



# STUDENT RESEARCH GRANT PROGRAM

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## Student Research Grant Program Overview

Student Research Grants (SRG) are competitive grants awarded to undergraduate and graduate students who are engaged in collaborative research activities at the Timucuan Ecological and Historic Preserve. Projects should involve significant student effort toward ongoing research programs or in research projects specifically designed for this program. Each student is expected to carry out a project, or be an active part of a research team, under the supervision and mentorship of a faculty mentor.

There are two types of SRG available for student research:

### 1) Student Research Grants – Individual

A student proposes a research question that can be addressed through collaborative efforts with the Timucuan Ecological and Historic Preserve. The student selects a faculty member to agree to serve as a Principal Investigator (PI) for the student’s research. The PI agrees to include an individual student research mentorship component in an ongoing funded project or in a new proposal for funding of research within the setting of the Preserve. Projects may be based in a single discipline or academic department or may offer interdisciplinary or multidisciplinary research opportunities with a coherent intellectual theme.

### 2) Student Research Grants – Team

Research Team projects are based on proposals to initiate and conduct research that engage a number of undergraduate and/or graduate students. A team project must have a well-defined common focus that enables a collaborative research experience for students. The Principal Investigator agrees to provide guidance to a number of students in a single research project. Projects may be based in a single discipline or academic department or may



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offer interdisciplinary or multidepartment research opportunities with a coherent intellectual theme.

## **Program Description**

Undergraduate and graduate research experience is an effective avenue for attracting students to and retaining their interests in ecological sciences, preservation and history, and for preparing students for careers in these fields. The aim of the SRG program is to provide appropriate and valuable educational experiences for students through participation in research projects conducted in the Timucuan Preserve. SRG projects feature high-quality interaction of students with faculty and National Park Service resource professionals and staff to ensure meaningful engagement in ongoing research programs or in research projects specifically designed for this program. Principal Investigators, in consultation with Preserve Officials, secure access to facilities and professional development opportunities at the Preserve, whenever necessary.

The goals of the program are to:

- Serve as a catalyst for students to build upon coursework, gain knowledge, and become active in field research
- Provide students with the opportunity to share research results with an audience of research professionals at the annual Timucuan Science & History Symposium
- Create partnerships between university faculty, students and the National Park Service
- Develop students' ability to produce research-driven scholarly work
- Provide National Park Service staff with a better understanding of the resources at Timucuan Ecological and Historic Preserve

## **Program Funding and Awards**

Research grants are funded through sponsorship donations to the Timucuan Science & History Symposium held each year in January. Depending on sponsorship funds received, it is anticipated that research grants in \$1,000 or \$500 increments will be funded each year. Funds are administered by the Timucuan Parks Foundation. The Timucuan Parks Foundation is a registered 501(c) 3 nonprofit organization and the official Friends Group of the Timucuan Ecological and Historic Preserve.

The SRG award supports student stipends, student travel, and/or project costs. The purpose of the SRG program is for students and faculty to collaborate with the Timucuan Ecological and Historic Preserve on a research project. Each SRG project should have, as its basis, a research question(s) that the Timucuan Ecological and Historic Preserve would like to have answered.



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## Program Eligibility

Students must be degree-seeking in any major academic field to apply and must be currently enrolled at the time of field research. Students cannot be graduating any earlier than December of the program year. Research teams or individual students can be undergraduate or graduate students. Student proposals must include a research project to be conducted in (or about) the Timucuan Preserve and limited in scope to a maximum of eight months for research, analysis, and reporting.

## Types of Research Funded

A list of current research needs for the Timucuan Ecological and Historic Preserve can be found on the park website at <http://www.nps.gov/timu/planyourvisit/research.htm>. Students should not feel limited to selecting a research project from the prepared list of research needs. Proposals will also be considered that demonstrate promising emerging and innovative research ideas.

## Application Process

Students must prepare a research proposal in accordance with the **“Guidelines to Researchers for Study Proposals”** from the National Park Service beginning on page 6 of this document. A copy of the guidelines to researchers can also be found online at <https://irma.nps.gov/Content/RPRS/InvestigatorHelp.aspx> in the section “Other Guidance and Documentation”. Students must indicate within the research proposal if the project is an individual project or a team effort. Team efforts must clearly specify the names of all team members involved and identify one student as the primary contact or “lead” for the research team.

In addition to the research proposal, a letter of support from a faculty member agreeing to serve as the student’s principal investigator must be included as part of the application. Only one letter of support from a Principal Investigator is needed as part of the Research Team application. The Principal Investigator must clearly include the names of all student team members and identify one student as the primary contact or “lead” for the research team. A resume or curriculum vitae for each person involved in the project is also required.

A complete application packet should include the following items:

- Research proposal
- Letter of support from faculty member/principal investigator
- Resume or curriculum vitae of all students involved in the project
- Resume or curriculum vitae of faculty member/principal investigator

All application materials should be submitted via email to Anne Lewellen, National Park Service Timucuan Ecological and Historic Preserve Research Coordinator, at [anne\\_lewellen@nps.gov](mailto:anne_lewellen@nps.gov)



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The deadline to apply is **March 14**. Recipients will be notified in April regarding their selection.

## **Proposal Review Process and Program Timeline**

### *February 1 – March 14*

The National Park Service Timucuan Ecological and Historic Preserve will solicit student research proposals in collaboration with its partner organization, Timucuan Parks Foundation, and representative affiliates of the Timucuan Science and History Committee. As research proposals are received they will undergo an initial screening for completeness and appropriateness by National Park Service resource professionals and staff.

### *March 15 – April 15*

Research proposals will undergo a technical review by members of the Timucuan Science and History Committee. Proposals will be evaluated based on a consistent list of criteria. The Committee will review proposals and make recommendations to the Superintendent of Timucuan Ecological and Historic Preserve for final award selection. The Superintendent transmits the names of final selections to the Timucuan Parks Foundation for award notification.

### *April 16 – April 21*

Timucuan Parks Foundation will notify students, along with supporting Principal Investigators, of their selection for Student Research Grant awards via letter. Student projects requiring a “Scientific Research and Collecting Permit” from the National Park Service will be notified of the need to complete this requirement at this time. Students will have until April 30th to submit the “Scientific Research and Collecting Permit.”

Students not selected for a grant award will also be notified by Timucuan Parks Foundation. In many instances, it is anticipated that funds will not be available to support all acceptable research proposals. In such instances, students will receive feedback regarding the quality of his/her proposal but the program’s lack of capacity to fund the work at that time.

### *May*

Timucuan Parks Foundation will begin award disbursement in May. Awards are first distributed to students with research projects that do not require the “Scientific Research and Collecting Permit.” Once pending permits are received and approved by the TIMU Superintendent, remaining grant funds will be disbursed to award recipients.

Students and Principal Investigators are asked to schedule an introductory meeting with the resource professionals at Timucuan Ecological and Historic Preserve. Detailed information about this meeting will be included in the student award letter.



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## *May – December*

The months from May to December are open for students to conduct research, analyze results, and prepare a final research report.

## *December 31*

A final research report is required as part of the general research requirements for all research conducted at the Timucuan Ecological and Historic Preserve. The deadline for this report is December 31<sup>st</sup>.

## *January*

Students are required to present research findings at the Timucuan Science & History Symposium held in late January of each year.

## **Student Commitment**

Research awards will be announced in mid- to late-April with financial awards being distributed in May. This timeline is followed so that students have the summer and fall months to conduct research and analyze results. Students are required to present research findings at the Timucuan Science & History Symposium held in January of the following year. Additionally, a final research report is required as part of the general research requirements for all research conducted at the Timucuan Ecological and Historic Preserve. The deadline for this report is December 31<sup>st</sup>. Students are expected to comply with the generally accepted style guide of his/her academic discipline in writing the final research report. An award recipient also agrees to the use of his/her photograph and research findings in National Park Service and Timucuan Parks Foundation media releases.

## **Faculty Mentor or Principal Investigator Commitment**

Students work with a selected faculty mentor on a mutually agreed upon research project. This research provides an excellent structure for the interaction of a faculty mentor with a student and an important opportunity to put into practice the principles of experiential education in partnership with the research needs of a federal agency. The faculty mentor is expected to provide general feedback on research protocols and project results. Wherever possible, it is encouraged that the research project be incorporated into the student's course curriculum.

# GUIDELINES TO RESEARCHERS FOR STUDY PROPOSALS



## United States Department of the Interior National Park Service

Your proposal should include each of the required information items listed below, in enough detail that an educated non-specialist can understand exactly what you plan to do. If you have already prepared a relevant proposal for a funding application, work plan, formal agreement, or similar document, then your original proposal likely will satisfy National Park Service (NPS) proposal requirements. The primary area where new information may be necessary concerns the ability of the park to assess what, if any, impacts your research may have on park resources. You should compare your original proposal to these guidelines to be certain that you have provided all the required information. If additional information is required, you can provide it in a cover letter or supplement to your proposal, as appropriate. If a required topic does not apply to your proposed study, simply list the topic and write “not applicable.”

The length of your proposal depends primarily on the complexity of the work planned. In some cases, a proposal may consist of a couple of pages for a study expected to have no significant impact on park resources or visitor experiences. However, proposals for lengthy or complex research problems, for extensive collecting, and for work with special status species or sensitive cultural resources are typically longer, more detailed, and well-organized. Incomplete, disorganized, or illegible proposals may be returned for revision.

### I. INTRODUCTION

- A. **Title**
- B. **Date of proposal**
- C. **Investigators** - Provide the name, title, address, telephone number, FAX number, email address, and institutional affiliation of the principal investigator and the name and affiliation of all additional investigators listed in the proposal.
- D. **Table of contents** - Recommended for long or complicated proposals.
- E. **Abstract** - Provide a brief summary description of the proposed project. Include up to five keywords that can be used by the NPS to quickly identify the proposal subject (for example, microbiology, geology, ecology).

- II. **OVERVIEW** - Summarize the proposed project by describing in general the problem or issue being investigated as well as any previous pertinent research.

- A. **Statement of issue** - Describe the issue to be investigated and its importance and relevance to science and to the park. Provide relevant background information that clarifies the need for the project and why it is valuable for the research and/or collecting to be conducted in the park.
  - B. **Literature summary** - Summarize the relevant literature regarding the issue, problem, or questions that will be investigated.
  - C. **Scope of study** - Describe the overall geographic and scientific scope of the project.
  - D. **Intended use of results** - Describe how the products will be used, including any anticipated commercial use.
- III. **OBJECTIVES/HYPOTHESES TO BE TESTED** - Describe the specific objectives of the proposed project. Where appropriate, the objectives should be stated as specific hypotheses to be tested.
- IV. **METHODS** - Describe how the proposed methods and analytical techniques will achieve the study objectives or test the stated hypothesis/question. Provide pertinent literature citations.
- A. **Description of study area** – Clearly describe the study area in terms of park name(s), geographic location(s), and place names. Provide maps, park names, or geographic coordinates as appropriate. Indicate whether your work will take place in an area designated or managed as “wilderness” by the NPS.
  - B. **Procedures** - Describe the proposed study design that addresses the stated objectives and hypotheses. Explain the methods and protocols to be employed in the field and laboratory.
  - C. **Collections** - Describe the type, size, and quantity of specimens or materials to be collected, sampled, or captured, and your plans to remove them from the collecting site. If you are aware specimens of the proposed types already exist in a repository, explain why additional collecting is necessary. Provide scientific nomenclature where possible. Provide information on all other applicable federal or state permits where required.
  - D. **Analysis** - Explain how the data from the study will be analyzed to meet the stated objectives or test the hypotheses. Include any statistical techniques or mathematical models necessary to the understanding of the analysis.
  - E. **Schedule** - Provide a schedule that includes start of project, approximate dates or seasons of fieldwork, analysis, reporting, and completion dates.

- F. **Budget** - Briefly outline the expenses associated with this project and identify your expected funding source(s). Include the anticipated costs pertaining to the cataloging of collected and permanently retained specimens or materials.

V. **PRODUCTS**

- A. **Publications and reports** - Describe the expected publications or reports that will be generated as part of this study.
- B. **Collections** – Describe the proposed disposition of collected specimens or materials. If you propose that the NPS lend the specimens or samples to a non-NPS institution for long-term storage, identify that institution and give a brief justification for this proposal.
- C. **Data and other materials** - Describe any other products to be generated as part of the project, such as, photographs, maps, models, handouts, exhibits, software presentations, raw data, GIS coverages, or videos, and the proposed disposition of these materials. If data are to be collected from the public as part of this study, provide a copy of the data collection instrument (survey, questionnaire, interview protocol, etc.).

VI. **LITERATURE CITED** - Include full bibliographic citations for all reports and publications referenced in the proposal.

VII. **QUALIFICATIONS** - Provide a background summary or curriculum vitae for the principal investigator and other investigators listed in the proposal. Identify their training and qualifications relevant to the proposed project and their ability to conduct field activities in the environment of the proposed study area. Describe previous research and collecting in NPS areas, including study and permit numbers if available.

VIII. **SUPPORTING DOCUMENTATION AND SPECIAL CONCERNS** - Provide information on the following topics where applicable. Attach copies of any supporting documentation that will facilitate processing of your application, such as other required federal and state permits, copies of peer reviews, letters of support and funding commitments, and certifications. Collection of information from the public when federal funds are used may require approval from the Office of Management and Budget (OMB). Upon your request, the NPS Social Science Program will advise you on steps needed to obtain this OMB approval.

- A. **Safety** - Describe any known potentially hazardous activities, such as electrofishing, rock climbing, scuba diving, whitewater boating, aircraft use,

wilderness travel, wildlife capture, handling or immobilization, use of explosives, etc.

- B. **Access to study sites** - Describe the proposed method and frequency of travel to and within the study site(s). Explain any need to enter restricted areas. Describe duration, location, and number of participants for planned backcountry camping.
- C. **Use of mechanized and other equipment** - Describe any field equipment, markers, or supply caches by type, number, and location. You should explain how long they are to be left in the field. Explain the need to use these materials in restricted areas and the alternatives that were considered.
- D. **Chemical use** - Identify any chemicals and hazardous material that you propose using within the park. Indicate the purpose, method of application, and amount to be used. Describe plans for storage, transfer, and disposal of these materials and describe steps to remediate accidental releases into the environment. Attach copies of Material Safety Data Sheets.
- E. **Ground disturbance** - Describe the type, location, area, depth, number, and distribution of expected ground-disturbing activities, such as soil pits, cores, stakes, or latrines. Describe plans for site restoration of significantly affected areas.

Proposals that entail ground disturbance may require an archeological survey and special clearance prior to approval of the study. You can help reduce the extra time that may be required to process such a proposal by including identification of each ground disturbance area on a USGS 7.5-minute topographic map.

- F. **Animal welfare** - For vertebrate species that require review by your Institutional Animal Care and Use Committee (IACUC) according to the Animal Welfare Act, please include a photocopy of the study protocol, and IACUC review form and approval.

For vertebrate species not requiring IACUC review, describe your protocol for any capture, holding, marking, tagging, tissue sampling, or other handling of these animals (including the training and qualifications of personnel relevant to animal handling and care). Please discuss alternative techniques considered and outline any procedures to alleviate pain or distress. Include contingency plans to be implemented in the event of accidental injury to or death of the animal.

- G. **NPS assistance** - Describe any NPS field assistance you would like to receive to complete the proposed study, such as use of equipment or facilities or assistance from staff.
- H. **Wilderness “minimum requirement” protocols** - If some or all of your activities will be conducted within a location administered by the NPS as a

designated, proposed, or potential wilderness area, your proposal should describe how the project adheres to wilderness “minimum requirement” and “minimum tool” concepts. Refer to the park’s wilderness management plan for further information.