2022 REQUEST FOR RHINO RESEARCH PROPOSALS

The International Rhino Foundation (IRF) is requesting proposals for research that is directly applicable to management, propagation and conservation of all five rhinoceros species in the wild or maintained *ex situ*.

Proposals for research involving any scientific discipline(s) can be submitted and must directly address one of the targeted IRF research priorities below. These priorities were chosen because they address some of the greatest challenges faced today in maintaining healthy, self-sustaining rhino populations that will survive well into the future.

Priority Research Target Areas

Proposals addressing the following Target Areas will be considered without need for an exploratory letter of interest. Examples listed under each priority area provided are meant to be illustrative, indicating a possible range of research topics.

If an applicant believes their proposal idea is outstanding but does not address one of the priorities listed below, they can submit an explanation of the idea in 250 words or less to grants@rhinos.org by 15 September 2022 for consideration and we will notify you if you may submit a full proposal.

1. Methods to improve rhino population monitoring and/or tracking. For example:

- Developing and testing approaches for monitoring and tracking rhinos *in situ.*
- Developing and testing approaches for monitoring and tracking rhinos in large *ex situ* areas.
- Explorating alternative low-power, long-range systems to track rhinos and integrate anti-poaching data.
- Developing and testing systems/technologies to identify individual rhinos, particularly from camera trap data.
- Aerial monitoring or other remote-sensing technologies.

2. Economic analyses of rhino conservation. For example:

- Analyzing the economic values of rhinos as contributors to national and/or regional economies
- Assessing how rhinos serve as proxy indicators for ecosystem processes and other components of natural capital, and what the economic implications arising from this are
- Determining how much rhino conservation costs (in a set of study sites) over and above the basic per-area protection costs that need to be met for a typical spectrum of other wildlife species in protected areas (private and state)
- Exploring what economic stimuli could be applied to achieve extensive *in-situ* range expansion options

- Analyzing costs vs benefits of various conservation interventions (e.g., dehorning, translocation, habitat management, community outreach)

3. Determination of the conservation value of different rhino populations. For example:

- Establishing an objective way (including genetic and demographic factors) to ascertain a new or amended conservation value index for selected rhino populations
- Analyzing genetic exchange within black and white rhino populations and developing biological management recommendations to improve management decisions
- Reviewing the effects of any age/sex skewing, derivation of trend data on inbreeding coefficients to help provide guidelines for the IUCN/SSC African Rhino Specialist Group to amend current classifications ("Key", "Important", to also include "Marginally viable," "Non-viable", etc.)

4. Investigation of critical factors affecting health, well-being and reproduction *ex situ.* For example:

- Epidemiology of health issues in the browsing rhino species
- Iron overload disorder (significance, detection, treatment, prevention)
- Reproductive dysfunction (stillbirths, acyclicity, anovulation, pregnancy loss)
- Impacts and control of obesity/over conditioning
- Early and late stage reproductive dysfunction
- Factors impacting animal well-being and long-term welfare (could also apply to wild rhinos recovering from traumatic injuries/orphans)
- Nutritional analysis of food plants most frequently fed to Sumatran rhinos at the Sumatran Rhino Sanctuary in Way Kambas National Park, including daily food consumption comparison of food plants consumed by SRS rhinos

5. Investigating effectiveness of habitat management interventions and their benefit to *in situ* Asian rhino populations. For example:

- Reforestation
- Habitat management
- Invasive species removal

6. Investigation of rhino horn consumption drivers and how they have changed. For example:

- Analysis of increases or decreases in demand in consumer countries
- Analysis of efficacy of demand reduction behavior change campaigns
- Analysis of demographics of rhino horn buyers and drivers of consumption desires
- Analysis of supply chains and seizure patterns

7. Development of standardized and consistent reporting mechanisms and methodologies for confirming Sumatran and Javan rhino species population sizes and their dynamics. For example:

- Analysis of real-time camera systems to provide immediate population data
- Comparison of Artificial Intelligence models to allow for automated identification of individual rhinos in a population

8. Technical assessments to inform metapopulation management. For example:

- Habitat assessments, restocking assessments, environmental impact assessments and/or reviews of different methodologies and past projects to determine success of potential translocations of rhinos into new areas (or ones from which they had been extirpated)
- Genetic analysis to inform which individuals to translocate, including investigating the genetic profile of a population, investigating the genetic variability within a population (high or low heterozygosity), genetic variation between groups of rhinos living in the same

protected area, whether a population is at risk for inbreeding/outbreeding depression, indications of individuals that should be removed from or kept within a population, and other management implications. Proposals to analyze the impacts of past management interventions also accepted.

Student Project Proposals

In addition, the IRF is soliciting student project proposals that address the above Target Areas to provide seed money for students entering the field of rhino conservation research. Student grants must not exceed a 12 month timeline. Student project costs requested from IRF may not exceed $5,000. Student project proposals will be reviewed separately from the proposals submitted by career scientists.

Application Timeline

15 October 2022	Deadline to request to submit a proposal for research that does not address the eight target areas listed above. Requests must be 250 words or less and submitted to grants@rhinos.org. Approval from IRF to submit a full proposal for these non priority area requests will be announced by 30 October 2022.
15 December 2022	Deadline to submit proposal for funding. Proposals must follow the requested submission requirements (below) to be considered for support. Submissions should be sent to grants@rhinos.org.
15 February 2023	Announcement of projects selected for funding

Submission Requirements

Proposals should be double-spaced with one-inch margins using 12-point font and include the following nine components:

1. **A title page containing:**
    a. Title of project
    b. Project type: Full Proposal or Student Project
    c. Research priority(s) addressed (choose one or more of the eight listed)
    d. Name, position, affiliation, address, e-mail, and telephone of Principle Investigator and Co-Investigators
    e. Duration of project (max. 24 months; max. 12 months for student projects)
    f. Total amount requested (maximum request allowed is $35,000; $5000 for student projects)
    g. Signature of the PI and the Director of their institution/organization

2. **A summary (abstract) of 500 words or less describing in lay language:**
    a. The problem being addressed
    b. The general objectives of the study
    c. A general explanation of the methods to be used and experimental design
    d. The expected results and how they will be applied

3. **Body of the proposal** - Section 3 must be no longer than 10 pages, double-spaced and must include the following:
    a. General aim and hypothesis (or hypotheses) to be tested
    b. Specific objectives
    c. Impact on the conservation and management of *in situ* rhino populations (if applicable)
    d. Background
    e. Preliminary data, if available
    f. Experimental design and methods
    g. IRB approval and/or how they are working with live vertebrates
    h. Percent time of the PI and each Co-PI committed to project and specific responsibilities of each

4. **Budget and explanation justifying expenses** – Should contain a breakdown of the budget as well as any secured matching funds. Please use the following format for your budget (line items here are illustrative; please add additional line items if needed):

Item (to be changed depending on need)	**Per-unit item cost**	**Requested from IRF**	**Matching funds from "Partner x"**	**Matching funds from "Partner y"**	**Total**
Salaries and Benefits					
Name					
Name					
Professional Services					
Name					
Name					
Travel and Transport					
International Trips					
Local Travel					
Vehicle Rental					
Fuel					
Office Costs					
Rent					
Utilities					
Communications					
Dues & Subscriptions					
Postage & Shipping					
Equipment (over US $5,000)					
Supplies (under US $5,000)					
Training					
Sub-Grants					
Example 1					
Example 2					

Example 3					
Other Costs					
Example 1					
Example 2					
Indirect Costs					
Total					

(Note: Provide enough information in the per-unit item cost column that it is clear to reviewers how the costs were derived. For example, "fuel - $2,400" is inadequate, whereas "12 months fuel at $100/month x 2 vehicles" is more informative). Justifications for personnel salaries should include the baseline salary figure, and an estimate of time (percent) to be charged to the project.

The IRF will fund up to 10% administrative overhead. Budget requests that consist primarily of salary generally will not be considered favorably. Conditional support may be committed for subsequent years of multi-year projects at the time of initial approval of a funded grant and funding will be contingent upon satisfactory review of the prior year's performance. Multi-year projects should not exceed two (2) years or $35,000 in total funds requested, or one (1) year or $5,000 for student grants.

5. **References -** Include cited references from peer-reviewed publications providing authors, year, title, journal, and volume/pages

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6. **Two-page CV for the PI and each Co-Investigator** - Include title, experience, and list of relevant publications for each.

7. **Letters of support:**
    a. Letter of support from any institution listed as a collaborator.
    a. Letter of support, referencing the specific proposal by title, from the appropriate local, regional or national wildlife or conservation authority, if applicable.

8. **Wildlife/Research Permit(s):**
    a. If wildlife research permit(s) are required in the country in which the project will be conducted, please provide a copy of the permit or proof that an existing permit is valid for the duration of the project.

9. **Human Rights Policy:**
    a. Include the human rights policy of the institution(s) with whom the PI(s) are affiliated. If the institution(s) do(es) not have a human rights policy, include a written statement affirming a commitment to meet the IRF Human Rights Policy (described in full at the end of this RFP).

Funding Details

The total funding currently committed to support the RFP is approximately US$250,000 but this amount may differ by the time grant evaluations are conducted.

The funding ceiling is US$35,000.00, with a ceiling of US$5,000.00 for student research projects.

Proposal Review

A panel of established scientists, disciplinary experts, and veterinarians will review and score all proposals. Proposals will be evaluated on their quality, soundness of science, feasibility, likelihood that the results will lead to progress in resolving the challenges, effectiveness of the budget, and importance to the overall effort of maintaining healthy, self-sustaining populations of rhinos.

Selection Priorities

Priority will be given to projects that demonstrate:

- scientific Soundness - projects must follow accepted scientific principles so that results are credible.
- Relevancy - projects must aim to significantly improve the conservation and management of *in situ* rhino populations.
- Cost Benefit - each project must aim to obtain scientific information or an applicable benefit for the money expended.
- Projects with matching funds.
- Projects supported by sound preliminary data.
- Past Performance - Principal investigators must have a reputation for completing projects, publishing results in an expeditious manner and cooperating with funding agencies in providing reports and educational materials. If awarded funding previously by the IRF, satisfactory performance on previous grant awards is essential.
- Humane Treatment - Projects must meet humane standards of care when animals are involved. Each of these studies must be approved by the appropriate agency at the facility or institution where the study is conducted.

Reporting

IRF will provide reporting guidelines at the time of award. At a minimum, each grant recipient will be required to submit an interim program and financial report halfway through the grant period, and a final program and financial report at the end of the award. For multiple-year grants, continued funding will depend on satisfactory review of the prior year's performance and continuation of annual report submissions.

Each grant recipient will also be required to provide a short report on their work, written in layperson's terms, to be published on the IRF blog and to be compiled into a public report for knowledge sharing. Grant recipients may be asked to develop content for social media or participate in events as a platform for scientists to share their findings in an accessible way.

IRF Human Rights Policy

The International Rhino Foundation is committed to incorporating and promoting human rights in all of our work. We prioritize the voices of local and indigenous communities with whom we work and seek to develop collaborative solutions for rhino conservation. In keeping with the United Nations' 17 Sustainable Development Goals and Universal Declaration of Human Rights, IRF recognises that human rights are central to equal, effective, and long-lasting conservation outcomes. We understand that the protection and preservation of the ecosystems on which rhinos depend also provide cultural, social, and economic security and well-being for communities, and that people are an integral part of biodiversity. We invite communities to participate in planning processes and conservation program execution. We strive to protect rhinos for generations to come, and to ensure people are central to our solutions.