

MINI GRANT PROJECT SUMMARY

Please complete the project summary and return the completed form to April Snyder, Associate Administrator for the Institute on the Environment at aprilsnyder@umn.edu. Paper copies will not be accepted. Please also attach any photos, publications, brochures, event agendas or other materials that were a result of the mini grant summary.

Date of Report Submission:	12 April 2016
Project PI & Dept/School	Julia Ponder, Veterinary Population Medicine, College of Veterinary Medicine
Project Title:	Creating a roadmap for transdisciplinary research at The Raptor Center
Grant Amount \$:	\$ 3,000

Project Context & Purpose

The outcome of this work will be a roadmap for an expanded research program at The Raptor Center (TRC), built on interdisciplinary partnerships and addressing contemporary conservation issues. We envision that additional results will be the identification of potential grants with partners (and agreement to submit) and the writing of a white paper. Over the past several years, TRC has established a diverse and growing collaborative partnership program for addressing the issue of lead poisoning in bald eagles, a project that began with seed money from the Institute on the Environment. Building on the lessons from these experiences, TRC now looks to develop a new structure for its approach to research, leveraging transdisciplinary partnerships to create impactful applied research.

Established in 1974 as part of the College of Veterinary Medicine, TRC advances teaching, research and service initiatives, using raptors as a lens to identify and address conservation medicine issues. Research is an integral part of TRC's work and to date has resulted in major advances primarily in avian clinical medicine, including orthopedics, diagnostics and critical care. Recently, TRC has expanded its focus on health issues faced by raptor populations and been instrumental in the development of the new Ecosystem Health Division at the College of Veterinary Medicine. This division was specifically designed to meet the challenges emerging at the human, agriculture, wildlife and environmental interface.

It is well recognized that wildlife, and especially apex predators such as raptors, can serve as excellent bio-sentinels of environmental change. The presence or absence of raptors can impact trophic levels throughout the ecosystem and they have been shown to be sensitive to a wide variety of environmental contaminants. Wildlife can also be bio-sentinels for emerging diseases such as West Nile virus infection and serve as pathogen reservoirs for diseases in humans and livestock and poultry.

The Raptor Center will hold a one-day workshop to bring together potential research partners and to develop a comprehensive strategic research plan. This research plan will: expand our scientific foundation for research in bio-sentinel science by identifying key areas where we are uniquely positioned to have the most impact; maintain our leadership in clinical avian medicine and rehabilitation science; develop a sustainable model to ensure training and funding capacity for ongoing research efforts; and identify potential external partners with common goals in the private sector, academia and governmental agencies.

In addition, TRC will utilize the information gathered for, during, and after the workshop to produce a white paper on the promulgation of evidence-based research at a wildlife rehabilitation center.

Please include the original project purpose statement and revise for any changes that occurred in the project after the start date with a short explanation of the changes.

Work Completed

On February 16, 2016, a workshop was hosted by The Raptor Center (TRC) staff to facilitate a more strategic approach to the Center's research portfolio (agenda attached). The goals of the workshop focused the following three areas: identification of priority areas for study, targeting of potential research partners, and understanding the resources needed for next steps. Many experts with broad experience in this area attended or gave input into this process encompassing University of Minnesota's TRC, College of Veterinary Medicine and Institute on Environment and CFANS; well as like-minded non-profit conservation institutions, accredited zoological institutions, wildlife rehabilitation centers and the US Federal Government (see attached report).

After the workshop was completed, a summary report (attached) was written and distributed to all participants for feedback.

Please provide a summary of the work that was completed for the mini grant project.

Partnerships & Collaborations

Project personnel and workshop attendees included collaborators from the International Crane Foundation, The St. Louis Zoo Institute for Conservation Medicine, the National Wildlife Health Center, the Wildlife Rehabilitation Center of Minnesota, and Tufts College of Veterinary Medicine. UMN participants included the College of Veterinary Medicine's Director of Graduate Studies, leadership from The Raptor Center, faculty/graduate students from the Ecosystem Health Initiative, Institute on the Environment director, and extension faculty in environmental education and assessment. Expertise included disease ecology, wildlife medicine, wildlife epidemiology, environmental education, educational assessment, managed captive wildlife health, and risk assessment/risk analysis. An eco-toxicologist reviewed the final paper as he was unable to attend the workshop.

A complete list of attendees is provided in the report.

Please provide a summary of the project personnel, partnerships and collaborations that worked directly on the project or were started as a direct result of the mini grant project.

Project Outcomes & Impacts

The attached report identifies strengths and weaknesses for TRC's current research program and identifies key areas for research focus in the future based on the most pressing needs for research at the human/wildlife/environment interface and TRC's unique positioning and strengths.

New collaborations were developed and at least one grant directly resulting from this workshop is in the process of being submitted (Mapping antimicrobial resistance in agriculture landscapes using owls as sentinels – Animal Health Formula Fund).

The attached report is planned to be the basis of a white paper for publication on science and research in a wildlife rehabilitation organization.

Please provide a summary of the outcomes and /or impacts of the mini grant project including future plans for the project.