Effective Conservation of a Rare Amphibian through Partnerships

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Amargosa Toad (*Anaxyrus nelsoni*)

- endemic to the Amargosa River drainage; only toad in the area
- occurs along 10-mi of Amargosa River and nearby springs
- occur in urban environments (including residential yards)
- considered twice for listing under ESA
Range – Amargosa toad
Amargosa Toad Conservation Needs

• Connected habitat and ability to move among “metapopulations”
• breeding, feeding, and sheltering habitat
• absence of nonnative predators
• balanced disturbance
Other Conservation Targets

- Oasis Valley speckled dace
- Oasis Valley springsnail
- Pacific (Baja) chorus frog
- native canopy tree sp.
- migratory birds
Management History

- Conservation Team (1996)
- population monitoring (1998)
- TNC purchases 2 ranch properties (1999-2000)
- STORM-OV formed (Saving Toads thru Off-Road Racing, Ranching & Mining in Oasis Valley) (2008)
Private Landowner Partners

• Dave Spicer/STORM-OV
• Shirley Harlan
• Ed Ringle
• Rita Mullins
• Rene Younghans
• The Nature Conservancy
• Others
Other Partners

Local, state
- Beatty Habitat Committee
- Beatty Town Board
- Nye County
- NDOW
- NNHP
- NDOT

Federal, academic, other
- BLM
- NRCS
- FWS (ES & PFW)
- Corps of Engineers
- UNR
- UNLV
- Conservation Organizations
Accomplishments

• 16 years mark-recapture data
• habitat acquisition
• extensive habitat improvements
• increased access to sites – private land
• all partners recognized by FWS, NDOW, and NV congressionals- 2012
How partnerships work....two examples-
Example 1: Bryan Spring Restoration
Bryan Spring Restoration

- Historic site for toads
- BLM land
- fenced in early 1990s
- threatened by vegetation overgrowth, reduced surface water
- population decline
Bryan Spring Restoration Process

- Conservation team (in CA/S) recognizes need- priority
- BLM prepared EA
- Dave Spicer/STORM-OV design and proposal
- FWS provided funds
- Dave Spicer/STORM-OV performed restoration
- NDOW- monitor site and toad population
Example 2: Stagecoach Riparian Restoration

- Remove berm and restore historic flow patterns
- Increase open water
Partnerships

- Federal (BLM) and private landowners
- CORPS permit issued
- Ed Ringle donated 1,610 linear feet of Amargosa River channel to TNC
- TNC received 2 grants:
  - NDEP
  - Desert Fishes Habitat Partnership
- NDOW – LIP program and USFWS – PFW program
- STORM-OV contractor and in-kind match
- Town of Beatty $3,000
- total budget $250,000
• Berms divide the River flow (red line)
• Project boundary (teal line)
Before Restoration

• Dense vegetation, constricted channel
• Waterway used as OHV trail
• Not functioning properly
• Bullfrog habitat
After Restoration

• Free-flowing waterway
• Improved function, water quality and quantity
• Toad and dace habitat
• Restored full capacity of the channel
Preliminary Project Results

• Berm is gone (removed 18,610 cubic yards of fill) but project not complete
• May 2013 toad surveys - 18 toads at this location at south end of project area
• Toad response:
  – Increased use
  – Tadpoles
  – Toadlets
Restoration Through Partnerships

• Since 2006 – 15 habitat restoration projects completed
• restored 12 springs and 1.54 miles of river/stream habitat
• created 78 acres of toad foraging & breeding habitat
• extensive saltcedar removal
What drives individuals to embrace conservation and get involved?
“My mind wanders to all those folks out there who are confused and embattled by this bureaucratic world. It's only because of my experiences from my youth to maturity which created the passion that I have. I love my childhood memories, they touch me in ways that make my eyes water and form goose bumps.

This is what moves me, what made me educate myself, get involved. This is the thing that drives me to protect it, the thing I've given to my children, an awareness of the world around them. That is why we protect it, why we care about all things alive, whether they've got feathers, hooves, fur, scales, bare skin or leaves”.

- Dave Spicer, STORM-OV
The Future

• Revise conservation agreement/strategy
• BLM- Tonopah RMP revision
• continue population and habitat monitoring
  - disease sampling
• restore Indian Spring and additional sites
• secure resources to maintain sites
  - Partners for Wildlife (FWS), LIP funding (NDOW)
• establish trail system
• acquire habitat when available
Conclusion

• Local conservation efforts can improve the status of sensitive species, particularly narrow endemics.

• Cooperative, voluntary conservation may benefit some species more than listing.

• Management through regulations should be considered if non-regulatory efforts fail.

• Maintain and monitor compatible land uses.