

# WE DEFINE THE MUTURE

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## Lua Lopez Perez, Ph.D.

### ACADEMIC APPOINTMENTS

August 2020 – present. Assistant Professor and Herbarium Curator, California State University San Bernardino, CA, USA. August 2018 – August 2020. Research Assistant Professor, Binghamton University (SUNY), NY, USA. August 2016 – August 2018. Postdoctoral Scholar, Pennsylvania State University, PA, USA. September 2014 – July 2016. Postdoctoral Fellow, University of Heidelberg, Centre of Organismal Studies, Germany.

## **RESEARCH POSITIONS**

May 2012 – July 2014.

PhD fellowship. University of A Coruña, College of Science, Spain. September 2010 – May 2012. Research staff. University of A Coruña, College of Science, Spain. - Project title: Development and Application of molecular markers for maerl species, data for their conservation.

June 2008 – December 2010. Research staff. University of A Coruña, College of Science, Spain. - Project title: Data for the conservation of two critically endangered endemic species in Galicia.

## **EDUCATION**

- 2014. **Ph.D.**, Department of Animal and Plant Biology and Ecology, University of A Coruña. Dissertation Title: "Conservation genetics of threatened plants in NW Spain: a practical approach."
- M.S., Environmental Biology, University of A Coruña, Spain. 2009. Title: "Population structure and source of introduction on an invasive species." Title: "Genetic diversity and population structure on an endangered species."
- 2008. PGCE - Postgraduate Certificate in Education, University of A Coruña, Spain.
- 2007. B.S. Biology, University of Santiago de Compostela, Spain.

## RESEARCH

#### **PUBLICATIONS**

#### Pre-prints

- 2. Lang PLM, Erberich JM, Lopez L, Weiß CL, Amador G, Fung HF, Latorre SM, Lasky JR, Burbano HA, Expósito-Alonso M, Bergmann D (2022). Century-long timelines of herbarium genomes predict plant stomatal response to climate change. bioRxiv 2022.10.23.513440; doi: https://doi.org/10.1101/2022.10.23.513440
- 1. Gamba D, Lorts C, Haile A, Sahay S, Lopez L, Xia T, Kulesza E, Elango D, Kerby J, Yifru M, Bulafu C E, Wondimu T, Glowacka K, Lasky J R (2022). The genomics and physiology of abiotic stressors associated with global elevation gradients in Arabidopsis thaliana. bioRxiv 2022.03.22.485410; doi: https://doi.org/10.1101/2022.03.22.485410

#### Peer reviewed

20. Lopez L, Turner K, Bellis E & Lasky J (2020). Genomics of Natural History Collections for Understanding Evolution in the Wild. Molecular Ecology Resources. doi:10.1111/1755-0998.13245

- Price N, Lopez L, Platts A, Lasky J & McKay J (2020). In the presence of population structure: From genomics to candidate genes underlying local adaptation. *Ecology and Evolution*. 2020(00):1–16. https://doi.org/10.1002/ece3.6002
- Lopez L, Bellis E, Wafula E, Hearne S, Honaas L, Ralph P, Timko M, Unachukwu N, dePamphilis C & Lasky J (2019). Transcriptomics of host-specific interactions in natural populations of the parasitic plant *Striga hermonthica. Weed Science.* 67(4), 397-411. doi:10.1017/wsc.2019.20
- 17. Price N, Moyers B, Lopez L, Lasky J, Monroe G, Mullen J, Lin J, Oakley C, Ågren J, Schemske D, Thomashow M, Schrider D, Kern A & McKay J (2018). Combining population genomics and fitness QTL to identify the genetics of local adaptation in *Arabidopsis thaliana*. *PNAS*.115(19):5028-5033. doi: 10.1073/pnas.1719998115
- 16. Lopez L, Wolf E, Pires C, Edger P & Koch M (2017). Molecular resources from transcriptomes in the Brassicaceae family. *Frontiers in Plant Science*. 8:1488. doi: 10.3389/fpls.2017.01488
- 15. Roiloa S, Abalde S, Xu CY & Lopez L (2016). The effect of stolon fragmentation on the colonization of clonal invasive *Carpobrotus edulis* in a coastal dune system: a field test. *Plant Species Biology*. 32: 460-465. doi:10.1111/1442-1984.12157
- Santiso X, Lopez L, Barreiro R. & Retuerto R (2016). Population structure of a widespread species under balancing selection: the case of *Arbutus unedo* L. *Frontiers in Plant Science*. 6:1264. doi: 10.3389/fpls.2015.01264.
- Santiso X, Lopez L, Barreiro R. & Retuerto R (2016). Phylogeography of a widespread species: Pre-glacial vicariance, refugia, occasional blocking straits and long-distance migrations. *Annals of Botany*. 8: plw003; doi:10.1093/aobpla/plw003
- 12. Quintela M, Danielsen EA, Lopez L, Barreiro R, Svåsand T, Knutsen H, Skiftesvik AB, Glover KA (2016). Is the ballan wrasse, *Labrus bergylta*, two species? Genetic analysis reveals within-species divergence associated with plain and spotted morphotype frequencies. *Integrative Zoology*. 11(2):162-72. doi: 10.1111/1749-4877.12186
- 11. Lopez L, Koch M, Fischer M & Barreiro R (2015). Mining molecular markers from public EST databases for the study of threatened plants. *BMC Genomics*. 16:781. doi: 10.1186/s12864-015-2031-1
- Peña V, Pardo C, Lopez L, Carro B, Hernández-Kantún J, Adey W, Bárbara I, Barreiro R & LeGall L (2015). *Phymatolithon lusitanicum* sp. Nov. (Hapalidiales, Rhodophyta): the third most abundant maerl-forming species in the Atlantic Iberian Peninsula. *Criptogamie Algologie*. 36(4):429-459. doi:10.7872/crya/v36.iss4.2015.429
- 9. Santiso X, Lopez L, Gilbert KJ, Barreiro R, Whitlock MC & Retuerto R. (2015). Patterns of genetic variation within and among populations in *Arbutus unedo* and its relation with selection, plasticity and evolvability. *Perspectives in Plant Ecology, Evolution and Systematics*. 17(3):185-192. doi: 10.1016/j.ppees.2015.02.006
- Lopez L, Retuerto R, Roiloa S, Santiso X & Barreiro R. (2014). A multi-faceted approach for assessing evolutionary significant conservation units in the endangered *Omphalodes littoralis* subsp. *littoralis* (Boraginaceae). *Perspectives in Plant Ecology, Evolution and Systematics*. 17(1):54-65. doi:10.1016/j.ppees.2014.09.003
- 7. Carro B\*, Lopez L\*, Peña V, Bárbara I & Barreiro R. (2014). DNA barcoding allows the accurate assessment of European maerl diversity: a Proof-of-Concept study. *Phytotaxa*. \**contributed equally*. 190(1):176-189. doi: 10.11646/phytotaxa.190.1.12
- 6. Pardo C, Lopez L, Peña V, Hernández-Kantún J, LeGall L, Bárbara I & Barreiro R. (2014). A multilocus species delimitation reveals a striking number of maerl species in the OSPAR area. *PLOS One*. 9(8):e104073. doi: 10.1371/journal.pone.0104073
- 5. Peña V, Hernández-Kantún J, Grall J, Pardo C, Lopez L, Bárbara I, LeGall L & Barreiro R. (2014). Detection of gametophytes in the maerl-forming species *Phymatolithon calcareum* (Melobesioideae, Corallinales) assessed by DNA barcoding. *Cryptogamie Algologie*. 35(1):15-25. doi: 10.7872/crya.v35.iss1.2014.15
- 4. Lopez L & Barreiro R. (2013). Patterns of chloroplast DNA polymorphism in the endangered polyploid *Centaurea borjae* (Asteraceae): implication for preserving genetic diversity. *Journal of Systematics and Evolution*. 51(4): 451-460. doi:10.1111/jse.12012

- 3. Lopez L & Barreiro R. (2013). Genetic guidelines for the conservation of the endangered polyploid *Centaurea borjae* (Asteracea). *Journal of Plant Research*. 126(1):81-93. doi: 10.1007/s10265-012-0497-3
- Couceiro L, Lopez L, Ruiz JM & Barreiro R. (2012). Population structure and range expansion: the case of the invasive gastropod *Cyclope neritea* in northwest Iberian Peninsula. *Integrative Zoology*. 7(3):286-298. doi: 10.1111/j.1749-4877.2012.00305.x
- 1. Couceiro L, Lopez L, Sotka E, Ruiz JM & Barreiro R. (2011). Molecular data delineate cryptic *Nassarius* species and characterize spatial genetic structure of *N. nitidus*. *Journal of the Marine Biological Association of the United Kingdom*. 92(5):1175-1182. doi: 10.1017/S0025315411000816

## AWARDS AND GRANTS

#### Research grants

- 2022 Research grant (PI): "BRC-BIO: Using analysis of historical and contemporary samples to elucidate mechanisms of altitudinal range expansion by plants", National Science Foundation (NSF) **(\$500,611)**.
- 2022 Research grant (PI): "Using historical samples to investigate the genomic impact of overfishing in black (*Haliotis cracherodii*) and white abalone (*Haliotis sorenseni*) over a century", California State University Biotechnology Program (CSUPERB) (**\$14,978**).
- 2022 Research grant (PI): OSR Undergraduate Summer Research Program: "Gene silencing in plants as a tool for bioremediation of soil polluted with metals", CSUSB (\$5,500 plus summer salary for two undergraduate students).
- 2022 Research grant (PI): Summer Research Fellowship, CSUSB (\$3000 of summer salary to conduct research)
- 2021 Research grant (PI): College of Natural Sciences mini-grant: "Do changes in soil microbiome explain the negative ecological impact of the invasive highway ice plant?", CSUSB (\$6,100)
- 2018. Research grant (Co-PI): "Dune Endemisms in the face of climate change: gene expression", Spanish Ministry of Economy and Industry (\$155,850).
- 2014. Research grant (Co-PI): "What makes a plant to be an aggressive invader? Adaptation and evolution of clonal traits during plant invasion", Spanish Ministry of Economy (**\$161,270**).
- 2014. Research grant (PI): "In silico mining of molecular markers for the family Brassicaceae". Diputación de A Coruña, Spain, Research fellowship (\$10,050).

#### Research fellowships

- 2016. Centre of Organismal Studies, Germany, Postdoctoral Fellowship (\$7,050).
- 2013. "EST-SSR in silico mining for plant species of conservation interest". European Science Foundation, Conservation Genomics: Short exchange visit fellowship **(\$8,065)**.
- 2012. PhD Fellowship for dissertation "Conservation genetics of threatened plants in NW Spain: a practical approach." University of A Coruña (\$30,800).

#### Other awards

2020. Angeles Alvariño Award to the Best Scientific trajectory, A Coruña. Awarded by Museos Cientificos Coruñeses (\$500).

- 2018. PSU Postdoctoral Society, State College, Conference travel grant (\$300).
- 2017. University of Washington, USA, Summer Institutes Scholarship (\$600).
- 2016. CIBIO/InBio, Portugal, Conference registration, lodging and travel grant (\$1,350).

#### Awarded but declined

- 2017. Australian National University, Australia, Conference travel grant (\$750).
- 2016. Juan de la Cierva Formacion, Postdoc grant from Spanish Government (\$53,760).

#### PRESENTATIONS

#### **Invited Oral presentations**

2022. "Rewinding the tape: herbarium specimens for evolution-in-action studies". Biology Seminar, University of California Riverside, USA.

- 2022. "Rewinding the tape: herbarium specimens for evolution-in-action studies". Biology Seminar, San Diego State University, USA.
- 2020. "Rewinding the tape: herbarium specimens for evolution-in-action studies". Biology Seminar Series. University of Cincinnati, USA.
- 2020. "Rewinding the tape: herbarium specimens for evolution-in-action studies". Invited talk at Dr. Moises Exposito Lab., Stanford University, USA.
- 2020. "Rewinding the tape: herbarium specimens for evolution-in-action studies". Genetics Seminar Series. University of Georgia, USA.
- 2020. "Conservation Genomics in a Changing World". Biology Seminar Series. California State University Monterey Bay (CSUMB). Monterey, USA.
- 2020. "Conservation Genomics in a Changing World". Biology Seminar Series. Texas A&M International University (TAMIU). Laredo, USA.
- 2018. "Endangered endemics, clonal invaders, parasites and ancient plant populations". Biology Seminar Series. Binghamton University (SUNY). Binghamton, USA.
- 2018. "Endangered endemics, clonal invaders, parasites and ancient plant populations". Biology Seminar Series. Department of Biological Sciences, Binghamton University (SUNY). Binghamton, USA.
- 2018. "Endangered endemics, clonal invaders, parasites and ancient plant populations". Biology Seminar Series. College of Charleston. Charleston, USA.
- 2017. "Rewinding the tape: museum specimens for evolution-in-action studies". CICA Research Seminar Series. University of A Coruña, Spain.
- 2017. "From classical markers to modern genomics in plant evolutionary ecology". Plant Biology Seminar Series. Pennsylvania State University. State College, USA.
- 2017. "Herbaria contains a hidden treasure in aDNA for climate adaptation studies". Evolutionary Ecology Research Symposium. Pennsylvania State University. State College, USA.
- 2016. "The evolutionary history of a cold-adapted genus: Recent progress and future perspectives". 4<sup>th</sup> Annual Meeting "Adaptomics" 1529. DFG Priority Program. Munich, Germany.
- 2015. "The genus Cochlearia: phylogenomics, transcriptomics and population genomics of a cold relict in a warming world". Darwin 2.0: New Tools to Go Through Time. Centre of Organismal Studies, University of Heidelberg. Heidelberg, Germany.

#### **Contributed Oral presentations**

- 2022. Lopez L, Lang P & Lasky J. "Herbaria contain a hidden treasure in aDNA for climate adaptation studies." California Native Plant Society Conference, San Jose, USA.
- 2022. **Lopez L**, Lang P, Marciniak S, Kistler L, McKay J, Burbano H, Perry G & Lasky J "Herbarium accessions for temporal studies of adaptation in *Arabidopsis thaliana*. Botany 2022: Virtual meeting, USA.
- 2020. **Lopez L** & Lasky J. "Rewinding the tape: natural history collections for evolution-in-action studies." XI Reunion de Jovenes Investigadores en el Extranjero 2020, A Coruña, Spain. <u>Link to talks</u>.
- 2017. Lopez L, Marciniak S, DeLeo V, Perry GH & Lasky J. "Herbarium accessions for temporal studies of adaptation to climate in *Arabidopsis thaliana*". Evolution Meeting. Portland, USA.
- 2013. Santiso X, Lopez L, Retuerto R & Barreiro R." Genetic diversity and population structure of *Arbutus unedo*". XI Congress of the Spanish Association of Terrestrial Ecology. Pamplona, Spain

#### **Contributed Poster presentations**

- 2020. **Lopez L** & 2019 Spring Semester Freshman Research Immersion Students. "They grow up so fast: undergraduate students investigate the impact of nutrients and genotype on *Arabidopsis thaliana* phenotype". American Naturalist 2020. Monterey, CA, USA.
- 2018. **Lopez L**, Marciniak S, Perry GH & Lasky J. "Observing Evolution through time with herbarium specimens". Population, Evolutionary and Quantitative Genetics Conference. Madison, WI, USA.
- 2017. **Lopez L**, Marciniak S, DeLeo V, Perry GH & Lasky J. "Herbaria contains a hidden treasure in aDNA for climate adaptation studies". EPiC Evolution in Philadelphia Conference. Philadelphia, USA.

- 2016. **Lopez L**, Carro B, Roiloa S & Barreiro R. "The attack of the clones". ConGenOmics: Conference on Conservation Genomics. Vairao, Portugal.
- 2013. Lopez L, Carro B, Peña V, Bárbara I & Barreiro R. "First assessment of the relative abundance of Maerlforming Coralline algae with DNA barcodes". 10th International Phycological Congress. Orlando, USA.
- 2012. **Lopez L** & Barreiro R. "Genetic guidelines for the conservation of the endangered polyploid *Centaurea borjae* (Asteraceae)". 3rd European Congress of Conservation Biology. Glasgow, UK.
- 2012. Pardo C, Lopez L, Peña V, Hernandez-Kantun J, Le Gall L, Barbara I & Barreiro R. "DNA barcoding reveals a striking number of maerl species in the OSPAR area". 3rd European Conference for the Barcode of Life (ECBOL3). Brussels, Belgium.
- 2011. **Lopez L** & Barreiro R. "Extremely low genetic diversity and high differentiation in an endangered endemic plant (*Omphalodes littoralis* subsp. *gallaecica*)". 12th European Ecological Federation Congress. Avila, Spain.
- 2009. Lopez L, Couceiro L, Ruiz JM & Barreiro R. "Population structure and range expansion: the case of *Cyclope neritea* in northwest Iberian Peninsula". World Conference on Biological Invasions and Ecosystem Functioning. Porto, Portugal.
- 2009. Couceiro L, Lopez L, Sotka E, Ruiz JM & Barreiro R "*Nassarius nitidus*, a cryptic gastropod from Eastern Atlantic: DNA barcoding and first phylogeographic data". 4th International Conference of the International Biogeography Society. Yucatan, Mexico.

#### Students' presentations

- 2022. Morales R, Diaz A, Lopez L "Gene silencing in plants as a potential adaptation mechanism to Zinc polluted soils." ABRCMS 2022. Anaheim, USA.
- 2021. Cruz E & Lopez L "The attack of the clones: using transcriptomics to investigate the invasion success of *Carpobrotus edulis*". 35th CSUSB Student Research Competition (Virtual), USA.
- 2021. Cruz E & Lopez L "The attack of the clones: using transcriptomics to investigate the invasion success of *Carpobrotus edulis*". The California Botanical Society's 28<sup>th</sup> Annual Graduate Student Symposium (Virtual), USA.
- 2019. Stastny M & Lopez L "What are your Roots? Phenotypic and phylogenetic study of introduced and native population of *Arabidopsis thaliana*." ABRCMS 2019. Anaheim, USA.
- 2019. Horn K, Pulley E, Schwoerer E, Timmerman D, Lynch C, Shidemantle G & Lopez L "Blinded by the Light: How light pollution affects development of *Xenopus laevis*". Developmental Biology New York Conference. Ithaca, US.

#### Featured in media

- 2020. <u>"Gallegos en la Vanguardia"</u>. Interview for the Spanish newspaper Faro de Vigo about young Spanish scientist working abroad.
- 2020. <u>Interview about the state of science in Galicia and about invasive species</u>. Published in the scientific journalism blog Galicia Ciencia.
- 2020. "The story behind the Special Feature: Genomics of natural history collections". Interview from Molecular Ecology Resources. <u>Blog link with Youtube interview</u>
- 2020. "Back to the Future: How ancient DNA can help safeguard our natural world". Science outreach event from NPR <u>npr website</u>
- 2019. "Transcriptomics reveals that a generalist parasitic plant maintains host specificity". In Dynamic Research in Epidemics website
- 2019. "Yes, cats really do always land on their feet". Outreach feature in the printed local press "Press & Sun bulletin". Online pressconnects.com and at <u>Binghamton.edu</u>
- 2018. "Notes from the field, Ecology biannual newsletter of Pennsylvania State University". <u>Rewinding the tape:</u> <u>museum specimens for evolutionary genomics</u>.

## **TEACHING AND MENTORING**

2020 - present. Assistant professor in Biology at California State University, San Bernardino, USA.

- BIOL 3950: Marine Biology (Fall 2021) – 48 students, 6 credits

- BIOL 5000: Biology seminar (Fall 2021, Spring 2022) - 120 students, 1 credit

- BIOL 3700: Evolution (Fall 2021, 2022) – 48 students, 4 credits

- BIOL 4903: Evolution and Ecology of Invasive Species (Fall 2020) – 24 students, 3 credits

- BIOL 5260: Genomics (Spring 2021, Fall 2022) – 24 students, 5 credits

- BIOL 5910: Botany Senior Seminar "Plants, Life and Culture" (Spring 2021) – 10 students, 32 credits 2018 – 2020. Research Assistant Professor in Ecological Genetics for the First-Year Research Immersion program. Binghamton University (SUNY), USA.

- HARP 170 (Fall 2018, Fall 2019) – 28 and 34 students, 2 credits

- BIOL 241 (Spring 2019, Spring 2020) – 20 and 24 students, 4 credits

- BIOL 341 (Fall 2019) - 20 students, 4 credits

Summer 2019 -2020. Research Assistant Professor in Ecological Genetics for the Summer Research Immersion program. Binghamton University (SUNY), USA.

- BIOL 241 (Summer 2019, 2020) - 11 and 8 students, 4 credits

- BIOL 341 (Summer 2019, 2020) – 11 and 8 students, 4 credits

2017. Guest lecturer: "Impact of mating systems on plant's population genetic variation" in Ecology of Plant Reproduction. Pennsylvania State University, USA.

2012 – 2014. Teaching assistant, Ecology I: Individuals and Ecosystems, University of A Coruña, Spain.

2013 – 2014. Teaching assistant, Ecology II: Populations and Communities, University of A Coruña, Spain.

#### MENTORING

#### Graduate students.

- 2022 **Beatriz Delgado**. Master student at CSUSB. Topic: Gene expression and phenotypic traits to evaluate the potential of endemic species to respond to climate change.
- 2021 present **Timothy Ng**. Master student at CSUSB. Topic: Local adaptation of the invasive cheatgrass (*Bromus tectorum*) across altitudinal gradients.
- 2021 present Samantha Cowen. Master student at CSUSB. Topic:
- 2020 present. Eduardo Cruz. Master student at CSUSB. Topic: Local adaptation of the invasive ice plant, transcriptomic and phenotypic data.

2019-2021. **Isabella Provera**. PhD student. Topic: *Transcriptomics in endemic plants to identify their response to climate change*. (co-advisor with Sergio Roiloa from University of A Coruña, Spain).

2014. **Sandra Franco Meliveo**. Contribution to the global effort of DNA barcoding in marine fishes: new additions to the BOLD database. University of A Coruña, Spain.

2013. **Marta Rodriguez Faraldo**. DNA barcoding as a tool for identifying processed fish food. University of A Coruña, Spain.

#### **Undergraduate Students.**

Fall 2022 - **Dalia Arroyo** (Honors Program). Gene silencing in plants as a potential adaptation mechanism to soils containing high salt levels.

Summer 2022 – Fall 2022 **Rosa Morales and Angel Diaz**. Gene silencing in plants as a potential adaptation mechanism to Zinc polluted soils.

- Fall 2021 Spring 2022 Victoria Ayala, Salina Sign, Aaron Manansala, Melissa Chavez. All students worked in the same project. Phenotyping and genotyping of 96 mutant lines of *Arabidopsis thaliana* previously unscreened.
- Fall 2021 Spring 2022 Kyler Gibson. Genomic prediction of flowering time in Arabidopsis thaliana.

- Fall 2019-Spring 2020. Soledad Perez and Erin Kelly. Maternal effects as a response to climate change in an endangered plant species. Binghamton University (SUNY), USA.
- Fall 2018-Fall 2019. Jane Mou. Flowering clines of in introduced *Arabidopsis thaliana* populations across the US. Binghamton University (SUNY), USA.
- Fall 2018-Fall 2019. **Gina Rizzo**. What are your roots? Phylogeny of origins of introduced *Arabidopsis thaliana* in the US. Binghamton University (SUNY), USA.
- Fall 2018-present. Hakam Virk. Investigating differences in fitness among introduced and native populations of the model species *Arabidopsis thaliana*. Binghamton University (SUNY), USA.
- Fall 2012 Spring 2013. **Paula Catarina Sanchez Pedreira**. Application of molecular markers from the chloroplast to study the phylogeography of the strawberry tree (*Arbutus unedo* L.). University of A Coruña, Spain.

## PEDAGOGIC TRAINING

- Fall 2021 Spring 2022 Culturally Responsive Teaching Faculty Learning Community: training on the role of culturally responsive teaching to fostering student learning and student's sense of belonging. During the training we read and discuss equity-minded, inclusive, evidence-based teaching practices and implemented best practices in teaching.
- Fall 2020 Spring 2021 Issues-X New Faculty Learning Community: training for new faculty to become familiar with pedagogic literature and obtain advising on teaching strategies.
- Summer 2020 **SVTI 18 Faculty Learning Community**: Transforming Your Syllabi to Produce an Engaging and Student-Centered Semester-Ready Curriculum.
- Summer 2020 Issues-X Summer Online Institute: training to adapt courses to the online format
- Summer 2018 **Backwards design for effective teaching:** workshop on the fundaments of backwards design and how to use it to plan my classes and be more effective as an educator.

## SERVICE

#### **Professional service**

2022 Chair search committee. Part of the committee evaluating candidates for the new Biology chair at CSUSB.

2022 Research, Scholarly and Creative Activity Committee: two-year committee to set guidelines at the campus level for internal grants and develop rubrics and video guides for reviewers.

2022 Intellectual life committee: I am the chair of this two-year committee that evaluates and

2021 Search Committee STEM education research: Part of the committee evaluating candidates a tenure-track faculty position at CSUSB Biology department with a focus on STEM ed research.

2020. Host for the California Academy of Science Genomics Social Hour "Natural history collections in evolutionary Ecology". Link to recording

- 2020. Lead guest editor of special issue in the journal Molecular Ecology Resources "Genomics of Natural History Collections for Understanding Evolution in the Wild."
- 2020. Ecological Genetics instructor Hiring Committee at Binghamton University (SUNY).
- 2020. Biology instructor Hiring Committee at Binghamton University (SUNY).
- 2018. Reviewer for internal grants of the Arkansas Bioscience Institute (ABI).
- 2017 present. Manuscript Reviewer: Weed Science, Molecular Ecology, American Journal of Botany, Taxon, Heredity, Biochemical Systematics and Ecology, Diversity, Ecology and Evolution, PLOS One, Flora, Conservation Physiology, Evolutionary Applications.

## Additional outreach and service in education

2021 – 2022. "Judge at the Region 10 Science and Engineering Fair Expo". The Riverside County Science and Engineering Fair in collaboration with the Riverside County Office of Education and the San Bernardino

Superintendent of Schools organize this Science Fair Expo. I have been a judge twice; I have also acted as career panelist and I have provided expert advising in some of the projects.

2021 – 2022 "Mentor for the unPAK Summer REEU. As an active collaborator of the unPAK initiative I have participated as external advisor in their summer REU.

2021. "STEM career panels: 2021 Biology Career Panel". This event was organized to provide CSUSB students with an overview of possible careers in the field of biology.

2020. "EEB mentor program" Mentoring of an undergraduate student to help with graduate school applications.

2020. "Career Expo 2020". Career expo for 10<sup>th</sup> grade students. I was the Latino female scientist representation of Binghamton University (SUNY). The event was sponsored by Career Expo 2020. Broome-Tioga BOCES and the Broome-Tioga Counselors Association.

2019. "Ask a Scientist". Replying middle-schoolers questions students from the Binghamton area.

- 2018-2019. "Letters to a pre-scientist". Pen pal for a middle school student from low-income minority to demystify science.
- 2018. "STEM for schools". Volunteering with "Discovery Space" (State College, PA) visit public middle schools and guide students making a science project.
- 2017. "Talk with a Scientist". Activity organized by the group WeAreScience from Pennsylvania State University to bring the science done at the university to the public.

2014 – 2012. "Live Science" connecting high school students to science. The program was coordinated by the Finisterrae Aquarium and Scientific Museums in A Coruña, Spain.