National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

Directorate for Biological Sciences
Division of Environmental Biology

Title: Revisionary Syntheses in Systematics (REVSYS) NSF 04-616

Dear Colleague,

The Cluster for Systematic Biology and Biodiversity Inventories within the Division of Environmental Biology (see the program description, pd047374, on the NSF website at http://www.nsf.gov/pubsys/ods/getpub.cfm?ods_key=pd047374) encourages the submission of proposals aimed at synthesizing available and new species-level taxonomic information in the context of providing revisionary treatments and predictive classifications for particular groups of organisms.

Such revisionary syntheses in systematics (REVSYS) are the fundamental building blocks of our knowledge of planetary biodiversity. These syntheses accomplish many ends simultaneously:

1. they bring together all the specimens available (or other archival or voucher material), in the world's natural history collections, of a particular group of organisms, so that
2. investigators can compare the attributes of all those specimens, and the distribution of those attributes in space and time, to enable
3. populations of different species to be distinguished from each other, and
4. questions about how those species are related to each other (i.e., what natural groups of species exist) to be addressed, so that
5. highly predictive classifications can be established, which allow us to generalize from those few attributes that have been studied to the far larger universe of attributes that remain to be investigated.

Titles of proposals emphasizing such Revisionary Syntheses in Systematics should be prefaced with “REVSYS:”, and those proposals can be submitted to either the Biodiversity Surveys & Inventories panel (BS&I) or Systematic Biology panel for the two regular target dates each year (January 9 and July 9).

Our goals are to help revitalize revisionary systematics, so that it fully utilizes modern information technology at all stages, from data capture (e.g., digital imaging, geo-referencing, etc.) and analysis (e.g., sequence alignments, phylogeny reconstructions, GIS, image analysis, etc.) through to electronic presentation and dissemination of the results. Interactive keys and automated recognition systems have enormous potential for enabling accurate identifications of organisms by non-specialists, but only for those groups that have been thoroughly revised by knowledgeable specialists.

REVSYS proposals that seek to develop and deploy modern technological advances in data capture, analysis, and dissemination are encouraged. Projects that incorporate graduate and/or undergraduate students as full partners in the research, conceptually and operationally, and that increase participation of members of groups underrepresented in science are especially encouraged.

The target dates for proposal submission to either BS&I or Systematic Biology are January 9 and July 9 each year. NSF FastLane requirements (www.fastlane.nsf.gov) apply to all proposals submitted to the Cluster. Proposals must conform to all format requirements in the Grant Proposal Guide http://www.nsf.gov/pubsys/ods/getpub.cfm?gpg; in particular, pay attention to requirements for addressing Broader Impacts, for presenting Results of Prior NSF Support for all PIs and co-PIs, and for avoiding unauthorized appendices.

Investigators with questions about REVSYS proposals are encouraged to contact the Cluster's program officers on the BIO homepages at http://www.nsf.gov/staff/subdiv.cfm?key=193. Lists of previous REVSYS awards with links to their FastLane Award Abstracts are posted on the NSF website at http://www.nsf.gov/bio/pubs/awards/revsys.htm.

Sincerely,

Michael Willig
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