

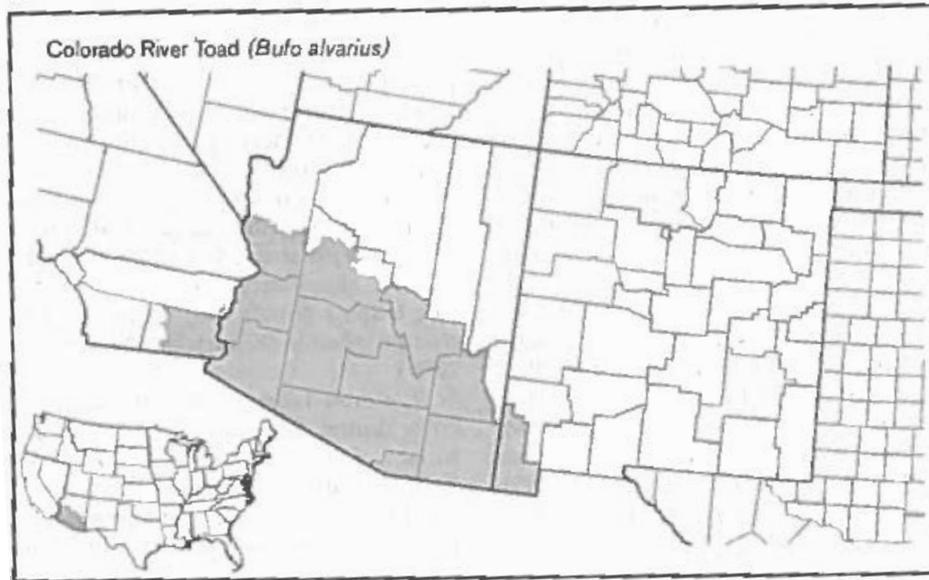
Ecology and Breeding Habitat of Colorado River Toads

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Localized Extirpation on LCR

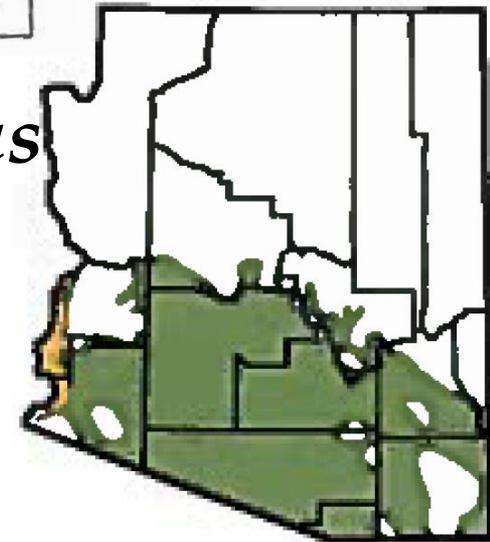


Incilius (=Bufo) alvarius

Colorado River Toad

a.k.a.

Sonoran Desert Toad



**Ecological Change is a Reality:
MSCP was created to deal with it**



Lower Colorado River Multi-Species Conservation Plan

- Habitat Conservation Plan - works toward the recovery of threatened and endangered species, reducing additional species being listed



Long term goals of MSCP for CRTO

- Determine distribution
- Protect existing occupied habitat
- Determine feasibility of establishing in unoccupied habitat



The Road Ahead

- 2011 – 2013
 - Effort determined the extent of CRTO distribution on the LCR.
 - Bill Williams River
- Determine the ecological requirements of the species



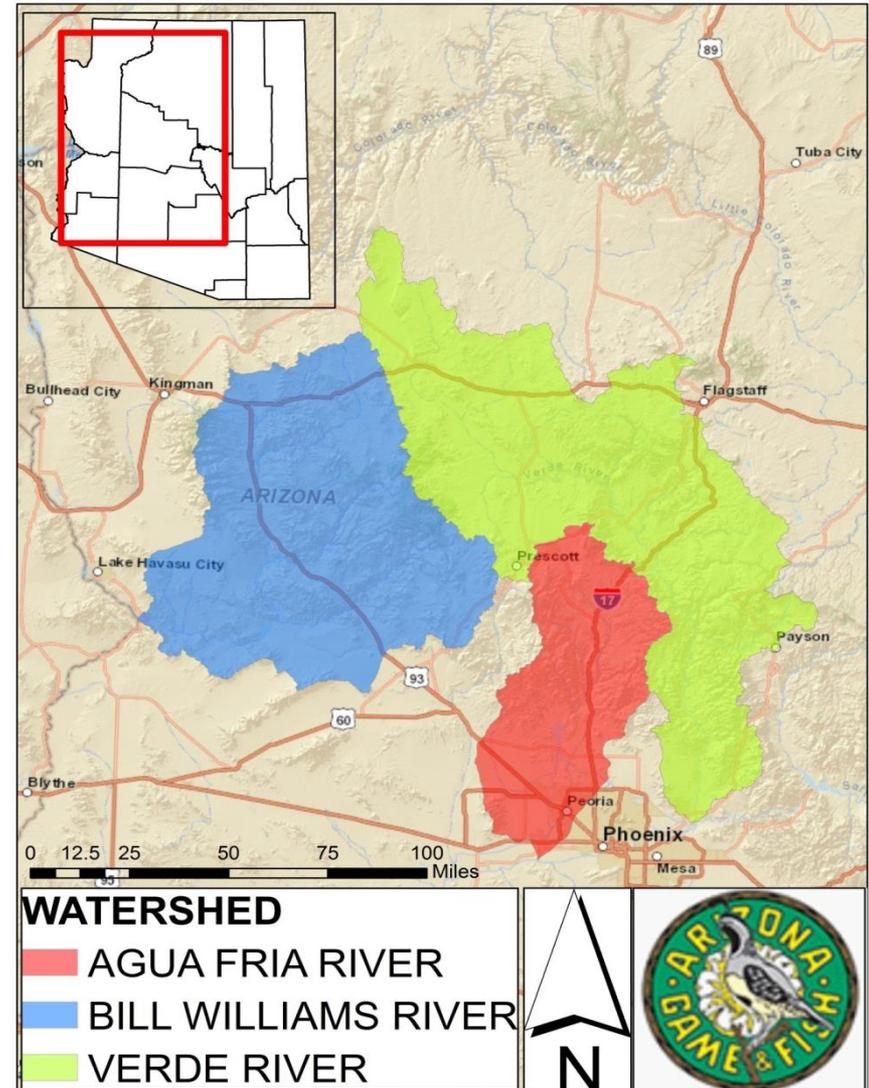
Ecological Requirements of CRTO

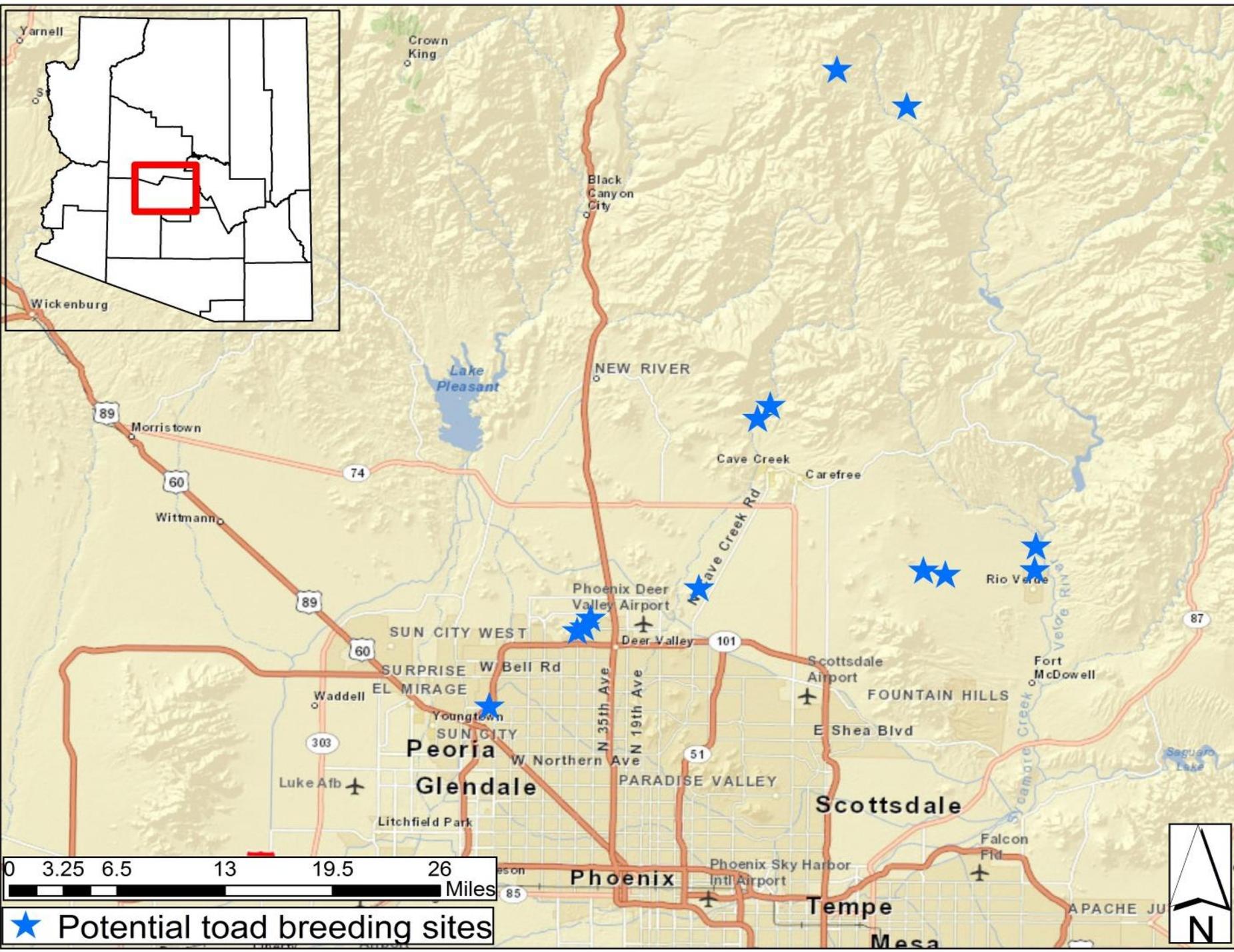
- What governs egg laying (oviposition)?
- What influences developmental success?



What breeding habitat is required?

- Limited observations on BWR so...
- Two additional nearby drainages were assessed:
 - Agua Fria
 - Verde

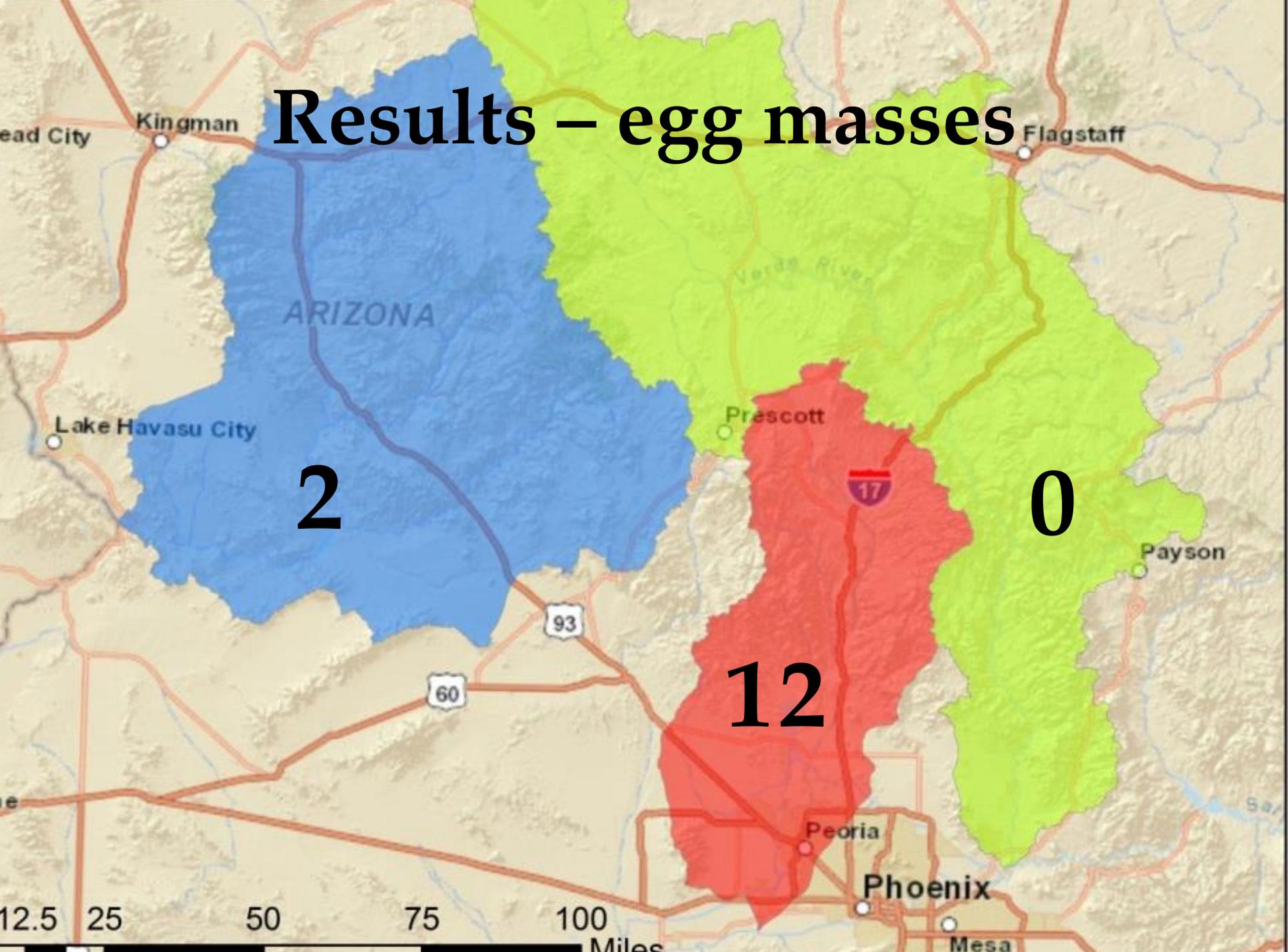




Methods

- Survey historic locations for breeding
- Multi-scalar approach to evaluating habitat:
 - Determine microhabitat characteristics of location (oviposition sites)
 - Local conditions necessary for multiple oviposition events (oviposition clusters)
 - Population centers – regional conditions

Results – egg masses



Results – oviposition sites

- In pools of lentic water
- Open canopy
- Few were attached to vegetation





Discussion

- Explosive monsoon breeders
- Fast developers



Recommendations

- Due to fast response to monsoon rains, more observers will be deployed.
- Radio-telemetry of individuals will inform decision makers better.
- CRTO like lentic waters, these were not common on the LCR.
 - Restoration efforts for CRTO habitat should focus on oxbow-like habitats like those at Quigley WMA



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- **Photo credits** – T. Cotten, B. Sullivan



Questions?



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