

# The Western Pond Turtle (*Emys marmorata*) in the San Diego MSCP and Surrounding Areas

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# Purpose

- Determine the current distribution and population status of the western pond turtle in the San Diego MSCP and surrounding areas.
- Determine wetland and upland habitat value.
- Provide management recommendations for the San Diego MSCP.



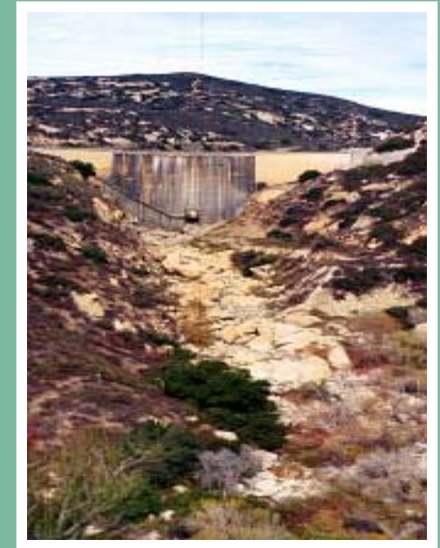
# Background- Western Pond Turtle Decline in Southern California

- Only turtle native to coastal California.
- Historically occurred in most major coast facing drainages from northern Baja to Washington (Jennings and Hayes 1994).
- Work by Brattstrom and Messer (1988) suggested only a few populations of pond turtles remained in Southern California and those that did were comprised of few individuals.



# Background- Western Pond Turtle Decline in Southern California

- Principal cause of pond turtle decline is riparian habitat loss and alteration.
- Exotic turtles thought to out-compete for resources (food and basking spots), transmit diseases.
- Other introduced species, such as large mouth bass and crayfish.





# Habitat Decline or Destruction

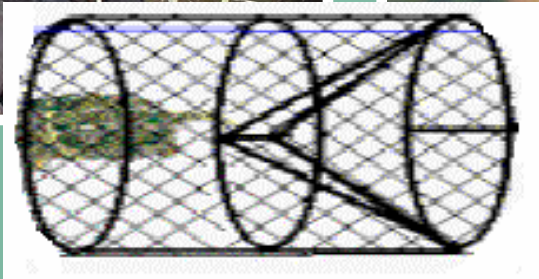


# Study Area



# Types of Surveys

- Trapping
- Visual



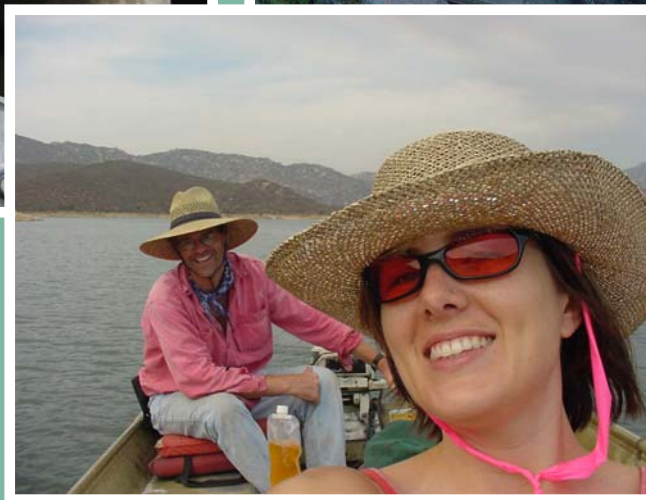
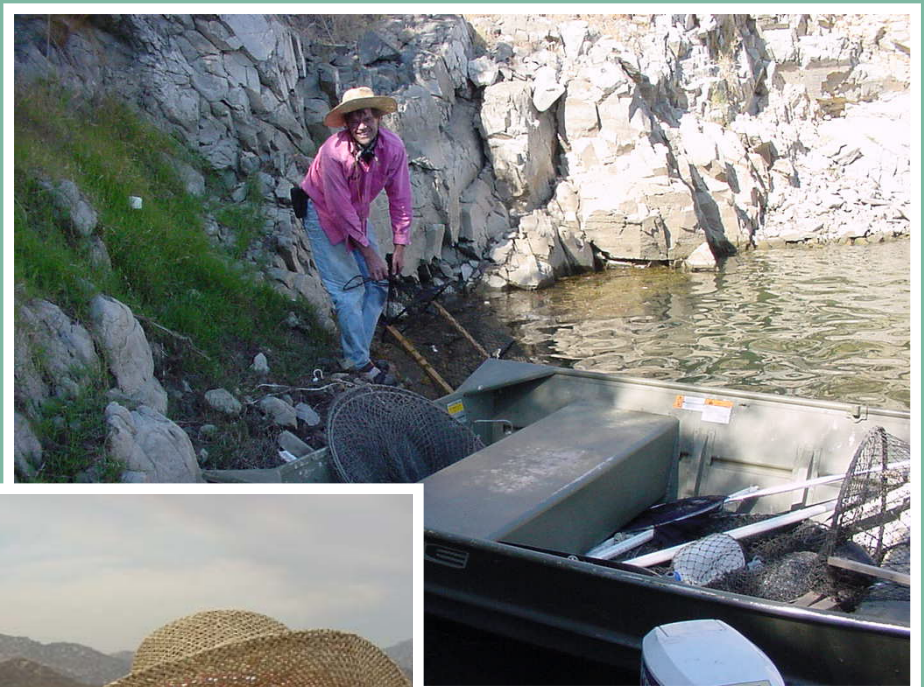


# Checking Traps by Land





# Checking Traps by Boat



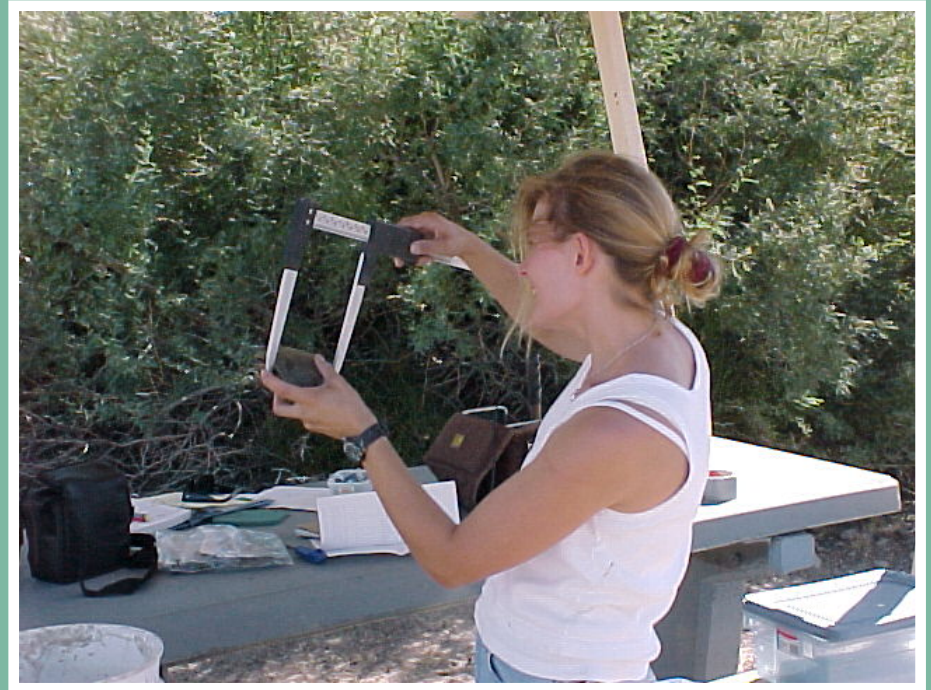


# Removing Pond Turtles (7) from Trap



# Pond Turtle Processing

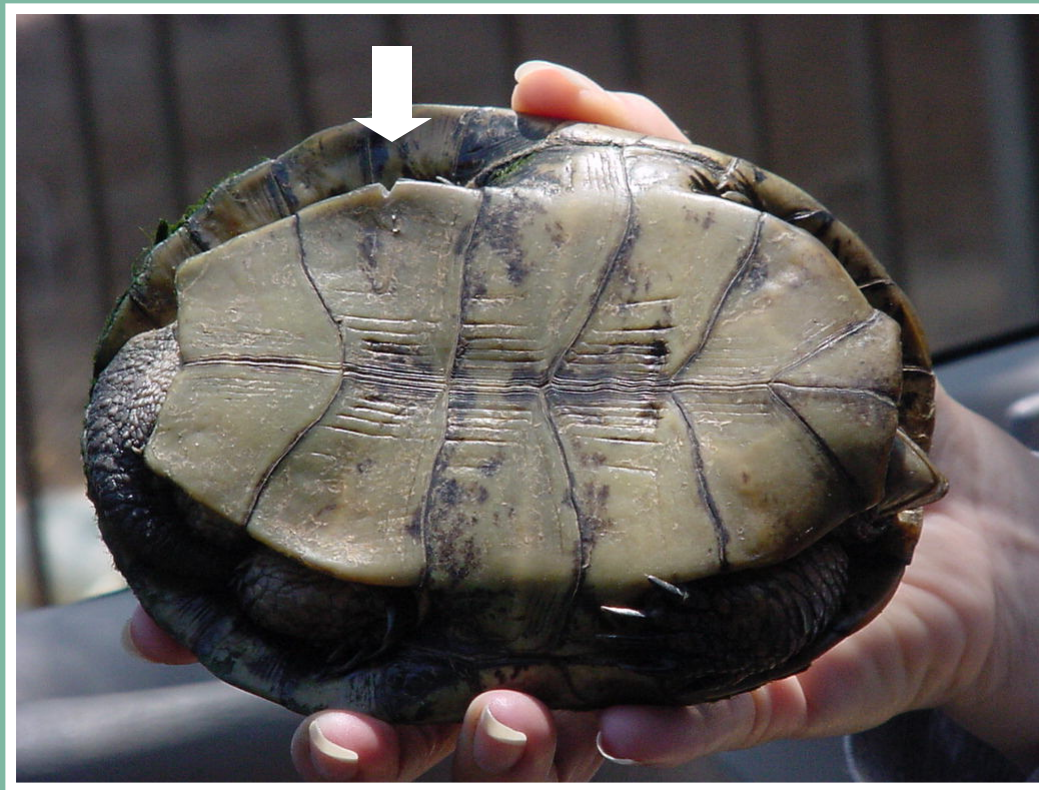
- Shell measurements
- Weight
- Sex
- Deformities
- Injuries
- Assigned Unique ID





# Marking

- Rt Femoral Scute

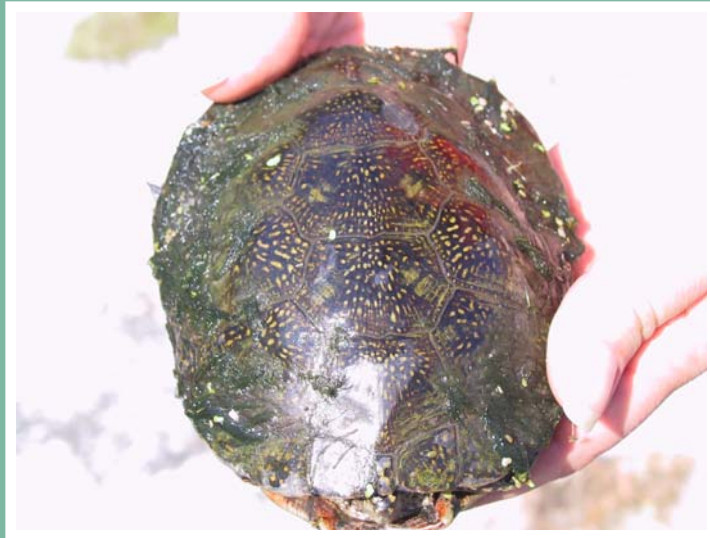


# Front





# Carapace





# Plastron



# Other Animals Captured





# Exotic Turtle Species Captured



Red-eared Slider



Yellow-bellied Slider



Unknown Slider Species



Painted Turtle



Mud Turtle



# Exotic Turtle Species Captured



False Map Turtle



Mississippi Map Turtle



Spiny Softshell



Snapping Turtle

# Results- Turtle Detections

San Diego County: June - October 2002/2003

- 336 total (7 species; 10 subspecies)
- 263 exotics (6 species, 9 subspecies)
- 73 pond turtles





- Pond Turtles
- Exotic Turtles





# Habitat Types and Human Access

- **Habitat Types:**
  - Natural- ponds, wetlands, etc.
  - Modified Natural- marshes, dammed systems, etc.
  - Artificial- manmade ponds, community lakes, etc.
- **Human Access:**
  - Limited- wilderness areas, private reservoirs, etc.
  - Heavy- fishing reservoirs, public parks, etc.



# Expected Results- Pond Turtle and Exotic Turtle Detections

	Natural	Modified Natural	Artificial
Heavy Human Access	WPT ↓ , Exotics ↑	WPT ↓ , Exotics ↑	WPT 0 , Exotics ↑
Limited Human Access	WPT ↑ , Exotics 0	WPT ↑ , Exotics ↓	WPT 0 , Exotics 0



# Acknowledgements

- County of San Diego
- City of San Diego
- California Department of Fish and Game
- US Fish and Wildlife Service
- The San Diego Turtle and Tortoise Society
- The San Diego Natural History Museum



# Acknowledgements

- All the pond turtles that unwillingly participated in this study

