreements*. Texas State University Department of Biology, San Marcos, TX: Texas Parks and Wildlife Department.

5. Other Works in Print:

Idema, J. L., Nierth, E., Gabor, C., Pesthy, C., & Nolen, Z. (Eds.) (2023). *Laboratory exercises for Functional Biology: Biology 1130.* Stipes Publishing L.L.C.

Nierth, E., Gabor, C., Pesthy, C., Nolen, Z., & **Idema, J. L.** (Eds.) (2019). *Laboratory exercises for Functional Biology: Biology 1130.* Stipes Publishing L.L.C.

B. Works Not in Print:

1. Papers Presented at Professional Meetings:

Galko, I., Daniel, K.L., Reyes, V., Galko, K., & **Idema, J.** (2021, September). *Preparing families to act as stewards to combat climate change and restore ocean health.* Presentation at the IUCN World Conservation Congress 2020 Forum, Marseille, France.

Idema, J.L., Daniel, K.L., & Ocampo, D. (2021, January). *Exploring climate change messaging in virtual aquarium exhibits*. Roundtable presentation at the annual meeting of the Society for the Advancement of Biology Education Research West, Virtual Meeting.

Idema, J. L., Reyes, V., & Daniel, K. L. (2020, October). *Using socioscientific issues as a model for fostering visitor engagement.* Presentation at the International Zoo Educators Conference, Virtual Meeting.

Reyes, V.J., **Idema, J.L.,** & Daniel, K.L. (2020, April). *Family interpretation of conservation messaging*. Presentation at the TriBeta District Convention, Cedar Hill, TX. **Presentation canceled due to COVID-19 pandemic.

Reyes, V.J., **Idema, J.L.,** & Daniel, K.L. (2020, March). *Family interpretation of conservation messaging*. Poster presented at the Women in Science and Engineering, San Marcos, TX.

Idema, J. & Daniel, K.L. (2020, February). *Leaping data collection hurdles in Informal Science Institutions.* Presentation at the Informal Science Education Association of Texas, Waco, TX.

Reyes, V.J., **Idema, J.L.,** & Daniel, K.L. (2020, February). *Family interpretation of conservation messaging.* Poster presentation at the annual meeting of the Informal Science Education Association, Waco, TX.

Messick, J., Serenari, C., Lute, M. L., Daniel, K. L., & **Idema, J. L.** (2020, February). *Determinants of private landowner participation in Houston Toad Safe Harbor Agreement*. Presented at the annual meeting of the Texas Chapter of the Wildlife Society. Corpus Christi, TX.

Idema, J. L. & Daniel, K. (2019, November). *Exhibiting change: Exploring the presentation of climate change in aquarium exhibits.* Poster presented at the International Research Conference at Texas State University, San Marcos, TX.

Idema, J.L. & Daniel, K. L. (2019, August) *Exploring the presentation of climate change through aquarium exhibits.* Poster presented at the European Science and Education Research Association Conference, Bologna, Italy.

Reyes, V.J., **Idema, J.L.,** & Daniel, K.L. (2019, August). *Family interpretation of conservation messaging*. Poster presented at the Undergraduate Research Symposium, San Marcos, TX. **Won first prize in the SURE Poster competition.

Idema, J.L., Patrick, P.G., & Daniel, K.L. (2019, February) *Talking conservation: Exploring the influence of zoo educators on visitor conversations.* Poster presented at the Informal Science Education Association of Texas, Port Aransas, TX.

Idema, J.L. & Patrick, P. (2018, March) *Individual family members' perspectives of a science-themed community event.* Poster presented at the National Association for Research in Science Teaching (NARST) Conference, Atlanta, GA.

Idema, J.L. & Patrick, P. (2016, October) *Family narratives and culture: A new framework for understanding family learning.* Paper presented at the International Zoo Educators Conference, Buenos Ares, Argentina.

Patrick, P. & **Idema, J.L.** (2016, October) *Zoo signage: What are the narratives?* Paper presented at the International Zoo Educators Conference, Buenos Ares, Argentina.

Idema, J. (2015, October). *Family learning experiences at a science-themed community event.* Paper presented at the annual conference of the School Science and Mathematics Association, Oklahoma City, OK.

Idema, J. (2015, September). *The impacts of science-themed community events on families over time.* Paper presented at the annual conference of the European Science and Education Research Association, Helsinki, Finland.

Patrick, P. & **Idema, J.** (2014, February). *Informal Science Education as a degree*. Poster presented at the annual conference of the Informal Science Education Association of Texas, Wimberley, TX.

2. Invited Talks, Lectures, and Presentations:

Bucklin, C.J., **Idema, J. L.,** & Gold, R. (2024, November). *Developing course-based research experiences in your courses.* Conference session for the Annual Meeting of the National Association of Biology Teachers, Anaheim, CA.

Idema, J. L., Cunningham, D., Byars George, L., Chu, E., & Gerstner, K. (2023, October). *Imposter syndrome*. Panelist member for the Wildlife Biology Society and collaborating student organizations across campus Professional Development Series, San Marcos, TX.

Idema, J. L. (2021, July). *Volunteers as teachers*. Invited talk for the Texas Master Naturalists Program, San Marcos, TX.

Idema, J.L, LeNoc, M., Ayala, M., & Douthitt, D. (2019, February) *What I wish I had known when I started Grad School*. Panel presentation Shop Talk for Texas State University, San Marcos, TX.

Idema, J.L., & DeLeon, I. (2018, February). *Minorities in STEM: Experiences and opportunities.* Panelist member for Mentoring Matters Program, Texas State University, San Marcos, TX.

Idema, J.L., Castillio, A, Davis, B., Gourlock, K., & LeNoc, M. (2018, January). *What I wish I had known when I started Grad School*. Panel presentation Shop Talk for Texas State University, San Marcos, TX.

Idema, J.L., Castillio, A, Davis, B., Gourlock, K., & Kumar, G. (2017, September). *What I wish I had known when I started Grad School*. Panel presentation Shop Talk for Texas State University, San Marcos, TX.

Idema, J.L. & Guerra, D. (2020, October). *What does it take to be a good IA and grad student?* Guest lecture for BIO 5100/7100 Professional Development Texas State University, San Marcos, TX.

Idema, J.L. (2020, September). *An introduction into qualitative research.* Guest lecture for BIO 4131/5131 Human Dimensions of Wildlife and Fisheries Conservation Texas State University, San Marcos, TX.

Idema, J.L. (2019, October). *What does it take to be a good IA and grad student?* Guest lecture for BIO 5100/7100 Professional Development Texas State University, San Marcos, TX.

Idema, J.L. (2019, September). *An introduction into qualitative research.* Guest lecture for BIO 4131/5131 Human Dimensions of Wildlife and Fisheries Conservation Texas State University, San Marcos, TX.

Idema, J.L. (2019, March). *DNA and the human genome.* Guest lecture for HON 2303D Everyday Biology, Texas State University, San Marcos, TX.

Idema, J.L. (2018, October). *What does it take to be a good IA and grad student?* Guest lecture for BIO 5100/7100 Professional Development Texas State University, San Marcos, TX.

Idema, J.L. (2018, April). *Establishing NOAA and the National Marine Sanctuaries.* Guest lecture for BIO 4350/5350 Wildlife Policy and Law in North America Texas State University, San Marcos, TX.

Idema, J. (2016, May). *Designing curriculum evaluation for zoos and aquariums*. Guest lecture at Methods for Change.org (online symposium).

Idema, J. (2015, November). *Impacting communities through science-themed community events: Evaluating Ocean Discovery Day*. Guest Speaker for the Flower Garden Banks National Marine Sanctuary Advisory Council, Galveston, TX.

3. Consultancies:

   Education and Outreach Consultant, Safari Adventures Mauritius, 2022

   Research Consultant, *Assessing the impacts of Splash Festival*, The Mermaid Society SMTX, 2017

4. Workshops:

   Baker, B., Dietel, S., Garner, T., & **Idema, J.** (2023, April). *Making observations: What do scientists do?* STEM Workshop for middle school students presented at Texas State University, San Marcos, TX.

   Idema, J. (2015, June). *Designing impactful curriculum for zoos and aquariums*. Workshop virtually presented at Texas Tech University, Lubbock, TX.

   Idema, J. (2014, October) *Teaching coral reef ecology in informal settings.* Workshop presented at Chester Zoo, Chester, United Kingdom.

   Idema, J. (2014, February). *Reef rendezvous: Teaching coral reef ecology for all ages.* Workshop presented at the annual conference of the Informal Science Education Association of Texas, Wimberley, TX.

5. Other Works not in Print:

   a. Works "in progress":

   Pappano, M. & **Idema, J.L.** (*In review*). Flowing conversations: Navigating intergenerational discourse on water sustainability using the socioscientific issues framework at an aquarium exhibit. Submitted to the *International Zoo Educators Journal.*

   Idema, J.L., & Daniel, K.L. (*In preparation*). Communicating climate change: Exploring the use of a socioscientific issue through aquarium exhibits.

   Idema, J.L., Ocampo, D., Forsythe, M.E., & Daniel, K.L. (*In preparation*). Climate change in a virtual world: Exploring socioscientific issue communication in online aquarium exhibits.

   Reyes, V., **Idema, J.L.,** & Daniel, K.L. (*In preparation*). Family interpretations of conservation messaging presented in an aquarium. *To be submitted to Visitor Studies.*

C. Scholarly / Creative Grants and Contracts:

1. Funded Grants:

Texas State University Graduate College, Doctoral Research Support Fellowship (2019). *Exploring the Impacts of Socioscientific Environmental Issues Through Aquarium Exhibits.* Investigator: **Idema, J.L.** (TXST **$5,000**).

2. Submitted but not Funded Grants:

Texas Sea Grant. (2023, June). *Perceptions of Shark Depredation Impacts on Recreational Fishing and Acceptance of Technology to Mitigate Occurrences*. PI: Serenari, C. Co-PI: Qasem, A. & **Idema, J.** (Full Proposal, $261,719 + $131,826 Matched Costs = $393,545 Total).

Texas Sea Grant. (2019, June). *Local Climate Change Risk Messaging.* PI: Daniel, K.L. Co-PI: Serenari, C. Doctoral Student Lead: **Idema, J.** (Full Proposal, $284,158 + $142,080 Matched Costs = $426,238 Total).

D. Scholarly / Creative Fellowships, Awards, Honors:

Visualizing Research Competition, Runner-Up "The Messages They Sea" (2020). This competition allows graduate students the opportunity to interpret their intriguing research or creative scholastic activity through the creation of visual representations.

Denison-Koehn Endowed Scholarship in Science: Doctoral-Level (2020). This annual scholarship is awarded to a full-time doctoral student majoring in the College of Science and Engineering at Texas State University to help provide financial support toward tuition.

Gwen S. Durrenberger Endowment Scholarship in Science: Doctoral-Level (2020). Each year, the College of Science and Engineering at Texas State University selects one doctoral student that demonstrates academic excellence in a science major and has financial need to receive this award.

European Science & Education Research Association, PhD Summer School Fellow, Crete, Greece (2019). *Exploring the Impacts of Socioscientific Environmental Issues Through Aquarium Exhibits*. Investigator: **Idema, J.L.**

Celebrity Classic Scholarship (2018). This annual award is a competitive scholarship that encourages students with intellectual, creative, and leadership promise to complete a graduate degree at Texas State University.

Glen Longley/San Marcos Lion Club Scholarship (2018). This is a competitive award that recognizes outstanding graduate students pursuing studies in Aquatic Resources based on ability, achievements, and financial need.

Graduate College Scholarship (2018). Graduate College scholarships encourage incoming students with intellectual, creative, and leadership promise to complete a graduate degree at Texas State University.

IV. SERVICE

A. Institutional

1. University:

Texas State University	
Judge, University Writing Center Essay Contest	2023
Member, BookCats Faculty Development for Non-Tenure Line Faculty	2022 – Present
Member, Vice President for Student Affairs Search Committee	2020
Member, Texas State University Quality Enhancement Plan Task Force for Undergraduate Research	2018 – 2021
Member, Texas State University Graduate Council	2017

2. College:

Texas State University College of Science & Engineering	
Co-Advisor, Tri Beta Biology Honor Society	2022 – Present
Parliamentarian, Campus Life Chair, Graduate House Representative	2017 – 2019
Co-Mentor, Summer Undergraduate Research Experience Program (co-mentored: Reyes, V. & Ocampo, D.)	2019 – 2020

3. Department/School:

Texas State University Department of Biology	2023
Poster Competition Judge, Biology Student Colloquium	
Texas State University Department of Biology	2018
Abstract Reviewer, Biology Student Colloquium	
Texas Tech University Department of Curriculum & Instruction	2015
Peer Thesis Reviewer	

B. Professional:

Editorial Board Member, *Journal of Informal Science and Environmental Learning*	2020 – Present
Proposal Reviewer, National Association for Research and Science Teaching	2020
Manuscript Reviewer, Springer, Netherlands	2016

C. Community:

Scientist Correspondent, Letters to a Pre-Scientist	2020 – Present
Volunteer Corps Member, National Oceanic and Atmospheric Administration (NOAA) Flower Garden Banks National Marine Sanctuary	2012 – Present
Volunteer Instructor, Texas Parks and Wildlife (TPWD) Angler Education and Boater Safety	2016 – 2019
Shore Support, Extreme Marine Dive School, Bristol, United Kingdom	2009 – 2010

D. Organization Memberships:

Alpha Chi, Vice President & Chair for Education Outreach,	2018 – 2021
Association of Zoos and Aquariums (AZA)	2014 – Present

European Science and Education Research Association (ESERA)	2015 – Present
Informal Science Educators Association of Texas (ISEA)	2014 – Present
International Zoo Educators Association (IZE)	2016 – Present
National Association for Biology Teachers (NABT)	2018, 2024
National Association for Interpretation (NAI)	2022
National Association for Research in Science Teaching (NARST)	2017 – Present
North American Environmental Educators Association (NAAEE)	2017 – Present
School Science and Mathematics Association (SSMA)	2015
Texas State University Chapter Phi Kappa Phi Honor Society	2018 – 2021
Visitors Studies Association	2020 – Present

E. Service Honors and Awards:

Student Government Scholarship (2020). Each year the Texas State University Student Government offers a scholarship for students with an exemplary record of services to the university.