Colorado Plateau Native Plant Program (CPNPP) Overview; Meeting Goals

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What’s a Native Plant Materials Program?

1. Native Seed Collection
2. Evaluation & Development
3. Field Establishment
4. Seed Production by Private Growers
5. Seed Storage
6. Restore Native Plant Communities

Research at all Stages

(Simplified)
Why create CPNPP? To support Restoration & Reclamation success!

- High regional materials demand driven by landscape/habitat degradation due to invasive species, drought, development, fire, climate change
- Accumulated science tells us: to get resilient ecological function and ecosystem services, need genetic diversity, origin (provenance) of plant material important (how far should seed be moved?)
- Past: most commercial plant materials originated outside of region, may have been heavily selected with possible loss of genetic diversity
- CPNPP “Plant Materials” = seed, seedlings, propagules
The CPNPP Region, PSTZs & Releases

Do we have what we need? Not if goal is to source by local adaptation

2014 - Provisional Seed Transfer Zones

Bower et al

Map: Rachel Hosna
Colorado Plateau Native Plant Program

CPNPP est.~2009

- Federal & state agency support and funding:
  - BLM, USFS, UCEPC, UP, USGS, NRCS LLP MC
- Coordinator Wayne Padgett (2009-2013)
- Other partners engaged due to common interests & missions, perceived needs
  - Chicago Botanic Garden, Univ. of Utah Rio Mesa Research Center and Red Butte Botanic Garden, Northern Arizona University, Landsward institute, Northern AZ Native Seed Initiative, Mayberry Plant Propagation Center, Seed Growers and Distributors
- Science Leadership USGS Southwest Biological Research Station (SBRC) Troy Wood 2010-2016; 2017 John Bradford, Jayne Belnap, Rob Massatti, Daniel Winkler
CPNPP Vision & Mission

VISION - A Colorado Plateau region that supports healthy and resilient native plant communities now and for future generations.

MISSION - To facilitate the increased availability of native plant materials for use in restoring native plant communities and ecosystems of the Colorado Plateau region.
CPNPP Guidance, Products

- Five-Year Strategic Plan & Operation Plan
- Exec. Committee, Working Groups, MOU
- Research Strategy (pending)
- Priority Species Lists
- Annual Meetings
  - Science Retreats at Bonderman Rio Mesa
- Annual Reports
- Communication - Website (now landscape.org), Monthly Conference Calls
- Conservation Registry page (offline now)
CPNPP Strategic Goals & Objectives:

As per 2014 5-yr Strategic Plan

1. Collect Native Plant Materials
2. Evaluate, Research & Develop
3. Establish Foundation Fields, Increase
4. Commercial Production
5. Seed Storage
6. Restore Native Plant Communities
7. Monitor Restoration Effectiveness & Feedback
8. Communicate with Partners & Public
Noteworthy Accomplishments

- Partnership Agreements – more than doubled in 2017
- CPNPP Monarch Conservation Grant – Nat’l Fish & Wildlife Foundation – milkweed/ nectar-producing seed, increase, use, Educ.
- Wildland Collection Evolution – SOS Protocol, R&D, increase
- National & Global seed requests from ARS GRIN storage – 50 states, 36 countries, multiple researchers, corporations, NGOs
- CPNPP Database Created – tracks inventory; allows data queries, R&D and seed use request coordination
- Better than PSTZ: Climate Similarity Transfer Zones using Species Distribution Models – NAU, USGS
- Mobile Collecting and Sourcing Tool (and with changes in climatic conditions) – Doherty et al
- Native Seed Market Economic Analysis – Camhi et al
- Evaluating Restoration failures & successes: CPROD (CBG), RAMPS (USGS), LTDL, WRI, SDARRT, AIM, etc.
- INFORMATION SYNTHESES COMING! Species Trait data – help practitioners on the ground (seed menus, sourcing)
- Quantitative Seed Needs Assessment – GIS layers, Plans
2017 CPNPP SOS Teams, Partners, other Plant Materials Programs
CPNPP 2018 Meeting Objectives

- Share information about CPNPP & partners; Native Plant Materials (NPM) use and development:
  - Stakeholder goals, investments and outcomes
  - Resources available: NPM, people, data, tools

- Facilitate networking across disciplines:
  - Respectfully listen to & communicate with one another
  - Listen, learn, share, teach and THINK;

- Show ways to get involved including:
  - Scout & collect; host trial or study site; incorporate new NPM in projects/ work, to allow comparisons & evaluation; engage in Outreach (develop, share, borrow ideas or materials); participate in research.
Thank you!!

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