



## CEF SUPPORTS WESTERN POND TURTLE HEADSTARTING



The afternoon was warm and clear as we adjusted our radio telemetry equipment at the shore of the small mountain lake. Earlier in the week we had captured a healthy mature female western pond turtle (*Emys marmorata*) after she had abandoned an attempt to build a nest - a rock kept her from scooping out the three-to-four inch deep chamber. We recorded all her vital statistics, glued a small transmitter on her carapace, and released her back into the lake knowing that in her gravid condition she'd be back out in the next few days to try nesting again. Sure enough, the next day the radio beep was coming from the direction of the grassy field north of the lake, and it led us right to her. Placing a small flag next to the turtle, we walked away and waited. An hour later we excavated the finished nest and our patience was rewarded with seven oblong hard-shelled white eggs that would be taken back to the laboratory at Sonoma State University. The staff of the San Francisco Zoo and Oakland Zoo have already raised over 40 western pond turtles hatched in our incubators. Thanks to support from the AZA Conservation Endowment Fund these headstarted turtles will soon to be released back into their home waters after providing a myriad of important data on the effects of incubation temperature on sex ratios, growth, and development - all critical details that will inform and improve future conservation efforts and hopefully halt the decline of this unique species. Our studies have already verified that the gender of these turtles is determined by incubation temperature, and that even a minimal increase or decrease in incubation temperature significantly diminishes hatching success - information that may be key in understanding how global climate change might effect this species. The current year's crop of eggs is now developing in the incubators and we expect to be able to pin down other details of this species' reproductive biology including the temperature range at which sex is determined.

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NICK GEIST, SONOMA STATE UNIVERSITY