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FY 2008 Budget Request for NSF BIO

The FY 2008 budget request for the Directorate for Biological Sciences (BIO) is $633.0 million, an increase of $25.15 million, or 4.1 percent, over the FY 2007 request of $607.85 million.

If the budget is funded as submitted, Biological Infrastructure will be the biggest winner with an 11.9% increase.

Molecular and Cellular Biosciences (MCB), Integrative Organismal Systems (IOS), and Environmental Biology (EB) would all receive an increase of approximately 4.5%, while Emerging Frontiers (EF) and Plant Genome (PG) would remain at the same but level as FY 07.

The chart below shows the requested increase in funding for FY08.

<table>
<thead>
<tr>
<th>Biological Sciences Funding</th>
<th>07 Request</th>
<th>08 Request</th>
<th>$Millions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCB</td>
<td>$111.22</td>
<td>$116.37</td>
<td>+$5.15</td>
<td>+ 4.6%</td>
</tr>
<tr>
<td>IOS</td>
<td>$100.74</td>
<td>$105.49</td>
<td>+4.75</td>
<td>+ 4.7%</td>
</tr>
<tr>
<td>EB</td>
<td>$109.61</td>
<td>$114.66</td>
<td>+5.05</td>
<td>+ 4.6%</td>
</tr>
<tr>
<td>BI</td>
<td>$ 85.90</td>
<td>$ 96.10</td>
<td>+10.20</td>
<td>+11.9%</td>
</tr>
<tr>
<td>EF</td>
<td>$ 99.16</td>
<td>$99.16</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>PG</td>
<td>$101.22</td>
<td>$101.22</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>

Acres for America is National Fish and Wildlife Foundation's premiere land conservation program, and was established with Wal-Mart Stores to provide funding for projects that conserve large, landscape-level areas that are important habitat for fish, wildlife, and plants through acquisition of interest in real property.

For more information visit http://www.nfwf.org/AM/Template.cfm?Section=Search&template=CM/HTMLDisplay.cfm&ContentID=4094
Academy of Natural Sciences
Jessup-McHenry Fellowships

Dr. Edward Daeschler
Jessup-McHenry Fund Committee
The Academy of Natural Sciences
1900 Benjamin Franklin Parkway
Philadelphia, PA 19103-1195
Phone: (215)299-1182 Fax: (215)299-1028
Web Site: http://www.ansp.org/research/opportunities/index.php

DEADLINES: 10/01/2007

Jessup-McHenry Fellowships are awards strictly for collection-based research that will contribute to the completion of a postgraduate thesis or postdoctoral work. If applicants do not meet these requirements, then the chance of their applications being successful are minimal at best. A Jessup-McHenry student is expected to give a seminar after his or her arrival and is encouraged to publish at least some of his or her work accomplished at the Academy.

Support Provided: Round-trip travel costs up to a total of $500 for North American (including Mexico and the Caribbean) applicants, and $1,000 for applicants from other parts of the world, are allowed. The minimum duration of an award is two weeks; the maximum is 16 weeks. The stipend for subsistence is $300 per week. The provision of scientific supplies and equipment is the responsibility of the student and the sponsoring curator.

Applicant Information: Jessup funds are awarded competitively to students wishing to conduct studies at the postgraduate, doctoral, and postdoctoral levels under the supervision or sponsorship of a member of the curatorial staff of the Academy of Natural Sciences. The Awards are not available for undergraduate study. Such studies may be in any specialty in which these curators have expertise. The McHenry Fund is similarly intended, but is restricted to botanists. Please note that awards are restricted to those who wish to conduct their study at the Academy. These awards are intended to assist predoctoral and postdoctoral students within several years of receiving their PhDs. Students commuting within the Philadelphia area are ineligible.

Application Information: Applicants for grants will be considered in March and October of each year. Applicants who wish to do their research between April 1 and October 31 should apply by March 1; those wishing to work between November 1 and March 31 should apply by October 1. It is the responsibility of the applicant to submit his or her application in time and to be sure that the three letters of recommendation also reach the Fund Chairman in time. One of these letters of recommendation must be from the Academy curator overseeing or sponsoring the student. Requests for further information about the Fellowships should include, whenever possible, a return e-mail address. Further, such requests will only be considered when submitted with a letter of support from the applicant's thesis supervisor.

American Orchid Society
Research Grants

Conservation and Research Committees
16700 AOS Lane
Delray Beach, FL 33446-4351
Phone: (561)404-2000 Fax: (561)404-2045
The American Orchid Society periodically awards research grants for non-commercial conservation projects, as well as experimental projects and fundamental and applied research on orchids. More than $1 million has been awarded since this program was established in the 1950s. The AOS's goals in this regard are to advance the conservation and preservation of orchids in every aspect, and/or advance the scientific study of orchids in every respect, including classification, evolution, propagation, culture, care and development.

Support Provided: Grants vary in amount, depending upon the needs and nature of the project and the potential for securing additional funds from other sources. At present, grants range from $500 to $12,000. The duration of each grant depends upon the particular project. Funds for multi-year grants are paid in annual installments. The maximum duration of support awarded at any one time is three years.

Applicant Information: Qualified personnel associated with accredited institutions or appropriate institutes or organizations may apply for grants. Support is not restricted to individuals or institutions within the United States. The salary of established scientists is not supported. Qualified graduate students with appropriate interests may apply for grants in support of their research. If justified, their salary may be supported. In general, travel to collect orchids is not supported. Other types of travel may be supported on a case-by-case basis. Projects that involve commercial sales of plant are generally not supported.

Application Information: Submissions are screened by a task force made up of members of the AOS's Conservation Committee and Research Committee, and thereafter directed to the appropriate committee for full review at their Spring and Fall meetings. Grants received by January 1 are reviewed at the Spring Members Meeting and those grants received by July 1 are reviewed at the Fall Members Meeting.

Council of Graduate Schools
CGS/UMI Distinguished Dissertation Awards

Dissertation Award Committee
CGS/University Microfilms International Distinguished Dissertation Award
One Dupont Circle, NW, Suite 430
Washington, DC  20036-1173
Phone: (202)223-3791  Fax: (202)331-7157
E-mail: fsimons@cgs.nche.edu

DEADLINE: 07/31/2007

The CGS/University Microfilms International Distinguished Dissertation Award honors outstanding doctoral dissertations in fields of study that rotate on a two-year cycle. The 2007 fields of competition are (1) Biological and Life Sciences, and (2) Humanities and Fine Arts. Each nominated dissertation should represent original work making an unusually significant contribution to the discipline. Both methodological and substantive quality will be judged.

Support Provided: The CGS/UMI Distinguished Dissertation Award, consisting of an honorarium of $1,000 and a certificate of citation, will be presented at the annual meeting of the Council of Graduate
Schools, December 5-8, 2007 in Seattle, Washington. Reasonable travel expenses of the recipients will be paid.

**Applicant Information**: The effective date of degree award, or the completion of doctoral degree requirements and dissertation, must lie in the period of July 1, 2005 to June 30, 2007, inclusive, for each nominee selected. Such degree award or completion is to be confirmed by the institution's graduate dean or other administrative officer responsible for doctoral degree programs.

**Application Information**: Each nominee must prepare an abstract (not to exceed 10 pages) of his or her dissertation, typed double-spaced on 8-1/2" x 11" white paper. In addition, appendices containing nontextual material, such as charts or tables, may be included. The pages should be numbered, and each should bear the name of the nominee. Letters from three referees selected by the nominee, evaluating the significance and quality of his or her dissertation work, are to be included in the nomination materials. One of these letters is to be from the nominee's dissertation supervisor, another from a member of the nominee's dissertation committee, and the third from a person of the nominee's choice. The institution's graduate dean or equivalent institutional officer should send six copies of the abstract, nomination form, and letters of reference to the Award Committee. All nomination materials should be sent to The Council of Graduate Schools above by July 31, 2007. LIMITED SUBMISSION: Each regular member institution of the Council of Graduate Schools may nominate one scholar in the field of Biological and Life Sciences and one in the field of Humanities and Fine Arts.

The Botanical Society of America Grant Opportunities Newsletter is published on-line as a service to BSA members. Each issue contains opportunities for the next four succeeding months. Six bi-monthly editions are published annually for: January/February; March/April; May/June; July/August; September/October; November/December.

**Entomological Foundation**

*Graduate Student Research Award*

Melodie Dziduch, Awards Coordinator  
9332 Annapolis Road  
Suite 210  
Lanham, MD 20706  
Phone: (301)459-9082  
Fax: (301)459-9084  
E-mail: melodie@entfdn.org  
Web Site: [http://www.entsoc.org/awards/whats_available.htm](http://www.entsoc.org/awards/whats_available.htm)  
E-Forms: [http://www.entsoc.org/awards/student/starks.htm](http://www.entsoc.org/awards/student/starks.htm)

**DEADLINE**: 07/01/2007

The Entomological Society of America (ESA) is a not-for-profit educational society serving the professional and scientific needs of entomologists and people in related disciplines. The Kenneth and Barbara Starks Plant Resistance to Insects Graduate Student Research Award encourages innovative research in entomology or plant breeding/genetics. It recognizes a graduate student for significant contributions to knowledge of plant resistance to insects. The recipient is encouraged to present the research results at an ESA meeting.

**Support Provided**: The award consists of a grant in an amount that varies each year and a plaque. The grant, which is renewable, may be used for salaries, equipment, supplies, or travel to initiate, accelerate, augment, or expand a research project.
Applicant Information: U.S. citizens who are candidates for a master's or doctoral degree in entomology or plant breeding/genetics at an accredited university are eligible.

Application Information: Applications and nominations must include the title, duration, and background information concerning the significance of the proposed research to the field of plant resistance to insects (one-page limit); a description of materials and a budget (one-page limit); a maximum of three letters of recommendation; a letter of nomination; and background information in the form of an award CV. The package must be submitted electronically and received by the deadline. Instructions are available at the foundation Web site. Any candidate nominated but not selected may be renominated no more than two times within the two-year period after the initial submission. The foundation will notify all candidates and if applicable, their nominators, of the results. The award is presented at the ESA annual meeting.

Entomological Foundation
Recognition Award in Urban Entomology

Melodie Dziduch, Awards Coordinator
9332 Annapolis Road
Suite 210
Lanham, MD 20706
Phone: (301)459-9082 Fax: (301)459-9084
E-mail: melodie@entfdn.org
Web Site: http://www.entsoc.org/awards/whats_available.htm
E-Forms: http://www.entsoc.org/awards/professional/urban.htm

DEADLINE: 07/01/2007

The Entomological Society of America (ESA) is a not-for-profit educational society serving the professional and scientific needs of entomologists and people in related disciplines. The Entomological Foundation and S.C. Johnson and Son sponsor an award to recognize and encourage outstanding extension, research, and teaching contributions in urban entomology, which is broadly defined here as the study of the biology and control of arthropods found in the home or surrounding landscape. This includes structural and wood-destroying pests and pests of ornamental plants, shade trees, and turf.

Support Provided: The award consists of a cash amount that varies each year and an inscribed plaque.

Applicant Information: Each nominee must be a full member of the Entomological Society of America (ESA) and have contributed significantly to the advancement of entomology through work in urban entomology. A recipient of a widely recognized scientific award will not be eligible for this award unless the accomplishment cited for nomination represents new work. Recipients of this award are not eligible for future nominations.

Application Information: The submission of nominations must be made electronically via the ESA Nomination Submission Web Site or e-mail. Nomination packages must be received by the ESA National Office by July 1. Any candidate nominated, but not selected, may be renominated no more than two times within the two-year period after his/her initial submission. Nomination packages will be retained for two years by the ESA National Office. The package must be submitted electronically and received by the deadline. Instructions are available at the foundation Web site. Any candidate nominated but not selected may be renominated no more than two times within the two-year period after the initial submission. The foundation will notify all candidates and if applicable, their nominators, of the results. The award is presented at the ESA annual meeting.
Entomological Society of America
Distinguished Achievement Award in Horticultural Entomology

10001 Derekwood Lane
Suite 100
Lanham, MD 20706-4876
Phone: (301)731-4535 Fax: (301)731-4538
E-mail: awards@entsoc.org
Web Site: http://www.entsoc.org/awards/whats_available.htm
E-Forms: http://www.entsoc.org/awards/professional/regulatory.htm

DEADLINE: 07/01/2007

The Entomological Society of America (ESA) is a not-for-profit educational society serving the professional and scientific needs of entomologists and people in related disciplines. The Distinguished Achievement Award in Horticultural Entomology (formerly the Distinguished Achievement Award in Regulatory Entomology), sponsored by the American Nursery and Landscape Association, honors regulatory entomologists for their valuable contributions to American horticulture.

Support Provided: The award consists of $500 and an inscribed plaque. The awardee is presented with the plaque at the ESA Annual Meeting.

Applicant Information: The nominee must have demonstrated excellent performance through innovations in insect detection techniques, pest control operations, regulatory activities, and regulatory entomology training efforts. Previous recipients of this award are not eligible for future nominations. Nominees must be current ESA members.

Application Information: The submission of nominations must be made electronically via the ESA Nomination Submission Web Site or e-mail. Nomination packages must be received by the ESA National Office by July 1. Any candidate nominated, but not selected, may be renominated no more than two times within the two-year period after his/her initial submission. Nomination packages will be retained for two years by the ESA National Office. Nominators must send a letter of renomination to awards@entsoc.org by the nomination deadline above. Previously submitted documentation will be used for the evaluation process unless the nominator submits new or updated documents. The renomination e-mail must contain this additional documentation. New or updated documents must follow the electronic submission requirements. The ESA National Office will notify all candidates and their nominators with the results of their nomination.

Huyck (Edmund Niles) Preserve
Biological Research Station
Graduate and Postgraduate Research Grants

Dr. Richard L. Wyman, Executive Director
P.O. Box 189
Rensselaerville, NY 12147
Phone: (518)797-3440 Fax: (518)797-3440
E-mail: rlwyman@capital.net
Web Site: http://www.huyckpreserve.org/
E-Forms: http://www.huyckpreserve.org/grant/grant.pdf

DEADLINE: 02/01/2008
The Biological Research Station of the E.N. Huyck Preserve offers grants for the support of research in which the natural resources of the preserve are utilized. The 2000-acre preserve is located on the Helderberg Plateau in the towns of Rensselaerville and Berne, 30 miles southwest of Albany, New York. It features a newly expanded, modern laboratory facility with a wet lab and dry lab, a conference center, a library, and office and lab space for visiting workers. The field station is available on a year-round basis.

**Support Provided:** Grants for a maximum of $3,500 are awarded. The funds may be used for the purchase of equipment, travel, room and board, publication costs, and researcher's stipend.

**Applicant Information:** Graduate and postgraduate investigators are eligible. Research in basic and applied ecology, conservation biology, taxonomy, animal behavior, evolution, geology, land use history, and other areas of natural history is supported.

**Application Information:** A project proposal, bibliography, budget, and curriculum vitae should accompany the completed application form by February 1 each year. Three letters of reference should deal specifically with work to be done at the Huyck Preserve. The application form can be downloaded at the E-Forms address above. Committee decisions will be announced by March 30.

### National Council of Commercial Plant Breeders (NCCPB)

**Graduate Student Plant Breeding Award**

Ms. Ann Jorss  
225 Reinekers Lane, Suite 650  
Alexandria, VA 22314  
Phone: (703)837-8140  Fax: (703)837-9365  
E-mail: ajorss@amseed.org  
Web Site: [http://www.nccpb.org/awards.html](http://www.nccpb.org/awards.html)  
E-Forms: [http://www.nccpb.org/awd_graduate.html](http://www.nccpb.org/awd_graduate.html)

**DEADLINE:** 05/20/2007

The National Council of Commercial Plant Breeders (NCCPB) has established the Graduate Student Plant Breeding Award for outstanding graduate students in the field of basic, applied, or developmental research in genetics and plant breeding.

**Support Provided:** The Award consists of a $2,500 check, plus a travel allowance to attend the presentation ceremony at the American Seed Trade Association Corn & Sorghum and Soybean Conference in December.

**Applicant Information:** The principle criteria for choosing the recipient include: significance and originality of basic or applied plant breeding thesis research; strong scholastic achievement in graduate level Plant Breeding and related course work; and evidence of integrity, professionalism, and effective leadership skills as determined by peer, Graduate Advisor, and Graduate Faculty evaluations.

**Application Information:** Application instructions can be found on the website above. An original and five (5) copies of the applications should be sent prior to May 20, to Ms. Ann Jorss, above.
National Council of Commercial Plant Breeders
Public Plant Breeding Award

Ms. Ann Jorss
225 Reinekers Lane, Suite 650
Alexandria, VA 22314
Phone: (703)837-8140  Fax: (703)837-9365
E-mail: ajorss@amseed.org
Web Site: http://www.nccpb.org/awards.html
E-Forms: http://www.nccpb.org/awd_public.html

DEADLINE: 05/20/2007

The National Council of Commercial Plant Breeders (NCCPB) has established the Public Plant Breeding Award to be presented to a person who has made outstanding basic contributions to the advancement of plant breeding and genetics in the public sector.

Support Provided: The Award consists of a $1,500 check and an engraved plaque. It is presented at the American Seed Trade Association Corn and Sorghum and Soybean Conference in December.

Application Information: Any person may make a nomination. Nominations are held active for a period of three years without submission of a new nomination. Additional supporting information may be submitted the second or third year. Nomination instructions can be found on the website above. An original and eight (8) copies should be sent prior to May 20, to Ms. Ann Jorss, above.

National Geographic Society
Field Research

Committee for Research and Exploration
National Geographic Society
1145 17th Street, NW
Washington, DC 20090-8249
E-mail: cre@ngs.org
Web page: http://www.nationalgeographic.com/research/grant_application.html

DEADLINE: None

The National Geographic Society awards grants for scientific field research and exploration through its Committee for Research and Exploration. All proposed projects must have both a geographical dimension and relevance to other scientific fields and be of broad scientific interest. Applications are generally limited to the following disciplines: anthropology, archaeology, astronomy, biology, botany, geography, geology, oceanography, paleontology, and zoology. In addition the committee is emphasizing multidisciplinary projects that address environmental issues (e.g., loss of biodiversity and habitat, effects of human-population pressures).

Support Provided: While grant amounts vary greatly, most range from U.S. $15,000 to $20,000. There is no set quantity of grants awarded, but budget constraints keep the number to approximately 250 per year. As National Geographic Society funds are intended to function as complementary support, the committee strongly encourages applicants to seek additional, concurrent funding from other funding agencies. Committee grants tend to act as seed money and are given for one year's research.
Applicant Information: Applicants are expected to have advanced degrees (Ph.D. or equivalent) and be associated with an educational organization or institution. Independent researchers or those pursuing a Ph.D.-level degree may apply, but awards to non-Ph.D. applicants are rare. As a general rule, all applicants are expected to have published a minimum of three articles in peer-reviewed scientific journals.

National Science Foundation
Directorate for Biological Sciences
Division of Integrative Organismal Systems (IOS)
Behavioral Systems Cluster

Michael Beecher, John Byers, Diane M. Witt, and Michael Mishkind, Program Directors
4201 Arlington Boulevard, Room 685 S
Arlington, VA  22230
Phone: (703)292-8423 (Beecher, Byers, and Witt) or -8413 (Mishkind) Fax: (703)292-9153
E-mail: mbeecher@nsf.gov or jbyers@nsf.gov or dwitt@nsf.gov or mmishkin@nsf.gov
Web Site: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13405&org=NSF
E-Forms: https://www.fastlane.nsf.gov/

DEADLINES: 07/12/2007; 01/12/2008

The Behavioral Systems thematic area focuses on the development, function, mechanisms, and evolution of behavior, biological rhythms, and interactions between organisms including animals, plants, and microbes. This area supports research on social and reproductive behavior; behavioral ecology and physiology; neural and hormonal mechanisms of behavior; immunology of behavior; animal cognition and communication. Behavioral Systems encompasses physiological responses, chemical communication, and reproductive consequences of plant interactions with other organisms. Proposals that use functional genomics to understand physiological and behavioral adaptations to environmental stimuli and stress are encouraged.

National Science Foundation
Biological Databases and Informatics Program

Manfred D. Zorn, Program Director
4201 Wilson Boulevard, Room 615 N
Arlington, VA  22230
Phone: (703)292-8470 Fax: (703)292-9063
E-mail: dbidba@nsf.gov or mzorn@nsf.gov

DEADLINES ANNOUNCED: 07/09/2007

The Biological Databases and Informatics (BD&I) program seeks to encourage new approaches to the management, analysis, and dissemination of biological knowledge for the benefit of both the scientific community and the broader public. The BD&I program is especially interested in the development of informatics tools and resources that have the potential to advance all fields of biology under the purview of the Directorate for Biological Sciences at the National Science Foundation.
National Science Foundation

Biological Research Collections Program

Richard McCourt, BAC Program Director
Division of Biological Infrastructure
4201 Wilson Boulevard, Room 615 N
Arlington, VA  22230
Phone: (703)292-8470  Fax: (703)292-9063
E-mail: dbibrc@nsf.gov

DEADLINES ANNOUNCED: 07/27/2007

The Biological Research Collections Program provides support for biological collection enhancement, computerization of specimen-related data, research to develop better methods for specimen curation and collection management, and activities such as symposia and workshops to investigate support and management of biological collections. Biological collections supported include those housing natural history specimens and jointly curated collections such as frozen tissues and other physical samples, e.g. DNA libraries and digital images. Such collections provide the materials necessary for research in a broad area of biological sciences.

National Science Foundation

Faculty Early Career Development (CAREER) Program

Godfrey R. Bourne and Christopher Greer, CAREER Directorate Contacts
Directorate for Biological Sciences
4201 Wilson Boulevard
Arlington, VA  22230
Phone: (703)292-8423 (Bourne) or -8970 (Greer)
E-mail: gbourne@nsf.gov or cgreer@nsf.gov

DEADLINES ANNOUNCED: 07/17/2007  BIO, CISE, EHR

This premier program emphasizes the importance the Foundation places on the early development of academic careers dedicated to stimulating the discovery process in which the excitement of research is enhanced by inspired teaching and enthusiastic learning. Effective integration of research and education at all levels generates a synergy in which the process of discovery stimulates learning and assures that the findings and methods of research are quickly and effectively communicated in a broader context and to a larger audience.

The CAREER program embodies NSF’s commitment to encourage faculty to practice, and academic institutions to value, integration of research and education. Successful PIs will propose creative, integrative, and effective research and education plans, developed within the context of the mission, goals and resources of their organization, and which will build a firm foundation for a lifetime of contributions to the integration of research and education.

Career awards are made for 5 years. The minimum CAREER award, including indirect costs, will total $400,000 for the 5-year duration with the following exception. Proposers to the Biological Sciences Directorate (BIO) must submit budget requests for a minimum of $500,000 for the 5-year duration.
National Science Foundation

Living Stock Collections

Dr. Gerald Selzer, LSC Program Director
4201 Wilson Boulevard, Room 615 N
Arlington, VA 22230
Phone: (703)292-8470 Fax: (703)292-9063
E-mail: gselzer@nsf.gov

DEADLINES ANNOUNCED: 07/04/2007

The Living Stock Collections (LSC) program supports operation of and improvements in outstanding collections of living organisms used in basic biological research. The program provides support for two types of projects. Short-term projects are one-time awards (up to 36 months) leading to innovative handling of living stocks or to well-defined improvements in existing collections, including those not otherwise supported by LSC. Long-term projects (up to 60 months) support ongoing operation of significant collections. Collections receiving long-term support are expected to receive support from user fees.

Estimated Number of Awards: 2 to 4

Anticipated Funding Amount: $1,000,000 (approximately) will be available for new and renewal LSC awards in FY 2007, pending availability of funds.

National Science Foundation

Research Coordination Networks in Biological Sciences

Dr. Machi F. Dilworth, Chair
Research Coordination Networks Working Group
Division of Biological Infrastructure
4201 Wilson Boulevard, Room 615 N
Arlington, VA 22230
Phone: (703)292-8470 Fax: (703)292-9063
E-mail: biorcn@nsf.gov

DEADLINES ANNOUNCED: 06/25/2007

The goal of this program is to encourage and foster interactions among scientists to create new research directions or advance a field. Innovative ideas for implementing novel networking strategies are especially encouraged. Groups of investigators will be supported to communicate and coordinate their research, training and educational activities across disciplinary, organizational, institutional, and geographical boundaries. The proposed networking activities should have a theme as a focus of its collaboration. The focus could be on a broad research question, a specific group of organisms, or particular technologies or approaches.

Estimated Number of Awards: 5 to 10 awards in FY 2006

Anticipated Funding Amount: $1,200,000 will be available for new RCN awards in FY 2006, pending availability of funds.
The Ecological Biology Cluster supports research on natural and managed ecological systems, primarily in terrestrial, wetland, and freshwater habitats. Research areas include experimental, observational, theoretical, and modeling studies on the structure and function of complex associations that focus on biotic components, and the coupling of small-scale systems to each other and to large-scale systems.

Ecology: Supports studies of community ecology and population interactions at diverse spatial and temporal scales. These include (1) dynamics and processes within particular habitats; (2) food-web structure; (3) landscape patterns and processes; (4) paleoecology; (5) biotic interactions, including mutualism, competition, predation, and parasitism; (6) mechanisms of coexistence and community assembly, (7) co-evolution, and (8) chemical ecology. Ecology particularly encourages studies that reveal causal mechanisms, patterns, and ecological processes or that apply to a wide range of habitats and taxa. Studies focusing on population dynamics of single species should be directed to the Population and Evolutionary Processes Cluster.

The Ecosystem Science Cluster supports research on natural, managed, and disturbed ecosystems, including those in terrestrial, freshwater, and wetland (including salt marsh) environments. Descriptive and manipulative approaches in field, mesocosm, and laboratory settings are supported, with the expectation that the bulk of the research is question- or hypothesis-driven. Proposals are encouraged, but not necessarily required to incorporate new or existing quantitative or conceptual models for the purpose of integration or synthesis. The Ecosystem Science Cluster funds research in the following areas.

Ecosystem Studies: Supports investigations of whole-system ecological processes and relationships in ecosystems across a diversity of spatial and temporal (including paleo) scales. Proposals may focus on areas such as: biogeochemistry; decomposition of organic matter; belowground nutrient cycling and energy flow; primary productivity; radiatively active gas flux; element budgets on watershed, regional, continental, or global scales; relationships between diversity and ecosystem function; ecosystem services; and landscape dynamics. Proposals will be considered that focus on advancing ecosystem science through either the pursuit of new theoretical paradigms or novel modeling efforts. Proposals that, in
whole or in part, strive to develop new techniques can be supported when a compelling argument exists that there is the potential for a major advance in ecosystem research.

National Science Foundation
Division of Environmental Biology
Opportunities for Promoting Understanding Through Synthesis (OPUS)

Mark W. Courtney, Program Director
Division of Environmental Biology
4201 Wilson Boulevard, Room 635 N
Arlington, VA  22230
Phone: (703)292-8481  Fax: (703)292-9064
E-mail: mcourtne@nsf.gov

DEADLINES ANNOUNCED: 07/09/2007; 01/09/2008

Three clusters within the Division of Environmental Biology (the Ecological Biology, Ecosystem Science, and the Population and Evolutionary Processes clusters) encourage the submission of proposals aimed at synthesizing a body of related research projects conducted by a single individual or group of investigators over an extended period. OPUS proposals will often be appropriately submitted in mid-to-late career, but will also be appropriate early enough in a career to produce unique, integrated insight useful both to the scientific community and to the development of the investigator's future work. In cases where multiple scientists have worked collaboratively, an OPUS award will provide support for collaboration on a synthesis. OPUS awards will facilitate critical synthesis, and do so in a way that will acknowledge the prestige of this important component of scientific scholarship.

Estimated Number of Awards: 6 to 9 annually

Anticipated Funding Amount: $1,500,000  Anticipated funding is between $1.0 million and $1.5 million dollars total per year beginning in FY 2006, pending the availability of funds.

National Science Foundation
Systematic Biology and Biodiversity Inventories

Jerry Cook
4201 Wilson Boulevard, Room 635 N
Arlington, VA  22230
Phone: (703)292-4821
E-mail: sbbi@nsf.gov

DEADLINES ANNOUNCED: 07/09/2007; 01/09/2008

The Systematic Biology and Biodiversity Inventories Cluster supports the general science of systematics, whose three main missions are: 1) to discover, describe, and inventory global species diversity; 2) to analyze and synthesize the information derived from this global discovery effort into predictive classification systems that reflect the history of life; and 3) to organize the information derived from this global program in efficiently retrievable forms that best meet the needs of science and society.
Supports expeditionary work to discover, describe, and document plant, animal, and microbial diversity throughout the world, whether terrestrial, freshwater, or marine, and with emphasis on well-vouchedered natural history collections, or stocks and cultures including associated databases. Supported surveys may be primarily area-based (i.e., focusing on species inventory and discovery, including biogeographic or evolutionary hypothesis testing), clade-based (i.e., continental-scale to global species inventory for a particular taxonomic group), or guild-based (i.e., surveys that couple species inventory and discovery with ecological hypothesis testing).

**Biodiversity Surveys and Inventories:** Supports expeditionary work to discover, describe, and document plant, animal, and microbial diversity throughout the world, whether terrestrial, freshwater, or marine, and with emphasis on well-vouchedered natural history collections, or stocks and cultures including associated databases. Supported surveys may be primarily area-based (i.e., focusing on species inventory and discovery, including biogeographic or evolutionary hypothesis testing), clade-based (i.e., continental-scale to global species inventory for a particular taxonomic group), or guild-based (i.e., surveys that couple species inventory and discovery with ecological hypothesis testing).

**National Science Foundation**  
**Division of Integrative Organismal Systems (IOS)**  
**Physiological and Structural Systems**

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**DEADLINES ANNOUNCED:** 07/12/2007; 01/12/2008

The Physiological and Structural Systems Cluster supports research aimed at furthering the understanding of organisms as integrated units of biological organization. The Cluster considers proposals focused on interacting physiological and structural systems, their environmental and evolutionary contexts, and how these components are constrained by their integration into the whole organism. Projects that use systems approaches to understand why particular patterns of architecture and regulatory control have emerged as general organismal properties are particularly encouraged.

**National Science Foundation**  
**Division of Molecular and Cellular Biosciences**  
**Cellular Systems Cluster**

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**DEADLINES ANNOUNCED:** 07/12/2007; 01/12/2008
The Cellular Systems Cluster focuses on the structure, function, and regulation of plant, animal and microbial cells, and their interactions with the environment and with one another. Areas supported include studies of the structure, function, and assembly of cellular elements, such as the cytoskeleton, membranes, organelles, intracellular compartments, intranuclear structures, and extracellular matrix, including eukaryotic and prokaryotic cell walls and envelopes. In addition, support is provided for the study of intracellular and transmembrane signal transduction mechanisms and cell-cell signaling processes, including those that occur in biofilms. Research on cellular recognition and self defense mechanisms is included. Research utilizing both traditional and innovative methodologies, multidisciplinary approaches, technique development, computation and modeling, and approaches that exploit genomic information is encouraged. Multi-disciplinary approaches to the study of cellular systems, including research carried out at the interfaces of biology, physics, chemistry, mathematics and computer science, and engineering, are also encouraged.

The Microbial Observatories and Microbial Interactions and Processes competition is also housed in this cluster. This expanded activity supports integrative studies that explore novel microorganisms, their interactions in consortia and communities, and aspects of their physiology, biochemistry and genomics in relationship to the processes that they carry out in the environments.

**National Science Foundation**

*Division of Molecular and Cellular Biosciences*

*Genes and Genome Systems Cluster*

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**DEADLINES ANNOUNCED:** 07/12/2007; 01/12/2008

The Genes and Genome Systems Cluster supports studies on genomes and genetic mechanisms in all organisms, whether prokaryote, eukaryote, phage, or virus. Proposals on the structure, maintenance, expression, transfer, and stability of genetic information in DNA, RNA, and proteins and how those processes are regulated are appropriate. Areas of interest include genome organization, molecular and cellular evolution, replication, recombination, repair, and vertical and lateral transmission of heritable information. Of equal interest are the processes that mediate and regulate gene expression, such as chromatin structure, epigenetic phenomena, transcription, RNA processing, editing and degradation, and translation. The use of innovative in vivo and/or in vitro approaches, including biochemical, physiological, genetic, genomic, and/or computational methods, is encouraged, as is research at the interfaces of biology, physics, chemistry, mathematics and computer science, and engineering.

**National Science Foundation**

*Research Initiation Grants & Career Advancement Awards to Broaden Participation in the Biological Sciences*

Carter Kimsey, Lucy Robinson, Gerald Selzer, W. Carl Taylor, and Judith Venuti, RIG/CAA Coordinators  
4201 Wilson Boulevard  
Arlington, VA  22230
DEADLINES ANNOUNCED: 07/12/2007; 01/12/2008

Two funding opportunities are covered by this solicitation: (1) Research Initiation Grants (RIG) and (2) Career Advancement Awards (CAA). The purpose of each is to increase opportunities for scientists and engineers who are members of groups underrepresented in biology to become actively and competitively engaged in research as independent investigators, and, by doing so, to create new research opportunities for students from underrepresented groups.

RIG awards are for beginning investigators to undertake activities, such as acquisition of preliminary data or development of collaborations that will lead to formulation of competitive grant applications. CAA awards are intended to provide support for scientists other than beginning investigators to undertake specific activities which will enhance their career development and competitiveness for research funds, for example, by acquiring new tools and/or skills to address contemporary research questions in the biological sciences.

A specific goal of the activities outlined here is to increase the number and competitiveness of research proposals in the biological sciences submitted to the NSF by members of groups currently underrepresented in biology as well as from scientists at minority serving institutions.

**RIG awards** are limited to a maximum of $150,000 for a period of 24 months with a possible addition of up to $25,000 for equipment.

**CAA awards** are limited to a maximum of $150,000 for 24 months with a possible addition of up to $25,000 for equipment. The size may be smaller, and the duration may be longer, if circumstances warrant.

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**Smithsonian Institution**

*Fellowship Programs*

**Smithsonian Tropical Research Institute (STRI)**

*Short-Term Fellowships*

Smithsonian Tropical Research Institute  
Office of Education  
Unit 0948  
APO AA 34002-0948  
Phone: (507)212-8031 Fax: (507)212-8148  
E-mail: fellows@tivoli.si.edu  
Web Site: [http://www.si.edu/ofg/fell.htm - fstri](http://www.si.edu/ofg/fell.htm - fstri)  

The Smithsonian Institution, the world's largest museum complex and research organization, is composed of 16 museums and the National Zoo in Washington, D.C., metropolitan area, and 2 museums in New York City. The Smithsonian Tropical Research Institute (STRI) in Panama is one of the leading centers for basic research on the ecology, behavior and evolution of tropical organisms. Short term fellowships (STF) support is provided to carry out short-term research projects in the tropics in areas of STRI research.
and under the supervision of Institute staff members. Projects may be exploratory or complete in themselves and their usual duration is 3 months.

**Support Provided:** Fellowships have consisted of a stipend to cover modest living expenses at STRI facilities, roundtrip airfare to Panama, and a research allowance.

**Applicant Information:** The majority of these fellowships are awarded to graduate students, but awards are occasionally made to undergraduates and postdoctoral candidates. Applicants are encouraged to consult with staff members who they would like to serve as their advisor before submitting a formal application.

**Application Information:** Three copies of the complete application should be received at the latest by February 15, May 15, August 15 and November 15. The Ernst Mayr Fellowship is awarded to an outstanding Short-Term Fellowship candidate every year.