

RMP Project Statement PINN-N-211
Initial Proposal: 1998
Updated: May 14, 1999

Pinnacles National Monument, Western Region
Park Priority:
Funding Request: \$500

1. Title: Monitor Amphibian Malformations

Abstract:

Reports of amphibian malformations (e.g., missing or extra limbs) have become increasingly common across the United States since 1995. In 1997, the first known malformation at Pinnacles was observed. Regular surveys will be conducted to document baseline levels and trends of malformations within the Monument. Early detection of increasing malformations improves the likelihood of identifying and remedying the causes in time to protect amphibian populations.

2. Service-wide Issue:

N20 Lack of Basic Data

3. Problem Statement:

Amphibian malformations have been reported in increasing numbers nationwide since 1995. These malformations consist of deformed, missing, or extra body parts such as legs and eyes. Many causes have been hypothesized, but very little has been proven. In 1997, the first recorded amphibian malformation at Pinnacles was observed: a Pacific chorus frog (*Pseudacris regilla*) with an extra front leg. This project was initiated in 1998, with a baseline survey conducted for one species at one location. In order to effectively identify increases in malformations, we need to collect more extensive baseline data and follow up with yearly monitoring.

4. Description of the Recommended Project:

Newly transformed Pacific chorus frogs and Western toads (*Bufo boreas*) will be sampled from the Bear Gulch Reservoir and various stream locations. Large numbers will be captured, visually examined for malformations, and released. Sampling will take place each year around the first of June. Exact timing and locations will be chosen to maximize the number of newly metamorphosed individuals sampled, as determined by stream surveys. Data collected will include number examined, number with malformations, and type and extent of malformations. In order to investigate causes of malformations, water quality and microhabitat data will be collected, and malformed individuals will be photographed, collected, and preserved for later study. This project will be conducted with the cooperation of, and data will be submitted via email to the North American Research Center for Amphibian Malformations (U.S.G.S.)

5. Compliance:

This project is categorically excluded under section 516 Dm6 App7 (E)(2).

6. Related Projects:

This project will be carried out in conjunction with the following project:

Inventory and Monitoring of Reptiles and Amphibians (PINN-N-205)

7. Funding Requirements:

Personnel:	1 GS-5	2 days/year @\$100/day	\$ 200
	2 GS-5	1.5 days/year @\$100/day	<u>\$ 300</u>
Total(yearly):			\$ 500

8. Deliverables:

Yearly completion of this project will provide current information on the status and trends of amphibian malformations in the Monument. Findings of increased malformations will indicate the need to promptly investigate possible threats to the health of our amphibian populations. Data and specimens collected will provide information integral to such investigations.