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Dimensions of Biodiversity Frequently Asked Questions

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1. What is the purpose of the Dimensions of Biodiversity solicitation?

Dimensions of Biodiversity is a 10 year activity to fill in the major gaps in our knowledge of Earth's biodiversity. As was the case in the first year of the program, the goal is to support research projects that integrate genetic, taxonomic, and functional dimensions of biodiversity.

2. How does the Dimensions of Biodiversity program differ from existing core programs

within NSF's Directorates for Biological Sciences and Geosciences, and in Polar Programs? How do I know if I should apply to this program or one of those core programs?

There is overlap in the type of questions supported by Dimensions of Biodiversity and the participating core programs. Please look at descriptions of programs in the Division of Environmental Biology, the Division of Molecular and Cellular Biosciences, the Biological Oceanography program, the Division of Biological Infrastructure, and the Division of Antarctic Sciences for descriptions of funding activities relevant to biodiversity. The key difference between Dimensions of Biodiversity and these core programs is the requirement that Dimensions of Biodiversity proposals integrate genetic, taxonomic, and functional aspects of biodiversity.

3. What is a *dimension* of biodiversity?

The three dimensions of biodiversity defined by this solicitation are genetic, taxonomic, and functional. Genetic diversity includes but is not limited to nucleotide sequence diversity at neutral or coding loci, or genomic (proteomic, transcriptomic) diversity. Taxonomic diversity refers to evolutionary lineages at and above the level of the population. Functional diversity includes but is not limited to aspects of ecosystem function (e.g., energy flow, biogeochemical cycling, ecological resilience) or organismal function (e.g., biotic or abiotic interactions).

4. What must be the relative roles of the genetic, taxonomic, and functional aspects of biodiversity in Dimensions of Biodiversity proposals?

There is no absolute threshold for any single dimension. However, all proposals must seek to generate and integrate new knowledge about all three dimensions of biodiversity within a system or systems.

5. I am incorporating named species into my Dimensions of Biodiversity project. Does this satisfy the need for taxonomic integration?

No. Increasing understanding of the taxonomic dimensions of biodiversity must be fully incorporated into the research program. For example, projects must involve taxonomic discovery or the comparison of the genetic and functional aspects of multiple taxa in a phylogenetic/evolutionary context. Proposals must seek to generate new, integrative knowledge of all three dimensions of biodiversity or they will be returned without review.

6. Will Dimensions of Biodiversity support biological surveys? Will Dimensions of Biodiversity replace support for biological surveys that has been provided through the Division of Environmental Biology?

Dimensions will not take the place of species-level biodiversity surveys currently funded by the Division of Environmental Biology. Nor will it support any biodiversity survey that does not integrate all three aspects of biodiversity as defined by this program.

7. What type of information infrastructure should I build into my project?

Proposals must address data standards, accessibility, electronic dissemination, and preservation. Proposals should consider these needs for all three dimensions of biodiversity indicated in this solicitation. Each of the three dimensions has relevant existing and emerging standards and practices that address information, integration and interoperability. Information infrastructure funded through this program should be designed or utilized in a way that integrates well with existing resources. Such infrastructure should be sufficiently robust and flexible so as to fill and maintain a role in evolving and sustainable cyberinfrastructure.

8. What are NSF's expectations for sharing data and how do I address this in my proposal?

Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other

supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. Data generated by projects supported by Dimensions of Biodiversity must be shared and appropriately archived on or before completion of the project. You should anticipate this as you develop a budget and a management plan. See [Award & Administration Guide \(AAG\) Chapter VI.D.4](#).

9. Is a Letter of Intent required?

No. For 2011 a Letter of Intent is not required.

10. Are the dates listed in the solicitation target dates or deadlines?

Submission dates are deadlines. Proposals not received by the deadline will be returned without review.

11. Are Dimensions of Biodiversity proposals limited to large collaborative efforts?

No. NSF envisions a role for projects small to large in Dimensions of Biodiversity. However, all projects must integrate genetic, taxonomic, and functional aspects of biodiversity. Single investigator, multi-investigator, and collaborative proposals are eligible for this program.

12. How will proposals be reviewed?

Proposals will undergo ad hoc and panel review. Experts in relevant fields of research will evaluate each proposal based on the standard NSF review criteria as well as review criteria specific to Dimensions of Biodiversity listed in the program solicitation (see section VI.A. of the [Dimensions of Biodiversity solicitation](#)).

13. Does Dimensions of Biodiversity provide support for postdoctoral researchers?

Where appropriate, Principal Investigators are encouraged to budget support for postdoctoral researchers. Please note that a postdoctoral mentoring plan is required as a supplementary document for all proposals that request funds for a postdoctoral researcher. Proposals that include funding to support a postdoctoral researcher, but that lack the requisite mentoring plan, will be returned without review. In situations where a postdoctoral researcher is listed in Section A of the NSF Budget, and is functioning in a Senior Project personnel capacity (i.e., responsible for the scientific or technical direction of the project), a mentoring plan is not required. (See the [NSF Grant Proposal Guide Chapter II.c.2.j](#) for further information)

14. How do I request ship support for ocean-going field programs?

As outlined in the announcement, you must request ship time through the University National Oceanographic Laboratory System (UNOLS). Please see this link for details: <http://www.unols.org/info/scheduling.html>. UNOLS ship support does not need to be included in your budget. If, however, you are not using the ship time supported through UNOLS or require sampling gear that is not part of ship gear, then these items must be included in your project budget.

15. I have never used University National Oceanographic Laboratory System (UNOLS) supported ships before, what more might I need to know?

Many questions can be answered by exploring the web site: http://strs.unols.org/public/diu_faqs.aspx?oldredir=y.

The main issues include:

- Ship schedules are set early in the year for the following calendar year. Thus, for proposals submitted for 2011, you cannot count on being able to have ship support for 2012. It is likely that some projects can be supported in 2012 as ancillary activities, or will be accommodated on under-scheduled ships as the 2012 ship schedule is finalized.
- Ship support may not be possible in some areas, and there are special considerations

and regulations when working in the exclusive economic zone of other countries. Please see the UNOLS website for more details.

- Ship support is expensive, and Dimensions of Biodiversity projects that do not require a dedicated ship may be scheduled as ancillary science projects. This may necessitate some compromise in the sampling plan. Some otherwise worthy project may be declined if ships are not operating in the requested geographic location and/or transit time to requested locations is prohibitively expensive.

16. My project seems too small to justify an expensive ship and I also need a lot of environmental data; do you have suggestions?

There are many ongoing ship-based projects that may be collecting environmental data and making rate process measurements. Biodiversity research may add value to such projects, and in turn, these projects may be able to provide the environmental context needed for the biodiversity concerns. PIs are encouraged to seek out these "ship of opportunity" situations and discuss potential collaborations with the existing science teams. The UNOLS web page will identify funded projects on their ships. The Biological and Chemical Oceanography Data Management Office (BCO-DMO) is a good place to look at the range of ongoing funded projects: <http://www.bco-dmo.org/data>.

17. If I would like to work in Antarctica, how do I request logistical support?

Individuals who wish to work in Antarctica should follow the guidelines for Antarctic Research Proposal Preparation, Supplemental Instructions, in [NSF publication 11-532](#).