

PROJECT DESCRIPTION INSTRUCTIONS
FOR NEW AND RENEWAL APPLICATIONS 2022.

(last updated Dec. 28, 2021)

Please write a project description as described below. Save your file as a word doc or pdf and upload it to your RMBL account in the RMBL community portal by Feb. 1. In addition, please upload your CV your RMBL account. Your application is not complete until you have uploaded your project description and CV. Questions can be sent to the Science Director at sd@rmbll.org

Please note that we do not accept proposals which do not include well-stated professional objectives. Furthermore, the objectives must have promise of scientific merit and the specific research plans must have a reasonable chance of accomplishing the objectives. Proposals lacking these elements will be returned without review.

Scientists who are new to RMBL or who are working on a substantially new area may submit a one-year exploratory proposal lacking details. However, any manipulative experiment or study that has the potential to conflict with ongoing research must be reviewed by the Research Committee before it is initiated.

The mission of the RMBL Research Committee is to review all proposed research and other projects with the goal of ensuring the long-term success of the RMBL as a world-class institution for research and education in field biology.

In collaboration with the RMBL Science Director, the Research Committee considers the best use of finite RMBL resources as it strives to facilitate and promote the work of all scientists. It considers scientific, educational, and other benefits of proposed activities, balances these against any possible negative impacts, and contemplates whether RMBL is the most appropriate place for the activities.

The Research Committee is especially interested in fostering the work of early career scientists, including undergraduate and graduate students, postdocs, and beginning principal investigators.

The Science Director, Jennie Reithel, and any member of the Committee will be happy to discuss project ideas and designs and possible overlap with other RMBL projects with anyone interested in working at the Lab. The Research Committee is chaired by Ken Whitney; its members are RMBL PIs Nicolas Alexandre, Lauren Carley, Jessica Forrest, Hamish Greig, Rebecca Irwin, James Thomson and Matt Winnick, as well as Jen Darnell, a scientist on the RMBL Board and a member of the local community.

Please see the Research Code under the "Scientists" tab for research policies, review criteria, and additional information.

The project description is limited to 8 pages. Please tailor your proposals to RMBL; do not include lengthy descriptions of research that are not being conducted through RMBL. The project description should have the following elements:

- **INTRODUCTION AND GENERAL PLAN OF STUDY.** Please include sufficient scientific background or other contextual information to justify your research plan. A lengthy NSF-style introduction is not necessary; this section should be convincing, yet concise. Please include your research questions, hypotheses, or goals in this section.
- **SPECIFIC METHODOLOGIES.** You should be as specific as possible about any planned experiments, including sample sizes and details of manipulations. The logic relating your general plan of study and your experiments to your professional objectives should be clear. Scientists proposing instrument or sensor installations should also include brief descriptions of the equipment with pictures, a brief visitation and maintenance plan (i.e., describe how often you visit sites and what you do), removal date, and the point of contact responsible for maintenance and removal.
- **MAJOR PROFESSIONAL OBJECTIVES.** Please describe your major professional objectives. The objectives can be research, management, education, or some combination thereof. Here is one example, but there are many variations. ‘The objectives of my research program are to use this system to train undergraduates and graduate students how to conduct field biology, learn interesting biology that I can bring back to the college classroom, further my research program, while working at a small undergraduate college, collect baseline data for a long-term study, contribute to a global network studying pollinator decline, and collaborate with other scientists to start a citizen science project to monitor pollinators.’
- **PROJECTED OUTCOMES.** Please describe the specific outcomes you anticipate from this project (e.g., scientific publications, students trained, grey literature, popular articles, information for management decisions). Here is an example. ‘I plan to train at least 2 undergraduates each summer and at least one graduate student per year. I expect to publish an average of 2-3 papers a year. I expect at least 50% of my papers to be co-authored with undergraduates or graduate students. I regularly use my study system and published papers in classroom activities. The global network monitoring pollinators is expected to yield several publications, including a report directed at government agencies.’
- ***NEW IN 2021* DATA ARCHIVING, CURATION, AND VOUCHERS.** Please describe your data management plan, following NSF guidelines. <https://www.nsf.gov/bfa/dias/policy/dmp.jsp> The plan should include a description of the datasets being archived, the dissemination methods, and the timeline for data-sharing. To make it easier for scientist to fulfill data sharing requirements, RMBL offers data services. Specific services include providing scientists with a template metadata form that they can use as a starting point and which includes RMBL metadata (e.g., location data from our geodatabase) already filled in. Additionally, we will review scientists’ data and metadata for interpretability. Our default data repository will be

with the Environmental Data Initiative (EDI), <https://environmentaldatainitiative.org/>
Scientists are welcome to archive their data with other data repositories.

Scientists whose research involves specimen collection should describe their curation plan and voucher storage plan.

- **ENVIRONMENTAL IMPACTS.** Please describe long-term and short-term impacts, including impacts on size or genetic composition of plant and animal populations, and structures, instruments, markers, etc. that will be used in conducting your research. If there is soil disturbance or visual impacts, describe measures for mitigation, if possible. State when you expect your research markers and equipment to be removed from the field. All field markers should be labeled with your name and the year of the study. Please refer to the research code for additional guidelines on impacts and restrictions.
- **RELATIONSHIP TO EXISTING RESEARCH.** To understand how your project might affect other projects, please describe how this research relates to other projects at RMBL. Have you discussed your project with those investigators? How have you resolved potential conflicts, if any, between this and related projects? To help us minimize conflicts with ongoing projects please list any RMBL researchers with whom you have discussed this project. If this project is part of a collaboration, please clearly identify methodologies which have been approved as part of someone else's research application. Specifically, if the study/experiment is currently approved through another PI's work, please indicate the name of the PI, the year in which the experiment was approved, and the period of approval.
- **IMPORTANCE OF RMBL TO RESEARCH.** Please explain why you have chosen to work at RMBL and the importance of RMBL to the research (e.g., particular habitats, ongoing research, RMBL resources). Research that gains tangibly from the RMBL setting or prior work done at RMBL is especially encouraged.
- **OUTCOMES FROM PREVIOUS RESEARCH AT RMBL.** For renewal applications, please describe/list outcomes from previous research (e.g., scientific publications, students trained, grey literature, popular articles, management decisions informed by research). Please include sufficient information so that the outcomes can be related to field work conducted at RMBL.
- **REFERENCES.** Please include references that you cite in your project description. The list of references does not count towards the page limit.