List of Suggested Reviewers or Reviewers Not To Include (optional)

		.	
SUGGESTED REVIEWERS: Not Listed			
REVIEWERS NOT TO INCL Not Listed	UDE:		

COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION

PROGRAM ANNOUNCEMENT/SOLICITATION NO./DUE DATE					F	FOR NSF USE ONLY			
NSF 16-1							NSF F	PROPOSAL NUMBER	
FOR CONSIDERATION	BY NSF ORGANIZATION	NUNIT(S	(Indicate the	most specific unit kno	own, i.e. program, division, et	c.)	16	2/1270	
DEB - Default								641279	
DATE RECEIVED	NUMBER OF CO	OPIES	DIVISION	N ASSIGNED	FUND CODE	DUNS# (Data Ur	niversal Numbering System)	FILE LOCATION	
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620671591									
NAME OF ORGANIZATI	ON TO WHICH AWAR	SHOULD	D BE MADE		ess of awardee of anical Society of		CLUDING 9 DIGIT ZIP	CODE	
Botanical Society of					5 Castleman Av				
AWARDEE ORGANIZAT	FION CODE (IF KNOWN)			Sair	nt Louis, MO. 63	31103201			
4001855000 NAME OF PRIMARY PL	ACE OF BEDE			ADDB	ESS OF PRIMARY PLA	ACE OF BEDE INC	LIDING O DIGIT ZIB	CODE	
Botanical Societ					anical Society of		LUDING 9 DIGIT ZIP	CODE	
Dotaincai Societ	y of America				5 Castleman Av				
				St.	6311, MO, Louis	103201 ,US.			
IS AWARDEE ORGANIZ (See GPG II.C For Defin		Apply)			☐ MINORITY			LIMINARY PROPOSAL	
TITLE OF PROPOSED F		for Tra				WILD DOOR LOO	THE CHECK TEXT	-	
	1								
REQUESTED AMOUNT		PODOSE	D DI IDATION	(1-60 MONTHS)	REQUESTED STAF	PTING DATE	SHOW BELATED	PRELIMINARY PROPOSAL NO.	
\$ 84,000	'		2 months	(1-00 MONTHS)	01/0		IF APPLICABLE	FILLIWINANT FINOFOSAL NO.	
THIS PROPOSAL INCLU		MS LISTE	D BELOW			CTS (CDC II D 7)	Human Subjects Assu	rance Number	
☐ DISCLOSURE OF LO	, ,	GPG II.C.	1.e)			,	RB App. Date		
☐ PROPRIETARY & PR		ION (GPG	i.D, II.C.1.d)			L ACTIVITIES: CO	UNTRY/COUNTRIES	INVOLVED (GPG II.C.2.j)	
☐ HISTORIC PLACES	,	C Ann Da	ıto.						
PHS Animal Welfare	Assurance Number	С Арр. Ба			⊠ COLLABORATI\		•		
☐ FUNDING MECHANI	SM Conference					rative propos	al ————————————————————————————————————		
PI/PD DEPARTMENT Administration			PI/PD PO 4475 (stal address C astleman A	venue				
PI/PD FAX NUMBER			St. Lo	uis, MO 631	103201				
314-577-9515		T =	United	d States					
NAMES (TYPED)		High D	egree	Yr of Degree	Telephone Numb	er	Email Addre	PSS	
PI/PD NAME William M Dahl		MBA		1995	314-577-956	6 wdohl@	botany.org		
CO-PI/PD		MIDA		1773	314-377-930	0 wuaiii@	botany.org		
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CERTIFICATION PAGE

Certification for Authorized Organizational Representative (or Equivalent) or Individual Applicant

By electronically signing and submitting this proposal, the Authorized Organizational Representative (AOR) or Individual Applicant is: (1) certifying that statements made herein are true and complete to the best of his/her knowledge; and (2) agreeing to accept the obligation to comply with NSF award terms and conditions if an award is made as a result of this application. Further, the applicant is hereby providing certifications regarding conflict of interest (when applicable), drug-free workplace, debarment and suspension, lobbying activities (see below), nondiscrimination, flood hazard insurance (when applicable), responsible conduct of research, organizational support, Federal tax obligations, unpaid Federal tax liability, and criminal convictions as set forth in the NSF Proposal & Award Policies & Procedures Guide, Part I: the Grant Proposal Guide (GPG). Willful provision of false information in this application and its supporting documents or in reports required under an ensuing award is a criminal offense (U.S. Code, Title 18, Section 1001).

Certification Regarding Conflict of Interest

The AOR is required to complete certifications stating that the organization has implemented and is enforcing a written policy on conflicts of interest (COI), consistent with the provisions of AAG Chapter IV.A.; that, to the best of his/her knowledge, all financial disclosures required by the conflict of interest policy were made; and that conflicts of interest, if any, were, or prior to the organization's expenditure of any funds under the award, will be, satisfactorily managed, reduced or eliminated in accordance with the organization's conflict of interest policy. Conflicts that cannot be satisfactorily managed, reduced or eliminated and research that proceeds without the imposition of conditions or restrictions when a conflict of interest exists, must be disclosed to NSF via use of the Notifications and Requests Module in FastLane.

Drug Free Work Place Certification

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent), is providing the Drug Free Work Place Certification contained in Exhibit II-3 of the Grant Proposal Guide.

Debarment and Suspension Certification

(If answer "yes", please provide explanation.)

Is the organization or its principals presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency?

Yes ☐ No 🛛

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) or Individual Applicant is providing the Debarment and Suspension Certification contained in Exhibit II-4 of the Grant Proposal Guide.

Certification Regarding Lobbying

This certification is required for an award of a Federal contract, grant, or cooperative agreement exceeding \$100,000 and for an award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract. Grant. loan. or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Certification Regarding Nondiscrimination

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) is providing the Certification Regarding Nondiscrimination contained in Exhibit II-6 of the Grant Proposal Guide.

Certification Regarding Flood Hazard Insurance

Two sections of the National Flood Insurance Act of 1968 (42 USC §4012a and §4106) bar Federal agencies from giving financial assistance for acquisition or construction purposes in any area identified by the Federal Emergency Management Agency (FEMA) as having special flood hazards unless the:

- (1) community in which that area is located participates in the national flood insurance program; and
- (2) building (and any related equipment) is covered by adequate flood insurance.

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) or Individual Applicant located in FEMA-designated special flood hazard areas is certifying that adequate flood insurance has been or will be obtained in the following situations:

- (1) for NSF grants for the construction of a building or facility, regardless of the dollar amount of the grant; and
- (2) for other NSF grants when more than \$25,000 has been budgeted in the proposal for repair, alteration or improvement (construction) of a building or facility.

Certification Regarding Responsible Conduct of Research (RCR) (This certification is not applicable to proposals for conferences, symposia, and workshops.)

By electronically signing the Certification Pages, the Authorized Organizational Representative is certifying that, in accordance with the NSF Proposal & Award Policies & Procedures Guide, Part II, Award & Administration Guide (AAG) Chapter IV.B., the institution has a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students and postdoctoral researchers who will be supported by NSF to conduct research. The AOR shall require that the language of this certification be included in any award documents for all subawards at all tiers.

CERTIFICATION PAGE - CONTINUED

Certification Regarding Organizational Support

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) is certifying that there is organizational support for the proposal as required by Section 526 of the America COMPETES Reauthorization Act of 2010. This support extends to the portion of the proposal developed to satisfy the Broader Impacts Review Criterion as well as the Intellectual Merit Review Criterion, and any additional review criteria specified in the solicitation. Organizational support will be made available, as described in the proposal, in order to address the broader impacts and intellectual merit activities to be undertaken.

Certification Regarding Federal Tax Obligations

When the proposal exceeds \$5,000,000, the Authorized Organizational Representative (or equivalent) is required to complete the following certification regarding Federal tax obligations. By electronically signing the Certification pages, the Authorized Organizational Representative is certifying that, to the best of their knowledge and belief, the proposing organization:

- (1) has filed all Federal tax returns required during the three years preceding this certification;
 (2) has not been convicted of a criminal offense under the Internal Revenue Code of 1986; and
- (3) has not, more than 90 days prior to this certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

Certification Regarding Unpaid Federal Tax Liability

When the proposing organization is a corporation, the Authorized Organizational Representative (or equivalent) is required to complete the following certification regarding Federal Tax Liability:

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) is certifying that the corporation has no unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

Certification Regarding Criminal Convictions

When the proposing organization is a corporation, the Authorized Organizational Representative (or equivalent) is required to complete the following certification regarding Criminal Convictions:

By electronically signing the Certification Pages, the Authorized Organizational Representative (or equivalent) is certifying that the corporation has not been convicted of a felony criminal violation under any Federal law within the 24 months preceding the date on which the certification is signed.

Certification Dual Use Research of Concern

By electronically signing the certification pages, the Authorized Organizational Representative is certifying that the organization will be or is in compliance with all aspects of the United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern.

AUTHORIZED ORGANIZATIONAL RE	PRESENTATIVE	SIGNATURE		DATE
NAME				
Wanda L Lovan		Electronic Signature		Apr 13 2016 4:36PM
TELEPHONE NUMBER	EMAIL ADDRESS		FAX N	UMBER
314-577-9473	wlovan@botany.org		314	I-577-9515
314-577-9473	wlovan@botany.org		314	1-577-9515

Direct for Biological Sciences Division of Environmental Biology Default

Proposal Classification Form PI: Dahl, William / Proposal Number: 1641279

CATEGORY I: INVESTIGATOR	STATUS (Select ONE)	
☐ Beginning Investigator - No previous Feetc.	ederal support as PI or Co-PI, excluding fe	ellowships, dissertations, planning grants,
☑ Prior Federal support only		
□ Current Federal support only		
□ Current & prior Federal support		
Carronic a prior i Caorar cappore		
CATEGORY II: FIELDS OF SCI (Select 1 to 3)	ENCE OTHER THAN BIOLOGY IN	IVOLVED IN THIS RESEARCH
□ Astronomy	□Engineering	□Psychology
□ Chemistry	□Mathematics	□ Social Sciences
□ Computer Science	□ Physics	✓ None of the Above
□Geosciences		
CATEGORY III. CURCTANTIVE	ADEA (Octoo) 4 (c.4)	
	AREA (Select 1 to 4)	
□ BIOGEOGRAPHY _	Decomposition	☐ Molecular Evolution
□ Island Biogeography	Biogeochemistry	☐ Methodology/Theory
☐ Historical/ Evolutionary Biogeography	□ Limnology/Hydrology	□ Isozymes/ Electrophoresis
□ Phylogeography	□ Climate/Microclimate	□ Nucleic Acid Analysis (general)
□ Methods/Theory	□ Whole-System Analysis	Restriction Enzymes
□ CHROMOSOME STUDIES	□ Productivity/Biomass	□ Nucleotide Sequencing
□ Chromosome Evolution	□ System Energetics	☐ Nuclear DNA☐ Mitochondrial DNA
□ Chromosome Number	□ Landscape Dynamics	☐ Chloroplast DNA
□Mutation	□ Chemical & Biochemical Control	□ RNA Analysis
☐ Mitosis and Meiosis	□ Global Change	□ DNA Hybridization
□ COMMUNITY ECOLOGY	□ Climate Change	□ Recombinant DNA
□ Community Analysis	□ Regional Studies	□ Amino Acid Sequencing
□ Community Structure	□ Global Studies	□ Gene/Genome Mapping
□ Community Stability	□Forestry	□ Natural Products
□Succession	Resource Management (Wildlife,	□ Serology/Immunology
□ Experimental Microcosms/ Mesocosms	Fisheries, Range, Other)	☑ PALEONTOLOGY
□ Disturbance	□ Agricultural Ecology	□ Floristic
□ Patch Dynamics	DEXTREMOPHILES	□Faunistic
□ Food Webs/ Trophic Structure	□ GENOMICS (Genome sequence, organization, function)	□ Paleoecology
□ Keystone Species	□ Viral	□Biostratigraphy
COMPUTATIONAL BIOLOGY	☐ Microbial	□ Palynology
CONSERVATION & RESTORATION	□ Fungal	□ Micropaleontology
BIOLOGY	□ Plant	□ Paleoclimatology
□DATABASES	□ Animal	□ Archeozoic
□ECOSYSTEMS LEVEL	□ MARINE MAMMALS	□Paleozoic
□ Physical Structure	MOLECULAR APPROACHES	□Mesozoic

□ Cenozoic	□ Quantitative Genetics/ QTL Analysis	□ Coevolution
□ POPULATION DYNAMICS & LIFE	□ Ecological Genetics	□ Biological Control
HISTORY	□ Gender Ratios	STATISTICS & MODELING
□ Demography/ Life History	□ Apomixis/ Parthenogenesis	☐ Methods/ Instrumentation/ Software
□ Population Cycles	□ Vegetative Reproduction	□ Modeling (general)
☐ Distribution/Patchiness/ Marginal Populations	SPECIES INTERACTIONS	☐ Statistics (general)
Population Regulation	□ Predation	☐ Multivariate Methods
□ Intraspecific Competition	□ Herbivory	□ Spatial Statistics & Spatial Modeling
□ Reproductive Strategies	□ Omnivory	☐ Sampling Design & Analysis☐ Experimental Design & Analysis
Gender Allocation	☐ Interspecific Competition	SYSTEMATICS
□ Metapopulations	□ Niche Relationships/ Resource	
□ Extinction	Partititioning	☐ Taxonomy/Classification
POPULATION GENETICS &	□ Pollination/ Seed Dispersal	□ Nomenclature
BREEDING SYSTEMS	Parasitism	□ Monograph/Revision
□Variation	□ Mutualism/ Commensalism	Phylogenetics
□ Microevolution	□ Plant/Fungal/ Microbial Interactions	☐ Phenetics/Cladistics/ Numerical Taxonomy
□ Speciation	□ Mimicry	□ Macroevolution
☐ Hybridization	□ Animal Pathology	NONE OF THE ABOVE
□ Inbreeding/Outbreeding	□ Plant Pathology	-NONE OF THE ABOVE
Gene Flow Measurement		
□ Inheritance/Heritability		
— Infleritance/Fleritability	<u> </u>	
CATEGORY IV: INFRASTRUCT	TURE (Select 1 to 3)	
COLLECTIONS/STOCK CULTURES	□ Field Stations	☐ Technique Development
Matural History Collections ■ Natural History Collections Natural History Collections ■ Natural History Collections Natural History Collections	☐ Field Facility Structure	TRACKING SYSTEMS
☑ DATABASES	□ Field Facility Equipment	□ Geographic Information Systems
□ FACILITIES	□LTER Site	Remote Sensing
□ Controlled Environment Facilities	□ INDUSTRY PARTICIPATION	NONE OF THE ABOVE
— Controlled Environment 1 delintes	1	-NONE OF THE ABOVE
CATEGORY V: HABITAT (Sel	ect 1 to 2)	
TERRESTRIAL HABITATS	,	
☐ GENERAL TERRESTRIAL	□ Savanna	CHAPPARAL/ SCLEROPHYLL/
- GENERAL TERRESTRIAL - TUNDRA	□ Thornwoods	SHRUBLANDS
	□ Deciduous Forest	□ALPINE
BOREAL FOREST	□ Coniferous Forest	□MONTANE
☐ TEMPERATE ☐ Deciduous Forest	□ Desert	CLOUD FOREST
☐ Deciduous Forest ☐ Coniferous Forest	□TROPICAL	□RIPARIAN ZONES
Rain Forest	l .	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
☐ Mixed Forest	□ Rain Forest	☐ ISLANDS (except Barrier Islands)
	□ Seasonal Forest	☐ ISLANDS (except Barrier Islands)
□ Prairie/Grasslands	□ Seasonal Forest □ Savanna	☐ ISLANDS (except Barrier Islands) ☐ BEACHES/ DUNES/ SHORES/ BARRIER ISLANDS
□ Prairie/Grasslands□ Desert	□ Seasonal Forest□ Savanna□ Thornwoods	BEACHES/ DUNES/ SHORES/
	□ Seasonal Forest□ Savanna□ Thornwoods□ Deciduous Forest	□ BEACHES/ DUNES/ SHORES/ BARRIER ISLANDS □ CAVES/ ROCK OUTCROPS/ CLIFFS □ CROPLANDS/ FALLOW FIELDS/
□ Desert □ SUBTROPICAL □ Rain Forest	□ Seasonal Forest□ Savanna□ Thornwoods	□ BEACHES/ DUNES/ SHORES/ BARRIER ISLANDS □ CAVES/ ROCK OUTCROPS/ CLIFFS □ CROPLANDS/ FALLOW FIELDS/ PASTURES
□ Desert □ SUBTROPICAL	 □ Seasonal Forest □ Savanna □ Thornwoods □ Deciduous Forest □ Coniferous Forest 	□ BEACHES/ DUNES/ SHORES/ BARRIER ISLANDS □ CAVES/ ROCK OUTCROPS/ CLIFFS □ CROPLANDS/ FALLOW FIELDS/ PASTURES □ URBAN/SUBURBAN
□ Desert□ SUBTROPICAL□ Rain Forest	 □ Seasonal Forest □ Savanna □ Thornwoods □ Deciduous Forest □ Coniferous Forest 	□ BEACHES/ DUNES/ SHORES/ BARRIER ISLANDS □ CAVES/ ROCK OUTCROPS/ CLIFFS □ CROPLANDS/ FALLOW FIELDS/ PASTURES
□ Desert□ SUBTROPICAL□ Rain Forest	 □ Seasonal Forest □ Savanna □ Thornwoods □ Deciduous Forest □ Coniferous Forest 	□ BEACHES/ DUNES/ SHORES/ BARRIER ISLANDS □ CAVES/ ROCK OUTCROPS/ CLIFFS □ CROPLANDS/ FALLOW FIELDS/ PASTURES □ URBAN/SUBURBAN □ SUBTERRANEAN/ SOIL/

AQUATIC HABITATS		
☑GENERAL AQUATIC	□ Open Ocean/Continental Shelf	EXTREME AQUATIC ENVIRONMENT
□FRESHWATER	□ Bathyal	CAVES/ ROCK OUTCROPS/ CLIFFS
□ Wetlands/Bogs/Swamps	□ Abyssal	□MANGROVES
□ Lakes/Ponds	□ Estuarine	SUBSURFACE WATERS/ SPRINGS
□ Rivers/Streams	☐ Intertidal/Tidal/Coastal	PEPHEMERAL POOLS & STREAMS
□ Reservoirs	Coral Reef	
□MARINE	□ HYPERSALINE	□ MICROPOOLS (Pitcher Plants, Tree Holes, Other)
MAN-MADE ENVIRONMENTS		
□LABORATORY	THEORETICAL SYSTEMS	OTHER ARTIFICIAL SYSTEMS
NOT APPLICABLE		
□ NOT APPLICABLE		
CATEGORY VI: GEOGRAPHIC	AREA OF THE RESEARCH (Se	Nost 1 to 2)
	•	elect 1 to 2)
MWORLDWIDE	Eastern South America (Guyana, Fr. Guiana, Suriname, Brazil)	□ North Africa □ African South of the Sahara
□NORTH AMERICA	□ Northern South America (Colombia,	□ East Africa
☐ United States	Venezuela)	□ Madagascar
Northeast US (CT, MA, ME, NH, NJ, NY, PA, RI, VT)	Southern South America (Chile, Argentina, Uruguay, Paraguay)	□ South Africa
Northcentral US (IA, IL, IN, MI, MN, ND, NE, OH, SD, WI)	Western South America (Ecuador, Peru, Bolivia)	□ West Africa
□ Northwest US (ID, MT, OR, WA, WY)	□EUROPE	AUSTRALASIA
Southeast US (DC, DE, FL, GA, MD, NC, SC, WV, VA)	□ Eastern Europe	□ Australia □ New Zealand
☐ Southcentral US (AL, AR, KS, KY, LA, MO.	□ Russia □ Scandinavia	Pacific Islands
MS, OK, TN, TX) □ Southwest US (AZ, CA, CO, NM, NV, UT)	☐ Western Europe	□ANTARCTICA
Southwest US (AZ, CA, CO, NM, NV, UT) Alaska	□ ASIA	□ARCTIC
☐ Hawaii	☐ Central Asia	□ ATLANTIC OCEAN
□ Puerto Rico	☐ Far East	□ PACIFIC OCEAN
□ Canada	☐ Middle East	
□ Mexico	□ Siberia	OTHER REGIONS (Not defined)
CENTRAL AMERICA (Mainland)	□ South Asia	,
☐ Caribbean Islands	□ Southeast Asia	□NOT APPLICABLE
□ Bermuda/Bahamas	□AFRICA	
□ SOUTH AMERICA		
CATEGORY VII: CLASSIFICAT	ION OF ORGANISMS (Select 1	to 4)
□VIRUSES	□ Microspora	□ Chrysophyta
□ Bacterial	□ Radiolaria	□ Dinoflagellata
□ Plant	™ FUNGI	□ Euglenoids
□ Animal	□ Ascomycota	□ Phaeophyta
□PROKARYOTES	□ Basidiomycota	□ Rhodophyta
□ Archaea	□ Chytridiomycota	
□ Cyanobacteria	☐ Mitosporic Fungi	□ NON-VASCULAR PLANTS
□ Bacteria	□ Oomycota	□ BRYOPHYTA
□ Noncultured Organisms	Zygomycota	Anthocerotae (Hornworts)
□PROTISTA (PROTOZOA)	™LICHENS	Hepaticae (Liverworts)
□ Amoebae	□ SLIME MOLDS	Musci (Mosses)
□ Apicomplexa	MALGAE	VASCULAR PLANTS
□ Ciliophora	□ Bacillariophyta (Diatoms)	☐ FERNS & FERN ALLIES ☐ GYMNOSPERMS
□ Flagellates	□ Charophyta	☐ Coniferales (Conifers)
□ Foraminifera	□ Chlorophyta	Oomiciaics (Oomers)

				_	
	Cycadales (Cycads)		Polyplacophora (Chitons)		Coleoptera (Beetles)
	Ginkgoales (Ginkgo)		Scaphopoda (Tooth Shells)		Hymenoptera (Ants, Bees, Wasps, Sawflies)
-	Gnetales (Gnetophytes)		Gastropoda (Snails, Slugs, Limpets)		Chilopoda (Centipedes)
	ANGIOSPERMS		Pelecypoda (Bivalvia) (Clams, Mussels, Oysters, Scallops)		Diplopoda (Millipedes)
<u> -</u>	Monocots		Cephalopoda (Squid, Octopus,		Pauropoda
	Arecaceae (Palmae)		Nautilus)		Symphyta (Symphyla)
	Cyperaceae		ANNELIDA (Segmented Worms)		PENTASTOMIDA (Linguatulida)
	Liliaceae		Polychaeta (Parapodial Worms)		(Tongue Worms)
	Orchidaceae		Oligochaeta (Earthworms)		TARDIGRADA (Tardigrades, Water Bears)
	Poaceae (Graminae)		Hirudinida (Leeches)		ONYCHOPHORA (Peripatus)
	Dicots		POGONOPHORA (Beard Worms)		CHAETOGNATHA (Arrow Worms)
	Apiaceae (Umbelliferae)		SIPUNCULOIDEA (Peanut Worms)		ECHINODERMATA
	Asteraceae (Compositae)		ECHIUROIDEA (Spoon Worms)		Crinoidea (Sea Lilies, Feather Stars)
	Brassicaceae (Cruciferae)		ARTHROPODA		Asteroidea (Starfish, Sea Stars)
	Fabaceae (Leguminosae)		Cheliceriformes		Ophiuroidea (Brittle Stars, Serpent
	Lamiaceae (Labiatae)		Merostomata (Horseshoe Crabs)		Stars)
	Rosaceae		Pycnogonida (Sea Spiders)		Echinoidea (Sea Urchins, Sand
	Solanaceae		Scorpionida (Scorpions)		Dollars)
1	ANIMALS		Araneae (True Spiders)		Holothuroidea (Sea Cucumbers)
	INVERTEBRATES		Pseudoscorpionida (Pseudoscorpions)		HEMICHORDATA (Acorn Worms, Pterobranchs)
	MESOZOA/PLACOZOA	<u> </u>	Acarina (Free-living Mites)		UROCHORDATA (Tunicata) (Tunicates,
-	PORIFERA (Sponges)		Parasitiformes (Parasitic Ticks &		Sea Squirts, Salps, Ascideans)
	CNIDARIA	Γ	Mites)		CEPHALOCHORDATA (Amphioxus/Lancelet)
	Hydrozoa (Hydra, etc.)		Crustacea		VERTEBRATES
<u> -</u>	Scyphozoa (Jellyfish)		Branchiopoda (Fairy Shrimp, Water		AGNATHA (Hagfish, Lamprey)
	Anthozoa (Corals, Sea Anemones)		Flea)		FISHES
	CTENOPHORA (Comb Jellies)		Ostracoda (Sea Lice)		Chondrichthyes (Cartilaginous Fishes)
	PLATYHELMINTHES (Flatworms)		Copepoda		(Sharks, Rays, Ratfish)
	Turbellaria (Planarians)		Cirripedia (Barnacles)		Osteichthyes (Bony Fishes)
	Trematoda (Flukes)	-	Amphipoda (Skeleton Shrimp, Whale Lice, Freshwater Shrimp)		AMPHIBIA
	Cestoda (Tapeworms)		Isopoda (Wood Lice, Pillbugs)		Anura (Frogs, Toads)
	Monogenea (Flukes)		Decapoda (Lobster, Crayfish,		Urodela (Salamanders, Newts)
	GNATHOSTOMULIDA		Crabs, Shrimp)		Gymnophiona (Apoda) (Caecilians)
	NEMERTINEA (Rynchocoela) (Ribbon Worms)		Hexapoda (Insecta) (Insects) Apterygota (Springtails, Silverfish,		REPTILIA Chelonia (Turtles, Tortoises)
-	ENTOPROCTA (Bryozoa) (Plant-like Animals)		etc.)		Serpentes (Snakes)
	ASCHELMINTHES		Odonata (Dragonflies, Damselflies)		Sauria (Lizards)
	Gastrotricha		Ephemeroptera (Mayflies)		Crocodylia (Crocodilians)
	Kinorhyncha		Orthoptera (Grasshoppers, Crickets)		AVES (Birds)
	Loricifera		Dictyoptera (Cockroaches, Mantids, Phasmids)		Passeriformes (Passerines)
	Nematoda (Roundworms)		Isoptera (Termites)		MAMMALIA
	Nematomorpha (Horsehair Worms)		Plecoptera (Stoneflies)		Monotremata (Platypus, Echidna)
	Rotifera (Rotatoria)		Phthiraptera (Mallophaga &		Marsupalia (Marsupials)
	ACANTHOCEPHALA (Spiny-headed		Anoplura) (Lice)		Eutheria (Placentals)
	Worms)		Hemiptera (including Heteroptera) (True Bugs)		Insectivora (Hedgehogs, Moles,
	PRIAPULOIDEA		Homoptera (Cicadas, Scale Insects,		Shrews, Tenrec, etc.)
-	BRYOZOA (Ectoprocta) (Plant-like Animals)		Leafhoppers)`		Chiroptera (Bats)
	PHORONIDEA (Lophophorates)		Thysanoptera (Thrips)		Primates
	BRACHIOPODA (Lamp Shells)		Neuroptera (Lacewings, Dobsonflies, Snakeflies)		Humans
	MOLLUSCA		Trichoptera (Caddisflies)		Rodentia
	Monoplacophora		Lepidoptera (Moths, Butterflies)		Lagomorphs (Rabbits, Hares, Pikas
	Aplacophora (Solenogasters)		Diptera (Flies, Mosquitoes)		Carnivora (Bears, Canids, Felids, Mustelids, Viverrids, Hyena,
			Siphonaptera (Fleas)		Procyonids)
			Этрионарсета (п <i>еа</i> в)		Perissodactyla (Odd-toed Ungulates) (Horses, Rhinos, Tapirs, etc.)

	Artiodactyla (Even-toed Ungulates) (Cattle, Sheep, Dee Pigs, etc.) Marine Mammals (Seals, Walrus,	□ FOSSIL OR EXTINCT ORGANISMS	□ NO ORGANISMS					
	Whales, Otters, Dolphins, Porpoise	s)						
CA	CATEGORY VIII: MODEL ORGANISM (Select ONE)							
⊠ΝC	D MODEL ORGANISM	☐ Escherichia coli	☐ Fruitfly (Drosophila melanogaster)					
	ODEL ORGANISM (Choose from	☐ Mouse-Ear Cress (Arabidopsis thaliana)						

PROJECT SUMMARY

Overview:

Funds are requested to support travel by graduate students and postdocs to attend the 19th International Botanical Congress (IBC) in Shenzhen, China, July 17?29, 2017. We hope to support 36 participants.

Intellectual Merit:

The IBC is the largest international conference in plant biology and extends the broadest disciplinary coverage of any such conference. It provides an opportunity for plant scientists of all disciplines to showcase their research to peers from around the world, while fostering communication and collaboration in ways that only can develop from the sort of personal interactions and networking that occur at such conferences.

The IBC is held every six years and serves a critical role in international communication within and across disciplines in plant biology, as well as a valuable opportunity to establish international collaborations. Participation is particularly valuable for young scientists as they establish their careers. The opportunity to reach so many scientists within any individual discipline creates an unequaled opportunity for exposure by a young scientist. The once-in-six-years frequency of the Congresses means that for most young scientists, there is only one opportunity to participate in an IBC during these critical stages of professional development.

Our intent is to offer awards to graduate students and postdocs. To be eligible, an applicant will have to be presenting in a symposium or poster session. Applications will be submitted through a single online site via the BSA website. A committee with representation from the participating societies will assess all applications to assure disciplinary breadth.

Broader Impacts:

Every effort will be made to solicit applications from underrepresented minorities and women, as well as junior faculty from non-Ph.D. granting institutions, in order to support the participation of a diverse demography in terms of race, gender, academic background, and discipline. The Botanical Society of America has supported a program (PLANTS: Preparing Leaders and Nurturing Tomorrow?s Scientists) for students from underrepresented groups since 2006 and has tracked these recipients; all former recipients of these funds (ca. 60 alumni) will be notified about this travel opportunity. A primary mechanism for getting the word out will be the society websites and email lists. Most of our societies have the ability to email members who have voluntarily identified themselves as members of an underrepresented group. Additional effort will be made to target notice of these awards to underrepresented minorities, including outreach by members of the BSA Human Diversity Committee (and similar committees from other societies) who will also contact potential candidates. Announcements for posting will be sent to Botany and Biology Department Chairs, especially in high minority serving institutions. An announcement will be posted on the SACNAS website (Society for Advancement of Chicanos and Native Americans in Science).

TABLE OF CONTENTS

For font size and page formatting specifications, see GPG section II.B.2.

Appendix Items:

	Total No. of Pages	Page No.* (Optional)*
Cover Sheet for Proposal to the National Science Foundation		
Project Summary (not to exceed 1 page)	1	
Table of Contents	1	
Project Description (Including Results from Prior NSF Support) (not to exceed 15 pages) (Exceed only if allowed by a specific program announcement/solicitation or if approved in advance by the appropriate NSF Assistant Director or designee)	5	
References Cited	1	
Biographical Sketches (Not to exceed 2 pages each)	2	
Budget (Plus up to 3 pages of budget justification)	3	
Current and Pending Support	1	
Facilities, Equipment and Other Resources	1	
Special Information/Supplementary Documents (Data Management Plan, Mentoring Plan and Other Supplementary Documents)	1	
Appendix (List below.) (Include only if allowed by a specific program announcement/solicitation or if approved in advance by the appropriate NSF Assistant Director or designee)		

^{*}Proposers may select any numbering mechanism for the proposal. The entire proposal however, must be paginated. Complete both columns only if the proposal is numbered consecutively.

Support for travel to the 19th International Botanical Congress in Shenzhen, China

Project Objectives

Funds are requested to support travel by graduate students and postdocs to attend the 19th International Botanical Congress (IBC) in Shenzhen, China, July 17–29, 2017. We hope to support 36 participants.

The IBC is the largest international conference in plant biology and extends the broadest disciplinary coverage of any such conference. It provides an opportunity for plant scientists of all disciplines to showcase their research to peers from around the world, while fostering communication and collaboration in ways that only can develop from the sort of personal interactions and networking that occur at such conferences. The opportunity to attend is especially important for early career scientists who are establishing their research programs.

Encouraging participation at the IBC is an important commitment of the several plant biology professional societies who are acting together to support this proposal. These societies have committed funds to assist graduate student/early career members to attend the IBC, but the limited societal resources and great expense of attending necessarily limit the number of participants who can be supported.

In sum, the IBC provides extensive opportunity for sharing scientific information, establishing, or renewing, ties with colleagues from around the world, and face-to-face communication with others whose interests match ones own. For the young scientists we hope to support through these travel awards, we anticipate that connections made here will be career altering and will create life-long collaborations that will enhance their development as scientists by promoting international cooperation in their subsequent research.

Background.

The IBC is held every six years and serves a critical role in international communication within and across disciplines in plant biology, as well as a valuable opportunity to establish international collaborations. Participation is particularly valuable for young scientists as they establish their careers. The opportunity to reach so many scientists within any individual discipline creates an unequaled opportunity for exposure by a young scientist. The once-in-six-years frequency of the Congresses means that for most young scientists, who are about to complete Ph.D.s, find a job, or compete for tenure at their home institutions, there is only one opportunity to participate in an IBC during these critical stages of professional development.

Recognizing the importance of this event, we request funding to support travel by young scientists (specifically graduate students and postdocs) to the IBC in 2017. A consortium of professional societies support this request, including the American Bryological and Lichenological Society (ABLS), American Society of Plant Biologists (ASPB), American Society of Plant Taxonomists (ASPT), American Fern Society (AFS), Botanical Society of America (BSA), the Mycological Society of America (MSA), and the Society of Economic Botanists (SEB). Several of these professional societies have already allocated funds for competitive travel awards for junior faculty (totaling over \$36,500), and others are considering such allocations.

The scientific program for the conference is divided into six major "themes" as follows:

- Biodiversity, Resources & Conservation
- Taxonomy, Phylogenetics & Evolution
- Ecology, Environment & Global Change
- Development & Physiology
- Genetics, Genomics & Bioinformatics
- Plants & Society

Within each 'theme' there will be symposia consisting of invited and contributed papers on specific topics (resulting from proposals that are currently in review by the organizing committee), and poster sessions.

Recent meetings on the same subject.

The International Botanical Congress is convened once every six years. There are no other international conferences with this disciplinary breadth in the plant sciences. Recent past International Botanical Congresses have been held in: Melbourne, Australia (2011), Vienna, Austria (2005), St. Louis, USA (1999), Tokyo, Japan (1993), and Berlin, Germany (1987). In the USA, the conferences most similar in disciplinary scope would be the annual "Botany" meetings co-sponsored by the ABLS, ASPT, AFS, and BSA, which sometimes also includes the MSA and SEB and the ASPB annual meeting.

Organizing Committee (by tradition is constituted by scientists from the host country).

De-Yuan Hong, Institute of Botany, Chinese Academy of Sciences (CAS), Beijing, China

Peter H. Raven, Missouri Botanical Garden, St. Louis, USA

Hei-Hua Wu, China Agricultural University, Beijing, China

Qin Xu, Shenzhen Municipal Government, Shenzhen, China

Hong Yang, Shenzhen Municipal Government, Shenzhen, China

Yu-Xian Zhu, Peking University, Beijing, China

Jun Wen, Smithsonian Institution, Washington, DC, USA

Song Ge, Institute of Botany, CAS, Beijing, China

Ting-Feng Zhu, Shenzhen Municipal Government, Shenzhen, China

Guo-Bin Wang, Shenzhen Municipal Urban Management Bureau, Shenzhen, China

Hong-Wen Huang, South China Botanical Garden, CAS, Guangzhou, China

Scientific Program Committee

Li-Zhe AN, Lanzhou University, Lanzhou, CHINA

Spencer C. BARRETT, University of Toronto, Toronto, CANADA

Jin CHEN, Xishuangbanna Tropical Botanical Garden, CAS, Mengla, CHINA

Xue-Mei CHEN, University of California, Riverside, Riverside, USA

Kang CHONG, Institute of Botany, CAS, Beijing, CHINA

Hans CORNELISSEN, VU University Amsterdam, Amsterdam, NETHERLANDS

Ming DONG, Hangzhou Normal University, Hangzhou, CHINA

Thomas DRESSELHAUS, University of Regensburg, Regensburg, GERMANY

Brandon S. GAUT, University of California, Irvine, Irvine, USA

Song GE, Institute of Botany, CAS, Beijing, CHINA

Zhi-Zhong GONG, China Agricultural University, Beijing, CHINA

Hong-Ya GU, Peking University, Beijing, CHINA

Xing-Guo HAN, Institute of Applied Ecology, CAS, Shenyang, CHINA

Yi-Kun HE, Capital Normal University, Beijing, CHINA

David U. HOPPER, Western Washington University, Bellingham, USA

Hong-Wen HUANG, South China Botanical Garden, CAS, Guangzhou, CHINA

Lu-Qi HUANG, China Academy of Chinese Medical Sciences, Beijing, CHINA

IIdoo HWANG, Pohang University of Science and Technology, Pohang, KOREA

Peter Wyse JACKSON, Missouri Botanical Garden, St. Louis, USA

Sandra KNAPP, Natural History Museum, London, London, UK

Jörg KUDLA, Universität Münster, Münster, GERMANY

De-Zhu LI, Kunming Institute of Botany, CAS, Kunming, CHINA

Bao LIU, Northeast Normal University, Changchun, CHINA

Chun-Ming LIU, Institute of Botany, CAS, Beijing, CHINA

Hong MA, Fudan University, Shanghai, CHINA

Ke-Ping MA, Institute of Botany, CAS, Beijing, CHINA

Makoto MATSUOKA, Nagoya University, Nagoya, JAPAN

Jose Rubens PIRANI, University of Sao Paulo, Sao Paulo, BRAZIL

Yi-Jun QI, Tsinghua University, Beijing, CHINA

Li-Jia QU, Peking University, Beijing, CHINA

Tao SANG, Institute of Botany, CAS, Beijing, CHINA

Su-Hua SHI, Sun Yat-Sen University, Guangzhou, CHINA

Douglas E. SOLTIS, University of Florida, Gainesville, USA

Hang SUN, Kunming Institute of Botany, CAS, Kunming, CHINA

Meng-Xiang SUN, Wuhan University, Wuhan, CHINA

Ning-Hua TAN, Kunming Institute of Botany, CAS, Kunming, CHINA

Qing-Feng WANG, Wuhan Botanical Garden, CAS, Wuhan, CHINA

Yu-Fei WANG, Institute of Botany, CAS, Beijing, CHINA

Jun WEN, Smithsonian Institution, Washington DC., USA

Judy WEST, Australian National Botanic Gardens, Canberra, AUSTRALIA

Wei-Hua WU, China Agricultural University, Beijing, CHINA

Wei-Cai YANG, Institute of Genetics and Developmental Biology, CAS, Beijing, CHINA

Li-Xin ZHANG, Institute of Botany, CAS, Beijing, CHINA

Xian-Sheng ZHANG, Shandong Agricultural University, Taian, CHINA

Shi-Wei ZHAO, Beijing Botanical Garden, Beinjing, CHINA

Rui-Liang ZHU, East China Normal University, Shanghai, CHINA

Yu-Xian ZHU, Peking University, Beijing, CHINA/Wuhan University, Wuhan, CHINA

Location and Dates of Congress and Method of Announcement.

The venue will be the Shenzhen Convention & Exhibition Center, Shenzhen, China. The Congress has two sessions: Nomenclatural Session, July 17–21, and the Scientific Session, July 23–29. A Congress website (http://www.ibc2017.cn/index.aspx) has been established with information on the Congress and registration information.

The professional societies in the consortium supporting this award request will assist in spreading the word to members via email lists and announcements on society websites.

An announcement for awards of travel funding will be issued to members and a web page submission site will be established for applications from eligible participants at the BSA website, www.botany.org.

Meeting organization.

The primary structure of each International Botanical Congress includes a 5-day nomenclatural session followed by a 7-day scientific session, during which research presentations are organized into symposia. During the Nomenclatural session, proposed changes to the International Code of Nomenclature for plants, algae, and fungi are discussed and voted upon by delegates who are official representatives of institutions from around the world. We anticipate that few eligible recipients of these travel awards will be delegates, but these sessions are open to general participants, as well. The Scientific Session will consist of multiple concurrent symposia, an estimated 150 total symposia, with approximately 1000 oral presentations (numbers based on IBC 2011). Poster sessions will be changed each day, with a large number of poster presentations. The Congress forms a nexus for associated field trips before and after the Scientific Session and smaller workshops and meetings on and off the Congress venue.

Each symposium will have a specific topic within one of the broad "themes" and will include three invited speakers, with the remaining speakers selected from among submitted abstracts. Participants who submit abstracts for symposia that are not accepted, will automatically be accepted as posters, should the participant choose to prepare a poster. Poster abstracts also will be reviewed, but only within the broad general themes identified above, with generous acceptance rates. Abstracts of all presentations, including posters, will be published by the Congress and distributed to all participants. Individual symposium organizers are encouraged to make their own plans for publication of a series of papers in relevant journals or symposium volumes. Past IBC's have yielded numerous symposium volumes that have defined the state of the science in various fields at that time.

Plan for recruitment and support of award recipients.

Our intent is to offer awards to graduate students and postdocs with NSF funds, and junior faculty (up to three years after their first faculty appointment) with societal funds (of which \$36,500 have been committed). To be eligible, an applicant will have to be presenting in a symposium or poster session. Applications will be submitted through a single online site via the BSA website. Each applicant will provide their title and abstract along with a statement about the significance of the research and how attendance at the IBC will enhance their career plans. A committee with representation from the participating societies will assess all applications to assure disciplinary breadth. Preferences will be given to society members; all societies have reduced rate student memberships and some have reduced rate postdoc memberships, so eligibility for these awards also will help encourage association of these young scientists with professional societies that support their discipline. All of the societies associated with this proposal have student research and/or travel grants and are experienced with evaluating student proposals, and all have a strong record of supporting programs for young scientists through early career transitions.

Every effort will be made to solicit applications from underrepresented minorities and women, as well as junior faculty from non-Ph.D. granting institutions, in order to support the

participation of a diverse demography in terms of race, gender, academic background, and discipline. The Botanical Society of America has supported a program (PLANTS: Preparing Leaders and Nurturing Tomorrow's Scientists) for students from underrepresented groups since 2006 and has tracked these recipients; all former recipients of these funds (ca. 60 alumni) will be notified about this travel opportunity. A primary mechanism for getting the word out will be the society websites and email lists. Most of our societies have the ability to email members who have voluntarily identified themselves as members of an underrepresented group. These travel awards will be announced in October, 2016 by these mechanisms. A second call for applications will be issued via these lists and websites in early January, 2017. Announcements will be made on more general email listserves and websites that target eligible audiences. Additional effort will be made to target notice of these awards to underrepresented minorities. Announcements for posting will be sent to Botany and Biology Department Chairs, especially in high minority serving institutions. An announcement will be posted on the SACNAS website (Society for Advancement of Chicanos and Native Americans in Science; http://www.sacnas.org).

We are currently working with Dr. Jun Wen, Smithsonian Institution, who is a member of the IBC 2017 Scientific Program Committee, to plan a symposium on frontiers in plant science, which will be co-sponsored by multiple international professional societies and to which travel grant awardees will be explicitly invited. We are also exploring an evening event for awardees to be jointly sponsored by multiple US plant societies and the Botanical Society of China that will focus on the topic of international collaborations.

Budget and Administration.

Estimated costs for travel, registration, and accommodations for the Congress are \$4400 for postdoc/junior faculty and \$4000 for students. We expect that in the current economic state, these costs will be prohibitive for most students, postdocs, and junior faculty, yet these are the individuals for whom participation is most critical. In order to make a significant impact on the cost for each individual, we propose to offer awards of up to \$2500 each for postdocs, junior faculty, and students. Awards will come as reimbursement of expenses (to be handled by the BSA), in order to provide accountability. Documentation will be made available in the final report to the NSF in accordance with guidelines.

We have a goal of offering a total of ca. 20 graduate student and 16 postdoc awards (these numbers for estimation purposes; actual number in these categories may vary depending on applicant pool), which would come to a total of \$90,000. There are no indirect costs, but the BSA will need an administrative fee of \$4,000 to host the online application form and handle reimbursements.

REFERENCES CITED

None		

William Mark Dahl

Executive Director, Botanical Society of America

A. PROFESSIONAL PREPARATION

UNIVERSITY OF CANTERBURY

1992-1995 MASTERS OF BUSINESS ADMINISTRATION

HARVARD UNIVERSITY (Harvard School of Business)

1999 STRATEGIC PERSPECTIVES IN NON-PROFIT MANAGEMENT

HARVARD UNIVERSITY (Harvard School of Business)

2002 PERFORMANCE MEASUREMENT FOR EFFECTIVE MANAGEMENT OF

NONPROFIT OGANIZATIONS

Training Courses/Seminars:

Over 250 hours of intensive training in the areas of: strategic thinking, leadership, negotiation, team building, presentations and relationship management.

B. APPOINTMENTS

October 2002 - Present BOTANICAL SOCIETY OF AMERICA

EXECUTIVE DIRECTOR

The Botanical Society of America (BSA) is a non-profit membership organization (University professors, students and plant-based research scientists) that exists to promote botany and support membership activities (including meetings, publications and policy statements). The Society publishes the *American Journal of Botany* and the *Plant Science Bulletin*, maintaining a client base of university and scholarly libraries around the world. We are also on the way to becoming a national leader in educational outreach & mentoring programs over the internet.

Achievements:

- Built a staff team dedicated to the mission of the Society
- Successfully redesigned the BSA web site in support of the Society's mission
- Established systems to support the business/membership functions for three peer Societies.
- Successfully established and ran joint meetings with two peer Societies in 2007 and 2009
- Positioned the Society to become a leader/innovator in online education/mentoring with the PlantingScience program.

February 1998 - October 2002 RICHMOND FELLOWSHIP NEW ZEALAND (RFNZ) INC.

GENERAL MANAGER & BUSINESS DEVELOPMENT

RFNZ is New Zealand's largest provider of community based mental health and disability support services. It also provides community focused primary health care services in partnership with various lwi (local tribes), hospitals and community groups throughout New Zealand. The position of General and Business Manager was established to ensure the Fellowship was in a position to achieve sustainable growth, in a manner that ensured we provided quality services for clients and funders. During my tenure, we enhanced the Fellowship's primary "products", culminating in an increase of revenue by over 300% (approx \$22,000,000), increased the workforce by over 200% (approx 500). More importantly, RFNZ moved its operations to focus on mission and based its service model on wellness. We worked in collaboration with the people and the communities we served. It has the systems and processes that allow quality health outcomes for the people it serves and the Government agencies providing funding.

Achievements:

- Provided leadership, guidance and vision in growing the Fellowship to become New Zealand's largest Non Government Organisation providing services to the Mental Health, Disability and Primary Health care sector.
- Strategically positioned the Fellowship as a major provider of "high needs" services for young people in both the health and social services sectors.
- Developed and negotiated the "Richmond Recovery Model."
- Moved Richmond to a focus on specific health outcomes and developed systems and tools to monitor progress at all levels.

- Moved the Fellowship from a 90% reliance on Health Funding to a position in which 38% of our funding now comes from other sources.
- Formed partnerships with a diverse range of organizations, providing consultancy that has allowed them to more effectively meet client needs in areas of high need, requiring expertise beyond the current capacity.

D. SYNERGISTIC ACTIVITIES

Over the past six years the BSA has enjoyed the benefits of strong relationships, working with peers to impact our mission and the larger goals of the scientific community.

1. **Botanical Society of America** – The BSA has reached out to partner societies to develop effective programs supporting government efforts to improve science education. The BSA developed Planting Science program (www.PlantingScience.org) is one such example and embodies my philosophy of partnership and collaboration. The program is BSA designed, the software will be open to other scientific societies, and we are forming partnerships with other societies to effectively expand our capabilities.

Affiliations:

- American Bryological and Lichenological Society, American Fern Society, American Institute
 of Biological Sciences, American Phytopathological Society, American Society of Agronomy,
 American Society of Plant Biologists, American Society of Plant Taxonomists, BioQuest,
 Council for Scientific Society Presidents, Ecological Society of America, Missouri Botanical
 Garden, National Science Foundation, Society for Economic Botany, Texas A&M University,
 4-H
- 2. The BSA collaborates on meetings and will extend efforts into the area of professional/student development.

Affiliations:

- Crispin Taylor, Executive Director, American Society of Plant Biologists; Richard O'Grady, American Institute of Biological Sciences; American Bryological and Lichenological Society, American Fern Society; Patrick Herendeen, American Society of Plant Taxonomists; Marc Cubata, Mycological Society of America; Society for Economic Botany
- 3. The BSA developed membership software it shares its staff team with smaller organizations in an effort to improve their ability to support their membership and operational activities.

Affiliations:

- Eve Emshwiller, President, Society for Economic Botany; Charles Fenster, Society for the Study of Evolution; George Yatskievych, Treasurer, American Fern Society
- 4. AAAS Biological Education Network (BEN) The BSA has been a partner organization and active leader in the BEN program. Beginning in 2007, BSA Education Director, Dr. Claire Hemingway, is a member of the BEN Advisory Board. BSA IT Manager, Rob Brandt is on the Technical Advisory group. Our biggest contribution to date is moving the design and distribution of the products BEN produces to a "community use" model as a better use of government funding.

Affiliations:

- Yolanda George, AAAS
- 5. **Richmond Fellowship** At Richmond we made dramatic changes across the organization by altering our mission, focusing on the people we served and the communities in which they lived. We moved from a funding model based on illness to one totally focused on the end goal of wellness. This unprecedented transformation involved vision and collaboration from the individual service user level, local lwi and communities, and right up through Government funding agencies. We worked in partnership with scientifically tested, model service provides from around the world.
- Dr. Gerry Walmisley, Dr. Christine Elliot, Norman Dewes

SUMMARY YEAR 1
PROPOSAL BUDGET FOR NSF USE ONLY

ORGANIZATION		PRO	PROPOSAL NO. DURATION (months			
Botanical Society of America				Granted		
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR		A'	WARD N	O.		
William Dahl						
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates		NSF Fund Person-mo	led nths		unds ested By	Funds granted by NSF
(List each separately with title, A.7. show number in brackets)	CAL	ACAD	SUMR	pro	poser	(if different)
1.	0.0	0.00	0.00			
2.						
3.						
4.						
5.						
6. (0) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE	0.0				0	
7. (1) TOTAL SENIOR PERSONNEL (1 - 6)	0.0	0.00	0.00		0	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (0) POST DOCTORAL SCHOLARS	0.0	0.00	0.00		0	
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.0	0.00	0.00		0	
3. (0) GRADUATE STUDENTS					0	
4. (0) UNDERGRADUATE STUDENTS					0	
5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0	
6. (0) OTHER					0	
TOTAL SALARIES AND WAGES (A + B)					0	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					0	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)					0	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEE	DING \$5	,000.)				
TOTAL EQUIPMENT					0	
E. TRAVEL 1. DOMESTIC (INCL. U.S. POSSESSIONS)					0	
2. FOREIGN					0	
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS \$						
2. TRAVEL 82,000						
3. SUBSISTENCE — 0						
4. OTHER						
TOTAL NUMBER OF PARTICIPANTS (0) TOTAL PA	RTICIPA	NT COST	S		84,000	
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES					0	
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION					0	
3. CONSULTANT SERVICES					0	
4. COMPUTER SERVICES					0	
5. SUBAWARDS					0	
6. OTHER					0	
TOTAL OTHER DIRECT COSTS					0	
H. TOTAL DIRECT COSTS (A THROUGH G)		84,000				
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)		04,000				
(Rate: , Base:)						
TOTAL INDIRECT COSTS (F&A)		0				
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)		84,000				
K. SMALL BUSINESS FEE						
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)					0 84,000	
M. COST SHARING PROPOSED LEVEL \$ 0 AGREED	E\/E E	DIEEEDE	NT ¢		04,000	
PI/PD NAME	LVEL IF	DIFFERE		ICE IIC	E ONLY	
	F	INIDIDI				CATION
William Dahl		INDIRI Date Checked		e Of Rate	E VERIFIC	Initials - ORG
ORG. REP. NAME* Wanda Lovan],	alo ondere	. Dai	o or male	J.1001	IIIIIIIII - ONG
Wallua Luvali						

SUMMARY Cumulative
PROPOSAL BUDGET FOR NSF USE ONLY

ORGANIZATION		PRO	PROPOSAL NO. DURATION (months)			
Botanical Society of America					Proposed	Granted
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR		A'	WARD N	Ο.		
William Dahl						
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associate	;	NSF Fund Person-mo	led nths	- Regi	unds lested By	Funds granted by NSF
(List each separately with title, A.7. show number in brackets)	CAL		SUMR	pro	oposer	(if different)
1.	0.0	0.00	0.00	<u> </u>		
2.						
3.						
4.						
5.		\perp				
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAG	,				0	
7. (0) TOTAL SENIOR PERSONNEL (1 - 6)	0.0	0.00	0.00		0	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (0) POST DOCTORAL SCHOLARS	0.0				0	
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.0	0.00	0.00	<u> </u>	0	
3. (0) GRADUATE STUDENTS					0	
4. (0) UNDERGRADUATE STUDENTS					0	
5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)					0	
6. (0) OTHER					0	
TOTAL SALARIES AND WAGES (A + B)					0	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					0	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)					0	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCE	EDING \$5	,000.)				
TOTAL EQUIPMENT					0	
E. TRAVEL 1. DOMESTIC (INCL. U.S. POSSESSIONS)					0	
2. FOREIGN					0	
				-		
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS \$ 92 000						
2. IRAVEL O						
3. SUBSISTENCE 2 000						
4. OTHER						
()	RTICIPA	NT COST	<u>s</u>		84,000	
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES					0	
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION					0	
3. CONSULTANT SERVICES					0	
4. COMPUTER SERVICES					0	
5. SUBAWARDS					0	
6. OTHER					0	
TOTAL OTHER DIRECT COSTS			0			
H. TOTAL DIRECT COSTS (A THROUGH G)			84,000			
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)		0				
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)		84,000				
K. SMALL BUSINESS FEE					0	
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)					84,000	
M. COST SHARING PROPOSED LEVEL \$ 0 AGREED	LEVEL IF	DIFFERE	NT \$			
PI/PD NAME	-		FOR N	NSF US	E ONLY	
William Dahl					E VERIFIC	
ORG. REP. NAME*	ľ	Date Checked	d Dat	e Of Rate	Sheet	Initials - ORG
Wanda Lovan						

Budget.

F. Participant Support Costs

1. Stipends \$0

2. Travel \$82,000

3. Subsistence \$0

4. Other \$2,000

Budget justification.

Foreign travel.

Our goal is to offer a total of ca. 21 graduate student and 20 postdoc awards. Estimated costs for travel, registration, and accommodations for the Congress are \$4400 for postdoc/junior faculty and \$4000 for students. We propose to offer awards of up to \$2000 each. Awards will come as reimbursement of expenses (to be handled by the BSA), in order to provide accountability. Documentation will be made available in the final report to the NSF in accordance with guidelines.

Administrative fee.

The BSA will be the institution submitting the proposal and administering the funds. There will be no indirect costs, but the BSA will need an administrative fee of \$2,000 to host the online application form and handle reimbursements.

NB: Societal funds of at least \$36,500 have already been committed and will be used to offer similar travel awards to junior faculty, up to three years after their first faculty appointment.

Current and Pending Support (See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigat	tor and other senior personnel	I. Failure to provide this information i	may delay consideration of this proposal.
Investigator: William Dahl	Other agencies (includir	ng NSF) to which this proposal h	as been/will be submitted.
Support: ☑ Current ☐ Pending Project/Proposal Title: None	□ Submission Pla	nned in Near Future	□*Transfer of Support
Source of Support: Total Award Amount: \$ 07 Location of Project: Person-Months Per Year Committed t	Total Award Perion	d Covered: 01/01/0	00 - 01/01/00 Sumr: 0.00
Support: □ Current □ Pending Project/Proposal Title:	□ Submission Pla	nned in Near Future	□*Transfer of Support
Location of Project:	Total Award Perior		0
Person-Months Per Year Committed t	to the Project. C	Cal: Acad:	Sumr:
Support: ☐ Current ☐ Pending Project/Proposal Title:	□ Submission Pla	nned in Near Future	□*Transfer of Support
Location of Project:	Total Award Perior		Summer
Person-Months Per Year Committed t	to the Project. C	Cal: Acad:	Sumr:
Support: ☐ Current ☐ Pending Project/Proposal Title:	□ Submission Pla	nned in Near Future	□*Transfer of Support
Source of Support: Total Award Amount: \$ 1 Location of Project:	Total Award Perio	d Covered:	
Person-Months Per Year Committed t	to the Project. C	Cal: Acad:	Sumr:
Support: ☐ Current ☐ Pending Project/Proposal Title:	□ Submission Pla	nned in Near Future	□*Transfer of Support
Source of Support: Total Award Amount: \$ 1 Location of Project:	Total Award Perio	d Covered:	
Person-Months Per Year Committed t	to the Project. C	Cal: Acad:	Summ:

FACILITIES, EQUIPMENT & OTHER RESOURCES

FACILITIES: Identify the facilities to be used at each performance site listed and, as appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Use "Other" to describe the facilities at any other performance sites listed and at sites for field studies. USE additional pages as necessary.

Laboratory:	
Clinical:	
Animal:	
Computer:	
Office:	The Botanical Society of America's business office has the staff and computer facilities to administer this grant and handle the applications and disbursement of funds.
Other:	
MAJOR EQUIPMENT: capabilities of each.	List the most important items available for this project and, as appropriate identifying the location and pertinent

OTHER RESOURCES: Provide any information describing the other resources available for the project. Identify support services such as consultant, secretarial, machine shop, and electronics shop, and the extent to which they will be available for the project. Include an explanation of any consortium/contractual arrangements with other organizations.

The Botanical Society of America's business office has the staff and computer facilities to administer this grant and handle the applications and disbursement of funds.

Abstracts for the meeting will be available on the IBC 2017 website.