



VALENTINE EASTERN SIERRA RESERVE (VESR)

1016 MT. MORRISON ROAD
MAMMOTH LAKES, CA 93546
<http://vesr.ucnrs.org>

December 10, 2010

UC Graduate Students
NRS University Wide Advisory Committee Members
NRS Campus Coordinators
NRS Campus Administrators
Select Faculty and Department Chairs

Re: 2010 Valentine Eastern Sierra Reserve Graduate Student Research Grants

Dear Colleagues:

Attached is information announcing our annual competition to support graduate student research at Valentine Eastern Sierra Reserve, which includes the Sierra Nevada Aquatic Research Lab and Valentine Camp. **Please share this announcement with interested students and colleagues.** This program is open to all graduate students conducting research at the Reserve, not just those enrolled at the University of California.

Graduate students should submit their applications to me by January 29, 2010, for review by the panel. Enclosed are the criteria to be used by the review panel. Awards will be announced by March 1, 2010. We anticipate making awards **up to \$3000 each**. This information is also available on the VESR website at <http://vesr.ucnrs.org/>.

NRS facilities and study sites are available to students from the natural and social sciences, humanities and engineering, and all are encouraged to apply. Applicants who are not currently conducting research at the reserves should contact the Reserve Director to discuss proposed projects. Several research scientists are resident at VESR and their research programs (see attached descriptions) may offer graduate students an opportunity for collaborative studies; feel free to contact them.

If you have any questions regarding applications, please contact Kim Rose at rose@msi.ucsb.edu. We encourage your application to this program, as well as your continued use of the reserves.

Sincerely,

Daniel R. Dawson

Daniel R. Dawson
Director
Valentine Eastern Sierra Reserve

Enclosures

**UNIVERSITY OF CALIFORNIA
VALENTINE EASTERN SIERRA RESERVE**

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GRADUATE STUDENT RESEARCH GRANTS

APPLICATION FORM (Due January 29, 2010)

INSTRUCTIONS: To maintain an efficient and equitable review process, applicants must provide all requested information within the spaces provided. Type font should be no smaller than 10 point. Applications not adhering to these guidelines may be rejected. Applications should be submitted to the Reserve Director via email at dawson@icess.ucsb.edu. Awards will be announced by **March 1, 2010**.

APPLICANT(S) INFORMATION

Name:

Mailing address:

Campus academic department:

Daytime phone number:

E-mail address:

Advisor:

Advisor's E-mail address:

Have you ever received a Mathias Grant? yes no

Have you ever received a VESR Grant? yes no

RESEARCH DESCRIPTION (Be clear, concise and complete. Please explain and justify the research to the review panel.)

Title of research project:

Site(s) where research will be conducted (please be specific):

Purpose of research project:

How is the reserve important to the study?

RESEARCH DESCRIPTION (continued)

Research objectives, hypotheses (if so stated), experimental design, methods, analyses, and anticipated significance (as applicable). In particular, please indicate how the research suggested has relevance to the Natural Reserve System. Limit description to the space provided on pages 2 and 3.

RESEARCH DESCRIPTION (continued)

Time schedule (including the date of submission of the final report).

BUDGET INFORMATION

List the items for which support is requested, their cost, and the total amount requested. Funding may be requested for: necessary supplies and minor equipment; reserve user fees; actual cost of travel to, from and at the reserve; special logistical costs; computer support; access costs to special analytical equipment, etc. Non-allowable categories include: travel to scholarly meetings; preparation of thesis copy; publication costs; purchase of classroom books; purchase of computers and printers; and food.

Supplies and minor equipment (itemize)	_____	\$ _____

Fees charged by the reserve (itemize)	_____	\$ _____

Travel	_____	\$ _____
	_____	\$ _____
Other (see non-allowable categories above)	_____	\$ _____
	Total request (\$3,000 maximum):	\$ _____

List all sources of funding for this project, including grants pending or awarded to you or your supervising faculty member, and state how this grant will supplement these other sources.

Budget explanation (present a brief but convincing argument for any requested items whose justifications are not obvious).

PLEASE ATTACH

- References cited
- Letter from supervising faculty
- Current curriculum vita
- Final or progress report of previously-funded NRS student grant(s) (Mathias Graduate Student Research Grant or VESR Grant) if applicable.

UNIVERSITY OF CALIFORNIA
VALENTINE EASTERN SIERRA RESERVE

2010

GRADUATE STUDENT RESEARCH GRANTS

ANNOUNCEMENT
Application Due January 29, 2010

Background

- ❖ We anticipate giving awards of up to \$3,000.00 each. Studies must be conducted at, or based out of Valentine Camp (Valcamp) or the Sierra Nevada Aquatic Research Laboratory (SNARL).
- ❖ Applicants must be enrolled in a bona fide college or university while conducting their research (in the case of summer research, enrollment during the preceding spring quarter/semester is acceptable as is proof of acceptance and clear intent to enroll in fall quarter/semester).
- ❖ Prior or concurrent recipients of NRS student research grants (Mathias Graduate Student Research Grant or VESR Grant) are eligible for the 2010 competition. Please attach a brief progress report if such funding was received.

Application Procedure

- ❖ Applicants should complete the attached Application Form and submit it to the Reserve Director by **January 29, 2010**.
- ❖ Applications should be accompanied by the following four attachments:
 - references cited
 - a letter from the supervising faculty member indicating his/her support of the proposed research, its merits for funding by the Valentine Eastern Sierra Reserve (VESR), and the ability of the student(s) to conduct the research and meet established deadlines. This may be submitted as a separate email if the advisor prefers.
 - a copy of current curriculum vita for the student applicant (two-page maximum).
 - recipients of previous NRS student research grants (e.g. Mathias or VESR grants) must submit a one-page report (final or progress) of the funded project.

❖ Important! The application should be submitted as a single .pdf file containing the completed four-page application form and the four attachments listed above.

- ❖ The Reserve Director, in consultation with a review panel, will make final awards decisions by March 1, 2010.
- ❖ Successful applicants must submit copies of appropriate collecting permits, animal care committee approvals, campus accounting information, and some brief biographical information (details will be provided) before awards will be disbursed.
- ❖ It is expected that funds will be used in calendar year 2010. Award funds may be carried forward with the approval of the Reserve Director. Please submit a brief justification by December 10, 2010.
- ❖ Awardees must submit a progress report to the Reserve Director by December 10, 2010. Applicants will be disqualified from future VESR grant programs if they do not comply with this requirement.

VESR Student Research Grants

Evaluation Criteria

The review panel shall use the following criteria to evaluate VESR proposals:

Primary Criteria

1. **Merit of the proposed research:** Evaluation of research quality will be based on the importance of the problem, originality, statement of research questions or hypothesis, sampling design and analysis, preliminary data supporting the feasibility of the proposed research, and likelihood of success.
2. **Reserve dependence:** Research must take place on the Valentine Eastern Sierra Reserve (SNARL or Valentine Camp), or sites located in the region of the reserves. Some use of the reserves is required. However, off-site areas in the region of the reserve may be used more than sites on the reserves. Higher scores will be assigned for research that takes advantage of special reserve conditions, such as a history of related research, occurrence of unique/special conditions or resources, need for protection of experimental treatments, and so forth.

Additional considerations

The following criteria will also be taken into consideration.

1. The feasibility of completing research as stated in the application
2. Stage of student's career. Preference will be given to students early in their career.
3. Previous funding. Preference will be given to projects that have not previously been funded by the VESR Grant Program.
4. Other funding. Preference will be given to projects lacking other support.
5. Satisfactory progress on research funded by prior grants (if applicable)
6. Relationship to dissertation research. Preference will be given to proposals for research directly related to the student's masters or dissertation research.
7. Underrepresented disciplines. Preference will be given to disciplines that do not normally take advantage of NRS sites and resources.



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RESIDENT RESEARCH STAFF

Research by **Dr. Roland Knapp** focuses on two basic themes: (1) effects of introduced trout on the ecology of mountain lakes in California's Sierra Nevada, and (2) disease and agricultural contaminants as drivers of amphibian population declines in the Sierra Nevada. To address issues related to impacts of trout introductions, Roland and his field assistants have surveyed amphibians, reptiles, benthic macroinvertebrates, zooplankton, and fish in more than 7,000 lakes in Sequoia, Kings Canyon, and Yosemite National Parks, and the John Muir Wilderness. Roland also directs a long-term replicated whole lake experiment in the High Sierra that is designed to quantify the recovery of lake community structure and ecosystem function following trout eradication. He recently initiated a study of the effects of trout introductions on alpine bird and spider populations, effects that appear to result from trout-induced changes in resource subsidies. To better understand the roles of disease and contaminants in causing amphibian population declines, Roland is using a combination of annual frog surveys and statistical modeling. He and his field crews have conducted annual surveys of 500+ frog populations that allow description of population dynamics and disease status. This information is currently being combined with data on the amount of agricultural contaminants applied upwind to determine whether contaminants influence patterns of frog presence/absence, extinction probability, and the probability of disease outbreaks. Contact Dr. Knapp at knapp@lifesci.ucsb.edu.

Resident SNARL researcher, **Dr. Robert Jellison**, is interested in all aspects of basic and applied limnology from viral to ecosystem dynamics. His primary focus is on saline lakes and he has studied mixing dynamics, nutrient cycling, primary productivity, and zooplankton dynamics of Mono Lake for over two decades. More recently, collaborative research at Mono Lake with researchers from UCI, University of Hawaii, and University of Georgia, has examined microbial and viral populations and their role in biogeochemical cycling. He has also conducted research on nearby Crowley Lake and has initiated research at saline Walker Lake. Contact Dr. Jellison at jellison@lifesci.ucsb.edu.

The scope of research conducted by **Dr. David B. Herbst** includes the ecology and physiology of aquatic invertebrates and algae in streams, lakes, and springs of the Great Basin and Sierra Nevada. Dr. Herbst has long been interested in how salinity and water chemistry of salt lakes influences the productivity, community structure, and biogeography of benthic flora and fauna (e.g. insects and diatoms of Mono Lake, Owens Lake). In addition to saline waters, other studies in freshwater systems have examined the effects of invasive exotic species (trout in Sierra streams, New Zealand mudsnails in the Upper Owens River), monitored disturbance and restoration of streams (related to livestock grazing, acid mine drainage, channelization), and developed biological criteria to define water quality standards in streams. He has also done experimental studies of forest prescribed burns and logging and investigated sediment impairment of stream biota to establish ecological load capacity levels. His research in desert springs has ranged throughout the Great Basin and focuses on the distribution of invertebrate fauna in relation to habitat gradients, disturbance (grazing, diversions), and the ecology and population biology of endemic species. All of his research has the common theme of science applied to improving resource management planning, habitat restoration, and the conservation of native aquatic diversity. Contact Dr. Herbst at herbst@lifesci.ucsb.edu.