JAMES J. TALLMAN

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STATEMENT OF INTEREST

My interests focus on marine microbial ecology, genomics, proteomics, and molecular biology. Most recently and specifically, these interests apply to marine bacterial pathogens, such as members of the genus *Vibrio*. My interests also include the proteomic analysis of polycyclic aromatic hydrocarbon (PAH) degradation by marine bacteria and the isolation of bacterial flora from the digestive tracts of marine fish and invertebrates.

EDUCATION

Texas A&M University – Corpus Christi – Corpus Christi, Texas **Graduated: August 2014**
Bachelor of Science in Biology with Emphasis in Marine Biology **GPA: 3.68**

SCHOLARSHIPS AWARDED

Rising Scholar Scholarship, $500 2011-2012

GRANTS AWARDED

Federal Pell Grant, $22,200 2011-2012

RESEARCH EXPERIENCE

Undergraduate Researcher 2013-present
Texas A&M University – Corpus Christi
Harte Research Institute for Gulf of Mexico Studies
Lab of Christopher E. Bird, Ph.D. and J. Derek Hogan, Ph.D.

"Texas Gulf Coast Bay polychaete (*Streblospio benedicti)* population connectivity and salinity-influenced selection."

This study aims to test the population structure, connectivity, and genetic variation of the polychaete worm, *S. benedicti.* Individuals were collected from seven Texas Bay systems (Oso Bay, Nueces Bay, Baffin Bay, Copano Bay, San Antonio Bay, Matagorda Bay, and Galveston Bay) along their respective salinity gradients. Genome wide scans using RADseq were conducted for each site. We hope to reveal loci that may be under selection with respect to variations in salinity.

"Comparative study of the location/island-specific morphological adaptations of the Hawaiian limpet species *Cellana exarata*."

The shells of limpets collected within the Northwestern Hawaiian Islands were morphometrically analyzed and shell characteristics were catalogued. Characters were compared across sites for analyses of the effects of ecological factors and stressors on the allocation of energy to shell growth.

Ecological Vegetation Surveyor 2013
Texas A&M University – Corpus Christi
Principal Investigator – Roy Lehman, Ph.D.
TAMU-CC Laguna Madre Field Station island ecological vegetation survey – we determined halophytic plant zonation, distribution, diversity, and species richness on the island. In addition, an elevation survey and soil survey were conducted. We found in each of five zones circumferential to one another a single dominant plant species.

WORK EXPERIENCE

Laboratory Technician – Marine Molecular Ecology Laboratory 2014-present
Texas A&M University – Corpus Christi
Harte Research Institute for Gulf of Mexico Studies
Lab of Christopher E. Bird, Ph.D. and J. Derek Hogan, Ph.D.
Responsibilities: DNA extractions, PCR, ezRAD library preparation, DNA quantification, qPCR, gel electrophoresis, data analysis, and maintenance of laboratory equipment.

I.T. Technician 2011-2012
Northwest Vista College – San Antonio, Texas
Work-Study Student Support Team Member
Responsibilities: providing computer and student/employee technical support by phone and in person; preparing/modifying workstations for new and existing faculty and staff; organizing and cataloguing/transport of I.T. inventory; campus-wide manual updating of student computers and employee workstations.

RELEVANT RESEARCH EXPERIENCE AND SKILLS

Labwork

- ezRAD library prep, PCR, gel electrophoresis, AccuBlue DNA quant., DNA extraction, DNA Size Selection, qPCR
- Ident. of estuarine flora and fauna
- Microtechnique and slide preparation
- Taxidermic techniques and animal husbandry
- Morphometric analysis techniques
- Microsoft Office, Apple iWork, Geneious software, computer hardware proficiency
- Use of microbiological instruments, organic chemistry apparatuses, dissection tools, etc.
- Excellent scientific/technical writing skills

Fieldwork

- Ecological surveying of plants/invertebrates
- Transect/quadrat running
- Substrate/seawater salinity testing
- Precise organism dissection, specimen capture
- Marine and freshwater sampling techniques
- Use of electrofisher, epibenthic sled, seine, Hydrolab DataSonde, otter trawl, sand pump, drop/sweep net, core sampler, etc.

PROFESSIONAL ORGANIZATION MEMBERSHIP

SACNAS - Society for Advancement of Chicanos and Native Americans in Science 2014-present

Texas A&M University – Corpus Christi Animal Science Club 2014-present

Golden Key International Honour Society 2013-present

Phi Theta Kappa 2012-present

Texas A&M University – Corpus Christi SCUBA Club 2012

COMMUNITY OUTREACH

Opihi Partnership – Corpus Christi, Texas 2013-present
Assisting Hawaiian communities to manage marine resources

Earth Day San Antonio – San Antonio, Texas 2010
Fundraising Festival Volunteer

San Antonio Graffiti Wipeout/Tree Planting – San Antonio, Texas 2010
Tree Planting Volunteer

Drug Education for Youth (D.E.F.Y.) – San Antonio, Texas 2006
Junior Mentor

RELEVANT COURSEWORK

Quantitative Foundations:	Statistics, Calculus
Oceanography Foundations:	General Chemistry, Organic Chemistry I, Organic Chemistry II
Marine Ecology Foundations:	Marine Ecology, Marine Botany, Principles of Ecology
Area of Conc. Competency:	Ichthyology, Vertebrate Biology, Genetics, Microbiology, Estuarine Organisms
Scientific Inquiry Competency:	Plant Ecology, Principles of Ecology
Effective Comm. Competency:	Speech Communication

REFERENCES

Christopher Bird, Ph.D.	Texas A&M University – Corpus Christi, Assistant Professor (361) 244-9089, chris.bird@tamucc.edu
Derek Hogan, Ph.D.	Texas A&M University – Corpus Christi, Assistant Professor (361) 825-5883, james.hogan@tamucc.edu
Luke Tornabene, M.S.	Texas A&M University – Corpus Christi, Doctoral Student (631) 383-2496, luke.tornabene@tamucc.edu