Sara L. Witt

(she/her/hers)
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EDUCATION

Fall 2021- present California State Polytechnic University, Pomona

M.S. Student, Biological Sciences

Advisor: Dr. Joan Leong

Thesis topic: Cultivated cucurbit flower sex preference and foraging behavior of *Eucera (Peponapis) pruinosa* at farms in Southern California

University of California, Berkeley

B.S. Conservation and Resource Studies

Area of Interest: Conservation Biology and Restoration Ecology

TEACHING EXPERIENCE

Fall 2021- present Teaching Associate, California State Polytechnic University, Pomona

Spring 2023: Ecology and Evolution Lab (BIO 1220L)

Fall 2022: Life Sciences Lab (BIO 1110L)

Spring 2022: Animal Biology Laboratory (BIO 2070L) Fall 2021: Invertebrate Zoology Laboratory (BIO 2370L)

PUBLICATIONS

Refereed publications:

Published:

- 1. Faber, B., Frankie, G., Pawelek, J., Chase, M. and **Witt, S.** (2020). Native pollinators of avocado as affected by constructed pollinator habitat gardens in southern California. *Acta Horticulturae* 1299: 329-332.
- Frankie, G.W., J.C. Pawelek, S.S. Leon Guerrero, R.W. Thorp, M.A. Rizzardi, M.H. Chase, C.C. Jadallah, C.C., A. Smith-Pardo, A. Lyons, I.C. Feng, S.L. Witt. (2018). Survey of Native and Honey Bees from Agricultural Brentwood and their Constructed Bee Gardens in Northern California, 2010-2018, *Journal of the Kansas Entomological Society*: Vol. 91: No. 4, pg. 310-331.
- 3. Frankie, G.W., R.W. Thorp, J. Hernandez, B. Ertter, J.C. Pawelek, **S.L. Witt,** M. Schindler, R. Coville, V.A. Wojcik. (2009). Native bees are a rich natural resource in urban California gardens, *California Agriculture*: Vol. 63: No. 3, p. 113.
- 4. Chase, M.A., Charles, B., Frankie, G.W., Coville, R., Pawelek, J., Witt, S.L., Jadallah, C. Common garden plants to attract California native bees. UC ANR Publishing.

5. Chase, M.A., Frankie, G.W., Jadallah, C., Coville, R., Pawelek, J., **Witt, S.L.** Thorp, R. W. Common bees in California gardens. UC ANR Publishing. *(in press)*

In press, revision, or prep:

- 6. Frankie, G.W., **S.L. Witt,** J.C. Pawelek, B. Faber, R. Coville, M.A. Rizzardi, M.H. Chase, J. O'Sullivan, K.C. Seltmann. Hedgerow Gardens Provide Pollinators for Avocado Flowers in Southern California. *Journal of the Kansas Entomological Society. (in review)*
- 7. Frankie, G.W., B. Faber, J.C. Pawelek, R. Coville, **S.L. Witt,** M.A. Rizzardi, M.H. Chase, J. O'Sullivan, K.C. Seltmann. Pollinator Habitat Gardens in Avocado Orchards in Southern California. UC ANR Publishing. *(in prep)*

Non-refereed publications:

8. Hanson, P.H., M.F. Otárola, J.L. Segura, G.W. Frankie, R. Coville, I.A. Monge, M.A. Cordero, E.H. Gonzalez. **S.L. Witt (technical editor).** *Bees of Costa Rica.* University of Cornell Press, ~300 pp. *(in revision)*

STUDENT MENTORING

Cal Poly Pomona undergraduate researchers trained in plant and bee identification, field research methods

Summer- Fall 2022 Breanna Ysiano

Seth Grande Jacklyn Hernandez

UC Berkeley undergraduate researchers trained in plant and bee identification, insect curation techniques

Spring 2021 - Summer 2021 Jose Rodriguez

Jasmin Elenas

Tiena Elias

Fall 2020 - Summer 2021 Erica von Rodriguez

Madeline Rohner Miranda Monge Sarah Caso

Fall 2019 - Spring 2021 Jacqueline Singer

Fall 2019 - Spring 2020 Annabelle Baldwin

Nasim Jahangard-Mahboob

Amanda Harmon

Mentored numerous (50+) college student interns in restoration techniques, arthropod and plant identification. Aug. 2013 – Aug. 2021

PROFESSIONAL EXPERIENCE

Apr. 2019 - May. 2023

Urban Bee Lab Manager, University of California, Berkeley, CA PI: Dr. Gordon Frankie

 Project management, grant and report writing, contributions to peerreview and lay publications

- Fieldwork monitoring native bee-plant interactions in agricultural areas and urban areas in northern and southern California and rural Costa Rica
- Bee and plant identification in the field
- Insect collection and specimen curation management
- Management and training of undergraduate researchers
- Public outreach, workshops and presentations
- Administrative work and data management

Aug. 2016 - Aug. 2021

Ecologist II, Grassroots Ecology, Palo Alto, CA

- Identified native and invasive plant species in oak woodland savanna, serpentine grassland, woodland/riparian, and salt marsh habitats
- Selected suitable plant species for restoration projects, collected seeds for propagation
- Monitored and identified rare plant species
- Provided wildland fire management advising for parks departments
- Conducted and led restoration fieldwork, vegetation monitoring, and invasive species mapping at restoration sites
- Conducted terrestrial insect and benthic macroinvertebrate surveys
- Trained college interns and community volunteers in habitat restoration fieldwork
- Led environmental education opportunities and interpretive hikes for students (K-12, college) in the classroom and in the field

Apr. 2016 - Sept. 2017

Seasonal Bee Field Biologist, SF Bee Cause, San Francisco, CA

• Conducted seasonal native bee surveys for a bee diversity study at gardens in San Francisco. Identified bees and plants in the field.

Aug. 2013 - Aug. 2016

Project Director, Acterra Stewardship Program, Palo Alto, CA

- Managed a large riparian habitat restoration project and native plant installations in urban areas
- Managed and trained staff, college interns and community volunteers in habitat restoration techniques
- Conducted and led teams in restoration fieldwork, invasive plant mapping, and vegetation monitoring
- Designed and implemented an educational water quality and benthic macroinvertebrate monitoring program for 2,000 public high school students (classroom lab and field monitoring components)

Aug. 2011 - Aug. 2013

Restoration Technician, Acterra Stewardship Program, Palo Alto, CA

 Assisted with native plant garden maintenance, habitat restoration fieldwork, and trained community volunteers in restoration techniques

Oct. 2011 - June 2013

Seasonal Restoration Technician, Creekside Center for Earth Observation, Menlo Park, CA

- Assisted with endangered plant seed collection and vegetation monitoring in riparian, grassland and serpentine ecosystems
- Invasive plant removal in grassland and serpentine ecosystems

Sept. 2010 - Aug. 2011

AmeriCorps Volunteer Coordinator, Our City Forest, San Jose, CA

- Assisted with recruitment and training 2,000 community volunteers for tree planting events
- Identified and mapped street trees to species and cultivar as part of a city-wide street tree inventory project

June 2010 - Sept. 2010

Stewardship Program Restoration Intern, Acterra, Palo Alto, CA

- Assisted with plant propagation, restoration fieldwork, vegetation monitoring, and GPS mapping in grassland and riparian restoration sites
- Designed a research project looking at insect biocontrols of an invasive weed <u>Centaurea</u> <u>solstitialis</u>, yellow star thistle

Mar. 2009 - Aug. 2009

Bird Banding Intern, Point Blue Conservation Science, Bolinas, CA

- Worked on a team mist netting, banding, sexing, aging, and identifying passerine birds by sight and sound at riparian sites in Marin County
- Conducted vegetation monitoring surveys and identified plants in study areas

PRESENTATIONS

2018, 2019, 2021	California Galls Workshop, Jasper Ridge Biological Preserve, Stanford University (Workshop co-leader)
2016, 2017, 2018, 2021	Sonoma Bee Count, Sonoma Garden Park, Sonoma, CA (Workshop co-leader)
2018, 2019	California Galls, Edgewood Preserve Docent Program (Workshop co-leader)
2016, 2017, 2018, 2019	UC California Naturalist Training, Facilitated by Grassroots Ecology, University of California Agriculture and Natural Resources
	Biomonitoring with Benthic Macroinvertebrates (Workshop leader)
0010	Terrestrial Insect Sampling and Identification (Workshop leader)
2018	Restoration and Citizen Science, Sequoia Audubon Society (<i>Presenter</i>)

TRAINING AND CERTIFICATIONS

Jan- May 2022	Emerging Teaching Professionals Academy, California State Polytechnic University, Pomona
Fall 2021	Introduction to Canvas, CITI Animal Care and Use Certification
Jun. 2016	California Naturalist Certification, University of California, Agriculture and Natural Resources
Jun. 2015	California's Native Bees: Biology, Ecology, and Identification, Jepson Herbarium Workshop
Jan. 2015 Jun. 2014	Monitoring Plant Populations Using Citizen Science, CNPS Workshop 50 Plant Families in the Field, Jepson Herbarium Workshop

FUNDING RECEIVED

Spring 2020	Pollinator Student Scholarship, Orinda Garden Club	\$2,000
Spring 2019- Spring 2021	Contra Costa County Fish & Wildlife Propagation Fund	\$8,000
	Bees in Urban Brentwood, PI: Dr. Gordon Frankie	

OUTREACH AND VOLUNTEER WORK

Jun. 2018 – Aug. 2021

Bioblitz Naturalist Leader, Keep Coyote Creek Beautiful

Jun. 2015 – May 2021 Apr. 2010 – Aug. 2021 Sept. 2011 - Aug. 2013 Ant Survey Volunteer, Jasper Ridge Biological Preserve, Stanford University Interpretive Hike Docent, Midpeninsula Regional Open Space District Research Assistant, San Francisco State University, Department of Biology. Pl. Dr. John Hafernik

ASSOCIATION AND SOCIETY MEMBERSHIP

- Ecological Society of America
- Entomological Society of America
- Xerces Society for Invertebrate Conservation
- California Invasive Plant Council
- California Native Plant Society

FIELD AND LAB SKILLS

- Arthropod identification, sampling methods and curation techniques
- R programming language
- Educational pedagogy
- Identification of invasive and native California plants
- General science and animal biology laboratory set up and safety techniques
- Morphological taxonomic identification of bees in the field and keying of collected specimens
- Ecological restoration and vegetation monitoring techniques
- Plant propagation and seed collection techniques for native plants
- Freshwater benthic macroinvertebrate identification and field survey techniques

RELEVANT COURSEWORK

Intro to R, Plant Anatomy, General Entomology, Invertebrate Zoology, Conservation Biology, Wildlife Ecology, Natural Resource Sampling, Environmental Problem Solving, Ecosystems of California, California Plant Life, Biogeography, Thesis Writing