Randall Long

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Visiting Assistant Professor

Department of Biology, Lewis and Clark College

Research Interests

Plant ecophysiology; Local adaptation; Plant diversity; Carbon allocation

Education and Postdoc Experience

2014	California Polytechnic State University, San Luis Obispo Bachelor of Science in Agricultural and Environmental Plant Sciences Minor: Biology
2020	University of California Santa Barbara PhD of Ecology, Evolution, and Marine Biology California Certificate of Undergraduate Teaching
2020-2021	Postdoctoral Research Associate Holden Arboretum, Kirtland, OH

Publications

- **Long R.,** D. Ward, *C. Baker, J. Medeiros (2021). Some like it dry: Interpopulation differences in leaf vulnerability to drought embolism in a widespread conifer with extremely drought resistant wood xylem. (Submitted, proof available upon request)
- **Long R.,** C.M. D'Antonio, T.L. Dudley, K.R. Hultine (2021). Variation in salinity tolerance and water use strategies in an introduced woody halophyte (*Tamarix* spp.). *Journal of Ecology* (Accepted, proof available on request)
- **Long R.,** K.C. Grady, C.M. D'Antonio, T.L. Dudley, K.R. Hultine (2021). Spenders and savers: an inter-population comparison of carbon allocation in a non-native woody plant. *Functional Ecology*
- Majumdar S., **R. Long,** J. Kirkwood, A. Minakova, A. Keller (2021) Unraveling Metabolic and Proteomic Features in Soybean Plants in Response to Copper Hydroxide Nanowires Compared to a Commercial Fertilizer. *Env Sci &Tech*
- **Long R.**, C.M. D'Antonio, T.L. Dudley, K.R. Hultine, A.M. Lambert (2021). Salinity driven interactions between plant growth and a biological control agent. *Biol Inv*
- Hultine K.R., D. Dehn, S.E. Bush, K. Acharya, C. D'Antonio, T. Dudley, J. Healey, J. Hull, D. Koepke, **R. Long,** D. Potts (2021) Episodic defoliation rapidly reduces starch but not soluble sugars in an invasive shrub, Tamarix spp. *American Journal of Botany*

- S.E. Bush, J. Guo, D. Dehn, K.C. Grady, J.B. Hull, E. Johnson, D.F. Koepke, **R. Long**, D.L. Potts, K.R. Hultine (2021) Adaptive versus non-adaptive responses to drought in a non-native riparian tree/shrub, Tamarix spp. *Agricultural and Forest Meteorology*
- **Long R.,** J. Medeiros (2020) Water in, water out: root form influences leaf function. *New Phytologist*
- *Williams J., A.M. Lambert, **R. Long,** K. Saltonstall (2019) Does hybrid *Phragmites australis* differ from native and introduced lineages in reproductive, genetic, and morphological traits? *American Journal of Botany*
- **Long R**., S.E. Bush, K.C. Grady, D.S. Smith, D.L. Potts, C.M. D'Antonio, T.L. Dudley, S.D. Fehlberg, J.F. Gaskin, E.P. Glenn, K.R. Hultine (2017) Can local adaptation explain varying patterns of herbivory tolerance in a recently introduced woody plant in North America? *Conservation physiology*
- Lambert A.M., K. Saltonstall, **R. Long**, T.L. Dudley (2016). Biogeography of native and introduced *Phragmites* lineages in the southwestern United States. *Biological Invasions*

*Undergraduate mentee

Teaching experience

Teaching assistant unless otherwise noted

2021 BIO 100 – Biological Perspectives (Professor, Lewis & Clark College)
2019 ES 119 - Ecology and Management of California Wildlands (Instructor of record)
INT 91 – Intro to Aquatic Science (Instructor of record)
EEMB 168 – Conservation Ecology*
2018 ES 100 – Environmental Ecology
EEMB 157 – Plant Physiology
EEMB 168 – Conservation Ecology*
2017 ES 100 – Environmental Ecology
EEMB 157 – Plant Physiology
EEMB 168 – Conservation Ecology*
2016 ES 100 - Environmental Ecology
2015 EEMB 119 – Ecology and Management of California Wildlands
EEMB 2/MCDB 1A – Introductory Biology
2014 ES 100 - Environmental Ecology
Pomology 2 (CalPoly)
Advanced Weed Management (CalPoly)
2013 California Fruit Production (CalPoly)

*Independently designed section curriculum for Conservation Ecology

Presentations

2021 Ecological Society of America. Long RW, JS Medeiros. Interpopulation differences in water use traits and drought responses in a widespread conifer (Juniperus virginiana)

2020 Invited seminar at Buffalo State College. Long R. Plants on the Move: Using intraspecific trait variation to understand range expansions

Riparian Restoration Conference. Long RW, CM Antonio, TL Dudley, KR Hultine, AM Lambert. Salinity-insect-plant interactions, tamarisk beetle preference for healthy plants increases defoliation effects

2019 Southern California Botanical Society. Long R, A.M. Lambert, K. Saltonstall, J. Williams. Does hybrid *Phragmites australis* differ from native and introduced lineages in reproductive, genetic, and morphological traits?

Riparian Restoration Conference. Long RW, CM Antonio, TL Dudley, KC Grady, SE Bush, KR Hultine. Spenders and savers, Carbon Spenders and Savers, an interpopulation comparison of a woody plant species

2018 Ecological Society of America. Long RW, CM Antonio, TL Dudley, , SE Bush, KR Hultine. Carbon savers and spenders: An interpopulation comparison of climate influences on allocation in a dominant tree

Ecological Society of America. Long RW, DL Potts. Widely distributed riparian and wetland species as model organisms for functional trait ecology research

Riparian Restoration Conference. Long RW. Trait variation across *Tamarix* populations.

2017 Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region. Long RW. Some like it salty: local adaptation in *Tamarix* across a salinity gradient on the Colorado River.

Ecological Society of America. Long RW, SE Bush, KH Hultine. Tradeoffs in heritable resource allocation traits of a non-native woody plant in response to local site conditions