Dolores River Dialogue

- DRD works to mesh together the different entities and interests on the Dolores River, and reflect that coordination back out to the community.
- Create transparency and confidence by making scientific information more available and useful to the stakeholders and to the community.
- DRD Core Science Team Report 2005 focused on environment downstream of McPhee, gathered together data and science to clarify role that river flows play.
- Study and integrate 4 disciplines:
  - Native warm water fisheries
  - Cold water fisheries
  - Channel function
  - Riparian Ecology
- Ongoing efforts (Adam Coble, Big Gypsum Study Site, Bugs Consulting, etc.)

Photo by Jim Siscoe

Photo by Peggy Lyon.

Photo by Ann Oliver

Riparian Ecology: Range of Natural Vegetation

What and Where?

McPhee Dam Reach 1: Narrowleaf Cottonwood, boxelder and willow. Also: strapleaf willow-coyote willow, narrowleaf-boxelder/red-osier dogwood.

Bradfield Bridge Reach 2: Ponderosa Pine, willows and oak. Some very old trees. Also: skunkbrush shrubland.

Dove Creek Pumps Reach 3: Ponderosa pine, boxelder, some cottonwoods, Pinyon and Juniper. Also, skunkbrush shrubland

Joe Davis Hill **Reach 4:** Sagebrush, greasewood, Silver buffaloberry, willows, some Rio Grande cottonwoods and tamarisk. Also New Mexico wild privet shrubland.

San Miguel/Montrose County Line Reach 5: Willows, giant reed, some tamarisk, knapweed. Also New Mexico wild privet shrubland.

Bedrock Reach 6, Reach 7: Large old Rio Grande cottonwoods, willows and Tamarisk., Also Wild Privet Shrubland

Gateway Reach 8: Tamarisk and willows. Also Wild Privet Shrubland.

Colorado River

Riparian Ecology

Significance?

* Water quality (sediment and temperature)
* Channel stability and function
* High value habitat – cover, forage, fruit, nesting
* Most upland wildlife use riverside habitats for some portion of their life cycle
* Recreation and livestock values
* Uncommon plant communities:

eg. NM Privet: only known occurrences in CO and UT. CO: occurs only in the Dolores River Basin.

Ecological Needs?

- Flows and water table
  - Magnitude and timing
  - Creation of appropriate sites
  - Days of Inundation
  - Rate of Recession of water table

- Suitable sites for establishment and survival
  - Soils: coarse to fine
  - Salinity
  - Light

Trends?

- Some evidence of channel narrowing and lack of cottonwood recruitment (some reaches).

- DRD's Big Gypsum Study Site
  - Permanent plots will allow monitoring changes in vegetation in response to any adjustments in magnitude and timing of flows.
  - Monitor how changes in vegetation may relate to changes in the aquatic environment.
  - Tamarisk control underway.

- Tamarisk beetle present.

- Partnership coming together around funding and implementing tamarisk control and riparian restoration throughout Dolores River Basin.

Photo by B. Jennings (Copyright 1999).

Photo by C. Crawford (© 1999 from
Rare Plant Field Guide (Spackman et al 1997).

Eastwood Monkey Flower (*Mimulus eastwoodiae*)

* some flowers look like or are shaped like a monkeys face
* snapdragon family
* occurs in “hanging gardens”
* Given latin name in 1911 by Axel Rydberg, after schoolteacher/botanist: Alice Eastwood

Where?

Slick Rock Canyon, McIntyre Canyon, Coyote Wash

Significance?

* only found in the canyon lands of the 4 Corners (Utah, Colorado, Arizona, New Mexico, Navajo Nation).
    * Gunnison River, Dolores River, Colorado River, San Juan
* ~ 25 occurrences mapped, and an additional 30-40 sites have been documented in the Navajo Nation.
* Colorado: ~ 8 known (Montrose, Mesa, San Miguel, and Delta).~5000 plants
* Arizona: ~ 5 are known (Apache, Navajo, and Coconino)
* Utah: ~10 are believed extant in (Garfield, Grand, Kane, and San Juan),
* New Mexico: 1 (on Navajo Nation) was discovered in 2002 and is close to the Arizona border.

Ecological needs?

- Water seeping out of sandstone canyon walls
- Site stability

Trends?

“Many hanging gardens in the Navajo Nation have been documented to be drying out; while this species is among the longest lasting plants in drought-stressed hanging gardens, continued drying will eventually cause extirpations (D. Roth, pers. comm. 2008). http://www.natureserve.org/explorer/ “

Photo by © J. Ratzloff, Courtesy of the Smithsonian Institution, Department of Systematic Biology, Botany.

Photo by Peggy Lyon

Photo by Peggy Lyon

Kachina Daisy (Erigeron kachinensis)

* 1st identified in the seeps near Kachina Natural Bridge in Natural Bridges Monument, Utah
* 1st identification in Colorado in 1977 in the Dolores River Canyon. (http://www.centerforplantconservation.org/)

Where?

Coyote Wash

Significance?

* Estimated total number of plants: 7,600
* Colorado Plateau endemic. Known from a few sites in southeastern Utah (Garfield, San Juan), and from 2 sites in Colorado (Montrose).
* At least 15 occurrences, though probably more as additional botanical surveys are completed (esp. in Colorado).

Ecological needs?

- Water seeping out of sandstone canyon walls
- Site stability
- Saline soils (Allphin 1991).

Trends?

May be stable, but needs more study..

Upland Ecology

Significance?

* Habitat (cover, forage)
* Soil stability
* Uncommon plant communities
* High quality reference communities
* Rare plants (Naturita milkvetch, Dolores skeleton plant, Short-stemmed Penstemon, Gypsum Valley cateye, lichens)

Ecological Needs?

- Suitable sites for establishment and survival
  - Soils (weird?)
  - Salinity
  - Moisture regime
  - Site stability and/or disturbance (eg. Fire, erosion)

Trends?

Photo by Southwest Colorado Wildflowers

Photo courtesy of James Reveal.

Management Questions

- How do we protect and enhance the ecology of the Dolores River while allowing for compatible uses? (Specifically the riparian ecology and the aquatic ecology.)
- What are possible management objectives for old growth Ponderosa pine?
- What management opportunities and strategies exist to maintain or improve the existing quality of the riparian and wildlife habitat?
- How do we ensure the continued existence of federally listed, state listed, and BLM and FS sensitive species? (Will try to get a list of species before the meeting.)
- How do we minimize potential conflicts with recreational use of public lands and the preservation of federally listed, state listed and BLM and FS sensitive species habitat?
- Questions carried over from the recreation discussion -
- What is the best method for coordinating/communicating river flows and rafting use?
- Should the Dolores River be on a permit system for rafting use?
- Should campsites be on a reserve or first come – first serve system?