



SCHOOL OF VETERINARY MEDICINE
KAREN C. DRAYER WILDLIFE HEALTH CENTER
UNIVERSITY OF CALIFORNIA
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DAVIS, CALIFORNIA 95616-8734



Request for Proposals January 2019

The SeaDoc Society works to ensure the health of marine wildlife and their ecosystems through science and education. The SeaDoc Society does not take policy positions nor serve in an advocacy role.

Science needed to address pressing wildlife and ecosystem health issues:

This year the SeaDoc Society requests proposals only for projects that scientifically address one of the four priority topics below.

1. **Transboundary science and ecosystem management challenges or limitations**

The Salish Sea is a transboundary ecosystem, managed by Canadian and US Federal Governments, Washington State, British Columbia, and numerous Coast Salish tribes and First Nations. We seek a project that identifies the complete suite of conflicting or incongruent natural resource policies, laws, or management differences between the US and Canada that complicate or hinder adequately addressing pressing issues related to ecosystem recovery. Examples include (but are not limited to) challenges faced when addressing air quality, water quality or recovery of threatened or endangered species as well as dealing with existing threats such as ocean acidification, increased underwater noise, or invasive species. Funding limitation \$30K.

2. **Forage Fish**

The Salish Sea has numerous species of small schooling fish that consume plankton and in turn serve as food for numerous other species of fish, bird and mammals. Examples include Clupeiformes like anchovies, herring, and sardine as well as Osmeriformes like multiple capelin, eulachon and multiple smelt species. Despite their important role in the ecosystem, little is known of the biology or abundance for some stocks of forage fish. For some species, even basic stock identification is uncertain. We seek projects that provide important information that will improve forage fish management or recovery (in cases where declines are known). Funding limitation \$50K.

3. **Disease affecting marine flora and fauna**

Infectious diseases (like viruses, bacteria, parasites, and fungi) and non-infectious diseases (such as that caused by contaminants, trauma, allergens, and biotoxins) have the capacity to affect population health and hinder species and ecosystem recovery. For example, in their Charter the Puget Sound Ecosystem Monitoring Program's Disease Working Group identified how disease can influence 11 of 21 vital signs developed by the Puget Sound Partnership. Despite the important role that disease can play in hindering Salish Sea recovery, it is under-studied. We seek projects that address or identify diseases that have the potential to limit recovery of species of concern. Funding limitation \$50K.

4. One Health

One health is a field that addresses the inextricable links between human health, wildlife health, and ecosystem health. How the overall health of the wildlife and Salish Sea ecosystem affects human health, and vice versa, is understudied. We seek interdisciplinary research that goes beyond pathogens and parasites described in the above “Disease” section and include other contributing factors such as habitat loss, globalization of trade, land-use pressure, ocean acidification, contaminants, pharmaceuticals, air and water quality, and climate change. We seek projects that not only elucidate the complexity of these relationships but also will help identify intervention or remediation options. Funding limitation \$50K.

Proposal Due Date

Email your proposal as a single document (PDF) to Dr. Joseph K. Gaydos at jkgaydos@ucdavis.edu no later than **5:00 pm (PST) Friday, February 22, 2019**.

Proposal Guidelines:

Please follow attached grant guidelines. Questions regarding project suitability should be directed to SeaDoc Society Science Director Joe Gaydos, 360-376-3910, jkgaydos@ucdavis.edu

Proposal Review:

The SeaDoc Society’s Science Advisors will judge proposals. The Science Advisors and the SeaDoc Society Board of Directors will select funded projects and **announce awards in April 2019**.

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GUIDELINES for ALL 2019 GRANT PROPOSALS

These guidelines are to be used in preparing all proposals and should **not** be included as part of submitted proposals.

ELIGIBILITY: Scientists from college/university programs; federal, state and provincial natural resource trustee agencies; Tribes and First Nations, wildlife research institutes; marine conservation organizations; and commercial fisheries and maritime groups. Individuals not formally affiliated with any such group are not eligible. Individuals who have without-salary appointments at an institution or organization must submit proof of the appointment with their proposal.

PRINCIPAL INVESTIGATOR: All university and college faculty; officers or principal scientists at natural resource trustee agencies, Tribes or First Nations; directors, investigators and senior staff persons at wildlife research institutes, marine conservation organizations, and commercial fisheries or maritime groups.

DURATION OF FUNDING: Funding is available for 12 months of work. Start date should be May 1, 2019 or later.

FUNDING MECHANISM: **Funds will be reimbursed in arrears upon receipt of invoice.** Spending authority on the grant starts as soon as a Research Agreement between UC Davis and the grant recipients' home institution is signed by all parties. Drafting the Research Agreement is done by UC Davis and is forwarded to a grant recipients' home institution. The Principal Investigator and his/her academic department or institution assumes full financial responsibility for conduct of the grant. Expenditures in excess of the amount of the award will not be covered by the SeaDoc Society. Final payment will be delayed until receipt of an accepted final report.

EVALUATION PROCESS: Proposals adhering to these guidelines are reviewed by the SeaDoc Society Science Advisors, which is comprised of scientists from diverse disciplines representing academia, governmental agencies and the non-governmental sector (see <http://www.seadocsociety.org>). Each proposal is evaluated in detail by all Science Advisors and by one external reviewer (usually, but not always selected from those suggested by the Principal Investigator). Each proposal is rated according to the following criteria: ability to address a conservation need where science can help improve policy or management action; scientific merit; achievability (staff expertise and project feasibility); and potential of project to inform management and conservation efforts aimed at insuring marine wildlife and ecosystem health. The final decision on which projects are funded is a joint decision between the Science Advisor's and the SeaDoc Society Board of Directors. We do not provide the evaluation results to PIs.

BUDGET LIMITATIONS:

We anticipate one project in each of the four topic areas (Transboundary management challenges, Forage fish, Disease, and One Health) but reserve the option to not fund a topic area if no appropriate proposals are received or to fund several outstanding proposals in another topic area.

Funds **can** be used to pay for the following: laboratory fees; equipment; supplies; travel (for data collection/project implementation only); salary for postdoctoral fellows/graduate students and student and laboratory assistants; animals and animal care. **Disposition of all nonexpendable equipment (non-disposable supplies that cost over \$5,000) shall rest with the University of California at Davis at the termination of this agreement.** Funds **cannot** be used for office personnel, on-going maintenance and operations, telephone charges, mail expenses or presentation of findings at scientific meetings. Principal Investigators (PI) or technical staff that routinely receive their regular salaries from federal, state (including universities), or endowed sources, may not generally charge their services against SeaDoc Society funds.

Exceptions may be allowed for principal investigators or technical staff to charge portions of their salaries when they are not being paid by their institutions (e.g., when they are on a leave of absence or in cases where their position is less than full time or less than 12 months per year). Clear documentation must be provided with the estimated budget for any request for PI or pre-existing technical staff salaries that indicates their eligible status with their employer (on leave, reductions in time base) and the specific tasks that they will perform on the project. Because Provincial, State, and Federal Agencies as well as Tribes have a research and management mandate, the SeaDoc Society will consider demonstration of matching funds advantageous when reviewing these proposals. **The SeaDoc Society is using private funding to support this competitive grants program that prohibits payment of indirect costs.**

PROGRESS & FINAL REPORTS: A progress report will be due 6 months after the project is funded and should apprise the SeaDoc Society Science Director of funds expended and work performed to date towards achieving the specific aims of the project. A final report will be due no later than 13 months after the project begins. Final reports should include all data and findings. Final payment will be delayed until receipt of an accepted final report. If a final report is not submitted, the data collected will become the property of the SeaDoc Society three years after the final report was due, at which time the SeaDoc Society will have the ability to analyze and publish these data.

FUNDING EXTENSION REQUEST: It is expected that work as outlined in this proposal will be accomplished within the time frame indicated. However, should funding for a project need to be extended, a request for extension of funding may be submitted to the SeaDoc Society's Science Director. This request should present a compelling reason for extension of funding and must be accompanied by a progress report.

ANIMAL CARE AND USE PROTOCOL: Any proposal involving the use of live animals under the jurisdiction of the Animal Welfare Act or routinely covered under an institution's Veterinary Care Plan must have the approval of an Institutional Animal Care and Use Committee (IACUC). The SeaDoc Society Science Advisors will attempt to identify an academic cooperator and appropriate IACUC for proposals from groups without an IACUC. Proposals for projects involving the use of animals (clinical or experimental) must submit a copy of an approved animal care and use protocol. In lieu of an approved protocol, one copy of an Animal Care and Use Protocol application should be submitted with the proposal. Funding will not be allocated, and work on the project cannot commence, until the application has been submitted and approved by an Animal Care and Use Committee. Copies of all permits and documentation must be received by the SeaDoc Society before funding will be awarded.

MISCELLANEOUS PERMITS AND PROTOCOL APPROVALS: Any permits, licenses or approved protocols must be in place before funding can be awarded. This includes all necessary permits from state, federal and provincial natural resource trustee agencies, and approved protocols for the use of radioisotopes, certain chemicals or recombinant DNA technology (required at some universities). The SeaDoc Society will assume that such permits will be obtained and/or maintained by the investigators for use at their facilities. Failure to obtain or maintain such permits will be grounds for denial or revocation of a SeaDoc grant, at the discretion of the Karen C. Drayer Wildlife Health Center Co-Directors.

PUBLICATIONS AND PRESENTATIONS: Our goal is that research findings will help guide and improve conservation of living marine resources within the Salish Sea. Funded / participating researchers agree to credit SeaDoc as funders in all papers, presentations, and social media posts.

Publications:

Recipients of SeaDoc grants are strongly encouraged to publish their findings in appropriate peer-reviewed journals. Copies of all publications resulting all or in part from SeaDoc grants must be sent to the SeaDoc Society. Submitted manuscripts, manuscripts that are approved for publication and galley proofs can be sent in lieu of a progress or final report, but we still need to receive a copy of the final publication. **Publications resulting, all or in part, from SeaDoc Society grants must include the following acknowledgment:**
“This project was financially supported (or supported in part) by the SeaDoc Society, a program of the

Karen C. Drayer Wildlife Health Center, School of Veterinary Medicine, University of California, Davis.”

Presentations:

In addition to publishing findings, recipients of grants are strongly encouraged to present their findings to managers, stakeholders, policy makers and other scientists who can use the information to improve resource management. As part of the progress and final reports, recipients of SeaDoc Society grants must submit a list of publications and presentations resulting from or expected from the funded research.

Social Media:

Although it is not always a common tool for many scientists, social media is a great way to engage the public in science. **All funded / participating scientists should tag and/or credit SeaDoc when using social media platforms (such as Facebook, Instagram, Twitter, etc.) to promote their work.**

Photographs and Video:

Occasionally we may request that scientists provide us with photographs, video or any other visual that would help SeaDoc discuss or promote the funded project.

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Use 3/4" margins, and 12-point, single-spaced type. Avoid non-standard abbreviations whenever possible. The principal investigator's last name and page number should be placed in the upper right corner starting from the second page forward. Please submit proposal as a single PDF. Please organize your proposal as follows:

1) TITLE OF PROPOSED PROJECT: Less than 200 characters, and should clearly describe the project. Please do not use abbreviations.

2) NAME(S), AFFILIATION(S) AND CONTACT INFORMATION OF PRINCIPLE INVESTIGATOR, AND CO-INVESTIGATOR(S), AND GRADUATE STUDENT(S). Be sure to include mailing address, phone number, email address and mobile number. Co-investigators are individuals who will have substantial involvement in data gathering, data analysis and manuscript publication).

3) PROPOSAL TOPIC AREA: Clearly specify if it fits under the category of Transboundary Science, Forage Fish, Disease or One Health.

4) PROBLEM AND SOLUTION STATEMENTS: In one sentence, please clearly state the problem being addressed. In a following sentence, describe how the information produced from this proposed research will not only change our understanding of this problem, but improve management or alter policy surrounding the problem.

5) ABSTRACT: The abstract should be a succinct and accurate description of the proposed work when separated from other portions of the proposal. Write in lay terms. Do not exceed 500 words. Clearly state the purpose, aims, and significance of the project. Briefly describe your experimental design or implementation plan.

6) BACKGROUND INFORMATION: Provide essential information that will enable reviewers to understand your project purpose, goals and methodologies. Do not exceed 2 pages.

7) HYPOTHESIS / SPECIFIC AIMS: Describe explicit hypotheses or specific aims. Do not exceed 1 page.

8) EXPERIMENTAL or IMPLEMENTATION PLAN FOR EACH SPECIFIC AIM: Do not exceed 3 pages in total. Be sure to indicate the resources already in place and ready to be used for this project, including facilities and major equipment. Include an explanation of arrangements with other organizations. If wild or captive animals are to be manipulated or handled in an experimental setting, be specific as to the species, housing and care, and include the cover page of an approved or submitted Animal Care and Use protocol for your institution.

9) CONSERVATION, MANGAMENT OR POLICY OUTCOMES:

Describe how the project pertains to SeaDoc's focus. Specifically describe how the proposed project will produce new information needed to better understand stressors and / or species and habitats of concern and how results have the potential improve management or benefit ecosystem recovery. If the proposed project is not taking place in the Salish Sea, describe how the project has implications for understanding or improving wildlife and/or ecosystem health in this region. Do not exceed 1 page.

10) LITERATURE CITED

11) DETAILED BUDGET AND JUSTIFICATION: Provide a detailed project budget organized into the following budget categories. Please keep this section to one page and adhere to project limits specified.

i. Personnel: For the principle investigator, co-investigator, graduate student(s) and/or technicians, list each individual's name, his/her role on project (e.g. PI, Co-I, student), % of his/her 12-month appointment to be spent on the proposed project, his/her annual base salary + benefits, and the total requested \$ amount. For example: if you are requesting 6 months of salary + benefits for a graduate student, you would give his/her name, describe his/her role as "student"; note that he/she will spend 50% of his/her time on the project, and request the equivalent of 6 months salary + benefits for the individual. Be sure to provide clear documentation for requests for PI or pre-existing technical staff salaries that indicates their eligible status with their employer (on leave, reductions in time base) and the specific tasks that they will perform on the project.

ii. Travel: Itemize by trip. Travel for research purposes is acceptable. The SeaDoc Society does not fund travel to conferences to present findings.

iii. Equipment: This includes purchases of non-disposable supplies that cost \geq \$5,000 per unit. Note: The University of California at Davis has the option to take ownership of equipment after the completion of the project.

iv. Supplies: Itemize by category

v. Indirect Costs: The SeaDoc Society is using private funding to support this competitive grants program that prohibits payment of indirect costs. Do not include indirect costs.

vi. Total Matching Funds in hand for this project: Because Provincial, State, and Federal Agencies as well as Tribes have a research and management mandate, the SeaDoc Society will consider demonstration of matching funds advantageous when reviewing these proposals.

vii. Total Requested \$ Amount and Justification: For each budget category, provide a succinct justification for expenditures within budget categories that exceed \$1500 (with the exception of personnel), and for other budget items requiring justification, as specified in the Budget Limitations section of the grant guidelines. If the proposed project will be supplemented by other forms of support, i.e. if the Principle or Co- Investigator(s) has or is applying for other grants that support or will support work relevant to the success of the proposed project, list the titles of these grants, the source of funds, the \$ amount of the grant, and briefly how these funds will support your SeaDoc Society-proposed project.

12) MINIMIZING THE INTRODUCTION AND SPREAD OF INVASIVE SPECIES:

If appropriate, describe the steps you will take to minimize the introduction and spread of invasive species during your research. Specify how you will use un-infested materials (i.e., soil, gravel, logs) and clean clothes and clean equipment entering and leaving the project area to minimize the introduction and spread of invasive species. Include all reasonable pathways of invasive species movement.

13) ABBREVIATED CURRICULUM VITAE OF PRINCIPAL AND CO-INVESTIGATOR(S): Do not exceed 2 pages each. In reverse chronological order, list post high school education and specialized training, present and past pertinent employment, and publications or related achievements. Limit publication/achievement list to the last 5 years.

14) EXTERNAL REVIEWERS: Please list the names, affiliations, current phone numbers, and e-mail addresses for three external reviewers. Reviewers should have expertise in your proposed research area, and should be capable of objectively reviewing your proposal. Please do not submit the names of personal friends, or names of colleagues with whom you are actively collaborating. Proposals not listing external reviewers will not be considered. The SeaDoc Society reserves the right to assign an external reviewer not named by the PI if none of the listed reviewers are available or considered appropriate.

Note: Letters of support and collaboration will be accepted, but must be included as part of the single PDF document application submitted.

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