

Notes from Southwestern Pond Turtle Meeting on 1 November 2010

Attendees:

Tim Hovey	DFG
Dave Mayer	DFG
Robert Fisher	USGS
Chris Brown	USGS
Ron Rempel	SDMMP
Yvonne Moore	SDMMP via phone

Purpose of Meeting

Southwestern pond turtle (WPT) has been identified as a focal species for management in the draft Fiscal Year 2011 Land Management Grant Program. The San Diego Management and Monitoring Program is trying to assemble information regarding potential management actions to improve the status of WPT populations in San Diego County. Topics to be discussed:

1. Overview of species status in San Diego County
 - a. Known populations
 - b. Stressors affecting the species
2. Head start program
3. Concept of what recovery in SD County might look like
4. Priority Management Actions (5 year horizon) and geographic focus

Background:

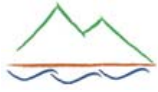
The WPT is a covered species for the San Diego Multiple Species Conservation Program (MSCP) and is included in other regional plans and conservation efforts in San Diego County. USGS has monitored WPT sites in the MSCP region of San Diego for nearly a decade finding no successful recruitment in the plan area during that time and very few turtle populations within the region in general. USGS and UC Davis are also working together to analyze WPT genetic material to help better understand inter- and intra-watershed genetic structure. The analysis will help identify which populations are most similar utilizing Single Nucleotide Polymorphism (SNP) loci and might be appropriate for assisting active management decisions including reintroduction. The genetic work includes both a state-wide and Southern California focus and preliminary results should be available in April 2011.

Current status and management opportunities:

- WPT populations in the Southern Portion of San Diego County (south of Marine Corps Base Camp Pendleton) are in pretty bad shape. Overview by major watershed:

Tijuana River

- The Pine Valley Creek population on USFS land appears to be the healthiest in the region with large numbers and all age classes present and no exotic turtles detected.



- Hauser Canyon also has a population of WPT that may be in reasonably good shape and needs to be assessed.
- Currently there are no known WPT populations below Barrett Lake in the Tijuana River watershed in the US.

Otay River

- No WPT populations currently known in the Otay River watershed.

Sweetwater River

- Sycuan Peak Ecological Reserve (ER) - USGS has an on-going exotics removal and evaluation program and has found gravid females, but age classes are limited.
- No known populations occur below Sycuan Peak ER although some individuals may occur downstream.
- The WPT population above El Capitan within USFS lands has not been assessed.

San Diego River

- No current WPT detections on the San Diego River below El Capitan Reservoir.
- Turtles recently detected in decent numbers in San Diego River above El Capitan and in Cedar Creek and King Creek above El Capitan.

Los Penasquitos

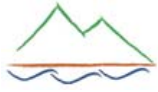
- Some scattered individual WPT have been detected in Los Penasquitos Canyon. There are high numbers of exotic species in the watershed combined with dynamic streambeds resulting in poor habitat for WPT. It may be possible to tap into the potentially significant volunteer effort to sustain a viable population within the preserve area across jurisdictional boundaries, but this will be challenging.

San Dieguito

- San Dieguito River has no known populations from SR 101 through the San Pasqual Valley.
- The population in Lusardi Creek appears to have declined drastically over the last several years and there is now a significant largemouth bass population in the area where WPT formerly occurred and it currently supports many exotic turtles.
- No WPT are present on Boden Cyn ER but Rancho Gueito may have a healthy population; however, the private consultants working on Guejito report very few sightings of WPT.
- Santa Ysabel Creek has a WPT population of unknown size which could be a source for WPT reintroductions to Boden Canyon. WPT have recently been found in Santa Ysabel Creek and Scholder Creek (Black Canyon) within USFS and San Diego City lands.

San Luis Rey

- Some WPT were recently detected in the Warner Springs Area.
- Initial correspondence and surveys in coastal reaches of the San Luis Rey suggest WPT may be gone from lower SLR.



Santa Margarita

- Recent USGS surveys indicate Santa Margarita Creek, Cottonwood Creek and Long Canyon have good WPT populations.

North San Diego County coastal drainages

- There are numerous small drainages with perennial water in Oceanside, Carlsbad and Encinitas that may have WPT populations and need to be assessed.

- General Characteristics thought to be important for selection of reintroduction sites in SD County

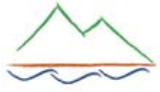
- Reintroduction sites generally need to be in areas where exotic species detrimental to WPT (e.g., sliders, American bullfrogs, crayfish, largemouth bass, etc.) can be controlled/eliminated (WPT in SD appear to have slow growth rates- may be linked to overall habitat quality, presence of non-native competing species, or other causes).
- Little to no easy public access - reduces the potential for introduction of exotic species especially non-native turtles.
- Significantly removed from roads open to the public - in areas where roads are adjacent to the occupied WPT habitat, there are skewed sex ratios (10-30 F/100 M) and in areas distant from roads the ratio is close to 50F/50M - Skewed sex ratios are likely the result of higher mortality rates for females moving to and from nesting areas.

- Near term management opportunities

- Re-establish WPT populations in the Otay River drainage.
- We have discussed the Otay Water district golf course site as a potential recovery area but probably not in the near term, certainly not until the genetics question is resolved. The site has 2 ponds within their reserve (which abuts the SD National Wildlife Refuge) and 3 more ponds within the golf course. This is at the top of the Salt Creek drainage and also the top of a tributary to the Sweetwater drainage. Exotics (bass, bullfrogs, non-native turtles) have to be eliminated or controlled, but over the longer term ongoing management could be performed by the water district as part of their NCCP obligation.
- The following areas meet the above criteria – (distance to roads and public access)
 - Establish out-planting population using head started turtles or others at the Rancho Jamul ER (RJER) pond north of the entrance road. This is the same pond being looked at as a management area for tri-colored black birds
 - Establish a natural population (using translocated WPT from an appropriate location based on genetic study results) at permanent water areas along Jamul Creek west of the brick kiln on the RJER - eradication of exotic would need to occur prior to WPT reintroduction
 - Effectiveness monitoring should be included in the above efforts.

- North County opportunities

- Implement adaptive management actions in the small drainages in the MHCP plan area and within the San Dieguito River watershed. Efforts would require evaluation of the



habitats and selection of areas for specific adaptive management actions tailored to the threats/stressors.

- Other related information:
 - Nick Geist (Sonoma State) is conducting studies looking at environmental variables at nest sites including placing data loggers in WPT nests to determine what temperature regimes/fluctuations result in the highest hatchling success as well as the development of males vs. females.
 - Need to determine the number of years after hatching before WPTs are ready for release. Per Chris Brown, this may range from 2-3 years for fast growing WPT and 4-6 years for slow growing WPT.
 - Other non-San Diego locations
 - Orange County = San Juan Watershed has very few scattered individual WPT. Shady Canyon area may have the best population in Orange County, though it is uncertain if the turtles have been reproducing very successfully or if turtles are being relocated there.
 - Western Riverside Co. = not many turtles.
 - San Bernardino Co. = few records. There are some recent observations below Mojave Narrows and one recent sighting at Afton, but no recent sightings at Camp Cady.