

Curriculum Vitae  
Adam M. Bynum  
Our Lady of the Lake University  
San Antonio, TX 78207  
(210) 528-6759  
abynum@ollusa.com

---

## EDUCATION

Texas A&M University Corpus Christi, Corpus Christi, TX 2022  
M.S Marine Biology  
4.00 GPA

University of Dayton, Dayton, OH 2014  
B.S. Biology  
3.78 GPA  
*Magna Cum Laude*

## RESEARCH EXPERIENCE

**Research Assistant** 2016-2018  
Texas A&M University Corpus Christi (TAMUCC), Corpus Christi, TX  
Department of Life Sciences

## TEACHING

**Instructor of Biology** 2022-current  
Our Lady of the Lake University, San Antonio, TX  
College of Arts and Sciences

**Adjunct Professor** 2021-2022  
Our Lady of the Lake University, San Antonio, TX  
College of Arts and Sciences

**Adjunct Professor** 2021-2022  
University of the Incarnate Word, San Antonio, TX  
Department of Biology

**Teaching Assistant** 2015-2018  
Texas A&M University Corpus Christi (TAMUCC), Corpus Christi, TX  
Department of Life Sciences

Course Name	Class Code	Semester
General Biology II	BIOL1402	Current
General Biology I	BIOL 1401	Current
General Biology II Lab	BIOL 1402L	Current
General Biology I Lab	BIOL 1401L	Current
Ecology	BIOL 2455	Current
Evolution	BIOL 3465	Current
Evolution Lab	BIOL 3465L	Current
General Human Anatomy & Physiology II	BIOL 1422	Spring 2023
Invertebrate Zoology	BIOL 4480	Summer 2023
Invertebrate Zoology	BIOL 4480L	Summer 2023
Molecular & Cell Biology	BIOL 2430	Fall 2023
Molecular & Cell Biology Lab	BIOL 2430L	Fall 2023



## PRESENTATIONS

<b>3 Minute Thesis Competition</b> , Corpus Christi, TX	2017
Modeling Genetic Diversity in Non-Equilibrium Populations	
<b>Marine Graduate Student Organization Student Symposium</b> , Corpus Christi, TX	2016
Modeling Genetic Diversity in Non-Equilibrium Populations	
<b>COS Research Conference</b> , San Antonio, TX	2016
Modeling Genetic Diversity in Non-Equilibrium Populations	
<b>Texas A&amp;M Systems Marine Biology Retreat</b> , Corpus Christi, TX	2016
Modeling Genetic Diversity in Non-Equilibrium Populations	

## THESIS

### *Behavior of Popular Indices of Genetic Diversity in Simulated Expanding Populations*

We report the effects of mutation rate ( $\mu$ ), initial population size ( $N_{e0}$ ), and final population size ( $N_{e1}$ ) on the accumulation of genetic diversity in expanding populations using a Wright-Fisher forward time model built with SLiM2. Using a 300 bp sequence to simulate modern genome-wide surveys of genetic variation (RAD), a range of naturally occurring mutation rates, and population sizes, multiple models were created to cover a broad portion of parameter space, and six commonly reported measures of genetic diversity were analyzed.

## RESEARCH EXPERIENCE

<i>Population Genetic Modeling</i> Corpus Christi, TX	2015-2021
examining how genetic diversity behaves in non-equilibrium conditions. Forward time and coalescent genetic simulations were created, run, and analyzed on the local high-performance cluster (HPC).	
<i>Research Project Development</i> Dayton, OH	2013
Assisted in starting and developing a research project concerning the local aquatic life and the impact of removing low dams found within the local watershed. Scouted research sites, created a first draft of a research proposal, and contacted several community leaders to provide support and insight.	
<i>Macroinvertebrate Sampling of Local Watershed</i> Dayton, OH	2013
Created a aquatic macroinvertebrate key for the Rivers Institute to use during summer programs. Taught colleagues how to use the key and how to teach sampling to K through 12 students. Led multiple sampling and identification programs.	
<i>Forensic Applications of Decomposition Biology</i> Dayton, OH	2011
Identified various species of blow flies that were collected at field sites where decaying pigs were placed. Input results into a database for later analysis.	



