CANDACE LOW, PH.D.

EDUCATION

Ph.D. Ecology, Evolution and Marine Biology, U.C. Santa Barbara
-- Advised by John Endler and Roger Nisbet

M.A. Conservation Biology, San Francisco State University
-- Advised by Edward Connor

B.A. Integrative Biology, U.C. Berkeley
-- Advised/influenced by George Barlow, Ned Johnson, and Harry Greene

PROFESSIONAL DEVELOPMENT

Lecturer (2012-present)
Department of Biology, San Francisco State University, San Francisco, CA

REACH Financial Literacy Coach (2023)
Department of Ethnic Studies, San Francisco State University, San Francisco, CA

Lecturer (2017-2019)
Department of Biological Sciences, San José State University, San José, CA

Biostatistician (2014-2017)
BirdReturns Project, The Nature Conservancy, San Francisco, CA

Adjunct Professor (2013-2015)
Science and Mathematics, University of California Berkeley Extension Program, Berkeley, CA

Postdoctoral Fellow, National Science Foundation (2009-2012)
Mentor: Stephen Ellner, Dept. of Ecology & Evolutionary Biology, Cornell University, Ithaca, NY

Visiting Research Scientist, USDA-ARS, Beltsville, MD (2007-2008)
Supervisor: Sonja Scheffer, Systematic Entomology Lab, USDA-ARS, Beltsville, MD

TEACHING & LEADERSHIP

Center for Equity and Excellence in Teaching and Learning (CEETL) Certificates, 2021-2022

- *Transformative Teaching Through Transitions (TTTT) / Pedagogies for Inclusive Excellence (PIE)* – 60 hours of training on different learning modes through the pandemic AND on strategies that promote feelings of inclusion, well-being, and positive academic identities.
- *Quality Learning and Teaching (QLT)* – 60 hours of training on effective online teaching and building community around anti-racist pedagogy.

Course development

- *Exploratory Data Science for Scientists* (GOLD Graduate Program, SFSU, 2023-2025)
- *Biometry*[*]*, Ecology, Animal Diversity, Conservation Biology, Entomology* (SFSU, 2012-2024)
- *Biology of the Living World, Life on a Changing Planet, Origins of Life* (SJSU, 2017-2019)
- *Biostatistics*[*]*, General Biology Lab* (U.C. Berkeley Extension Program, 2013-2015)

[*] 12 semesters of upper division statistics (BIOL 458, 2013-2024), 7 semesters of grad-level data analysis (MSCI 717, 2019-2021, GEOG 705, 2017, BIOL 806, 2023-2025) and 3 semesters of an equivalent post-baccalaureate course at UCB Ext (MCELLBI X471, 2014-2015). **Taught data science topics and R coding to a total 820 students, 2012-2025.**

Graduate committee service and student advising

1. Vicente, Norina. Taxonomic revision of *Mesoponura* ants. California Academy of Sciences, 2023-2024.
2. Hegedus, Zoe. Genetic basis of MYB28 and MYB29 insertions *Arabidopsis thaliana*; SFSU, 2019-2022.
3. Faye, Lindsay. Master's thesis: "Temperature and salinity stress alter metabolism and epiphyte grazing of Taylor's sea hare, *Phyllaplysia taylori*", Romberg Tiburon Center, SFSU, 2017.
4. Sebilian, Serina. Master's thesis: "Temperature and salinity effects on Sago pondweed, *Stuckenia pectinata*, traits and susceptibility to grazing", Romberg Tiburon Center, SFSU, 2016.
5. Norouzi, Yasaman. Undergraduate honor's thesis: "Optimal foraging of a parasitoid wasp", Simon Fraser University, Burnaby, British Columbia, Canada, 2010.
6. Hanley, Daniel. NSF REU project: "Effect of light on distribution of a leaf-mining moth on white oak", Blandy Experimental Farm, University of Virginia, 2002. (See Low and Hanley 2012.)

PUBLICATIONS

1. Owens, M.T. and 67 others, including **C. Low**. 2018. Collectively improving our teaching: attempting biology department-wide professional development in scientific teaching. *CBE: Life Sciences Education: March 1; 17(1):ar2*.
2. Golet, G. H., **C. Low**, S. Avery, K. Andrews, C. McColl, R. Laney, M. Reynolds. 2018. Using ricelands to provide temporary shorebird habitat during migration. *Ecological Applications* 28: 409-426.
3. Reynolds, M. D. and 20 others, including **C. Low**. 2017. Dynamic conservation for migratory species. *Science Advances* 3(8): e1700707.
4. **Low, C.** and J. P. Sparks. 2017. Insect herbivory is associated with microsite quality. *Journal of the Torrey Botanical Society* 144: 26-34.
5. **Low, C.**, S. P. Ellner, and M. H. Holden. 2013. Optimal control and cold war dynamics between plant and herbivore. *American Naturalist* 182: E25-E39.
6. **Low, C.**, S. J. Scheffer, M. L. Lewis, and M. W. Gates. 2012. The relationship between variable host grouping and functional responses among parasitoids of a leafminer. *Molecular Ecology* 21: 5892-5904.
7. **Low, C.** 2012[*]. Variable Risk and the Evolution of the Defense Repertoire of the Tupelo Leafminer, *Antispila nysaefoliella*. *In:* Pontarotti, P. (editor), *Evolutionary Biology: Mechanisms and Trends.* Heidelberg, Berlin: Springer-Verlag.
8. **Low, C.** and D. Hanley. 2012. A perspective on the importance of within-tree variation in mortality risk for a leaf-mining insect. *Web Ecology* 12: 27-32.
9. **Low, C.** 2012. An experimental test of the seismic behaviors of *Antispila nysaefoliella* (Lepidoptera: Heliozelidae) to vibrational stimuli. *Florida Entomologist* 95: 16-20.
10. **Low, C.** 2010. The presence of active larvae delays the emergence of conspecifics in the tupelo leafminer, *Antispila nysaefoliella*. *Evolutionary Ecology Research* 12: 545-553.
11. **Low, C.**, S. Wood, and R. M. Nisbet. 2009[†]. The effects of group size, leaf size, and density on the performance of a leaf-mining moth. *Journal of Animal Ecology*, 78: 152-160.
12. **Low, C.** 2008. Grouping increases visual detection by specialist parasitoids. *Behavioral Ecology* 19: 532-538.
13. **Low, C.** 2008. Seismic behaviors of a leafminer, *Antispila nysaefoliella* (Lepidoptera: Heliozelidae). *Florida Entomologist* 91: 604-609.
14. **Low, C.** and E. F. Connor. 2003. Birds have no impact on a community of willow insects. *Oikos* 103: 579-89.

[*] Book chapter

[†] Recommended by Faculty of 1000

AWARDS, FELLOWSHIPS & GRANTS

1. **Faculty Travel Award,** College of Science and Engineering, San Francisco State Univ*;* 2023 ($1,200)
2. **RSCA Recovery Research (HEERF) Grant,** College of Science and Engineering, San Francisco State University*;* 2021 ($10,000)
3. **National Science Foundation Postdoctoral Fellowship in Biological Informatics**, DBI-0904395: *Adaptive Behavior & Evolution as Mechanisms of Population Stability;* 2009-12 ($189,000)
4. **International Society for Behavioral Ecology**: Best Poster Prize and Travel Award, 2008 ($500)
5. **National Science Foundation Dissertation Improvement Grant**, DEB-0608392: *Linking Anti-parasitism Mechanisms and Population Dynamics;* 2006 ($12,000)
6. **Ellen Schamberg Award for Travel**, UCSB, 2006 (for ESA in Memphis, TN, $500)
7. **UCSB Graduate Student Council Travel Grant**, 2006 (for ISBE in Tours, France, $1,030)
8. **Blandy Graduate Summer Research Fellowships**, Blandy Experimental Farm, University of Virginia, 2001-2006 ($3000 per year; Total: $18,000)
9. **Sigma Xi Grants-In-Aid-of-Research Grant**, *Vibrational communication in insects,* 2004 ($920)
10. **American Society of Naturalists Travel Award**, 2004 (for SSE/ASN in Ft. Collins, CO, $300)
11. **Professor Hering Memorial Research Fund**, British Entomological and Natural History Society, London, *Natural History of the Tupelo Leafminer, Antispila nysaefoliella,* 2002 ($500)
12. **Graduate Fee Fellowship**, Univ. of California, Santa Barbara, fall 2002, winter & spring 2004
13. **Cota-Robles Graduate Fellowship**, Univ. of California, Santa Barbara, 2000-2003
14. **California State Univ. Doctoral Incentive Forgivable Loan**, 2000-2003 ($30,000; merit-based)
15. **Grad. Assistance in Areas of National Need (GAANN) Fellowship**, SFSU, 1999 -2000 ($10,000)
16. **San Francisco State University,** Dept. of Biology, Student Research Competition, 1st place, 1999

INVITED TALKS – FEATURED RESEACH SEMINARS

1. **San José State University**, Biology Department, October 2017
2. **San Francisco State University**, Biology Department Colloquium, November 2012; December 2010
3. **Cornell University**, Neurobiology & Behavior Seminar Series, April 2012
4. **Chico State University**, Biological Sciences Omicron Theta Epsilon Lecture Series, March 2012
5. **Undergraduate Entomology Club**, Cornell University, Ithaca, NY, October 2011
6. **Evo-Group Seminar**, Ecology & Evolutionary Biology, Cornell University, September 2011
7. **University of California, Berkeley**, Department of Integrative Biology Colloquium, October 2010
8. **Simon Fraser University**, Les Ecologistes Seminar Series, October 2009
9. **Blandy Experimental Farm**, University of Virginia, Summer Colloquium, May 2009
10. **Eugene Lang The New School for Liberal Arts**, Urban Ecology Faculty Search, March 2009
11. **Cornell University**, Ecology & Evolutionary Biology Series, September 2008
12. **Syracuse University**, Biology Department Seminar Series, September 2008
13. **University of Nebraska**, Lincoln, Population Biology Series, June 2008

RESEARCH PRESENTATIONS – SCIENTIFIC MEETINGS

1. **Annual Meeting of the American Society of Naturalists**, Asilomar, CA, January 2025
2. **150th Meeting of the American Society of Naturalists**, Asilomar, CA, January 2018
3. **European Society for Evolutionary Biology**[†], Groningen, the Netherlands, August 2017
4. **15th Evolutionary Biology Meeting at Marseilles**[†], Marseilles, France, September 2011
5. **International Entomophagous Insects Conference**[†], University of Minnesota, July 2009
6. **Ecological Society of America:** Austin, TX, 2011, San José, CA, 2007; Memphis, TN, 2006

[†] By special invitation

7. **Animal Behavior Society**, College of William & Mary, Williamsburg, VA, 2010
8. **International Society for Behavioral Ecology**, USA, 2008; France, 2006; Finland, 2004
9. **UCSB, Ecology, Evolution, & Marine Biology Graduate Symposium**, 2007, 2006
10. **Southern California Animal Behavior Conference:** UC San Diego, 2006; UCLA, 2004
11. **Society for the Study of Evolution**, Colorado State University, Ft. Collins, 2004
12. **Conservation Biology Symposium**, Stanford University, 2000
13. **California State University Student Research Competition**, CSU Pomona, 1999

OTHER SERVICE

1. **Education chair**, *California Native Plants Society, Yerba Buena Chapter, 2023-present*
2. **Steering committee,** *Reimagining SF Alliance, California Academy of Sciences, 2023-present*
3. **NSF Panelist,** *National Science Foundation: DBI Rules of Life*, 2023; *Population Biology*, 2014; *Population & Community Ecology*, 2012; *Intersections in Math, Biology, Evolution, and Ecology*, 2010
4. **Advisor,** *The Wildlife Society, Student Chapter at San Francisco State University, 2016-2022*
5. **Ad hoc referee,** *American Naturalist, Animal Behaviour, Behavioral Ecology, Ecology, Environmental Entomology, European J. Entomology, National Science Foundation, Natural Sciences and Engineering Research Council of Canada, Oecologia, Philosophical Transactions of the Royal Society*
6. **Graphic designer,** *Frontiers in Life Sciences Symposium*, Cornell University, 2012.
7. **Guest teacher**, *Lesson on Sensory Ecology*, San Francisco Day School, 5th Grade, 2010
8. **Intern,** *National Center for Ecosystem Analysis (NCEAS)*, Santa Barbara, CA, 2006
9. **Project coordinator,** *Significant Natural Resource Areas Projec*t, San Francisco Recreation and Parks Department, San Francisco, CA, 1999-2000
10. **Intern,** *Insect Zoo, San Francisco Zoo, 1994*
11. **Field assistant,** *Smithsonian Tropical Research Institute, Gamboa, Panama, 1992*