



Lowland Leopard Frog and Colorado River Toad Distribution

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Study Organisms

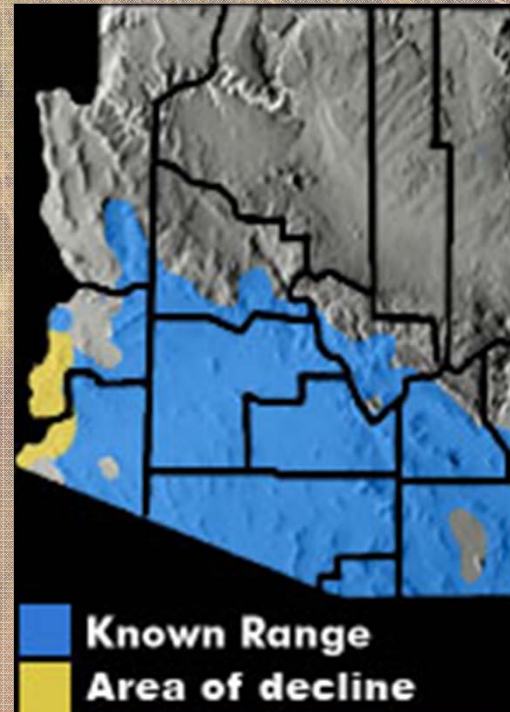
Lithobates yavapaiensis

(Lowland Leopard Frog)

-Spring Breeder

-Variety of habitats near permanent water

-Do well with periodic flooding



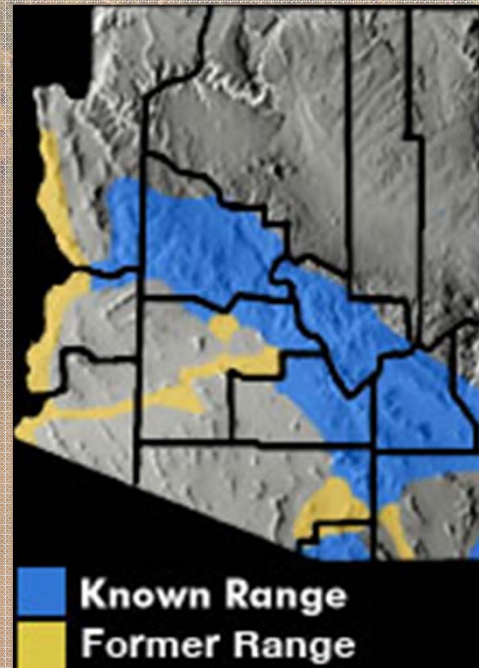
Study Organisms

Incilius alvarius

(Colorado River Toad)

-Monsoon Breeders

-Primarily found in arroyos and desert washes.





Background

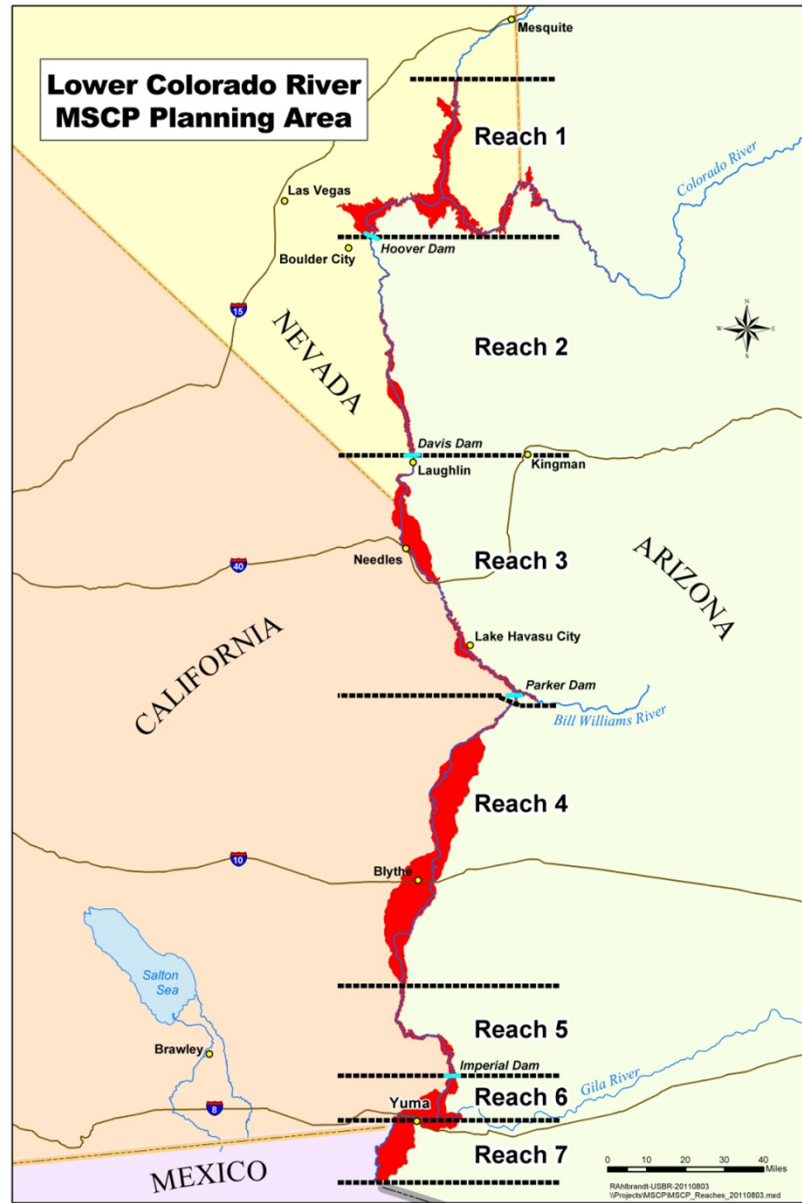
- Lowland Leopard Frog not observed on main channel of the LCR since 1974

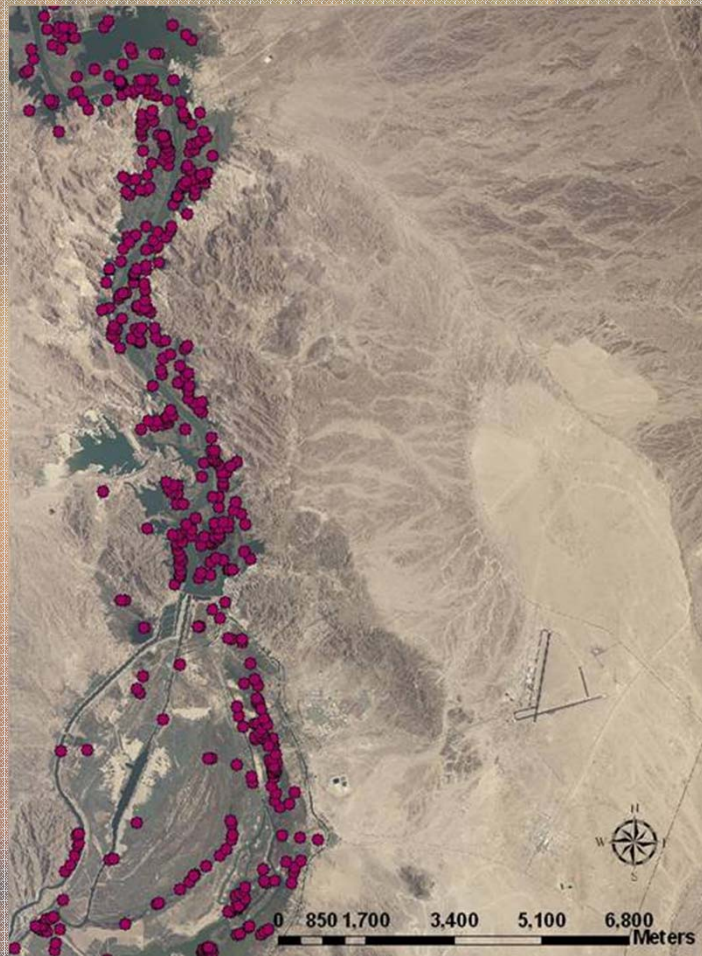
- Colorado River Toad several anecdotal reports, no intensive search efforts in several years.

- Lack of formal surveys and coordinated search effort



**Lower Colorado River
MSCP Planning Area**





Narrowing Down the Study Area

- Study Area
recent sightings
- GIS analysis
backwater
vegetation
- Primary focus on refuges

Focusing Effort

- Preliminary field visits
- Habitat ranking
 - based on vegetation type
 - canopy
 - presence of bullfrogs
- Eliminate poor areas, and consolidate sights





Survey Methods

Three techniques:

- Spotlighting and visual surveys
targeting adults
- Auditory surveys
targeting breeding adults
- Dip net and funnel traps
targeting tadpoles

Spotlight and Visual Surveys

- Formal surveys began at dusk
- Looking for eye shine, breeding, movement etc.
- Surveyed ranked sites
interstitial area between sites
and any new unranked sites



Auditory Surveys

- Male amphibian vocalizations
- Surveys began a minimum of 30 minutes after sunset
- Call-Response





Dip net and Funnel Traps

-Primarily targeting larva

-Traps left for a minimum of 24 hrs.

ten traps per site

-Also sampled potential predators



Quantifying Habitat

- Within three days of a sighting quantify ten meter radius around observation point non-site
- Distance to water
- Water characteristics
- Vegetation composition and density



2011 Results

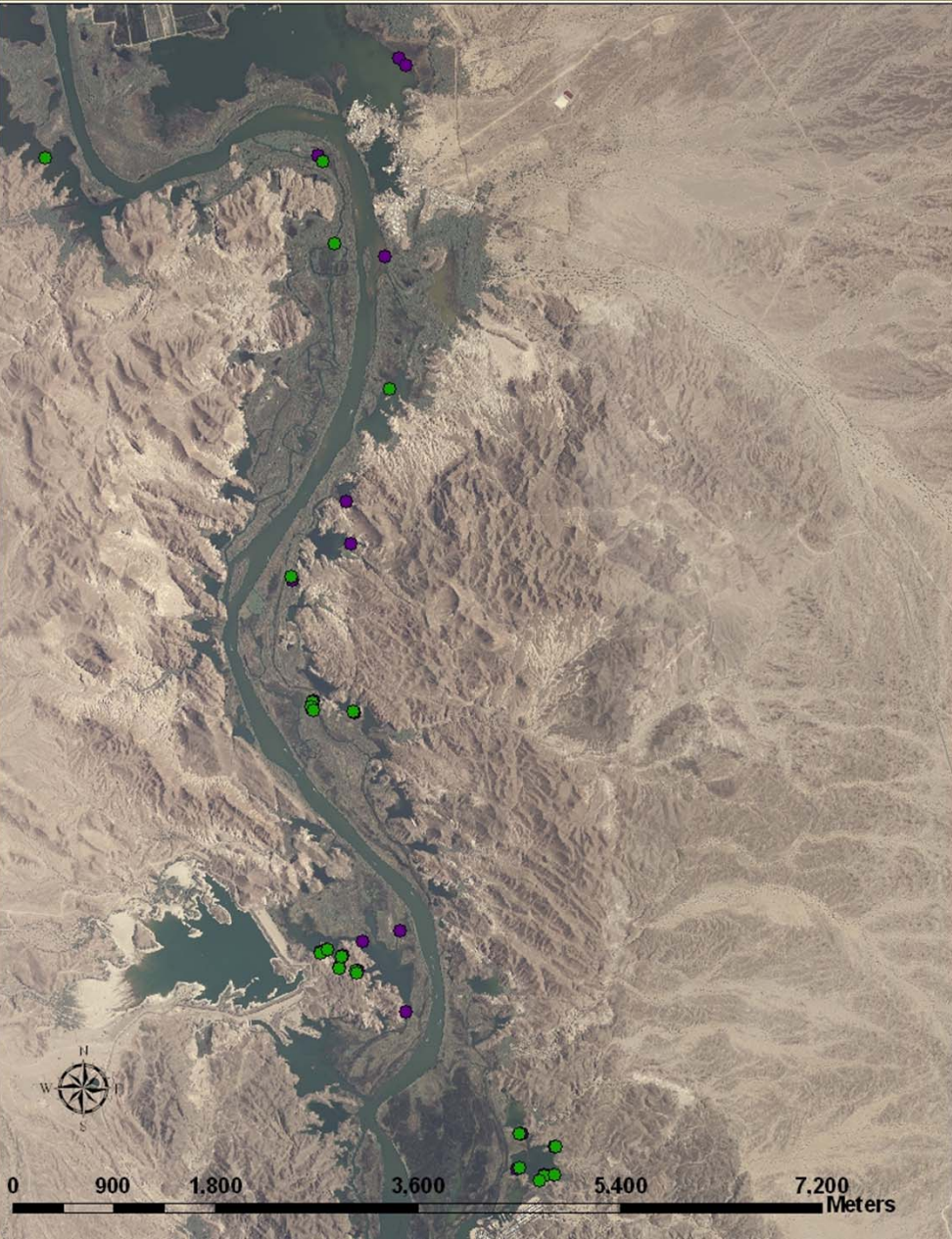
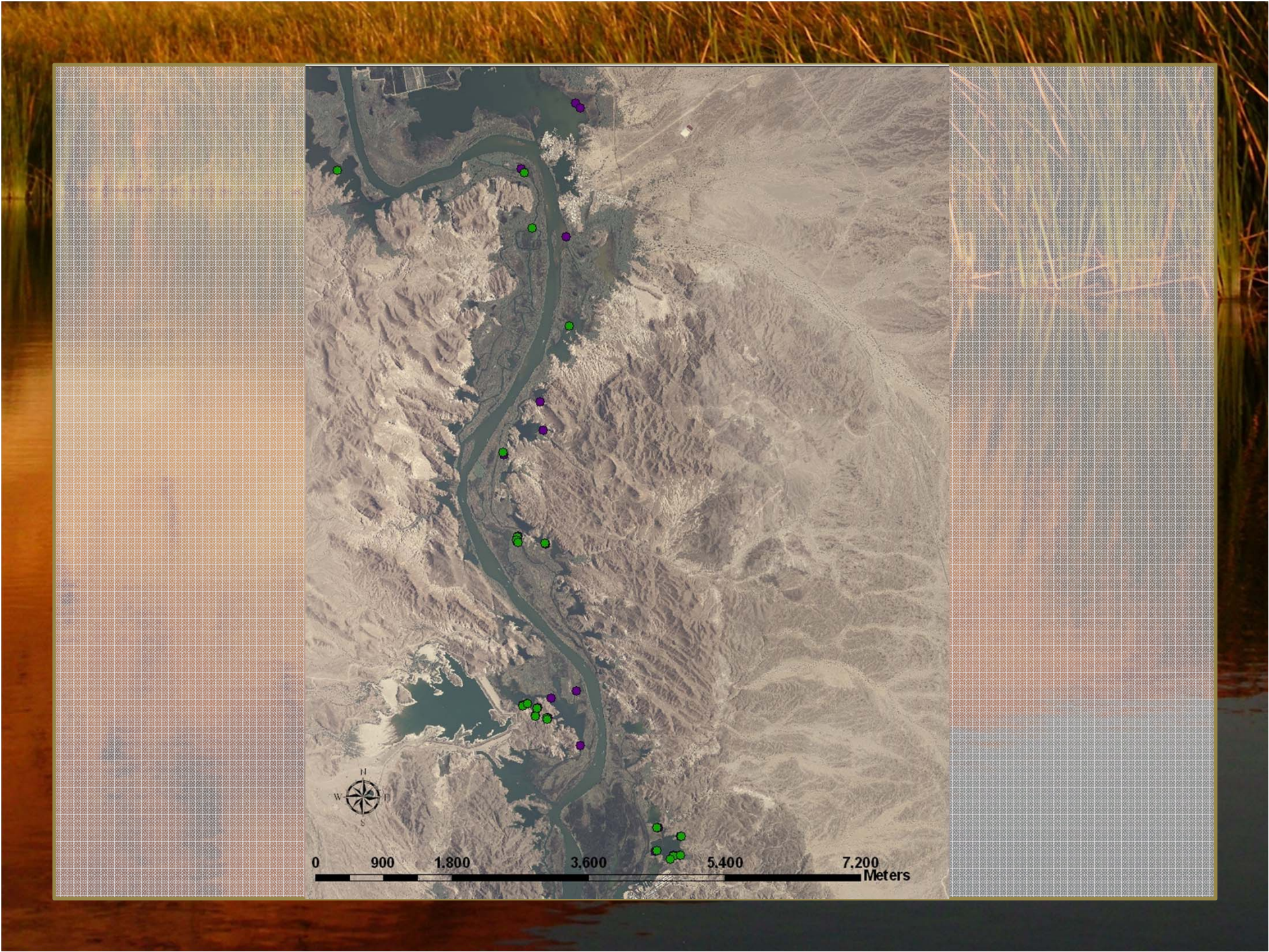


- Approximately 127 hours of nocturnal surveys conducted
- Funnel Traps were deployed at 101 different locations, and logged over 55,000 trap hours

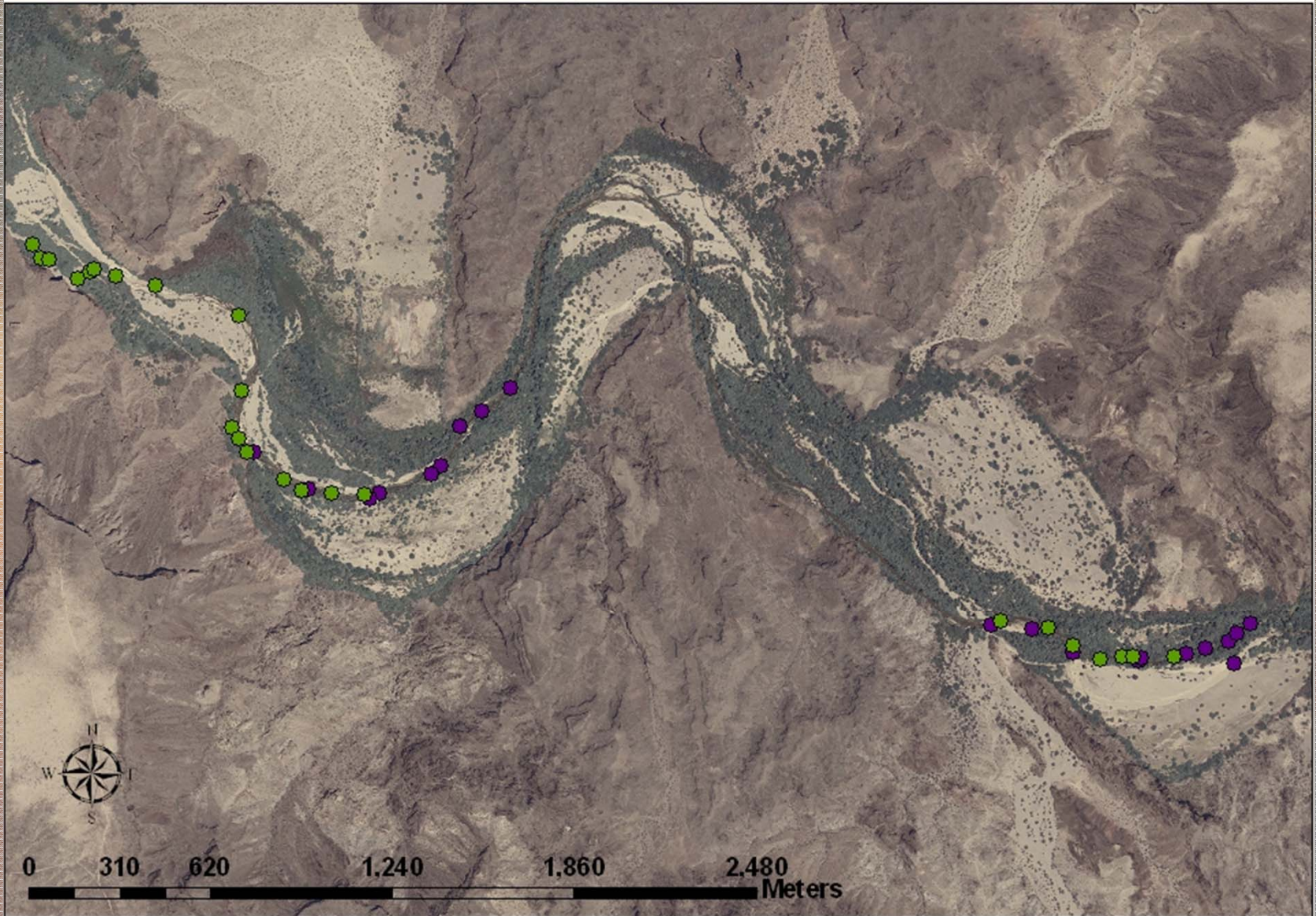


0 1,250 2,500 5,000 7,500 10,000 Meters





0 900 1,800 3,600 5,400 7,200 Meters





Results

No Lowland Leopard Frog
adults or larva observed

Planet toads...

-Six individuals marked
two females, four males

-Atypical habitat...?

Invasives

Results Continued...

	BUAL	RABE	BUWO	BUCO	BUPU	BUMI	SCCO	HYRE	RACA	Bass	Crawfish
Bill Williams River				X	X	X				X	X
Havasu NWR			X	X				X	X	X	X
Cibola NWR			X	X					X	X	X
Ahakhav			X	X					X	X	X
Mittry/Imperial NWR		X							X	X	X
Gila River		X	X						X	X	X
Planet Ranch	X			X	X	X	X				

Future Plans

- Continue surveys and trapping at new and high quality sights

- Investigate new techniques eDNA

- Quantify habitat!





Questions?

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