

## CURRICULUM VITAE

### ANTHONY MALDONADO-CASTRO

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#### EDUCATION

<b>Intern</b> <b>Royal Botanic Gardens, Kew, London, UK</b>	<b>September 2018 – 2020</b>
<b>MSc. Plant and Fungal Taxonomy, Biodiversity and Conservation</b> <b>School of Biological and Chemical Sciences, Queen Mary University of London</b>	<b>September 2018 – present</b>
<b>BS in Biology</b> <b>University of Puerto Rico, Cayey Campus</b>	<b>August 2012 – August 2017</b>
<b>Exchange Studies</b> <b>Memorial University of Newfoundland, Grenfell Campus (NL, Canada)</b>	<b>August – December 2014</b>
<b>Antonio Fernós Isern High School, San Lorenzo Puerto Rico</b>	<b>August 2010 – May 2012</b>

#### AWARDS

<b>Member of the Honor Roll at the University of Puerto Rico, Cayey Campus</b>	<b>2013 - Present</b>
<b>Office of Youth Affairs (San Juan, PR):</b> Economic funding for school and university students that want to go on an exchange program in foreign countries.	<b>August – December 2014</b>
<b>Municipality of Caguas Scholarship for University Students</b>	<b>August 2014</b>

#### RESEARCH EXPERIENCE

<b>Royal Botanic Gardens, Kew</b> Biogeography and conservation status of the endangered plant <i>Varronia bellonis</i> (Boraginaceae), an endemic from Caribbean island of Puerto Rico, part of the USFWS conservation plan for listed species under the federal Endangered Species Act.	<b>September 2018 – 2020</b>
<b>The Botanical Garden Herbarium of the University of Puerto Rico</b> Working alongside Dr. Eugenio Santiago, curator, studying two species of <i>Tabebuia</i> trees, <i>T. rigida</i> and <i>T. Schumanniana</i> . Our goal is to discover new traits for differentiating the two species using morphometric and statistical analysis to study leaf and floral measurements.	<b>January 2016 – August 2017</b>
<b>University of Puerto Rico, Genomics Education Partnership:</b> Our group worked with sequence data for several species of <i>Drosophila</i> in order to turn it into a high quality sequence, annotate genes and construct gene models for better understanding of genomics, proteomics and phylogenetic questions about the genus.	<b>August – December 2016</b>
<b>University of Puerto Rico, International Institute of Tropical Forestry (IITS):</b> Under the guidance of Dr. Luz Betancourt (University of Puerto Rico) and Dr. Ariel Lugo (IITS Director) we collected, measured, and analyzed soil samples from a Primary Forest and a Secondary Forest at El Yunque. Our goal was to study how secondary forests can rehabilitate after years of natural regeneration following the abandonment of former land used for agriculture. We focused mainly on soil metals and elements used by plants.	<b>August 2015 – May 2016</b>
<b>Robert G. Franks Lab, North Carolina State University:</b> We aimed to identify the role of the “Seuss” gene in seed development by using an inducible Seuss construct in single mutant plants, in order to measure gene activity in <i>Arabidopsis thaliana</i> , using Molecular Biology techniques, such as qrt-PCR, E. coli and <i>A. tumefaciens</i> , among others.	<b>Summer 2014</b>

**Research Initiative for Science Enhancement Program (RISE), University of Puerto Rico**

January – May 2014

This program gives undergraduates students to gain experience in a variety of laboratory techniques in different sciences, such as Biology, Chemistry, Physics, and Biochemistry, as well as presentation and scientific writing skills.

**Howard Hughes Medical Institute Program (University of Puerto Rico)**

January – May 2014

We isolated Mycobacteriophages from the tropical soils of Puerto Rico. The goal was to discover novel phages in order to isolate, sequence, and study their DNA, using Molecular Biology and Bioinformatics techniques. The aim of the Howard Hughes Medical Institute is to use the newly discovered phages in medical therapies.

## WORK EXPERIENCE

**Estancia Montessori School**

January 2018 – May 2018

Gurabo, Puerto Rico

Science Teacher for middle and high school levels

**The Botanical Garden Herbarium of the University of Puerto Rico**

Summer 2016

Collection Manager Assistant: Tasks included collecting, pressing, mounting and preparing new specimens for the collection, processing loans and exchanges from international herbariums. Additionally, I attended visitors, restored specimens, among other curatorial and administrative tasks.

## VOLUNTEERING WORK

**International Institute of Tropical Forestry**

Summer 2015

We worked on developing an inventory of tree species growing in the State Forest of San Patricio (Guaynabo, Puerto Rico), a young secondary urban forest within the city. The goal is to keep track of the level or restoration of the forest through time, as well as the quantity and diversity of tree species.

**Herbarium of the University of Puerto Rico, Rio Piedras Campus**

January – May 2015

My job consisted in helping with specimen preparation, digitalization of the collection, collecting specimens, among other tasks.

**Memorial University of Newfoundland, Grenfell Campus:**

August – December 2014

Voluntary work with Dr. Dmitry Sveshnikov collecting, preparing and studying tree bark samples from various regions in Newfoundland in order to determine the influence of bark pH in lichen development

## PRESENTATIONS

**Plants, People Planet Symposium, Kew, London, UK**

September 2019

Anthony Maldonado et al. "Biogeography and conservation status of the endangered plant *Varronia bellonis* (Boraginaceae)"

**XIV Investigators' Encounter, Turabo University (Caguas, Puerto Rico)**

March 4, 2016

Anthony Maldonado, Natalie Delgado, Marijulie Martínez, Alejandro Marengo, Dr. Luz Betancourt, Dr. Ariel Lugo, Mary J. Mary J. Sánchez. "Chemical Characterization of a Primary Forest and a Secondary Forest at El Yunque"

**3<sup>rd</sup> Student Encounter of Research, Creation and Community Service, University of Puerto Rico**

December 2015

Anthony Maldonado, Natalie Delgado, Marijulie Martínez, Alejandro Marengo, Dr. Luz Betancourt, Dr. Ariel Lugo, Mary J. Mary J. Sánchez. "Chemical Characterization of a Primary Forest and a Secondary Forest at El Yunque"

**13<sup>th</sup> Annual Undergraduate Research Symposium, North Carolina State University**

July 30, 2014

Anthony Maldonado-Castro, Robert G. Franks, "Identifying targets of SEUSS transcriptional co-regulator during ovule and seed development in *Arabidopsis thaliana*"

**Research Initiative for Science Enhancement Program (RISE), University of Puerto Rico**

April 25, 2014

Anthony Maldonado Castro, A. Vargas, D. Pérez-Rivera, H. Méndez-Colon. "Isolation and Characterization Of Bacteriophages in Tropical Soils of Puerto Rico".

**RISE Program Undergraduate Research Symposium, University of Puerto Rico**

Anthony Maldonado Castro, Félix Valles Feliciano. "Protein Separation Using Magnetic Nanoparticles"

**May 16, 2014****SKILLS**

Extensive experience in molecular biology and genetics laboratory.

Experience in field work biological and botanical research.

Languages: Spanish (native), English (Fluent), Portuguese (Beginner).

Basic knowledge of IBM SPSS Statistics program, R, ArcGIS Pro and computer skills

**CLUBS AND ASSOCIATIONS**

Botanical Society of America

**2014 – 2015****ADDITIONAL INTERESTS**

Horticulture (one of life's greatest joys), languages (for travel and fun), traveling, cultural studies, political science (I like to be prepared in case I ever had to lead my country), philosophy, literature (preference for the romantic period), dancing, gastronomy, art (particularly neoclassical), popular music (latin and afrobeats anyone?), classical music (baroque music is exquisite, although romantic opera is unbeatable),