

**2010 REQUEST FOR PROPOSALS
to DISCOVER LIFE IN AMERICA, Inc.**

Proposals are requested for grants to be awarded by Discover Life in America, Inc. (DLIA) for research to be conducted during 2010 in the Great Smoky Mountains National Park's All Taxa Biodiversity Inventory (GSMNP's ATBI). Proposals for up to \$5,000 are encouraged. The Principal Investigator must be a non-student, permanent employee of the institution that will bear responsibility for completing the project.

Following are project/taxonomic group categories for which the Park has assigned priorities. If an applicant can provide justification for a higher priority than what is listed, DLIA will take this into consideration.

HIGH PRIORITY – Topics which are considered high priority for the Park include the following: 1) introductory projects to determine the diversity of speciose taxonomic groups, 2) projects which will essentially complete the inventory of a taxonomic group of any size; this includes associated activities such as data entry, taking images, and/or conducting analyses, and 3) projects to inventory groups or communities that are at known ecological risk.

Examples of high priority taxonomic groups:

1) Introductory Projects

Diptera (not including crane flies, mosquitoes, fruit flies, horse/deer flies, and other groups that have been worked on)

Hymenoptera (parasitic wasps)

Hemiptera (terrestrial; especially aphids, fulgoroids)

Mites (free-living and parasitic)

Pseudoscorpions

Nematodes

Fungi (especially ascomycetes and aquatic groups)

Microbes (Protozoa, Archaea, Bacteria, Microsporidia, viruses)

Annelids – Brachiobdellids

2) Complete Inventory

Crustaceans (esp. the crayfish and not including copepods)

Centipedes

Annelids (terrestrial earthworms)

Mecoptera

Acari

Mollusca (aquatic groups)

Odonata

Platyhelminthes

Lichens (foliose)

-many others

3) At-risk Communities (sampling an array of species groups)

Fraser fir remnant areas
High elevation beech stands
Hemlock stands
Xeric cliffs/new lands on TN side of Rt. 129 corridor
Globally imperiled wetlands/other communities

MEDIUM PRIORITY – Projects considered medium priority are those that are either a follow-up to previous work on a speciose taxonomic group, or involve taxonomic groups which are able to be inventoried effectively in 1 or 2 years. Other activities could include testing active versus passive sampling (e.g., compare bees collected from flowers vs. Malaise traps), or sampling so as to gather valuable ecological information (e.g., plants pollinated, or host data) not otherwise available.

Examples of medium priority taxonomic groups:

Coleoptera (cryptic or under-collected groups)
Hymenoptera (vespids, bees collected on plants)
Hemiptera (aquatic; some work is underway)
Hemiptera (terrestrial; especially tree hoppers, leaf hoppers, stink bugs)
Orthopteroids
Diplura
Protura
Symphyla
Collembola
Diplopoda
Thysanoptera
Crustaceans (copepods)
Mollusca (land snails)
Lichens (crustose)

LOW PRIORITY – Taxonomic groups that currently are low priority are those for which the majority of species in the Park are believed known, or there is a larger funding source available for their study.

Examples of low priority taxonomic groups:

All vertebrate groups
Plants (vascular and non-vascular)
Siphonaptera
Psocoptera
Trichoptera
Plecoptera
Ephemeroptera
Neuroptera
Dermaptera
Hymenoptera (velvet ants, sawflies, ants)
Pauropods

Opilionids
Tardigrades
Annelids (aquatic earthworms)
Molluscs (bivalves)
Nematomorpha
Algae
Myxomycetes

Creative ideas for projects that advance practical knowledge of the Park's biota for management purposes may also be considered by the Park for funding apart from the DLIA Grants Program. Discuss such ideas with Keith Langdon <Keith_Langdon@nps.gov> or Dr. Becky Nichols <Becky_Nichols@nps.gov>

Specimen Requirements:

All specimens captured in the Park belong to the National Park Service (NPS), including all bulk samples and individual samples. All specimens retained are to be deposited either in a publicly available collection with a mission for permanent preservation of biological specimens, or in the Park collection. Furthermore, all specimens from such research must be labeled with an NPS accession number assigned by the Park. Therefore, all specimens permanently deposited will bear a label that reads, "Property of the US National Park Service, Accession No. XXXXX."

Data Requirements:

All occurrences of all species will be mapped by the Park; therefore grid coordinates must be recorded by the researcher. Coordinates for biotic inventory are most easily recorded in UTM Zone 17N meters and should be cast in the North American Datum of 1983 (NAD83). Other coordinate systems or datums can be used, but they **MUST** be documented in the project summary. The Park strives to achieve the most accurate positional data it can, detailed specifications and recommendations for recording accurate positions using GPS and other resources are available on the DLIA website (www.dlia.org). The Park has mapping resources and a limited number of GPS units it can make available for short term use. Contact Dr. Becky Nichols <Becky_Nichols@nps.gov> or Keith Langdon <Keith_Langdon@nps.gov> to inquire about these resources.

Inventory data **MUST** be entered into the ATBI desktop database. See http://www.discoverlifeinamerica.org/atbi/science/guidelines_submit.shtml for description or please contact the data managers listed below for more details and help getting started. Please specify anticipated format for non-inventory data or for other analytical or modeling results.

Proposal Text: Please submit a proposal of no more than 1,000 words (excluding literature cited, budget, curricula vitae, and any additional supporting information) using the DLIA Standard Proposal Submission Form available from <http://www.dlia.org/dlia/grants/index.shtml>. The 1,000-word proposal should provide the reason for undertaking the proposed project, objectives, methods, schedule, and expected products (e.g., geo-referenced specimen/occurrence data, web pages, keys, checklists,

images, etc.). As appropriate, it should include a review of previous DLIA work upon which this proposed project would build.

Budget: The budget should include a brief justification for each major item and a short paragraph indicating any assured or anticipated funding (actual dollars) that would be leveraged by a DLIA grant award. The latter paragraph should contain, among other support, anticipated “in-kind” contributions, including hours to be donated to the project by professionals, students, technical assistants, and others. DLIA policy does not permit use of these funds for the purchase of major equipment or for the payment of indirect charges.

Submission: Your proposal should be sent electronically [to Dr. John Morse <jmorse@clermson.edu>](mailto:jmorse@clermson.edu) by 15 February 2010.

Proposal Evaluation: Proposals are more likely to be successful if they are integrated with the ATBI Science Plan, which is available on the DLIA website http://www.dlia.org/atbi/role_atbi/scienceplan.shtml, and if they evidence coordination with TWiGs or other ATBI scientists. Proposals from previous awardees will be evaluated in part on their provision of products promised in earlier awards and their timely provision of expected reports and data from those awards for the ATBI annual meeting, the ATBI website, and the ATBI database. For applicants who have previously undertaken research in Great Smoky Mountains National Park, adherence to National Park Service rules and regulations (such as for permits, submission of data, use of housing, etc.) will be a factor considered in the awarding of grants. Proposals should outline briefly how data/results will be quality-assured and transmitted to DLIA.

Permits: To conduct research in the Park, a permit is required. A convenient online application form is available at <http://science.nature.nps.gov/research>.

Reports: If your proposal is funded, a written and poster/oral report of your results to date should be presented at the 2010 annual meeting of the ATBI (usually in early December; date to be announced). Additionally, a final report should be submitted to DLIA Grants Coordinator Dr. John Morse, jmorse@clermson.edu and DLIA Executive Director Mr. Todd Witcher Todd@dlia.org by 1 March 2011, using the final report cover page to be found at http://www.discoverlifeinamerica.org/atbi/science/guidelines_submit.shtml.

Data: If your proposal is funded, a copy of the data will also be expected by 1 March 2011. It should be submitted to DLIA Database Technician, Chuck Cooper <chuck@dlia.org>, for tracking and quality check processing, before receiving final approval and appended to the main ATBI database by the Park Database Manager, Dr. Michael Kunze.

Payments: If a grant is awarded, the first allotment of half the funds will be made available on or about 1 April 2010. To receive the first allotment, the PI must first communicate with Dr. Kunze <Michael_Kunze@nps.gov> or Dr. Chuck Parker <Chuck_Parker@usgs.gov> to obtain an overview of data submission protocols and software or, for previous grantees, to confirm your experience with these data submission procedures. The final allotment of DLIA funds will be provided to the PI upon receipt of (1) an acceptable final report and (2)

useable data (i.e., data that have been reviewed for ATBI database usability by Dr. Kunze). Further help with data (and also with species pages or other web-related products) can be obtained from DLIA database technician Chuck Cooper <Chuck@dlia.org>.

Late Submission of Data and Reports: Although DLIA understands that completion of taxonomic work may require longer than one year, a report and data submission is nevertheless expected by the 1 March deadline, with the possibility of later updates. If your proposal is funded, but you are not able to submit your data and report by the 1 March deadline, a deadline extension may be granted by DLIA Grant Coordinator, John Morse <jmorse@clemson.edu>, in response to a formal request by the Principal Investigator.

Questions?: Coordination and additional information may be obtained through Mr. Todd Witcher <Todd@dlia.org>.