REQUEST FOR STATEMENTS OF INTEREST/REQUEST FOR PROPOSALS WITHIN THE
COOPERATIVE ECOSYSTEM STUDIES UNIT

INTEREST #N62473-20-2-0015

PROJECT TO BE INITIATED IN 2020

Project Title: Snake Fungal Disease Survey

Responses to this Request for Statements of Interest (RSOI) will address measures in support of Department of Defense (DOD) snake fungal disease survey: natural resource management training and data collection. A range of $44,976 to $49,973 is expected to be available to support the base requirement of this project and a range of $44,976 to $49,973 is expected to be available to support Option Period 1 respectively.

Type of Assistance Instrument Anticipated: Cooperative Agreement

Authority: Cooperative Agreement under 16 USC §670c-1

Eligible Applicants: Any Cooperative Ecosystem Studies Unit Great Rivers partner who qualifies under the DoDGARS Part 34 or 2 Code of Federal Regulations 200 is eligible to apply.

Cost Sharing: Not required

Background:
The Department of Defense (DoD) Legacy Resource Management Program funded project #17-838 in FY 2017 which resulted in tremendous success. For that study, the principal investigators tested 657 individual snakes representing 58 species in 31 states from 56 military bases in the continental US and Puerto Rico for Snake Fungal Disease (SFD). There were 113 positive individuals for a prevalence of 17.2%, representing 25 species from 19 states/territories, including the first reports of the pathogen in snakes in Idaho, Oklahoma, and Puerto Rico. The principal investigators completed that project, finalized the deliverables, and also presented the results at multiple professional conferences, and have recently submitted a manuscript for publication in a scientific journal. This effort seeks to carry forward the momentum in gathering the baseline scientific information to assess SFD and its prevalence in snakes and impact to them across military lands. Prior work was done via Cooperative Agreement # HQ0034-17-2-0005. Continuing this work is essential for better understanding of this lethal pathogen that is having terrible impacts to snake populations across the United States. Left unstudied, snake declines could directly contribute to mission restrictions by driving species toward extinction. Restrictions result from species becoming threatened or endangered at the state or federal level by laws that protect them from going extinct. These laws and protections they afford imperiled species result in temporal and/or spatial mission restrictions.
As we know, snakes play essential roles both as predators and prey in the ecosystems of DoD lands. Furthermore, many venomous snake species are instrumental to medical research on human health and disease treatments. Military lands are home to several snake species either currently listed or candidates for listing by the United States Fish and Wildlife Service (USFWS) e.g. Eastern Indigo Snake, Louisiana Pinesnake, Black Pinesnake, Giant Gartersnake, Massasauga Rattlesnake. As such, understanding potential threats to these species is of conservation interest may have implications for military activities. Restrictions result from species becoming threatened or endangered at the state or federal level by laws that protect them from going extinct. For over two decades, SFD has been recorded in a variety of venomous and non-venomous snake species, including the Massasauga which is a candidate for federal listing. Recent laboratory studies have confirmed that the fungus Ophidiomyces ophiodiicola is the primary causative agent of SFD. Ophidiomyces can result in substantial physical damage and mortality in individuals. At the population level, the extent of its impact is less well-known, but it likely has negative implications. For instance, it has the potential to cause or speed declines, especially for populations already at risk due to small size and/or isolation. Predicted rising global temperatures may also compound the effects of this pathogen, particularly for hibernating snake species. At this time, SFD has been detected in numerous species and in many states throughout the eastern United States (USGS National Wildlife Health Center).

The proposed project will provide important baseline health data for snakes on DoD sites nationwide and provide critical spatial and taxonomic variability needed to understand how best to minimize the impact on snake populations, particularly of imperiled species. This study also will provide the tools (training and materials) needed by natural resource managers to conduct disease surveys on their military installations. Results from this study will seek to answer the following questions: Is SFD present on the surveyed DoD installations? What proportion of sampled military installations is currently infected with SFD? Do sampled snakes show outward signs of the disease? Which snake species in which ecotypes are infected with the disease? Which species are most vulnerable to population declines from the disease (including T&E species)? Answers to these questions could benefit the individual missions of specific installations by:

1. Assisting with the management of snakes and their habitats, and aiding in the prevention of population declines in listed species, thus avoiding new restrictions on current missions.
2. Providing baseline data on the health of snake populations (and general health status of the ecosystem).
3. Helping installations to prioritize conservation actions for common snake species to prevent them from being regulated as a result of population declines from emerging diseases.
4. Assisting in the identification of mitigation opportunities or liabilities (e.g., areas with or without SFD detected) so that corrective actions can be taken to remove sensitive or endangered species from further contact with fungal pathogens, and to implement biosecurity procedures to prevent disease introduction. The DoD-wide significance of this study is the prevention of negative impacts to military readiness as a result of degrading ecosystem health (individual snake mortalities and population declines). Knowledge gained from the results will better inform natural resource managers and ensure military activities operate in accordance with Sike’s Act, Endangered Species Act, and NEPA regulations. This DoD-coordinated project will also strengthen partnerships between state and federal military installations nationwide, as well as non-military conservation and wildlife stakeholders (e.g. US Fish and Wildlife, USGS, research universities). In addition to benefitting the military, the proposed study will bolster knowledge in the scientific community by tracking the geographic distribution of the disease, giving further insight as to its origin and helping highlight species or populations of conservation concern.
**Brief Description of the Anticipated Work:**

This project is proposing to facilitate distribution of field collection supplies (e.g. test tubes and swabs). These, and protocols for their use were already developed, including an instructional video during the previously funded project. This will allow installations to continue, or begin sampling snakes on their installations in the same manner, thereby providing additional, as well as baseline information across military installations both CONUS and OCONUS. They will provide materials and technical expertise on sampling and biosecurity protocols, input on training materials, and standardized datasheets.

One of the biggest questions surrounding SFD is understanding its origins, and diversity. It is not believed to be endemic to the United States. We also know that military transport has been around for a very long time globally, and the Government intends to sample snakes from military installations overseas to see if SFD can be traced in that manner to better understand and track potential pathways for introduction of this disease and its origins.

Department of Defense Partners in Amphibian and Reptile Conservation (DoD PARC) and the cooperator will ensure and provide training opportunity for monitoring snake populations by military natural resource and other personnel. Deployment of materials and instructions will allow participating staff and installations to conduct locally-based field work for gathering samples. Also, the cooperator and DoD PARC representatives plan on participating at several installations, thereby proving outreach and direct engagement with sampling at some, but not all of the installations that participate.

Finally, the cooperator will receive the field samples, conduct Quantitative Polymerase Chain Reaction q(PCR) analysis, and provide deliverables and reporting.

The effort produced in Option Period 1 will be identical to the efforts produced in the Base Period.

Please see enclosure 1 for full scope of work and enclosure 2 for applicable terms and conditions.

**Period of Performance:**

The period of performance covered by this agreement is 18 months upon award. The proposed period of performance consists of an 18-month Base Year and one (1), 18-month option period. If the option period is awarded, the period of performance will be extended by 18 months from the date of award. The option may be unilaterally awarded during the period of performance of the base scope of work. The period of performance of the base year and option period may overlap. The total duration of this agreement, including the option period, shall not exceed 54 months. The end date is the anticipated date that the Final Report is accepted by the Government. In the event that the option period is exercised, a cumulative report consisting of the base and the option period will be the Final Report. The option period is subject to the availability of funds and may be awarded unilaterally throughout the duration of this Cooperative Agreement.

A fifteen (15) day period, starting on date of award, will be used for the Recipient to provide preliminary documents to the CAA and CATR. Documents include, but are not limited to, Insurance documents/certificates, Accident Prevention Plans/Site Health and Safety Plans (as applicable), etc. Recipient may not begin performance until preliminary documents are
submitted and accepted/approved as appropriate.

**Materials Requested for Statement of Interest/Qualifications:**
Please provide the following via e-mail attachment to: Kellie Wilson (kellie.wilson@navy.mil).

1) SF 424 (Enclosure 3)
2) Research & Related Senior/Key Personnel Form (Enclosure 4). Please see Factor 1 for additional submittal requirements.
3) Research and Related Budget Form (Enclosure 5)
4) SF-LLL Disclosure of Lobbying Activities (Enclosure 6). If applicable, complete SF-LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

Reimbursement of pre-award costs will not be allowed.

Please note, that some of the forms functionality may be lost. Please visit https://www.grants.gov/web/grants/forms/r-r-family.html#sortby=1 to retrieve the forms directly from the Grants.gov website.

**Review of Statements Received:** Proposals will be evaluated based on the following three factors: 1) Credentials of Key Personnel, 2) Scientific Approach, and 3) Reasonableness of Cost

NOTE: All requirements listed are minimum requirements. Offerors will be assessed on their ability to adhere to the listed requirements, completeness of responses, follow directions, comply with restrictions and provide quality control on their submittals. All page limits refer to 12-point font and single spaced one-sided pages.

**Factor 1 - Credentials of Key Personnel**

A minimum of one (1) Full-time Project Manager. This position shall be responsible for being the liaison between Recipient personnel and the Grants Officer, CAA or CATR and shall serve as the main point of contact for all required results and/or progress reports on the study. Project Manager shall have the minimum qualifications:

1. Graduate degree in veterinary medicine, wildlife epidemiology, zoological medicine or related field experience from an accredited college or university.

2. Five (5) years of relevant field testing and monitoring, and laboratory analysis experience with Snake Fungal Disease (SFD), including PCR. Experience in supervising laboratory and field staff/technicians.
A minimum of one (1) Field/Laboratory Technician. The Recipient shall designate one or more people as responsible for collecting, receiving, and analyzing samples for laboratory analysis. This person shall have, at the minimum:

1. A Bachelor of Science degree in zoology, biology, ecology, wildlife management, botany, landscape architecture or horticulture or other related field from an accredited college or university.

2. A thorough understanding of regulations regarding handling of all samples collected and/or received.

3. Due to the complexity of work, the Recipient and/or his/her representatives must have the following minimum qualifications:

All required state and federal permits, such as the U.S. Fish and Wildlife Service 10 (a)(1)(A) permit to conduct the activities stated in this Agreement. A copy of any/all required permits or evidence of renewable permits must be submitted with the proposal.

With the Research & Related Senior/Key Personnel Form, the Applicant shall provide type written resumes, not to exceed 3 pages, single spaced with 12pt font for the Project Manager and field technician(s) that are assigned to the project. Resumes must state qualifications, experience with this type of project, professional registration and certificates.

**Factor 2 – Scientific Approach**
Not to exceed 3 pages, the Offeror shall develop an outline for their approach to addressing the anticipated work stated above. The Offeror shall be evaluated as to the soundness of the overall approach and use of any innovative techniques to accomplish project objectives.

**Factor 3 - Reasonableness of Cost**
After technical evaluation of the proposal, the Offers shall be analyzed to determine whether they are materially/mathematically balanced with respect to prices or separately priced items, and for fair and reasonable pricing. A clear cost breakdown of work elements to be accomplished detailing quantities for the various work items, unit, unit prices and extended prices will be required and will be evaluated. Evaluation will include an analysis to determine the Offeror’s comprehension of the requirements of the proposed agreement as well as to assess the validity of the Offeror’s approach. Please be sure to provide a proposal for Option Period 1 as listed within the statement of work.

Please provide your proposed budget on the provided pdf titled, “Research and Related Budget” form* (Enclosure 5). Please submit one budget form for the base year of work and separate budget form for Option Task 1 as specified in the Statement of Work.

*Form: RESEARCH AND RELATED BUDGET*

Complete the Research and Related Budget form in accordance with the instructions on the form. You must provide a detailed cost breakdown of all costs, by cost category, by the funding periods described below, and by task/sub-task corresponding to the task number in the proposed Statement of Work. You may request funds under any of the categories listed.
as long as the item and amount are necessary to perform the proposed work and meet all the criteria for allowability under the applicable Federal cost principles. The budget should adhere to the following guidelines:

The budget should be driven by program requirements. Elements of the budget shall include:

- Direct Labor - Individual labor category or person, with associated labor hours and unburdened direct labor rates.
- Indirect Costs - Fringe benefits, overhead, G&A, COM, etc. (must show base amount and rate). Justify in Field L.
- Travel - Number of trips, destination, duration, etc. Justify in Field L (on the form).
- Subcontract - A cost proposal as detailed as the applicant's cost proposal will be required to be submitted by the subcontractor. If applicable, include in Research & Related Subaward Budget Attachment Form.
- Consultant - Provide consultant agreement or other document that verifies the proposed loaded daily/hourly rate. Include a description of the nature of and the need for any consultant's participation. Strong justification must be provided, and consultants are to be used only under exceptional circumstances where no equivalent expertise can be found at a participating university. Provide budget justification in Field L.
- Materials - Specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall be provided. Include a brief description of the applicant's procurement method to be used (competition, engineering estimate, market survey, etc.). Justify in Field L.
- Other Directs Costs - Particularly any proposed items of equipment or facilities. Equipment and facilities generally must be furnished by the cooperator/recipient (justifications must be provided when Government funding for such items is sought). Include a brief description of the applicant's procurement method to be used (competition, engineering estimate, market survey, etc.). Justify in Field L.

Budget Justification (Field L on the form): Provide the required supporting information for the cost elements as shown above (see Research & Related Budget instructions) and listed as follows: indirect cost, travel, consultant, materials, and other direct costs.

Provide any other information you wish to submit to justify your budget request.

**NOTE:** Every deviation from the scope of work requirement must be identified. Proposer must identify the paragraph in the scope of work that is applicable and provide sufficient information to justify why the deviation is in the best interest of the government.

**RELATIVE IMPORTANCE OF EVALUATION FACTORS** – Factor 1, 2, and 3 are of equal importance.
Timeline for Review of Statements of Interest:

We request that Statements of Interest be submitted by September 08, 2020 2:00 PM local standard time. This Request for Statements of Interest will remain open until an investigator team is selected. Statements of Interest received after September 08, 2020 2:00 PM local standard time is considered “late” and may not be considered. Please submit requests for information/questions no later than September 04, 2020 2:00 Pacific standard time.

Please send electronic responses and questions to:

Ms. Kellie Wilson, Contract Specialist Environmental Acquisition Core kellie.wilson@navy.mil

Point of Contact Information:

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