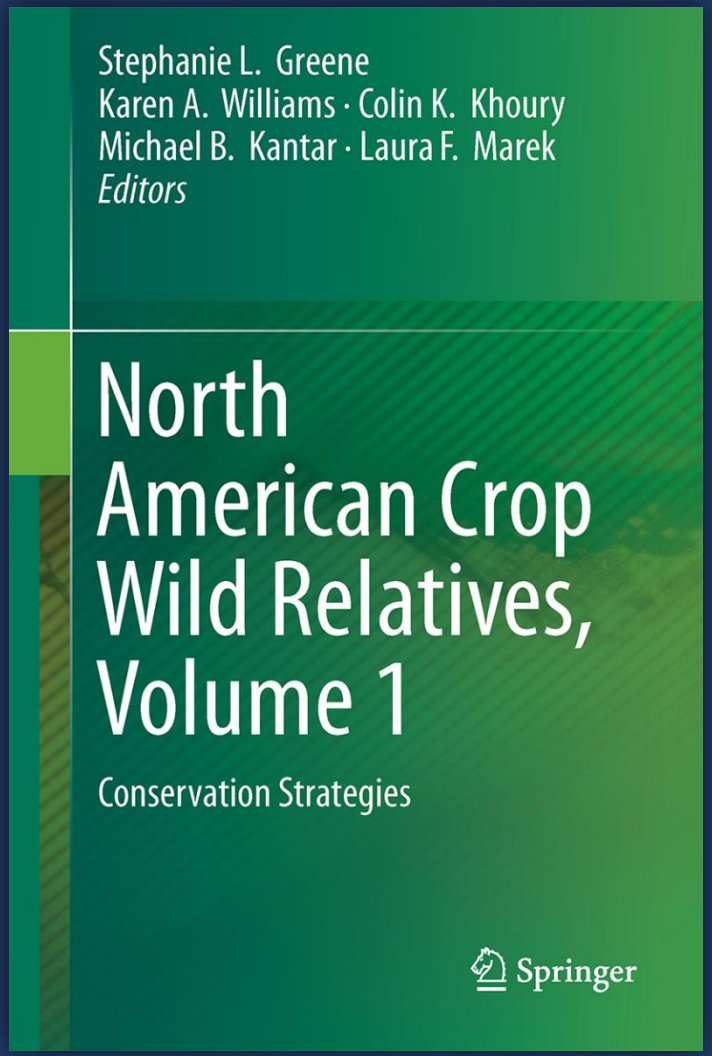
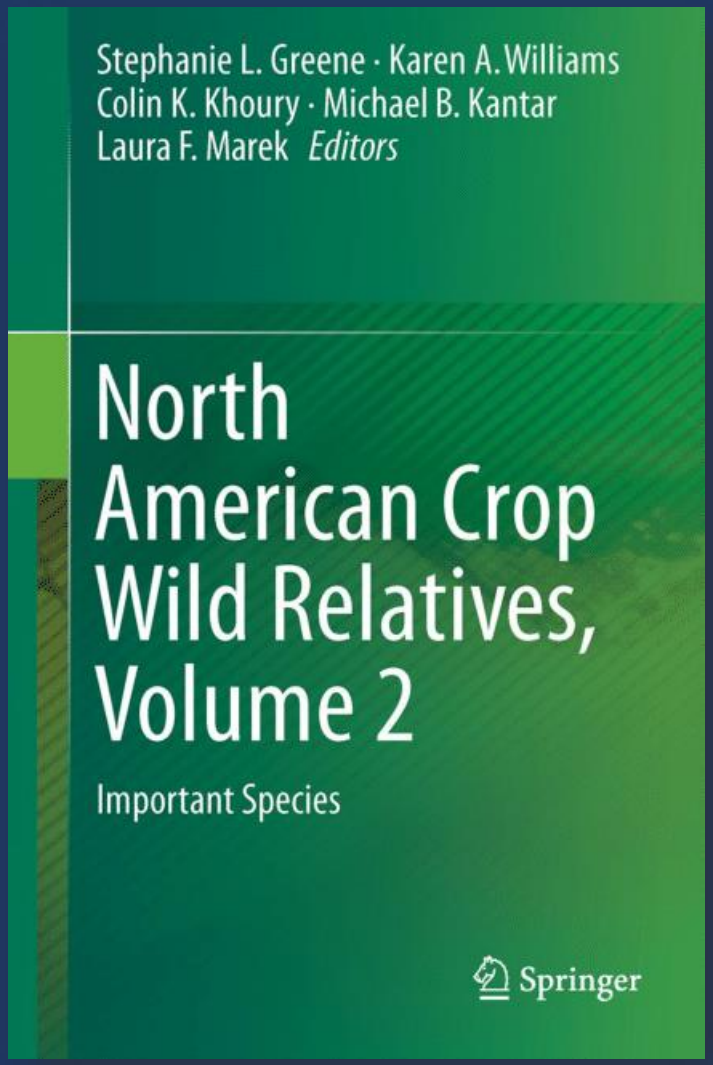
Building a Road Map for North American Crop Wild Relatives

Colin Khoury, Stephanie Greene,
Tara Moreau, Sarada Krishnan, Allison Miller

Celebrating Crop Diversity: Connecting Agriculture, Public Gardens, and Science
4 April 2019
World Food Prize Hall of Laureates
Des Moines, Iowa USA

North American Crop Wild Relatives (2018, 2019)



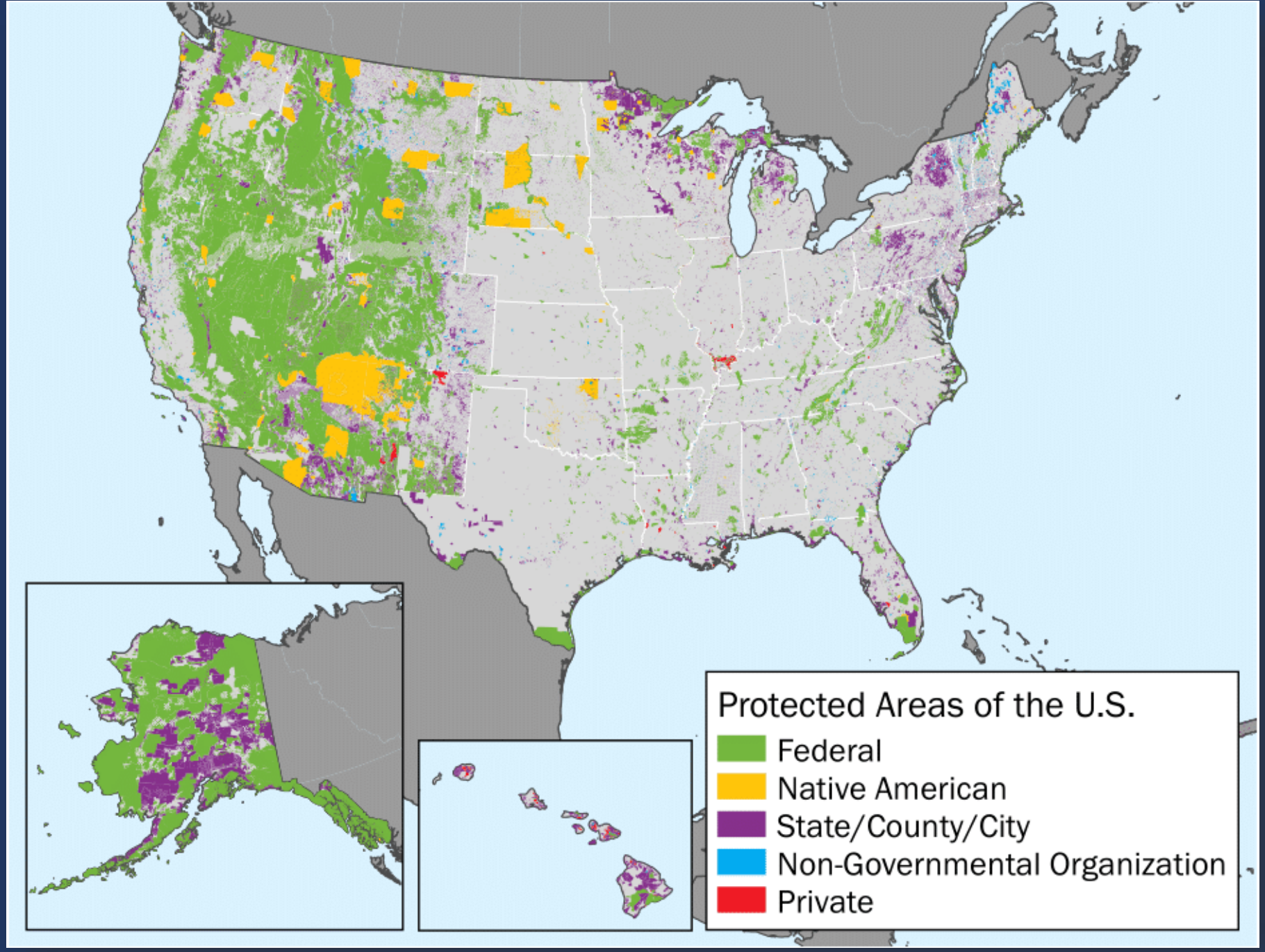


Greene *et al.* (eds.) (2018) *North American Crop Wild Relatives, Volume 1: Conservation Strategies*. Springer International Publishing AG, doi: 10.1007/978-3-319-95101-0

Greene *et al.* (eds.) (2019) *North American Crop Wild Relatives, Volume 2: Important Species*. Springer International Publishing AG, doi: 10.1007/978-3-319-97121-6

Pecos sunflower (*Helianthus paradoxus* Heiser) at Blue Hole Cienega, Santa Rosa, New Mexico. Pecos sunflower is a source of salt tolerance for cultivated sunflower, and is listed threatened under the Endangered Species Act and globally imperiled in NatureServe (Khoury *et al.* 2013). Photo: Laura Marek.

Helianthus pumilus, Wyoming. Photo: L. Marek



Williams and Greene (2018) Conservation of Crop Wild Relatives in the USA. In: Greene *et al.* (eds.) (2018) *North American Crop Wild Relatives, Volume 1: Conservation Strategies*. Springer. 10.1007/978-3-319-95101-0_4

Photo: N. Palmer, CIAT

Collaborative conservation of wild cranberries

Mount Hood National Forest, OR

Monongahela National Forest, WV

Gifford Pinochet National Forest, WA

Chequamegon-Nicolet National Forest, WI

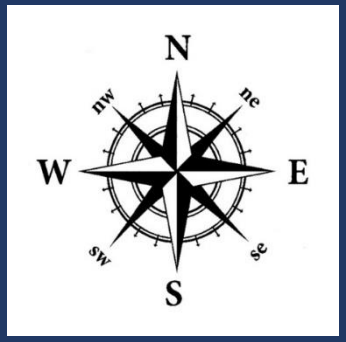
Photo: S. White

Raising public awareness about crop wild relatives

Moreau T and Novy A (2018) "Public Education and Outreach Opportunities for Crop Wild Relatives in North America". In: Greene *et al.* (eds.) *North American Crop Wild Relatives, Volume 1: Conservation Strategies*. Springer International Publishing AG, doi: 10.1007/978-3-319-95101-0

A Road Map for North America's crop wild relatives

1. Document, assess threats, and determine conservation gaps for North America's crop wild relatives
2. Protect threatened species in their natural habitats
3. Collect and conserve prioritized species *ex situ*
4. Make their diversity accessible for use, research, and education
5. Raise public awareness of their value and the threats to their persistence



Thank you!

Greene *et al.* (2019) *North American Crop Wild Relatives, Volume 2: Important Species*. Springer.

Greene *et al.* (2018) *North American Crop Wild Relatives, Volume 1: Conservation Strategies*. Springer.

Contreras-Toledo *et al.* (2018) A crop wild relative inventory for Mexico. *Crop Science* 58(3): 1292.

Dempewolf *et al.* (2017) Past and future use of wild relatives in crop breeding. *Crop Science* 57(3): 1070.

Castañeda-Álvarez *et al.* (2016) Global Conservation Priorities for Crop Wild Relatives. *Nature Plants* 2(4): 16022.

Khoury *et al.* (2013) An inventory of crop wild relatives of the United States. *Crop Science* 53(4): 1496.