

# Matthew M. Kling

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- RESEARCH** I investigate how climate shapes the geographic distributions of genes, species, and ecosystems, and how this understanding can inform biodiversity conservation in the face of climate change. I primarily study plants using big data.
- EDUCATION**
- |   |                      |
|---|----------------------|
| <b>PhD, Integrative Biology</b>                             | <i>expected 2020</i> |
| University of California, Berkeley                          |                      |
| Advisor: David Ackerly                                      |                      |
| <b>BA, Conservation Biology &amp; Environmental Studies</b> | <i>2005</i>          |
| Middlebury College  |                      |
| Advisors: Stephen Trombulak & Andrea Lloyd                  |                      |
- EMPLOYMENT**
- |   |                     |
|---|---------------------|
| Consultant in Global Change Biology—NatureServe                   | <i>2015–present</i> |
| Bioclimate Analyst—NatureServe                                    | <i>2013–2015</i>    |
| Science Analyst—Brighter Planet                                   | <i>2008–2013</i>    |
| Supervisory Biologist—Institute for Wildlife Studies              | <i>2007–2008</i>    |
| Canid Ecology Crew Leader—Yellowstone Ecol. Rsrch. Center         | <i>2005–2006</i>    |
| Plant Ecology Technician—US Geological Survey                     | <i>2005</i>         |
| Ungulate Ecology Technician—National Park Service                 | <i>2005</i>         |
| Environmental Intern—Administracion Ambiental Cooperativa Chilena | <i>2004</i>         |
| Research Assistant—USDA National Wildlife Research Center         | <i>2002</i>         |
- AWARDS & FELLOWSHIPS**
- |  |                  |
|--|------------------|
| NSF Graduate Research Fellow (\$102,000 + tuition)                     | <i>2015–2020</i> |
| Berkeley Fellow (\$60,000 + tuition)                                   | <i>2015–2020</i> |
| NSF NRT Data Science Fellow  | <i>2015–2017</i> |
| USGS-NatureServe EcoInforma student app award (\$2000 travel)          | <i>2015</i>      |
| EPA Apps for the Environment (National runner-up)                      | <i>2011</i>      |
| Departmental High Honors & <i>Magna Cum Laude</i> , Middlebury College | <i>2005</i>      |
- LANGUAGES & SKILLS**
- Spoken: English (native), French (adv.), Spanish (adv.), German (beg.)  
Programming: R (adv.), Python (int.), L<sup>A</sup>T<sub>E</sub>X(int.), git (int.)  
Geographic information systems: ArcGIS, R  
Design software: Illustrator, InDesign, Photoshop

## JOURNAL ARTICLES

Comer, P., J. Hak, M. Reid, S. Auer, K. Schulz, H. Hamilton, R. Smyth, and **M. Kling**. Assessing climate change vulnerability of major vegetation types of the western interior United States. *In review*.

Daru, B., **M. Kling**, E. Meineke, and A. van Wyk (2019). Temperature controls phenology in continuously flowering *Protea* species of subtropical Africa. Applications in Plant Sciences. *Accepted*.

**Kling, M.**, B. Mishler, B. Baldwin, A. Thornhill, and D. Ackerly (2018). Facets of phylodiversity: evolutionary diversification, divergence, and survival as conservation targets. Philosophical Transactions of the Royal Society B 374: 20170397

Morueta-Holme, N., M. Oldfather, R. Olliff-Yang, A. Weitz, C. Lefine, **M. Kling**, E. Riordan, C. Merow, S. Sheth, A. Thornhill, and D. Ackerly (2018). Best practices for reporting climate data in ecology. Nature Climate Change 8:92–94

Thornhill, A., B. Baldwin, W. Freyman, S. Nostratinia, **M. Kling**, N. Morueta-Holme, T. Madsen, D. Ackerly, and B. Mishler (2017). Spatial phylogenetics of the native California flora. BCM Biology 15(1): 96

Hammerson, G., **M. Kling**, M. Harkness, M. Ormes, and B. Young (2017). Strong geographic and temporal patterns in the conservation status of North American bats. Biological Conservation 212: 144–152

Baldwin, B., A. Thornhill, W. Freyman, D. Ackerly, **M. Kling**, N. Morueta-Holme, and B. Mishler (2017). Species richness and endemism in the native flora of California. American Journal of Botany, 104(3): 487–501

Sterner, R., **M. Kling**, S. Schwiff, and D. Slate (2003). Oral rabies vaccination: reducing economic uncertainty via response surface analysis. Proceedings of the 10th Wildlife Damage Management Conference (K. Fagerstone, G. Witmer, Eds).

## TALKS & POSTERS

**Kling, M.**, B. Mishler, B. Baldwin, A. Thornhill, and D. Ackerly (2018, Sep). Conserving the evolutionary diversity of the California flora. Invited talk presented at Botany Lunch seminar series, Berkeley, California.

**Kling, M.**, B. Mishler, B. Baldwin, A. Thornhill, and D. Ackerly (2018, Jul). Conserving the evolutionary diversity of the California flora. Talk presented at the North American Congress for Conservation Biology, Toronto, Canada.

**Kling, M.**, B. Mishler, B. Baldwin, A. Thornhill, and D. Ackerly (2018, Jun). Future priorities for conserving the evolutionary diversity of the California flora. Talk presented at the Digital Data in Biodiversity Research Conference, Berkeley, CA.

**Kling, M.** (2016, Dec). Multidecadal historic trends in California's coastal fog. Poster presented at the American Geophysical Union, San Francisco, CA.

**Kling, M.**, E. Burns, P. Cowan, and H. Hamilton (2016, Sept). The coast redwood climate envelope: 20th-century trends across space and time. Talk presented at the Coast Redwood Science Symposium, Eureka, CA.

**Kling, M.**, M. Fernandez, and H. Hamilton (2014, Jun). The biogeography of recent climate change in coast redwood ecosystems. Poster presented at the Smithsonian Botanical Symposium, Washington, DC.

**Kling, M.**, M. Fernandez, and H. Hamilton (2014, Jul). Spatiotemporal patterns in greater sage-grouse exposure to recent climate change. Talk presented at the Society for Conservation GIS Conference, Monterey, CA.

**GRAY  
LITERATURE**

EcoAdapt (2014, *multiple authors*). A Climate Change Vulnerability Assessment for Resources of Nez Perce-Clearwater National Forests. Version 3.0. EcoAdapt, Bainbridge Island, WA.

Bureau of Land Management (2014, *multiple authors*). Madrean Archipelago Rapid Ecoloregional Assessment. US BLM, Washington, DC.

**Kling, M.** and I. Hough (2011). Air travel carbon and energy efficiency: case studies, best practices, industry trends, airline rankings. Brighter Planet, San Francisco, CA. Presented at the 2012 Conference of the Institute for Computational Sustainability, Copenhagen, Denmark.

**Kling, M.** and I. Hough (2012). Hotel carbon and energy efficiency: chain rankings, industry trends, efficiency drivers, market patterns. Brighter Planet, San Francisco, CA

**Kling, M.** and I. Hough (2011). Employee Engagement in Sustainability. Brighter Planet, San Francisco, CA

**Kling, M.** and I. Hough (2010). The American carbon footprint: understanding your food's impact on climate change. Brighter Planet, San Francisco, CA

**Kling, M.** (2005). The ecophysiology of alpine treeline: spatial patterns in balsam fir (*Abies balsamea*) growth and water relations on Mount Abraham, Vermont. Undergraduate senior honors thesis, Middlebury College.