

—**Announcement of Funding Opportunity**—

**2012 Global Change Student Research Grant Competition
for UAF and UAA Graduate & Undergraduate Students**

Synopsis of Program

The **Global Change Student Research Grant Competition** provides support to students for research related to global change with a focus on arctic and subarctic boreal regions (to include but not limited to North America). This competition is designed to give students experience with proposal writing and the peer review system as practiced by natural and social science funding agencies. We seek proposals involving the environmental, social, or engineering components of global change (to include but not limited to climate change) and its effect upon arctic or subarctic processes, ecosystems, and/or societies. Students must place the proposed work in an interdisciplinary context by explaining its relevance to other academic disciplines and endeavors.

Eligibility Information:

- Applicants must have graduate or undergraduate status in a degree-granting program at UAF or UAA at the time the research will be conducted. *Graduate and undergraduate proposals will be evaluated separately.*
- Applicants may submit only one proposal each year.
- Proposal must be written entirely by the student PI(s).
- Applicants should request a start date of no earlier than 1 July 2012 and no later than 1 January 2013. Funds for a 1-year project or the first year of a 2-year project must be spent by 30 June 2013, and for the second year of a 2-year project by 30 June 2014, regardless of the start date.
- Graduate proposals will be accepted for 1 or 2 year durations with budgets up to \$10,000 per year. Year 2 funding will be contingent on submission of a satisfactory progress report and availability of funds.
- Undergraduate proposals are limited to 1 year for a total of up to \$10,000.

Deadline: Friday, 10 February 2012 by 5 p.m.

Proposals containing all required elements are due (electronic only to: susan.sugai@alaska.edu and cgc@iarc.uaf.edu).

Program contact:

Susan Sugai, 305 Akasofu Bldg (IARC), UAF; (907) 474-5415; susan.sugai@alaska.edu

Introduction

The **Center for Global Change and Arctic System Research (CGC)** was established in March 1990 to serve as the focal point at the University of Alaska Fairbanks (UAF) for developing, coordinating, and implementing interdisciplinary research and education related to the role of the Arctic and Subarctic in the Earth system, and to stimulate and facilitate global change research in this region. For the purpose of this solicitation, ***global change research includes the observation and study of the processes, interactions, and feedbacks among the components of the Earth system (atmospheric, oceanic, hydrologic, ecologic, and human) in both the past and present, in order to anticipate future changes, develop effective responses to change including the means for sustainable management of resources and ecosystem services, and to ensure societal and cultural viability and adaptation over the long term. Global change includes but is not limited to climate change.***

The **Global Change Student Research Grant Competition**, administered by CGC in partnership with the Cooperative Institute for Alaska Research (CIFAR) and the University of Alaska Anchorage (UAA) provides support to students for research related to global change with a focus on arctic or subarctic boreal regions presented in an interdisciplinary context. Initiated at UAF in 1992, this competition is designed to give students experience with proposal writing and the peer review system as practiced by science funding agencies. ***The proposed work may involve the environmental or social sciences or engineering, but students must articulate the relevance of their proposal to global change or its effect upon arctic or subarctic processes, ecosystems, and/or societies.*** Proposals may employ field studies, laboratory experiments, retrospective analyses, surveys, modeling, synthesis, or other innovative research approaches. Students are encouraged to examine the range of student projects funded during the past 11 years at: http://www.cgc.uaf.edu/student_grant/awardees.htm

Proposal Preparation Instructions

!! → READ CAREFULLY

Any proposal that exceeds specified page limits or is missing one or more of the required elements **will be returned without further consideration**. Proposals **must** include the following elements in this order:

Required Elements (with *firm* page limits):

1. **Proposal Cover Sheet** (as a Microsoft Word document)
2. **Project Narrative** (6 page limit including abstract, figures and tables)
3. **References Cited** (2 page limit)
4. **Project Schedule** (1 page limit)
5. **Budget, Budget Justification and Other Sources of Project Support** (2 page limit)
6. **Vitae of Student Principal Investigator(s)** (1 page limit per investigator)
7. **Signed Letter of Support from Student's Advisor(s) or Sponsor(s)** (scanned and converted to an Adobe PDF; 1 page limit per advisor or sponsor)

1. **Proposal Cover Sheet:** There are separate electronic cover sheet forms (in Microsoft Word) for undergraduate and graduate students. All shaded boxes on the appropriate form need to be filled out. Forms are available at:

http://www.cgc.uaf.edu/student_grant/Competition.htm

The title of the project must be brief, scientifically or technically valid, and intelligible to a scientifically or technically literate reader. The graduate advisor or faculty sponsor indicated on the cover page should be the same faculty member who submits item 7, the signed letter of support for the project. Requested start date can be no earlier than 1 July 2012 or later than 1 January 2013.

2. **Project Narrative** (6 page limit including all figures and tables): Project narrative should be single spaced in 11 point (or larger) Arial or Times font, with pages numbered consecutively. It must include the following sections:

Abstract (200 words or less): Though it appears first, the abstract should be written last as a concise summary of the proposal. **Abstract must begin with the name(s) of student investigator(s) and project title** followed by the concise summary of what research is being proposed.

Introduction and Background: The introduction should begin with a succinct statement of what is being proposed and then include relevant background information needed to introduce the subject to an informed layperson. Literature reviews included as part of the background should be selective, limited to those works specifically pertinent to the proposed study, and fully cited. Discussion of previous work done by the applicant, the applicant's mentors, or others should let the reader know how the proposed research will build upon what has already been done.

Justification and Need: Clearly discuss how *your proposal is related to global change or its effects in the Arctic and/or Subarctic*, and *the relevance of this research to other academic disciplines and endeavors*. See introduction on page 2 for our definition of "global change research." If you have questions about whether your proposed research would be eligible, contact Susan Sugai before investing considerable time and effort.

Description of Proposed Research Objectives and Approach: Discuss the *specific objectives of the project*, preferably in terms of the hypotheses to be addressed. Explain the *conceptual approach for achieving objectives* and the *methods to be used in sufficient detail that feasibility can be evaluated* by reviewers.

- Be realistic in designing the research. Probably the comment most frequently made by proposal reviewers is that the research should be scaled down to a more specific and manageable project. Your proposal should distinguish clearly between long-range research goals (your own or those of your research group) and the short-range objectives for which this funding is being sought.
- Be certain that the connection between your research objectives and the research methods is well defined.
- Be specific about the methods to be used in evaluating the data or the conclusions.

Additional information required from applicants who have previously submitted a proposal to this competition (does not count against 6-page limit): Applicants must mention all proposals they have previously submitted to this competition (funded or not) and discuss the relationship, if any, of the current proposal to any of these prior

submission(s). Please also tell us if your name has changed since your last proposal submission. **Proposals from applicants that fail to acknowledge a prior submission will not be reviewed.** Copies of prior proposals and reviews may be provided to one or more reviewers, so students are strongly urged to address prior reviewers' comments. In addition to responding to panel and reviewer comments from the prior year, students should carefully review their submission for overall clarity and adherence to the current competition guidelines.

3. **References Cited** (2 page limit): Reference information is required. For citations within the text use author name(s) and year of publication (e.g., Roberts, 2002; Smith and Jones, 2005). The "References Cited" section should be sorted by last name, then year. References should be in a consistent format and must include the names of all authors in the same sequence in which they appear in the publication, the article title, book or journal title, volume number, page numbers, and year of publication. Check that each citation in the text is included in the "References Cited" section, and vice versa.
4. **Project Schedule** (1 page limit): Provide a time table (such as a Gantt chart) with schedule of the proposed work. Be as detailed as possible. When will the first step be completed? When can subsequent steps be started? An example is given below. **Remember that your start date must be no earlier than 1 July 2012 and no later than 1 January 2013. Funds for a 1-year project or the first year of a 2-year project must be spent by 30 June 2013, and for the second year of a 2-year project by 30 June 2014, regardless of the start date.**

Timeline: milestones and schedule of delivery

Project year	Year 1				Year 2			
	J	S	O	D	J	M	A	J
<u>Collect field samples and begin sorting</u>								
Order field supplies & clean sample vials	■							
Collect water and invertebrate samples								
Sieve sediment samples and size sort organisms								
<u>Identify organisms & work up data</u>								
Identify major species in each size sample & location		■						
Statistical data analysis								
Write up preliminary results						■		
Select locations & species for isotope work								
<u>Prepare for & conduct second field sampling</u>								
Collect water and invertebrate samples for isotope analyses							■	
Process samples								
Data analysis & writing								■
Give presentation at AGU in San Francisco								■

5. **Budget, Budget Justification and Other Sources of Project Support** (2 page limit): Only outstanding proposals in which all costs are viewed as fully justified will be

funded. Funding of multi-year projects will be limited to the best-conceived and justified proposals clearly addressing competition priorities.

Your project budget, presented in the form of a table, should be itemized by year and into eligible categories that may include student salaries, equipment, travel, services, and supplies. ***A sample budget table is provided on page 8 of this announcement.*** Budget should include all items requested by this proposed student grant, and may not exceed \$10,000 per year. No indirect costs (overhead/F&A) may be charged. Year 1 and Year 2 totals should be rounded to the nearest dollar, and must agree with budget requested on cover sheet.

A budget justification section (1–2 paragraphs) should clearly explain how specific expenditures will facilitate the proposed research. Awards for travel are generally restricted to either necessary field work or for presentation of research results at a national meeting. Travel expenses must specify destination and be itemized (e.g., airfare, lodging, meals). Student stipend expenses may not exceed guidelines appropriate for the student's department or institute. ***Awards cannot be used for student tuition or health insurance.***

An additional paragraph in the budget justification section and/or additional column(s) on the budget table is needed to detail all other sources (current or pending) of funding. This includes project or student support such as teaching or research assistantships, and grants to the faculty advisor that are directly related to the proposed work. Clearly specify what expenses are covered by these other sources of funding, and what you propose to do with the funding from THIS competition.

6. ***Vitae for Principal Investigator(s)*** (1 page limit per student investigator): Student vitae should include name, contact information, education, relevant presentations and publications. **The vitae should clearly indicate when the student began (or will begin) the degree program for which this proposal is being submitted, and the expected completion date.**
7. ***Signed Letter of Support from Student's Advisor(s) or Sponsor(s)*** (1 page limit per advisor/sponsor): A letter of support from the faculty advisor(s) or sponsor(s), who will oversee the research project is required. In cases where a student has an advisor (or sponsor) and co-advisor (or co-sponsor), we need a letter from both or a joint letter that both have signed. The letter of support should indicate that the faculty member has reviewed the student proposal prior to submission, agrees that the proposed research is feasible, that he/she will provide supervisory guidance, and confirms that the listed current and pending funding related to the student's research project are accurate. For faculty sponsors of undergraduate applicants, we ask that you discuss the student's level of motivation and commitment to completing the proposed research project and how the project is related to research being done in your laboratory or program or to the student's program of study.
8. ***Suggested reviewers*** Suggestions of qualified, impartial reviewers are welcome and should be included in the cover email message when you submit your proposal.

Proposal Submission Instructions and Deadline

(A suggested checklist for the 2012 applicant packet is on page 9 of this announcement)

Item 1, the cover sheet (either undergraduate or graduate form) must be submitted as a separate electronic Microsoft Word document. Be sure to follow the instructions on the form itself.

Items 2–6 should be page numbered consecutively and submitted as one Microsoft Word or Adobe PDF document. *Fonts must be no smaller than 11 pt Arial or Times and all margins should be no less than one inch.*

Item 7, the signed letter(s) of support can be submitted in several ways. The **preferred** method is to scan a signed hardcopy letter(s) from the faculty member(s) and submit it as an Adobe PDF file together with the rest of the proposal. Alternatively, we will accept a PDF file with an Adobe Acrobat digital ID signature. If neither of these options is possible, the faculty member may email the letter from their University email account directly to: susan.sugai@alaska.edu and cgc@iarc.uaf.edu. *This email letter of support must arrive prior to the proposal deadline and must include the student's first and last name in the subject line.*

The items listed above must be emailed to both susan.sugai@alaska.edu and cgc@iarc.uaf.edu by 5 p.m. Alaska Standard Time on Friday, 10 February 2012.

Check your submission VERY carefully before sending because we are no longer able to accept multiple versions of student proposals. We strongly urge that you ask someone not familiar with your research to carefully read and edit/comment on your proposal prior to submission. We will send an acknowledgement that your entire proposal packet (including all 7 required items) has been received. (Please be patient especially if your letter of support is submitted separately from your proposal text and cover sheet).

Any proposal received after 5 p.m. on 10 February 2012 will be returned without further consideration.

Preliminary proposals from undergraduate applications are not requested this year and will not be reviewed. Students may contact Susan Sugai with any questions (the earlier, the better!)

Proposal Evaluation Criteria

Proposals will be prescreened for compliance with proposal guidelines and overall presentation (coherence, correct English usage, absence of typographical and citation errors). Proposals remaining after this screening will be sent out for review by UAF and UAA faculty and other professionals. The following criteria will be used for proposal evaluations with approximate weighing factors:

1. Scientific and technical merit of the proposed research. (25%)
2. Stated relevance to global change or its effect upon arctic or subarctic processes, ecosystems, and/or societies. (25%)
3. Feasibility of the proposed research as written. (30%)

4. Presentation of proposed research in an interdisciplinary context or demonstration of relevance beyond a single discipline. (10%)
5. Project costs (10%): The budget will be evaluated to determine if it is realistic and commensurate with the project needs and time-frame.

A joint UAF–UAA proposal review panel will be assembled to assist the Center for Global Change in making funding decisions. Depending upon the number of proposals received and the amount of available funding, proposals receiving lower reviews may not be considered by the review panel. **Undergraduate and graduate proposals will be evaluated separately.** The number and distribution of funded projects will be determined by the number of quality proposals received, the funding requested by these students, and the total available funding. There is no predetermined award allocation for undergraduate versus graduate and/or UAF versus UAA projects. We anticipate that most awards will be made for one year and for budgets less than the \$10,000 award ceiling. Applicants will be notified of funding decisions by late April; peer and/or panel reviews will be returned to each student in May.

Questions ?

UAF: Susan Sugai by email at susan.sugai@alaska.edu or by phone at 474-5415.
UAA: C. Loren Buck by email at loren@uaa.alaska.edu or by phone at 786-1367.

SAMPLE BUDGET TABLE

In your own table, omit any categories or columns that do not apply. Dollar amounts in the sample table are for illustrative purposes only. Use footnotes to explain sources of "other" support. If you are unsure what category a proposed expense should be, contact Susan Sugai.

CATEGORY	Year 1 CGC	Year 2 CGC	Year 1 Other	Year 2 Other
SALARIES				
Field assistant, 3 mos.	\$1100			
Student PI summer stipend	<u>\$4000</u>	<u>\$2000</u>		
TOTAL SALARIES	\$5100	\$2000		
<i>(Other salary support)</i>			0	^a \$5000
EQUIPMENT (non-expendable property with a unit cost of ≥ \$5,000 & a useful life of more than one year).				
None requested	<u>0</u>	<u>0</u>		
TOTAL EQUIPMENT	\$0	\$0		
<i>(Other equipment support)</i>			0	0
TRAVEL (Specify domestic or international)				
<i>Domestic</i>				
Camp days at Toolik for 5 days @ \$85/day	\$425	0		
RT airfare to AGU meeting in San Francisco	0	\$550		
Lodging for 4 days @ \$100/day	0	\$400		
Per diem for 3 days @ \$67/day	<u>0</u>	<u>\$201</u>		
<i>Total Domestic Travel</i>	<u>0</u>	<u>\$1151</u>		
TOTAL TRAVEL	\$425	\$1151		
<i>(Other travel support)</i>			0	0
SERVICES				
Registration fee for AGU conference	0	\$150		
Lab analysis, \$20/sample x 20 samples	0	\$400		
Shipping of equipment to field site	\$100	0		
Printing charges for research poster	0	\$40		
Publication page charges	<u>0</u>	<u>\$220</u>		
TOTAL SERVICES	\$100	\$810		
<i>(Other services support)</i>			0	0
SUPPLIES (also referred to as COMMODITIES)				
Field notebooks	\$50	0		
Misc. lab supplies (e.g., pipettes, gloves, sample bags)	\$300	\$40		
Laptop computer for recording data in field	<u>\$1000</u>	<u>0</u>		
TOTAL SUPPLIES	\$1350	\$40		
<i>(Other supplies support)</i>			0	0
<u>TOTAL FUNDING REQUESTED from CGC Award</u>	<u>\$6975</u>	<u>\$4001</u>		
<i>Total other funding</i>				\$5000
<i>(sources: a = graduate school thesis completion grant)</i>				

Suggested Checklist for 2012 Global Change Student Research Grant Applicant
(do not submit with proposal)

Proposal Preparation (*Use a font size no smaller than 11 point Arial or Times, with at least 1" margins all around.*)

- Cover sheet. Submit this as an electronic Word document (do not convert to a PDF).
- Narrative (**6 page limit** including all figures and tables, single-spaced, with pages numbered consecutively)
 - Abstract (less than 200 words)
 - The problem or need that you propose to address
 - How problem or need is related to global change or its effects in the Arctic and/or Subarctic
 - Relevance of proposed research to other academic disciplines or endeavors
 - Pertinent background material with citations
 - Specific objectives of project
 - Conceptual approach for achieving objectives
 - Methods and materials to be used
 - Relationship of this proposal to any prior submission to this competition [*does NOT count against the 6 page limit*]
- References Cited (**2 page limit** with references sorted by last name then year)
 - All citations in text are included in "References Cited" section, and *vice versa*.
- Project Schedule (**1 page limit**)
 - Time table (such as a Gantt chart) of project milestones beginning no earlier than 1 July 2012 or later than 1 January 2013.
- Budget & Justification (**2 page limit**, *see sample budget table on page 8*)
 - Itemized budget broken out by year and by category. CGC budget should include only those items covered by this proposed grant and may not exceed \$10,000 per year. No indirect costs (overhead/F&A) may be charged. Round Year 1 and Year 2 totals to the nearest dollar, and be sure they match the totals on the cover sheet.
 - Thorough budget justification for all items listed in budget (1–2 paragraphs).
 - Additional paragraph or table that shows all other sources (current or pending) of project or graduate support.
- A curriculum vitae for each student principal investigator (**1 page limit** per student)
- A signed letter of support from student's advisor(s) or sponsor(s) (**1 page limit** for each support letter)