

**Nora Egan Demers**  
Department of Biological Sciences  
College of Arts and Sciences  
Florida Gulf Coast University

The sum of these experiences is a dedicated, enthusiastic and intelligent science-educator with a solid background in the biological sciences with keen interests and activity in Science, Society and Policy.

**EDUCATION:**

PhD: Oregon State University, Corvallis, OR 1996 (Zoology-Comparative Immunology)

M.S: Oregon State University, Corvallis, OR 1993 (Zoology-Comparative Immunology)

B.S. University of Missouri-Rolla, Rolla, MO 1990 (Life Sciences)

**EMPLOYMENT:**

2006- Present Associate Professor of Biology, Florida Gulf Coast University

1997-2005 Assistant Professor of Biology, Florida Gulf Coast University

1997-2000 Biology Program Coordinator

1996-1997 Visiting Professor of Biology, The Evergreen State College, Olympia, Washington

1982-1984 Manager, Winchell's Donut House, Santa Barbara, California

**SCHOLARSHIP:**

**Grants:**

Center for Environmental and Sustainability Education (CESE) Student Associates for a Greener Environment SAGE (\$500, 2019) awarded

FGCU Scholarship Venture Fund Endocrine disruptors in our water; modeling contamination from use to environmental fate (\$13,125, 2019) awarded

Center for Environmental and Sustainability Education (CESE) Student Associates for a Greener Environment SAGE (\$2700, 2018) awarded

Water Quality Analysis for Endocrine Disruptors in Southwest Florida: Testing for Sucralose with Kristen Bennett

Water Quality Analysis for Endocrine Disruptors in Southwest Florida Using the Liquid Chromatography Mass Spectrometry Machine (LC-MS): Analyzing Phthalates & Polychlorinated Biphenyl (PCB) with Laura Montalvo

The Impacts of Endocrine Disruptors in Municipal Wastewater on *Gambusia affinis* in Southwest Florida Waterways with Abigail Brown

Endocrine Disruptors and the Effects on *Gambusia affinis* (mosquitofish) with Allison Loeffler

Water Quality Analysis for Endocrine Disruptors in Southwest Florida Using LC-MS: Examining Over the Counter Drugs & Herbicides with Shea Gagnon

Effects of Human Activity on the Parasite Load of Gopher Tortoises with Sarah Burnham, Leah Kligerman, Kellie Pernula, Richard Artola

Sea Turtle Season Awareness with Meghan Gilliland & Emily Davies

Seidler Cooperative Fellowship The Ins and Outs of Gopher tortoises: what do they eat and what parasites are they harboring? (\$11,894, Spring, 2018) awarded

FGCU Professional Development Grant participation at the 39<sup>th</sup> Annual Gopher Tortoise Council Meeting, Edgefield, SC (\$637.08 Oct, 2017) awarded

Center for Environmental and Sustainability Education (CESE) Student Associates for a Greener Environment SAGE A Comparative Analysis of Surface Waters and Their Chemical Concentrations in a Dense Community with Septic Tanks with Lucas Doran and Alecia Sabourin (FGCU undergraduate students) (\$500, 2017) awarded

Center for Environmental and Sustainability Education (CESE) Student Associates for a Greener Environment SAGE Detection of pharmaceuticals, sucralose, and caffeine in drinking water of local residential area, San Carlos Park with Rachel Walter (FGCU undergraduate student) (\$500, 2016) awarded

Pearson Publishing Company Using Academic Coaching and Creative/Bio-Ethnographic Writing To Improve the Learning Outcomes of D/F Students in collaboration with Cerrone Foster (East Tenn State), Min Zhong, (Auburn), and Julie Collins (U Wisc) (\$5000, 2016) awarded

Elise B. Newell Sea Grant Seminar with Kara Lefavre to bring Dr. Dave Johnston to FGCU for seminar entitled The Use of Unoccupied Aircraft Systems (UAS) in Marine Science and Conservation: New Technology to Support the Resilience of Coastal Ecosystems ((\$1,000 October, 2016) awarded

Florida Humanities Council (with WGPU): Preserving our Waters Documentary/Screening (\$15,000, Oct, 2015) awarded

Charlotte Harbor National Estuary Program: Phase III San Carlos Park/Mulloch Creek Habitat Restoration Initiative (\$2000, Oct, 2015) awarded

FGCU Multidisciplinary Research Initiative: Determining Anthropogenic Sources Of and Concerns about Nutrients In Stormwater Systems: An Interdisciplinary Approach (Fort Myers, FL, USA). (\$25,000 Mar, 2013) awarded

FGCU Professional Development Grant participation at the NAAEE, Oakland CA (\$1650 Oct, 2012) awarded

Southeast Environmental Education Alliance (SEEA): Mulloch Creek Habitat Restoration Initiative (submitted \$5000, Nov, 2012) declined (The ORSP uploaded a version of the proposal that was missing the project description so we really didn't have a chance!)

Charlotte Harbor National Estuary Program Public Outreach Grants Mulloch Creek Restoration: Next steps in developing a strategy to address common priority problems (\$5000, Sept, 2012) declined

National Fish and Wildlife Foundation Wells Fargo Environmental Solutions for Communities (\$87,000 Dec. 2012) declined

Whitaker Center for STEM Education (FGCU) Fundamental and Powerful Concepts in Science Research (\$200, Nov, 2012) awarded

Whitaker Center for STEM Education (FGCU) Fundamental and Powerful Concepts in Science Research (\$500 April, 2012) awarded

The Center for Environmental Sustainability and Education Earth Charter mini-grant (CESE) 2011 Cela Tega Economic Value of Conservation Lands (\$250 August 2011) awarded

FGCU Professional Development Grant Best College Teachers Summer Workshop (\$750, June, 2011) awarded

FGCU Teaching, Learning and Assessment Grant Best College Teachers Summer Workshop (\$700, Jun, 2011) awarded

The Center for Environmental Sustainability and Education (CESE) Earth Charter mini-grant  
Earth Charter inspired lunch for Service-Learners at Happehatchee (\$250 Jun, 2010)  
awarded

East Mulloch Drainage District (EMDD) Stormwater Restoration and Habitat Improvement  
(\$8000, Aug 2011) awarded

NSF Sustainable Eco Systems Valuing Very Small-Scale Coastal Wetland Restoration Projects  
(\$300,000) declined

East Mulloch Drainage District (EMDD) Stormwater Restoration and Habitat Improvement  
(\$12,000, Oct, 2010) awarded

Fl. Campus Compact FGCU Service-Learning Mentor/mentee program (\$150, 2010) awarded

National Fish and Wildlife Foundation 5 Star Restoration Program Mulloch Creek Basin Habitat  
Restoration (\$20,000) declined

CPI Coastal Resource Mulloch Creek Basin Restoration – East Mulloch Drainage District  
Habitat Restoration Application (\$46,263) declined

Florida Campus Compact Livin' la Vida Local Institute 2009 for Community Engagement and  
Service Learning at FGCU (\$9500, Oct, 2009) awarded

FGCU Substantive Creative course redesign in General Education General Biology I- (Demers  
and Gunnels; \$1250, 2009) awarded

Charlotte Harbor National Estuary Program Shoreline Stabilization and Habitat Enhancement in  
the Mulloch Creek Basin 2008 (\$3,000, Fall, 2008) awarded

Whitaker Center Using Storyboards to assess student learning (\$500, Fall, 2007) awarded

Watershed Council of Southwest Florida Nutrient Management Partnership Evaluation of  
Nitrogen sources in San Carlos Park, Lee County, Florida (\$3100, Fall 2007) awarded

Friends of Barefoot Beach Behavior of Gopher tortoises at Barefoot Beach Preserve (\$700,  
2007) awarded

Office of Research & Sponsored Programs FGCU The effects of acute stress on plasma proteins  
of teleost fish. Internal grant award 2002-2003 (\$5000, \$5000) awarded

Florida Higher Education Consortium Registration and Travel Award for 10<sup>th</sup> Statewide  
Conference (\$1000, Fall 2001) awarded

Office of Sponsored Research & Programs FGCU Travel Award for Gopher tortoise research  
training (\$800, Fall, 2001) awarded

Florida Higher Education Consortium Registration and Travel Award for 9<sup>th</sup> Statewide  
Conference: AIM Higher: Enhancing Faculty Effectiveness for Student Success (\$2000,  
Fall 2000) awarded

Office of Sponsored Research & Programs FGCU Travel awards to support research proposals  
(\$500, Fall, 1999) awarded

Collier Audubon Society Gopher tortoise research in Southwest Florida (Fall, 1999 Funding to  
support awarded

Florida Education Leadership Enhancement Grant Biology Workshop Research (\$2500, Fall  
1999) awarded

FGCU Grant Professional Development Award (\$3000, Fall, 1998) awarded

#### **COMMUNITY ENGAGED SCHOLARSHIP:**

[San Carlos Park/Mulloch Creek Habitat Restoration Initiative](#), The mission of the initiative is to restore, maintain and beautify the drainage system in San Carlos Park. It engages Colloquium, Foundations of Civic Engagement, and IDS Senior Capstone students in a long-term Service-Learning driven effort that is marshalling efforts to restore a 60 year old drainage district in the Community adjacent to FGCU (West of I-75).

[Gophers@Barefoot](#) The mission of the Gophers@Barefoot Project is to restore and enhance the habitat for Gopher tortoises at the Barefoot Beach Preserve. Since 2013, over 333 Colloquium students have contributed nearly 1700 service-learning hours for an equivalent of \$58,000.

Media:

[Physical changes to fish species may be linked to SWFL water quality issues](#)

Wink News Nov 28, 2019

Demers said these changes are brought about by **endocrine disruptors**, which are chemicals that can impact developmental and reproductive systems ...



[Flag as irrelevant](#)

## **PUBLICATIONS:**

- Gunnels, C.W. IV, Bovard, B.D., Buzasi, D., Cassani, M.K., Douglass, J. Everham, E, Hartley, A. Herman, J. Mujtaba, M. Muller, J. Nelson, K., Nicolas, A. Southard, L. Thomas, S. and **Demers, N.E.** (2015) Engaging Students in Ethical Considerations of the Scientific Process Using a Simulated Funding Panel. *Council on Undergraduate Research Quarterly* 36:1:12-18
- Demers, N.E.** (2012) Genomes and their Evolution- another Example of Gene Duplication and Divergence In: Laboratory Activities for General Biology I third edition, bluedoor publishing.
- Demers, N.E.** (2012) Structure/Function Correlation In: Laboratory Activities for General Biology I third edition, bluedoor publishing
- Demers, N.E.** (2011) An Activity to Demonstrate the Genetic Code, Gene Duplication and Divergence. *Journal of College Science Teaching* 40(6):62-64
- Demers, N.E.** (2009) Structure-Function Lab in a Bag *Journal of College Science Teaching* 39(2):58-60
- Demers, N.E.** (2008) Using stable  $\delta^{15}\text{N}$  ratios to help differentiate nitrogen sources within a residential community- another tool for the TMDL toolbox. Final report prepared for the Watershed Council of Southwest Florida.
- Savarese, M., **Demers, N.**, Everham, E. M., Volety, A., and Kakareka, J. (2004) Scientific Process: an interdisciplinary core natural science course as a mechanism for faculty collaboration. *Geological Society of America Abstracts with Programs* 36(5):444.
- Demers, N.E.** and Malenfant, C. (2004) Collaboration for Point-of-Need Library Instruction *Reference Services Review* 32(3):264-273
- Meers, M.B., **Demers, N.E.** and Savarese, M. (2003) Integrating scientific philosophy, theory, methods, and ethics in undergraduate science curricula. *Journal of College Science Teaching* 33:3:34-39
- McKnight, R and **Demers, N.E.** (2003) Evaluating Course Website Utilization By Students Using Web Tracking Software: A Constructivist Approach. *International Journal of E-Learning* 2(3):13-17
- Demers, N.E.** (2003) Issues in Science and Technology: Student driven inquiry directed by the Scientific Process. *Journal of College Science Teaching* 23:330-337
- Bhatt, A, **Demers, N.E.** and Malenfant, C (2001) Writing an Annotated Bibliography Florida Gulf Coast University Library Services
- Demers, N.E.** and Malenfant, C. (2001) Forming a question and making a research plan. Florida Gulf Coast University Library Services
- Gerwick, L., **Demers, N.E.** and Bayne, C.J. (1999) Modulation of stress hormones and their effects in rainbow trout by means of anesthesia, sensory deprivation and receptor blockade. *Comparative Biochemistry and Physiology* 124A(3):329-334.
- Demers, N.E.** and Bayne, C.J. (1997) The immediate effects of stress on innate defenses in rainbow trout. *Developmental and Comparative Immunology* 21:4:363-373.
- Demers, N.E.** (1996) The immediate effects of acute stress on innate immunity in rainbow trout. *Oncorhynchus mykiss*, Ph.D. Dissertation, Oregon State University.
- Demers, N.E.** and Bayne, C.J. (1994) Immediate response to acute stress in modulators of fish immune responses, plasma proteins of rainbow trout, *Oncorhynchus mykiss*. p 1-7, In:

Stolen, J.S. and T.C. Fletcher (Eds.). Modulators of Fish Immune Responses, Vol. 1.  
SOS Publications, Fair Haven, N. J.

**Demers, N.E.** (1993) The acute effects of stress on plasma proteins of rainbow trout,  
*Oncorhynchus mykiss*, M.S. Thesis, Oregon State University.

## **PRESENTATIONS:**

Demers, N. Water Quality in Urban Environments: problems and the works for solutions.  
(Florida Department of Environmental Protection Meet-Ups monthly workshop October,  
2019)

Hormuth, C, Burnham, S, Suarez, S, and **N. Demers** The Ins and Outs of Gopher Tortoises:  
Foraging Habitat and Harbored Parasites (40<sup>th</sup> Annual Gopher Tortoise Council,  
Archbold Biological Station, Venus, FL, October 2018)

**Demers, N.** The challenges, logistics and competing interests in attempting habitat restoration at  
Barefoot Beach Preserve, Collier County, FL (39<sup>th</sup> Annual Gopher Tortoise Council,  
Edgefield, SC, October 2017)

Hendricks, M and **N. Demers** A Pilot Study: Gopher Tortoise (*Gopherus polyphemus*) Foraging  
Preferences at Barefoot Beach County Preserve (39<sup>th</sup> Annual Gopher Tortoise Council,  
Edgefield, SC, October 2017)

**Demers, N** Gophers@Barefoot: an update on a Service-learning habitat restoration effort at  
Barefoot Beach Preserve (Naples Preserve, Naples, FL April, 2017)

**Demers, N** Gopher tortoises life history and such (Bonita Nature Place, April, 2017)

**Demers, N** Challenges of competing interests, logistics, and payoffs in two different restoration  
projects in Southwest Florida (Charlotte Harbor National Estuary Program Watershed  
Summit, Punta Gorda, FL March, 2017)

Foster C, Zhong, A, **Demers, N** and J Collins Using Academic Coaching & Creative/Bio-  
Ethnographic Writing To Improve the Learning Outcomes of D/F Students (Biology  
Leadership Conference, Tucson, AZ February, 2017)

**Demers, N** Actively Engaging with Fundamental and Powerful Concepts in Biology (Biology  
Leadership Conference, Tucson, AZ February 2017)

Demers, N Gophers @ Barefoot Beach, Community Engaged Scholarship Symposium, FGCU  
February, 2017)

Reycraft, K and **Demers, N.E.** Strengthening Students' Information Literacy Skills as They  
Develop Original Research Proposals for a Scientific Process Course (9th Annual Florida  
Statewide Symposium: Engagement in Undergraduate Research in Orlando, FL October,  
2016)

**Demers, N.E.** Challenges of competing interests, logistics, and payoffs in two different  
restoration projects in southwest Florida. (National Council on Ecosystem Restoration,  
NCER, Coral Springs, FL, April, 2016)

**Demers, N.E.** The Gopher Tortoise, habitat and restoration Clinic for Rehabilitation of Wildlife  
Lecture series (Sanibel, FL Feb, 2016)

Frost, L, **Demers, N.E.**, Humphries, R, Huffman, T, Johnson, K, and B. Johnson. Strategies to  
implement POGIL methods at FGCU. (Invited: FGCU Teaching Learning Academy,  
August, 2013)

- Blair, W. **Demers, N.E.**, Everham, E. Frost, L., Goebel, A., Gunnels, C. and Rumbold, D.  
Celebrating 50 years of Rachel Carson's Silent Spring (Community Engagement Day,  
FGCU, April 2013)
- Charles Gunnels<sup>1</sup>, Mustafa Mujtaba<sup>1</sup>, Edwin M. Everham III<sup>2</sup>, Brian Bovard<sup>2</sup>, Mary Kay  
Cassani<sup>2</sup>, **Nora Demers**<sup>1</sup>, James Douglas<sup>2</sup>, David Fugate<sup>2</sup>, David Green<sup>2</sup>, John Griffiths<sup>2</sup>,  
Ann Hartley<sup>2</sup>, John Herman<sup>2</sup>, JoAnn Muller<sup>2</sup>, Darren Rumbold<sup>2</sup>, Serge Thomas<sup>2</sup>, and  
Aswani Voley<sup>2</sup> <sup>1</sup> – Department of Biological Sciences & <sup>2</sup> – Department of Marine and  
Ecological Sciences Funding Panel Simulation on The Scientific Process Course (Best  
Faculty Poster Award, Research Day, FGCU April 19, 2013)
- Demers, N. E.** (November, 2012) Magnetic water models for understanding chemical bonding  
(2012 FCR-STEM conference, St. Petersburg, FL)
- Demers, N. E.** and Coventry-Payne, L (Oct, 2012) Simple Solutions Profound Results-changing  
Attitudes through Conservations (North American Association for Environmental  
Education, Oakland, CA)
- Demers, N. E.** (September, 2011) The Promising Syllabus; (What the Best College Teachers Do  
Bain workshop, FGCU)
- Wohlpert, S.L., **Demers, N.**, MacDonald J.H. Jr, and Hair, T. (Oct, 2011) The Bonding  
Properties of water: An Assessment of Student Understanding (Geological Society of  
America, Minneapolis, MN)
- Gunnels, Charles W IV, Bovard, Brian, **Demers, Nora**, Everham Win, Loh Ai Ning, and  
Michael Savarese (October, 2011) Preservation of Undergraduate Research through the  
Creation of Senior Research Classes at Florida Gulf Coast University (4th Annual Florida  
Statewide Symposium: Engagement in Undergraduate Research, Orlando, FL)
- Demers, Nora Egan** (March, 2011) Scientific Inadequacies of Evaluating Direct, Indirect and  
Cumulative Impacts from Phosphate Mining in the Peace River Watershed (USEPA State  
of the Science Area-wide Environmental Impact Study process, Punta Gorda, FL)
- Demers, Nora Egan** (March, 2011) Stable  $\delta^{15}\text{N}$  Ratios to Examine sources of Nitrogen within a  
Residential Community (Charlotte Harbor National Estuary Program Watershed Summit,  
Punta Gorda, FL)
- Demers, Nora**, and J Salapska-Gelleri (June, 2010) Using 3D water models to investigate  
fundamental and powerful concepts in the biological sciences (Association for Biology  
Laboratory Education Annual Conference, Halifax, N.S.)
- Demers, Nora Egan** (February, 2010) Service Learning in San Carlos Park (Colloquium Service  
Learning workshop FGCU Fort Myers, FL)
- Demers, Nora E** (September, 2009) San Carlos Park/East Mulloch Drainage District-Habitat  
Restoration Project (Estero Bay Watershed Public Symposium, FGCU Fort Myers, FL)
- Demers, Nora E** (September, 2009) Using stable  $\delta\text{N}^{15}$  ratios to help differentiate nitrogen  
sources within a residential community and initiatives to improve the East Mulloch  
Drainage District (Report to the Estero Bay Agency on Bay Management, Fort Myers,  
FL)
- Demers, Nora E.**, C W. Gunnels IV, and J Salapska-Gelleri (July, 2009) Integrative Teaching to  
Develop SCALE-UP (Student Centered Activities for Large Enrollment Undergraduate  
Programs) in General Biology I (Transforming Undergraduate Education in Biology,  
Washington, DC)

- Demers, Nora Egan**, Edwin Everham, Michael Savarese, Brian Bovard, Anne Hartley, Joseph P. Kakareka, Ai Ning Loh, Brenda Brooks, CREW Land and Water Trust, John Cassani, Lee County Hyacinth Control, and Mike Owen, Fakahatchee Strand Preserve State Park, (March, 2009) Preparing Citizen Scientists via Science Research Opportunities in Southwest Florida (Part A) K-12 and Post-Secondary Education (Part B) Community Education (SENCER Washington DC Poster Session)
- Demers, N**, Johnson, L and Crawford, K (October, 2008) Florida Gulf Coast University's President's Climate Commitment: Collaborative Ventures (Campus and Community Sustainability Conference, Orlando, FL)
- Demers, N**, Meers, M, Savarese, M and Everham, E. (September, 2008) Scientific Process- the entry course for a two-year Research Plan for Undergraduate Students (Florida Statewide Symposium in Undergraduate Education- Orlando, FL)
- Demers, N** and David W. Ceilley (2008) Using Stable  $\delta^{15}\text{N}$  Ratios and Biological Diversity to Examine Effectiveness of Restoration Efforts within a Residential Community- Another Tool for the TMDL Toolbox. (GEER Conference Naples, FL)
- Demers, N.E.** (January, 2008) Using stable  $\delta^{15}\text{N}$  ratios to help differentiate nitrogen sources from a residential community. (Everglades Coalition, Captiva Island, FL)
- Demers, N.E.** (January, 2008) Using Stable Nitrogen isotopes to determine sources of Nitrogen in a residential community. (Watershed Council of Southwest Florida, Fort Myers, FL)
- Long C, Spurfeld, C** and **Demers, N.E.**, (October, 2007) Preliminary Results of a Gopher Tortoise Relocation Project at Gator Hole Preserve, Lee County, Florida. (Gopher Tortoise Council, Milton, FL)
- Demers, N.E.** and Salapska-Gelleri (October, 2007) Storyboarding Water Properties: Assessment of Student Learning as part of program assessment? (Whitaker Center STEM Seminar, FGCU, Fort Myers, FL)
- St. Hill, Halcyon, Karakas, Scott, McKenzie, Kamla-Kay and **Nora Demers**. (December, 2007) "FGCU Strategic Model for Revitalizing General Education: Shared Governance in Action." (112th Annual Meeting of the Commission on Colleges of the Southern Association of Colleges and Schools, New Orleans, LA)
- Demers, N.E.** (August, 2006) Beyond the Classroom: Florida Gulf Coast University- founded and established at the crossroads of Science and Policy. (Gordon Research Conference on Science and Technology Policy, Big Sky, MT)
- Demers, N.E.** (August, 2006) Using Contemporary Issues to Teach Skeptical Inquiry: An Approach to Improve Science and Information Literacy among Undergraduates. Invited speaker for panel on Science Education: Vital Connection of Science to the Public Sphere (19th Biennial Conference on Chemical Education, Purdue University, Indiana)
- Demers, N.E.** (August, 2004) Engaging Students in Issues in Science and Technology: A Mechanism to Introduce Current Issues and Improve Information and Technological Literacy. (Gordon Research Conference on Science and Technology Policy, Big Sky, MT)
- Demers, N.E.** (March, 2004) The Acute Effects of A Handling Stressor On Select Oreochromis aureus Plasma Components. (Eastern Fish Health Workshop, Atlantic Beach, North Carolina)



- McKnight, R, **Demers, N.E.** and Jaeger, D. (April, 2002) Evaluating Course Website Utilization By Students Using Web Tracking Software: A Constructivist Approach. (Florida Gulf Coast University First Annual Research Days Fort Myers, FL)
- Malenfant, C and **Demers, N.E.** (November, 2001) Working together for Information Literacy in an Upper-Division Science Class. (Information Strategies Conference. Ft. Myers, FL)
- Demers, N.E.** C Malenfant, and M Rosenthal (November, 2001) Science for All: Issues in Science and Technology. Higher Education Consortium Annual Meeting. St. Petersburg, FL.
- Demers, N.E.** and Malenfant, C (October, 2001) Teaching and Pedagogy Unite in Issues in Science and Technology. Professional and Organizational Development Network in Higher Education Annual Meeting. St. Louis, MO
- Demers, N.E.** (November, 2000) Tools for Teaching: Metaphors, Jeopardy and Poster presentations. (Higher Education Consortium Annual Meeting. St. Petersburg, FL)
- Bayne, C.J., **Demers, N.E.** and Gerwick, L. (August, 2000) The Modulation of Innate Immunity Plenary Lecture. (11<sup>th</sup> Scientific Meeting of the Japanese Association for Developmental and Comparative Immunology, Tokyo, Japan)
- Meers, M.B., **Demers, N.E.** and Savarese, M. (June, 2000) Scientific Process: A Course Introducing the Philosophy, Methods, and Ethics of Science. Evolution 2000, (Joint Annual Meeting of the Society for the Study of Evolution, The American Society of Naturalists. The Society of Systematic Biologists, and The Association of Tropical Biologists).
- Demers, N.E.** (April, 2000) Environmental Stressors and Innate Immunity: Is there a Correlation? (Comparative Immunology Symposium, Florida International University. Miami)
- Sullivan, D. B. and **Demers, N.E.** (April 1999) Engendering Critical Thinking with Reflective and Self-Evaluative Web Board Experiences: (Tenth International Conference on College Teaching and Learning. Jacksonville, FL)
- Demers, N.E.**, Kakareka, J., Sullivan, D. B., Everham, E. E., McDonald, M., Tolley, S. G. and Wisdom, J. (April, 1999) Integrating Arts & Sciences Learning at FGCU — A progress report: (Tenth International Conference on College Teaching and Learning. Jacksonville, FL)
- Baylen, D. and **Demers, N.E.** (February, 1999) Electronic conversations, delusions and hallucinations — Interactive communication issues in a computer-mediated classroom: AECT (Association for Educational Communications & Technology Houston, TX)
- Demers, N.E.**, Mayberry, S., Sullivan, B., Bevins, T. and Greene, P. (December, 1998) Using Web-Based Bulletin Boards as an “Added Dimension” in Face-to-Face Classes (Strategic Alliance for Distance Learning, Fourth Annual Distance Learning Conference Naples, FL)
- Demers, N.E.** (March, 1998) Does acute stress enhance innate immunity? (Eastern Fish Health Workshop. Plymouth, MA)
- Savarese, M., **Demers, N.E.** and Meers, M. (February, 1998) “Scientific Process”: A course introducing the philosophy, methods, and ethics of science in preparation for independent research (American Geophysical Union. San Francisco, CA)

**Demers, N.E.**, (July, 1997) Acute plasma hormonal changes within minutes of acute stress in rainbow trout: (International Society of Developmental and Comparative Immunologist Williamsburg, VA)

**Demers, N.E.** Gerwick, L. and Bayne, C. J. (April, 1996) Why Anesthetize? Poster presentation: Conference on Modulation of Immune Responses (The Evolutionary Trail. Maui, HI)

## **PROFESSIONAL ORGANIZATIONS MEMBERSHIP:**

National Science Teachers Association (NSTA)  
Gopher Tortoise Council (GTC)  
American Water Resources Association (AWRA)

## **CONFERENCE PLANNING (CO-ORGANIZED):**

[Cela Tega 2020](#): The Estero Bay is in trouble and what citizens can do to help.  
[Resiliency and Adaptation planning in the Estero Bay Region Cela Tega](#) FGCU (Dec, 2016)  
“Melting the Ice in the Hearts of Man” Angaangaq Angakkorsuaq (Uncle Eskimo Elder, Healer, Teacher, Shaman, Storyteller) (Nov 2013) FGCU  
Viewing of the film SHORED UP (Nov, 2013) FGCU  
Exploring the Legacy of Rachel Carson 50 years after the publication of Silent Spring Film, Lecture Series and Student-led events (Sept, 2012) FGCU  
[Estero Bay Economic Value of Conservation Lands Cela Tega](#) FGCU (Nov 2011)  
Livin’la Vida Local- for Community Engagement and Service Learning, FGCU (Oct, 2009)  
[Estero Bay Watershed Public Symposium](#) and [Art Exhibit](#), FGCU (Sept, 2009)  
[Estero Bay Land Acquisition Cela Tega](#) FGCU (Dec, 2008)  
[Estero Bay Land Management Cela Tega](#) FGCU (June, 2008)  
Gopher the Cache! A program for teachers of gifted students in Lee County, FL, FGCU (Aug, 2008) <http://itech.fgcu.edu/faculty/ndemers/Cache2008/index.htm>  
UFF-FGCU Open Forum on Workload Assignment (November, 2010)  
UFF-FGCU Open Forum on Faculty Evaluation (March, 2010)  
First International Conference on Mining Impacts to the Human and Natural Environments, Punta Gorda FL (March, 2008)  
<http://itech.fgcu.edu/faculty/ndemers/Mining/mcindex.htm>

## **TEACHING:**

### **Science lecture and laboratory:**

#### General Biology I

Scientific Process - Undergraduate Theory  
& Philosophy of Science  
Cell Biology

Current Topics in Biology: Innate Immunity  
of Organisms; Stress and Immunity;  
Micro-arrays; Environmental Endocrine  
Disruptors  
Genetics

### **Interdisciplinary:**

#### Issues in Science and Technology

Applied Integrated Sciences (for high  
school science teachers - integrated  
science teaching tools)  
Senior Seminar (Secondary education  
students - prepare toolbox for teaching)

#### Integrated Core Senior Seminar in Interdisciplinary Studies

#### University Colloquium: A Sustainable Future

Learning Principles (a graduate level  
Teacher Immersion Program course)

### **SUPERVISED STUDENT RESEARCH:**

- Gabby Herrejon (2019 BS Biology) Masculinization Evidence by Gonopodia Elongation in Female *Gambusia* (mosquitofish) of Southwest Florida
- Paula Quezada (2019 BS Biology) Comparing the Intestinal Parasite Loads of *Gopherus polyphemus* from Eight Sites in Southwest Florida
- Joelle Vernon (2019 BS Biology) An Evaluation of Predator Impacts on Loggerhead Sea Turtle Nests Along Developed or Natural Beaches in Collier County, Florida
- Brooke Hollan (2019 BS Biology) Searching for Evidence of Endocrine-Disrupting Compounds in *Gambusia holbrooki*
- Cierra Canty (2019 BS Biology) An Examination of Evidence of Morphological Changes in *Gambusia holbrooki* due to Exposure to Androgenic Endocrine-Disrupting Compounds
- Alexandria Nieve (2019 BS Biology) Gopher Tortoise Habitat loss and Relocations Over a 10-Year Span.
- Meghan Gilliland and Emily Davies (2019) Collier County 2006 Beach Renourishment Project Effects on Loggerhead Sea Turtle Nesting & Hatchling Success
- Sarah Burnham (2019) Does the Diet of Gopher Tortoises in Non-captive Environments Affect Their Parasite Egg Load?
- Richard Artola (2019) Variation in Parasite Egg Load Among Adult and Juvenile Gopher Tortoises
- Kellie Pernula (2019) Analysis of Habitat and Parasite Egg Load in Individuals of *Gopherus polyphemus* from Naples Preserve Conservation Site
- Thomas Rocco (2019) Habitat Restoration & Enhancement at Barefoot Beach Preserve, Collier County, Florida using Mechanical Removal as Simulated Fire
- Shea Gagnon (2019) Analysis of triclosan in surface water of Southwest Florida using solid phase extraction (SPE) and liquid chromatography tandem mass spectrometry (LCMS)
- Kristen Bennett (2019) Water Quality Analysis for Bis (2-ethylhexyl) phthalate (DEHP) in Southwest Florida Using Solid Phase Extraction (SPE) and Liquid Chromatography Tandem Mass Spectrometry (LCMS)
- Laura Montalvo (2019) Analysis of Atrazine Concentrations in Water Samples Taken in South West Florida Using Liquid Chromatography Tandem Mass Spectrometry
- Allison Loeffler (2019) Developing methods to analyze histopathology of freshwater fish species for evidence of reproductive abnormalities secondary to endocrine disruption
- Nick Orthmann (2019) Endocrine Disruption and its Effects on the Secondary Sex Characteristics of Live-Bearing Fish in a Community with Septic Tanks and Lawn Chemicals in Southwest Florida
- Abigail Brown (2019) Morphological Abnormalities in Poeciliid Fish in the Waterways of a Community Relying on Septic Tanks and Producing Lawn Runoff
- Leah Kligerman (2019) Can Zoo Visitors act as Citizen Scientists to help Zookeepers learn more about their Animals' Daily Activities?
- Lacey Pischner (2019) Analyzing surface water samples among different sub-basins of a residential area with septic tanks for seasonal trends in sucralose concentrations and water quality parameters
- Chris Hormuth BA, Environmental Studies and Sabrina Suarez B.S. Biology (2018) The Ins and Outs of Gopher Tortoises: Foraging Habitat and Harbored Parasites

Vivien Singh, Lawrence Joseph, Jany Rodriguez, Shanley Mastin (2018) Study of Intra-Species Interactions of *Gopherus polyphemus* at Barefoot Beach Preserve, Collier County, Florida

Drew Hahn, Whitney Hodge, Nathalia Chianco, and Brielle Bickford (2018) Effects of Human Interaction with the Gopher Tortoise's Population of Collier County's Barefoot Beach Preserve

Brierra Mack, Stephanie Adelson, and Jessica Dunn (2018) The Effects of Mechanical Removal of Ragweed (*Ambrosia hispidula*) on abundance and Biodiversity of Forage Vegetation for *Gopherus polyphemus* at Barefoot Beach Preserve, Collier County Florida

Alecia Sabourin and Lucas Doran B.S. Biology (2017) A comparative analysis of surface waters and their chemical concentrations in a community dense with septic tanks

Jackie Marquez and Anna Breeden B.A. Environmental Studies (2017) Using a Vegetative Plot Survey to Determine how Manual Restoration affects Habitat at Barefoot Beach Preserve, Collier County Florida.

Jade Chalkey, B.A. Environmental Studies (2017) An Evaluation of The data acquired from 2017 forming lasting opportunities for commuters (F.L.O.C.) week.

Felicia Nudo, BA Environmental Studies (2017) The relationship between littering behaviors and demographics (San Carlos Park, Lee County, Florida).

Elizabeth Birth, Dittmer, Haley and Jenkins, Katie B.S. Biology (2017) Comparative study examining diversity of vertebrates utilizing gopher tortoise (*Gopherus polyphemus*) burrows at Florida Gulf Coast University's Buckingham campus.

Ivy Nys, B.A. Environmental Studies (Spring, 2017) The Movement and Forage Activity of *Gopherus polyphemus* at Barefoot Beach Preserve.

Rachel Walter, B.S. Biology (Honors) (2017) Concentrations of chemicals of emerging concern in private and public water supplies in southwest Florida.

Lucas DeArmond, & Coats, Michael, B.S. Biology (2016) Examining sources of nutrients in the East Mulloch Drainage District using stable nitrogen isotopes.

Kelly Ussia, B.S. Biology (2014) Gopher Tortoises and their habitat at Bowman Beach, Fort Myers, Beach, FL

Eric Frankovitch, B.A. Environmental Studies (2013) Flow and Nutrients in San Carlos Park/Mulloch Creek, Lee County, FL

Amanda Maltz, B.A. Environmental Studies (2011) An investigation of ghost crab (*Ocypode quadrata*) burrow density as a biological indicator of habitat degradation on two urban beaches in southwest Florida.

Alison Blanco M.A. in Environmental Science (2009) The effect of fire on florida panther den site.

Conny Spurfeld B.S. Biology (2008) and Candy Long B.S. Environmental Studies (2008) Analysis of Gopher tortoise population structure to evaluate relocation success.

Tanesha Brown B.A. Biology (2008) Determination of source of nitrogen pollutants in San Carlos Park, a sub basin of the Estero Bay watershed, Lee County, Florida.

Tuyet Le B.A. Biology (2008) Examination of gopher tortoise behavior at Barefoot Beach Preserve, Collier County, Florida.

Lauren Galluzzo, B.A. Biology (2005) Gopher tortoise burrow environment analysis.

Meghan Auchter, B.A. Biology (2005) An examination of a population of Gopher Tortoises (*Gopherus polyphemus*) at Florida Gulf Coast University, Lee County, Florida.

Narissa Parnell, B.A. Environmental Studies, (2005) An examination of a population of Gopher Tortoises (*Gopherus polyphemus*) at Hickey Creek Mitigation Park, Lee County, Florida.

Jessica Jones, BA Biology (2004) Comparison of lysozyme levels between apparently healthy and unhealthy dogs and cats.

Lenore Bishop, B.A. Environmental Studies (2002) The population of Gopher Tortoises (*Gopherus polyphemus*) at Hickey Creek Mitigation Park, Lee County, Florida.

Christopher Burt, B.A. Biology (2001) A comparison of nesting and hatchling success of Loggerhead Sea Turtles on developed and undeveloped barrier islands.

Meredith Myers, B.A. Biology (2001) Comparison of Appetite Suppression in children taking Concerta® versus children taking Ritalin® for ADD/ADHD.

Anthony Lotter, B.A. Biology (2001) L.A.S.I.K. Surgery and Cataracts: Decreasing the need for a second surgery with alteration in measurements.

Elizabeth Meaney, B.A. Biology, (2001) Is the incidence of violent rape rising in Lee County, Florida?

Rebecca Hill, B.A. Biology, (2000) Measuring microbial diversity in native and *Melaleuca* infested sites on the FGCU campus.

Sabrina von Brueckwitz, B.A. Biology, (2000) Evolution of Duchenne Muscular Dystrophy and its Relationship to Animal Models in Biomedical Research.

Jennifer Hitzing, B.A Biology, (2000) An evaluation of diagnosis and treatment of ADD and ADHD in children in the FGCU five county service area.

#### **OTHER TEACHING EXPERIENCE:**

##### **Visiting Member of the Faculty, Organismal Biology, The Evergreen State College**

Instructor for Molecule to Organism, a year-long, junior/senior level integrated Biology/Chemistry program of nearly 80 students, taught by a three-person team.

Developed and taught lab and lecture components of the course including: Zoology, Human Anatomy & Physiology, Plant Biology, Immunology

Supervised student research: Assaying antibacterial properties of Allicin (garlic extract); Can we detect estrogenic hormones in water effluents of sewage outfall plants in Olympia, Washington with tests for detection of Vitellogenin in plasma of male trout?

##### **Graduate Teaching Assistant, Oregon State University**

Dept. of Fisheries and Wildlife, OSU/HMSC. Aqua-Culture Laboratory Courses Teaching Assistant, (1994-1996). Culture methods of salmon, oyster, tilapia, and marine algae.

Department of Zoology. Human Anatomy and Physiology Laboratory (1994-1996 and 1990-1991). General Biology Laboratory (1990-1991)

#### **PROFESSIONAL DEVELOPMENT:**

##### **(Workshops & Conference Participation, excluding presentations):**

2017	POGIL North Central Regional Workshop
2015-2016	STEM Professional Academy to Reinvigorate the Culture of Teaching (SPARCT) program Whitaker Center, FGCU, Ft Myers, FL
June 2013	POGIL (Process Oriented Guided Inquiry Lab) St. Petersburg, FL
May 2013	NSF-TUES CCWCS (Chemistry Collaborations, Workshops & Communities of Scholars) Environmental Chemistry Atlanta, GA
Jan, 2013	American Water Resources Association Water and Energy Fort Myers, FL

Nov, 2012	Project Kaleidoscope (PKAL) — Advancing what works in STEM education Kansas City, MO
Nov, 2012	Association of American Colleges and University Next Generation STEM Learning: Investigate, Innovate, Inspire Kansas City, MO
June, 2011	Best Teachers' Summer Institute. Bain Workshop, New York City area, NJ
Aug, 2010	Florida Magazine Association Annual Publishing Conference, Orlando, FL
2009-2010	Fl. Campus Compact Service-Learning Mentor/mentee program
Oct, 2009	Livin' La Vida Local Service Learning Institute, FGCU
July, 2009	AAAS Vision & Change in Undergraduate Biology, Invited workshop, DC
July, 2008	Bioscience Education Network (BEN) Workshop; Washington, DC
July, 2007	Community Based Participatory Research Summer Institute Jackson, MS
Aug, 2006	Gordon Research Conference on Science and Technology Policy, Big, Sky, MT
July, 2005	Gordon Research Conference on Visualization in Science and Education, Oxford, UK
Mar, 2005	Comparative Immunology Symposium, Florida International University
Aug, 2004	Gordon Research Conference on Science and Technology Policy, Big, Sky, MT
Oct, 2003	Gopher Tortoise Council Annual Meeting, Weiwaka Springs, FL
Aug, 2003	NIH NHGRI Genome Workshop, Bethesda, MD
Apr, 2003	Eastern Fish Health Workshop, Gettysburg, PA
Aug, 2002	NSF Molecular Genetics Center for Workshop in Chemical Sciences, Atlanta, GA
Aug, 2001	Gopher Tortoise Conservation Initiative Field Training, Newberry, FL
Mar, 2001	Comparative Immunology Symposium, Florida International University
Oct, 2000	Gopher Tortoise Council Annual Meeting, Aiken S.C.
May, 2000	American Association of Immunologists, Seattle, WA
1998-1999	FGCU Leadership Diversity Program participant
Apr, 1999	Puget Sound Nature, Land and People Closing Symposium, NSF Puget Sound Institutes, The Evergreen State College
Jan, 1999	NSF National Association of GeoSciences Teachers Workshop for Early Career Faculty
Nov, 1998	A Day at Alverno: Outcomes Based Learning
Jun, 1997	NSF Puget Sound Institute: Naturalist's Field Journal Institute The Evergreen State College

## **SERVICE ACCOMPLISHMENTS:**

### **Professional and Community Service:**

2015-present	Representative to the Estero Bay Agency on Bay Management for the Hapnehatchee Center
2002-present	Manuscript reviewer: Journal of College Science Teaching
2012-present	Vice-Chair person Estero Bay Agency on Bay Management
2012-2016	Manuscript Reviewer: Journal of Fish Biology
2012-2015	Manuscript Reviewer North American Journal of Aquaculture
2011	Estero Bay Agency on Bay Management Environmental Stewardship Award for Exemplary Service
2008-2009	Grant Reviewer Florida Fish and Wildlife Conservation Commission (FFWCC)

2008	Participated in Gopher the Cache! I developed and delivered a daylong training session about Gopher tortoises and their habitat for the teachers who then taught their (gifted) students. <a href="http://itech.fgcu.edu/faculty/ndemers/Cache2008/index.htm">http://itech.fgcu.edu/faculty/ndemers/Cache2008/index.htm</a>
2006-2009	FGCU affiliate for AAUW- Lee Chapter
2005-2006	Grant proposal reviewer: National Fish and Wildlife Foundation
2003-2015	Representative to the Estero Bay Agency on Bay Management for the Responsible Growth Management Coalition (RGMC)
2002-2008	Board member and Secretary: RGMC
2001- 2004	Lee County Smart Growth Initiative
2000- 2001	Manuscript reviewer: Journal of Invertebrate Pathology
2000-2001	Grant proposal reviewer: Virginia Sea Grant, Jeffress Memorial Trust, National Wildlife Federation
1997-1999	Judge, Science Fairs; Lee and Collier County, Florida Schools

#### **University Service:**

2016-present	United Faculty of Florida Secretary
2015-present	Safety and Facilities Committee Faculty Senate Representative to Planning and Budget Council Committee
2015-present	Alternate Faculty Senator
2011-present	FGCU Faculty Advisor to Food Forest Advisory Council
2012-2013	Environmental Sustainability Committee Faculty Senate Representative to Planning and Budget
2011-2012	Facilitator Whitaker Center for STEM Education
2011-2012	Whitaker Center Director search committee member
2011-2014	Faculty Senate Team Institutional Affairs, Facilitator
2004-2006 and 2010-2014	Whitaker Center for Science Math and Education Technology Leadership Team member
2011-2012, 2017	Judge Research Day, FGCU Office of Research and Sponsored Programs
2010-2011	Senate Team Teaching Excellence Selection committee
2008, 2011	Senate Team Faculty Service Award Selection committee
2008-2014	United Faculty of Florida Secretary
2006-2007	American Democracy Program, General Education Council, Transition Service Learning team
2006-2007	Search Committee Instructional designer position
2006-2009	UFF Interest Based Bargaining Team
2004- 2006	Graduate Affairs Committee Member, Faculty Senate
2005- 2007	Library Team Committee Members, Faculty Senate Chair 2007
2002-2006	Chair, Research Safety Committee
2000-2005	ADA Advisory Council Member
1999-2001	Chair, Institutional Affairs Standing Team, FGCU Senate
1998	Chair, Pilot Project for Student Evaluations of Faculty at FGCU
1998	Co-author, draft Comprehensive University Environment Policy, FGCU
1997	Chair, Inaugural By-laws Committee, FGCU Senate (composed by-laws)



1997                      Inaugural University Library Committee Member

**College Service:**

2018                      Organizer Natural Science Undergraduate Research Symposium, Spring semester

2012-2013              Search committee member: Cell Biology

2011-2012              Search committee member: Human Biologist

2010-2016              Reviewer B.S. Biology degree Senior Research Projects

2010-2011              Associate Professor Biologist Search

2009-2010              Cell Biology Search committee

2008-2009              B.A. Capstone Course Development Team

2006-2007              Search committee member: Math instructor

2006-2007              Search Committee member: Comparative Biologist, Behavior Ecologist

2005-2006              Ephemeral College Governance Team

2000-2012              Division of Interdisciplinary Studies Curriculum Committee

2000-2001              College of Arts & Sciences Web Design Committee Member

1997-2000              Biology Program Director, College of Arts & Sciences, FGCU

1997- 2001              Organizer: College of Arts & Sciences Interdisciplinary Student Symposium

1998-2001              Reviewer, Ampersand, on-line journal, College of Arts & Sciences

1998-2001              Institutional Affairs Faculty Senate, College of Arts & Sciences Representative

1997-2000              FGCU Faculty Senate, College of Arts & Sciences Representative

1999                      Co-editor: College of Arts & Sciences Newsletter

1999                      Co-organizer: Girl Scout Science Day at FGCU

1997-1999              Chair, Arts & Sciences Symposium Committee

1991-1996              Organizer Biology Graduate Symposium at Hatfield Marine Science Center, Newport, OR

**AWARDS**

2018                      Aquila Award for Outstanding Student Scholarship Support

2011                      Estero Bay Agency on Bay Management Environmental Stewardship Award for Exemplary service