



# Southern Rocky Mountain TCN

ADBC Summit 2018

October 2<sup>nd</sup> 2018

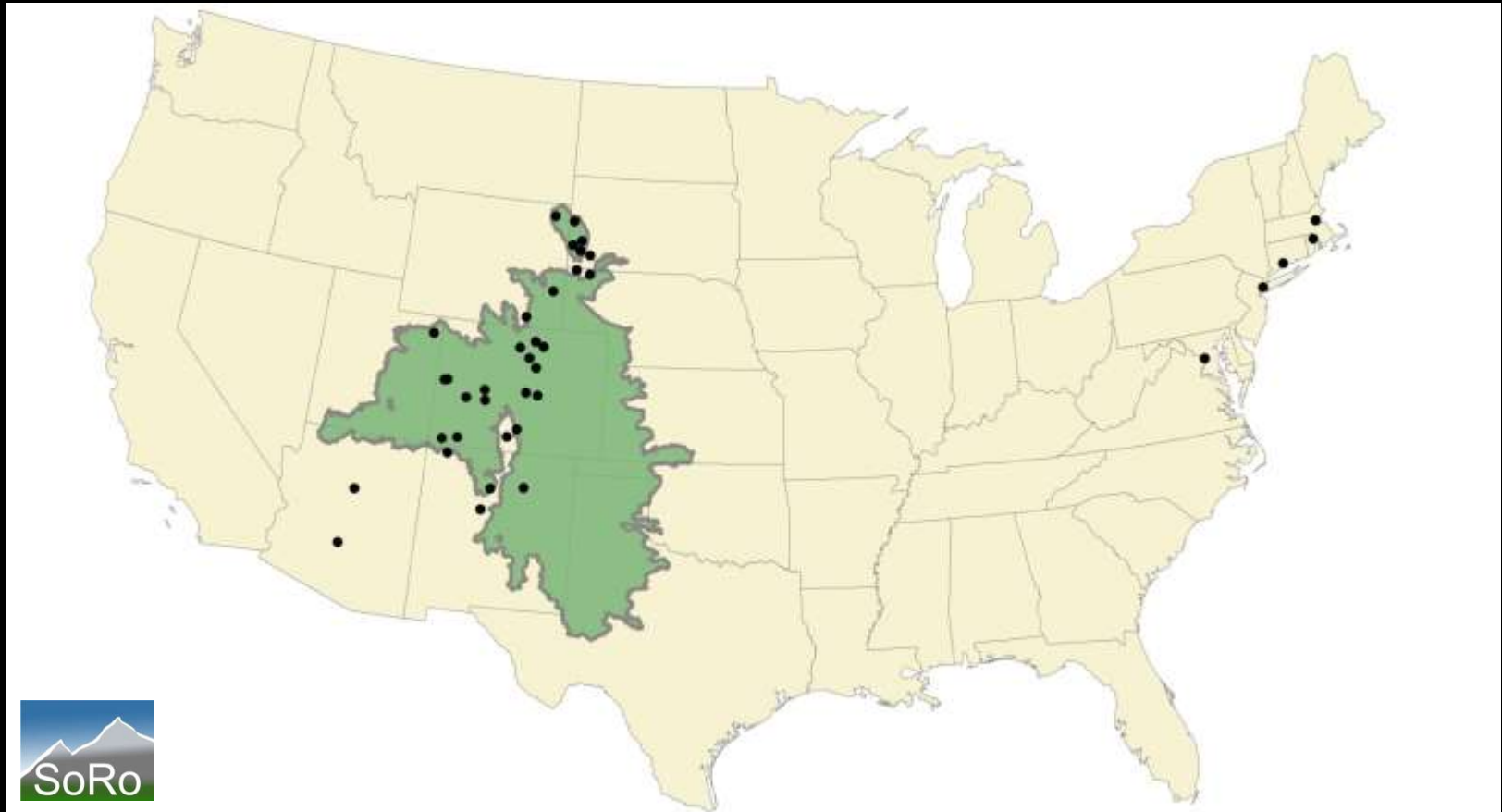
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# Using Herbarium Data to Document Plant Niches in the High Peaks and High Plains of the Southern Rockies - Past, Present, and Future





# Project Scope

- 39 partners (including non-digitizing federal partners)
- 19 partners digitizing new records
- Small (<15,000); medium (<100,000); and large (>100,000)
- 1.7 million specimens from the Southern Rocky Mountain Region
- 503,000 new database entries
- 814,000 new specimen images
- 560,000 new georeferences



# Project Progress

- [soroherbaria.org](http://soroherbaria.org) integrated into SEINet/Symbiota infrastructure
- 63 volunteers, undergraduate and graduate students trained in biodiversity informatics tasks & in botany
- 91,154 database entries completed (~18%)
- 367,436 specimens barcoded (~47%)
- 345,588 specimens imaged (~43%)
- 12,130 specimens georeferenced (~2%)





# Project Progress

- Primary focus Yr1: imaging & data entry for small herbaria partners
- Primary focus Yr2: finishing imaging & data entry (small herbaria); imaging (medium herbaria); finish imaging and transition to data entry (NYBG, GH, RM, UNM)
- PM Allen: site visits to ASC, BHSC, CSCN, FLD, GREE and SJNM to launch digitization projects



# Lessons Learned & Concerns

- Staggering start dates allows maximum contact time w/ new digitizing institutions (4 PI and 9 subaward institutions started digitizing Yr1; 5 subawards plus COLO started September 2018)
- Site visits invaluable
- Skeletal and controlled data (dropdown menus) help to filter noise, reduce keystroke errors, & create a searchable database
- Students thrive when working on various tasks
- Equipment changes / backups / updates?
- Collections worried about future of Specify (collections potentially exiting the platform and need to be ported)
- Collections worried about georeferencing (2 day training session at COLO summer of 2019)



# Outreach

- COLO working with the City of Boulder Herbarium to add collection data to SEINet
- Workshops through NAVA, SJNM and BHSC will train and give museum experience to Native American (Navajo) students
- Education modules being developed at FLD to create undergraduate course material using museum specimens



# New Contributions...

- Two education modules (FLD / CoPI McCauley):  
(1) phenology shifts; (2) morphometrics in  
combo w/ niche modeling and pollinator  
observations to understand species  
boundaries, trait divergence in sympatry, etc.  
(emphasis on native populations near campus)
- Ed Gilbert working on coordinate validation  
process using Google API to help locate  
georeferencing errors.