

# Isaac Natanael Aguilar Rivera | Curriculum Vitae

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PhD Student of Geobiology  
Div. Geological & Planetary Sciences  
California Institute of Technology

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Pasadena, CA

## Education

**UNIVERSITY OF CALIFORNIA, BERKELEY | GPA: 3.7**

**BERKELEY, CA**

Double Major

Dec. 2022

**B.S.** Molecular Environmental Biology | Biodiversity

**B.S.** Ecosystem Management and Forestry | Natural Resource Management

**Minor** in Geospatial Information Science & Technology

## HONORS THESIS

**ESTACION CIENTIFICA LAS JOYAS, JALISCO**

Monitoring Biodiversity with Environmental DNA and Camera Traps in the Sierra de Manantlán, MEX

Advisors: Dr. Arthur Middleton, Dr. Juan Pablo Esparza Carlos (Guadalajara), Dr. Rachel Meyer (UCSC)

## Research Experience

**DIV. GEOLOGICAL & PLANETARY SCI. | CALTECH**

**PASADENA, CA**

PhD Student

Aug. 2024 – Present

Advisor: Dr. Julia Tejada

**DEPT. ECOLOGY & EVO. BIOLOGY | UC LOS ANGELES**

**LOS ANGELES, CA**

Lab Technician and PANGEA Project Coordinator

Nov. 2023 – Aug. 2024

Supervisor: Dr. Elsa Ordway

**DEPT. ECO., EVO., & BEHAVIOR | UC SAN DIEGO**

**WILSON COVE FIELD STATION, CA**

San Clemente Island Argentine Ant Eradication Project Field Assistant

April – Oct. 2023

Supervisor: Dr. David Holway

**ESSIG MUSEUM OF ENTOMOLOGY | UC BERKELEY**

**BERKELEY, CA**

Work-Study Imagery Assistant

Feb. 2019 – Dec. 2022

Supervisor: Dr. Peter Oboyski

**INSTITUTE OF ARCTIC BIOLOGY | UA FAIRBANKS**

**TOOLIK FIELD STATION, AK**

Spatial and Environmental Data Center Technician

June – Aug. 2022

Supervisor: Dr. Amanda Young

**DEPT. OF INTEGRATIVE BIOLOGY | UC BERKELEY**

**MOOREA GUMP STATION, POLYNESIA**

IB 175LF Biology & Geomorphology of Tropical Islands Student

Aug. – Dec. 2021

Advisors: Dr. Stephanie Carlson, Dr. George Roderick, Dr. Seth Finnegan, & Dr. Brent Mishler

**DEPT. ECOLOGY & EVO. BIOLOGY | UC SANTA CRUZ**

**AÑO NUEVO ISLAND, CA**

Doris Duke Conservation Scholar Summer Intern

May – Aug. 2021

Advisors: Dr. Patrick Robinson, Dr. Claire Nasr, Dr. Daniel Costa, Dr. Abe Borker, & Dr. Erika Zavaleta

**DEPT. ENV. SCI. POLICY & MGMT. | UC BERKELEY**

**BERKELEY, CA**

Undergraduate Research Assistant

Jan. 2020 – May 2021

Advisors: Dr. Stephanie Carlson, Dr. Albert Ruhi, & Dr. Arthur Middleton

## Publications

1. **Aguilar, IN**, JP Esparza-Carlos, R Meyer, and AD Middleton. (In preparation). Monitoring biodiversity in the Sierra de Manantlán with Camera Traps and eDNA.
2. **Aguilar, IN**. 2022. Distribution of Avifauna in a Heterogeneous Tropical Pacific Island Forest. *Perrenial: The Undergraduate Environmental Journal of Berkeley* 4: 41-65.

## Mentorship and Service

### **PEER ADVISOR | UCB COLLEGE OF NATURAL RESOURCES** **AUG. 2020 – DEC. 2022**

- Provided holistic support for over 2,000 students to navigate academic policies and campus resources
- Engaged in peer advising training and development, public campus events, and college student socials

### **UNDERGRADUATE LEARNING MENTOR | UCB BIO 1B COURSE** **FALL 2022**

- Provided instructional support for 30 students in evolution, ecology, and organismal biology lab course

### **PRESIDENT | THE WILDLIFE SOCIETY AT BERKELEY** **AUG. 2020 – DEC. 2022**

- Started a student chapter of TWS to develop an inclusive community of wildlife enthusiasts
- Awarded a \$3,725 grant to increase accessibility to professional and academic development events

### **STUDENT REP. | CHANCELLOR'S ADVISORY COMMITTEE** **JAN. 2020 – MAY 2022**

- Working group discussing solutions for diversity, equity, and inclusion in sustainability initiatives

### **STUDENT REP. | RCNR STRATEGIC PLANNING WORK GROUP** **JAN. 2022 – MAY 2022**

- Developed educational success initiatives in a committee with peers and faculty selected by the Dean

### **STUDENT MENTOR | BRIDGING BERKELEY** **AUG. 2020 – MAY 2021**

- Assisted two local 6<sup>th</sup> grade mentees with academic support and transitioning to virtual learning

### **WRITER | STUDENT ENVIRONMENTAL RESOURCE CENTER** **AUG. 2020 – MAY 2021**

- Proposed, researched, and wrote articles on ecology and conservation for the virtual news platform
- Engaged in bi-weekly meetings for writing and professional development training

### **RESIDENTIAL ASSISTANT | UC BERKELEY RESLIFE** **AUG. 2019 – DEC. 2020**

- Provided holistic support for 60 first-year student residents to develop a supportive dorm environment
- Monitored security for >1,000 students in a campus residential complex with nightly round inspections

### **TREASURER | CAL FORESTRY CLUB** **AUG. 2020 – DEC. 2020**

- Managed student organization funds for professional and community development events

### **STUDENT ASSISTANT | ROSIE THE RIVETER NATL. HISTORIC PARK** **FEB. – MARCH 2020**

- Led groups of 20-30 local 4<sup>th</sup> grade students and chaperones through guided tours and activities

### **CAMP COUNSELOR | NATUREBRIDGE COASTAL CAMP** **MAY – AUG. 2019**

- Led and supervise 10-20 campers through hikes, naturalist tours, and outdoor education activities
- Assisted educators in lesson plan creation, outdoor risk management, and overnight trip planning.

## Skills & Abilities

- **Languages:** English and Spanish (Fluent); French and Portuguese (Rudimentary)
- **Software:** RStudio, ArcGIS Pro, QGIS, ENVI, Google Earth Engine, Adobe, Jupyter/Python, Bash, Excel

## Conferences and Symposia

1. American Geophysical Union Annual Meeting; <b>Washington DC, USA</b> Contributing poster on PANGEA report of a Pan-tropical effort to scope a potential NASA field and airborne campaign in tropical forests	<b>December 2024</b>
2. Global Land Programme 5 <sup>th</sup> Open Science Meeting; <b>Oaxaca, Mexico</b> Contributing organizer (EN/ES) for session on partnership strategies for co-producing research with diverse tropical communities	<b>November 2024</b>
3. Governor's Climate & Forests Task Force 14 <sup>th</sup> Annual Meeting; <b>Ucayali, Peru</b> Invited speaker (EN/ES) for announcement of public comment period for draft PANGEA proposal to NASA Terrestrial Ecology Program	<b>October 2024</b>
4. Ecological Society of America; <b>Long Beach, CA</b>	<b>August 2024</b>
5. PANGEA and Governor's Climate And Forest Task Force Workshop; <b>Lima, Peru</b> Meeting logistics and travel coordinator for 50-person workshop, contributing speaker (ES) on community engagement in South America and Pan-tropics	<b>June 2024</b>
6. NASA-NSF Extreme Weather Events in Amazonia Workshop; <b>Manaus, Brazil</b> Contributing speaker on broader community research engagement strategies in South America and Pan-tropics	<b>May 2024</b>
7. NASA Biological Diversity & Ecological Conservation Team Meeting; <b>Silver Springs, MD</b>	<b>April 2024</b>
8. PANGEA Research & Community Engagement Workshop; <b>Washington, DC</b> Meeting logistics and travel coordinator for 100-person workshop with simultaneous translation in English, Spanish, French, and Portuguese	<b>April 2024</b>
9. PANGEA Research and Engagement Scoping Workshop; <b>Yaoundé, Cameroon</b> Logistics and travel coordinator for 90-person workshop with simultaneous translation in English, Spanish, French, and Portuguese	<b>February 2024</b>
10. American Geophysical Union Annual Meeting; <b>San Francisco, CA</b>	<b>December 2023</b>
11. Ecological Society of America Annual Meeting; <b>Portland, OR</b> Contributed speaker on eDNA survey techniques with camera traps	<b>August 2023</b>
12. Rausser College of Natural Resources Honors Symposia; <b>Berkeley, CA</b>	<b>December 2022</b>
13. SACNAS National Diversity in STEM Conference; <b>San Juan, Puerto Rico</b> Contributed poster (EN/ES) on preliminary eDNA survey results	<b>October 2022</b>
14. Toolik Field Station Undergraduate Research Symposia; <b>North Slope, Alaska</b> Contributed presentation on preliminary water-derived eDNA survey results	<b>July 2022</b>
15. Latinxs and the Environment Initiative Conference; <b>Berkeley, CA</b> Contributed poster (EN/ES) on preliminary camera trap survey results	<b>May 2022</b>
16. Biology & Geomorphology of Tropical Islands Course Symposia; <b>Berkeley, CA</b> Contributed presentation on avifauna activity and habitat survey	<b>December 2021</b>
17. Doris Duke Conservation Scholars Summer Research Symposia; <b>Santa Cruz, CA</b> Contributed presentation on pinniped demographics of Año Nuevo Island	<b>July 2021</b>
18. Biology 1B Field Lab Section Fall Research Symposia; <b>Berkeley, CA</b> Contributed presentation on intertidal community heat-wave survey	<b>December 2019</b>

## Awards, Fellowships, and Grants

NSF Graduate Research Fellowship Program Honorable Mention	na	<b>April 2024</b>
Caltech Geological and Planetary Sciences Faculty Fellowship Award	\$5000	<b>April 2024</b>
UC Berkeley Undergraduate Research Awards	\$2000	<b>March 2022</b>
UC Berkeley Travel Grants (3)	\$1800	<b>March 2022</b>
UC Berkeley Latinxs and the Environment Undergraduate Fellow Awards (2)	\$5000	<b>March 2022</b>
Cal Alumni Association's The Leadership Award	\$5000	<b>October 2021</b>
UC Berkeley College of Natural Resources Dineen Daniel Scholarship	\$5000	<b>October 2021</b>
UC Berkeley The Green Initiative Fund Student Organization Mini-Grant	\$3725	<b>June 2020</b>
UC Santa Cruz Doris Duke Conservation Scholar	est. \$8800	<b>April 2020</b>
UC Berkeley Undergraduate Scholarship	\$8000	<b>August 2018</b>