

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Technical Assistance for Veterinary Pathology and Diagnostic Services for NPS Wildlife Species

Discipline: Natural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 2/8/2010- 12/31/2014
Funding Amount: \$373,000 [FY13: \$75,000; FY12: \$75,000; FY11: \$138,000; FY10: \$85,000]

Investigators and Agency Representative:

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Project Abstract: The mission of the National Park Service's Biological Resource Management Division (NPS BRMD) is to work in cooperation with parks, regions, and other divisions of the Natural Resource Program Center, and other partners, to preserve, protect, and manage biological resources and related ecosystem processes in units of the NPS. Wildlife health and disease issues are an important part of these biological resource and ecosystem management programs. BRMD will address wildlife health issues in a variety of ways, including disease monitoring and outbreak investigations. Information obtained through veterinary diagnostic services and assays is an integral component of making sound natural resource management decisions. Additionally, because these programs can be best implemented when field personnel have adequate knowledge to recognize, report, and initiate investigation of potential health problems in wildlife, training will also be an important component of the NPS wildlife health program.

Colorado State University Veterinary Diagnostic Laboratory (CSUVDL) has the capabilities to provide specialized support for wildlife health monitoring program, disease investigation, NPS training programs, and sample archiving. The NPS wildlife veterinarians can facilitate this relationship between units in the NPS and CSUVDL. This collaboration between CSUVDL veterinary pathologists and other animal health professionals at CSUVDL and the NPS wildlife veterinarians allows for a unique team which is well suited to investigate wildlife health and disease issues within the NPS system. These investigations may include disease surveillance and monitoring activities, wildlife species population health assessments, field or laboratory wildlife necropsies, disease outbreak epidemiological analysis, and development of potential management intervention alternatives. Specialized technical expertise in the areas of pathology, bacteriology, virology, parasitology, clinical pathology, and histology will be required to complete these investigations. CSUVDL can provide these services as well as pathologists and support staff for technical assistance with these activities.

Outcomes with Completion Dates: December 31, 2014

List of Products:

1. Pathology services on diagnostic submissions of NPS wildlife species (including gross necropsy, histological slide evaluation, and case interpretation), pathology consultation with NPS staff veterinarians, disease outbreak investigation, and teaching/training of NPS staff equal to 5% of co-principal investigators (full professor) time.
2. Pathology services on diagnostic submissions of NPS wildlife species (including gross necropsy, histological slide evaluation, and case interpretation), pathology consultation with NPS staff veterinarians, disease outbreak investigation, and teaching/training of NPS staff equal to 15% of co-principal investigator's (assistant professor) time.
3. Ancillary diagnostic testing including but not limited to microbiology, histology slide preparation, clinical pathology, and parasitology, with interpretation.
4. CSUVDL access to deliver samples after hours, space to maintain 2 ultra-cold freezers (-80C), 4 standard freezers (-20C), and a limited amount of dedicated space for storage of fixed tissues.

Keywords: Wildlife Health, Veterinary Pathology, NPS- Biological Resource Management Division, Colorado State University, Veterinary Diagnostic Lab