

# Cody Pham

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## EDUCATION

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- Aug 2021 – Present      **University of California, Davis** | Davis, CA | Graduate Group in Ecology
- PhD, Ecology
- Aug 2017 – June 2021      **Pomona College** | Claremont, CA | Phi Beta Kappa | Bachelor of Science in Biology | GPA: 3.83/4.00
- Thesis: Impacts of climate-induced range shifts on species interactions, migration distances, and habitat fragmentation of Wood-Warbler (*Parulidae*) species
  - Distinction in the senior exercise
  - Pomona College Scholar Distinction (Spring 2018, Fall 2018, Fall 2020)
- Sep – Dec 2019      **Marine Biological Laboratory** | Semester in Environmental Science | Woods Hole, MA
- Performed laboratory and field experiments to study biogeochemical and ecological processes such as primary production, nutrient cycling, and cross-system flux in aquatic and terrestrial systems
  - Used measurement tools such as LI-COR soil gas flux, photosynthesis, and LAI instruments, Hydrolab water quality monitors, colorimeters, and gas chromatographs
  - Built mathematical models using systems of mass-balance equations applied to ecosystem element cycles, population dynamics, and species interactions

## RESEARCH EXPERIENCE

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- May – Jun 2020      **REU** | University of Michigan Dept. of Ecology and Evolutionary Biology | Ann Arbor, MI
- Used species distribution models for 47 warbler species in several warming scenarios to study climate-induced changes in species interactions
  - Performed spatial and statistical analyses using GIS in conjunction with Python
  - Collaborated with researchers to prepare a manuscript that will soon be ready for peer-review
  - Presented results in a scientific poster and an oral presentation at public symposiums
  - Organized and facilitated a diversity and inclusion workshop for 5 students, 6 senior researchers, and the director of the biological station
- May 2020 – Present      **Vertebrate Ecology Researcher** | Pomona College Dept. of Biology | Claremont, CA
- Processed over 80,000 camera trap photos, identifying every bird, mammal, and reptile I observed to examine vertebrate community assemblages in a California Sage Scrub ecosystem
  - Mentored two new team members in the methods of the project
- Sep – Dec 2019      **Independent Student Researcher** | Marine Biological Laboratory | Woods Hole, MA
- Conducted 37 bird line transect surveys across grassland fragments in Cape Cod, MA
  - Used GIS and ground truthing to create high-resolution vegetation type maps
  - Independently identified research questions and developed methods pertaining to how the presence of local vegetation types influences bird assemblages
- Aug – Dec 2018      **Undergraduate Researcher** | Pomona College Dept. of Biology | Claremont, CA
- Collected and recorded weekly measurements on largemouth bass specimens
  - Performed over 40 dissections to obtain otolith, muscle tissue, and gut content samples
  - Trained 4 other students in the methods of the project and guided them through the process of developing their own research project

- May – **Research Assistant** | Pomona College Dept. of Chemistry | Claremont, CA  
Aug 2018
- Worked as part of a research group to provide calculations modelling water diffusion through plant xylem, using software such as Mathematica and Maple
  - Mentored a group of low-income high school students in developing a research project

## WORK EXPERIENCE

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- Aug 2018 – **Teaching Assistant – Biology Department** | Pomona College | Claremont, CA  
June 2021
- Assisted with Introductory Genetics, Introductory Ecology and Evolutionary Biology, and upper-division Avian Ecology
  - Guided students through procedures for using mist nets, ground traps, and handling birds to take measurements for an ongoing bird banding project
  - Mentored students in research project development and presenting results as manuscripts, posters, and oral presentations
  - Independently taught how to conduct laboratory and field research experiments
- May – **Avian Field Technician** | Bird Conservancy of the Rockies | SD, NE  
Aug 2019
- Trained in aural and visual identification of 206 bird species that breed in the Northern Great Plains
  - Conducted 29 bird point count and vegetation surveys across South Dakota and Nebraska
  - Independently navigated and camped in backcountry to reach remote sites

## PRESENTATIONS

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- Pham, C. H.**, D. N. Karowe, J. J. Price, and J. M. Tallant (2020). Climate-mediated changes in interactions among Wood Warbler species. NIMBioS Undergraduate Research Conference. Knoxville, TN (Virtual).
- Pham, C.H.**, K.S. Burgstahler, and S.M. Gao (2020) Camera trap monitoring of California sage scrub vertebrate communities. Pomona College Undergraduate Research Conference. Claremont, CA (Virtual).
- Pham, C.H.**, D.N. Karowe, J.P. Price, and J.M. Tallant (2020). Climate-mediated changes in interactions among Wood Warbler species. University of Michigan Summer Undergraduate Research Symposium. Ann Arbor, MI.
- Pham, C.H.**, I. Valiela, and J. Lloret (2019). Habitat selection in birds across fragmented landscapes. Marine Biological Laboratory Independent Student Research Symposium. Woods Hole, MA.
- Chen, L.J., N.T. Oo, G. Ferro, **C.H. Pham**, and M. Paik (2018). Modelling water diffusion through plant xylem. Pomona College Undergraduate Research Conference. Claremont, CA.

## PAPERS

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- Pham, C. H.**, D. N. Karowe, J. J. Price, and J. M. Tallant (2020). Climate-mediated changes in interactions among Wood Warbler species. (In Preparation)

## AWARDS

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- Aug 2021 **Graduate Group in Ecology Fellowship** | \$61,000 | University of California, Davis | Davis, CA
- Jun 2021 **Vaile Prize (Outstanding student in Biology)** | \$900 | Pomona College | Claremont, CA
- May 2020 **NSF REU Fellowship** | \$4,000 | University of Michigan | Ann Arbor, MI
- May 2020 **Summer Undergraduate Research Grant** | \$2,500 | Pomona College | Claremont, CA
- May 2018 **Summer Undergraduate Research Fellowship** | \$4,000 | Pomona College | Claremont, CA
- Aug 2017 **National College Match Scholarship** | \$280,000 | QuestBridge Foundation | Palo Alto, CA
- Aug 2017 **Ralston Chamber of Commerce Scholarship** | \$1,000 | City of Ralston | Ralston, NE

## SKILLS

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### Technical Skills

- Python (proficient)
- GIS (proficient in spatial analyses, ESRI certified in Cartography)
- FRAGSTATS (intermediate)
- Grant proposal writing (NSF GRFP Honorable Mention)

### Field Methods

- Bird banding (potter traps, mist nets)
- Point count and line transect surveys
- Camera trap monitoring
- Bird window collision surveys

### Languages

- English
- Vietnamese

## VOLUNTEER EXPERIENCE

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- Aug 2018 – May 2019, Jan 2021 – June 2021      **Mentor – Saturday Tongan Education Program** | Pomona College | Claremont, CA
- Tutored students from grades K-12 in Math, Science, and English both in-person and remotely
  - Fostered a love of learning and school, with one objective of the program to increase Tongan representation in higher education
- Jan – May 2020      **Outdoor Education Instructor** | Mountainview Elementary School | Claremont, CA
- Developed lesson plans to teach elementary school students about ecosystem functioning and environmental justice issues
  - Fostered an appreciation of nature while following the safety precautions of an area with potentially hazardous plants and animals
  - Managed a class of 28 fifth grade students
- Aug 2018 – May 2019      **Childcare Assistant** | AbilityFirst | Claremont, CA
- Helped children with special needs participate in activities suitable for various mental and physical disabilities
  - Provided guidance for children overcoming difficult situations at school and home
  - Organized, hosted, and planned events and activities
- Jan – May 2019      **Therapy Technician** | Carrico Pediatric Therapy | Claremont, CA
- Assisted occupational and physical therapists with treatment of children with special needs
  - Served as a kind and caring emotional outlet for children
- Aug 2018 – May 2019      **Mentor – Asian American Mentor Program** | Pomona College | Claremont, CA
- Provided academic mentoring and emotional support to 11 first-year college students
  - Participated in a two-week program that included training in facilitating diversity and inclusion, discussing Asian Pacific Islander Desi American social issues, and providing emotional support
  - Organized housing, transportation, and food for an off-campus retreat with 80 students
  - Planned and lead a workshop for 50 students to address issues of socio-economic privilege
  - Organized two art exhibitions that included work from over 40 artists and over 100 attendees
- Aug 2018 – May 2019      **Board Member – Vietnamese Student Association** | Claremont Colleges | Claremont, CA
- Developed and implemented a mentor program for 12 mentor-mentee pairs
  - Managed club finances to budget for 9 events over the school year