American Society of Mammalogists

MICHAEL A. MARES, President
Sam Noble Oklahoma MNH
University of Oklahoma
2401 Chautauqua
Normon, OK 73072
(405) 325-9007 FAX: 325-27699
Email: mamares@ou.edu

EDWARD J. HESKE, President-Elect
Illinois Natural History Survey
U1816 South Oak Street
Champaign, IL 61820
(217) 244-2173 FAX: 333-4949
Email: eheske@uiuc.edu

EILEEN A. LACEY, Vice-President
Museum of Vertebrate Zoology
University of California
Berkeley, CA 94720-3140
(510) 642-3567 FAX: 643-8238
Email: ealacey@berkeley.edu

DEEANN M. REEDER, Recording Secretary
Department of Biology
Bucknell University
Lewisburg, PA 17837
(570) 577-1208 FAX: 577-3537
Email: dreeder@bucknell.edu

RONALD A. VAN DEN BUSSCHE, Secretary-Treasurer
Department of Zoology
430 Life Sciences West
Oklahoma State University
Stillwater, OK 74078
(405) 744-5663 FAX: 744-1797
Email: ron.van_den_bussche@okstate.edu

RONALD E. BARRY, Journal Editor
Bates College
Department of Biology
Lewiston, ME 04240
(207) 786-6109 FAX: 786-8334
Email: rbarry@bates.edu

March 15, 2012

Dr. John Wingfield
Assistant Director for Biological Sciences
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
jwingfie@nsf.gov

Dear Dr. Wingfield:

As President of the American Society of Mammalogists and former member and chair of the Biological Sciences Advisory Committee for NSF (BIO-AC), I am very concerned about a provision in the President's fiscal year (FY) 2013 budget request for NSF that will negatively impact the nation's collections of biological specimens now and in the future. The budget request proposes changing the Collections in Support of Biological Research (CSBR) program from an annual to a biennial competition, which means that the funding for this program would effectively be cut in half.

Collections of biological specimens are vital to the study of ecology, evolution, and conservation of the world's biota, both past and present. Descriptions of species new to science rely on such specimens. Natural history collections support studies of some of the most important problems of our time, including invasive species, emerging diseases, cascading extinction, and the effects of climate change. For example, The Museum of Vertebrate Zoology (MVZ) at the University of California, Berkeley, recently demonstrated the effect of climate change in the Sierra Nevada Mountains of central California. This essential study could not have been carried out without the collection of historical and contemporary specimens and associated data housed at, and cared for, by the MVZ. Various U.S. museums are the sources of accurate (and much needed) identifications of vertebrates that may be hosts to some of the world's most serious health risks, such as the Ebola virus, West Nile virus, Lyme disease, or bird flu. Collections of bird specimens were used to determine what forced Captain Sullenberger to put Flight 1549 into the Hudson River, and generated data to help prevent similar occurrences in the future. Collections are used thousands of times each day to strengthen research in a vast number of disciplines.

Natural History collections serve a basic educational function as well. Whether providing the data needed for a doctoral dissertation or instilling a sense of wonder in a high school intern, collections are the training ground for budding scientists. The biodiversity data generated by the study and curation of collections is increasingly being shared by various museums and is made available to scientists around the world. The global impact of these data cannot be understated. However, the specimens (the primary source of the information) must be maintained permanently for accurate verification and availability for testing future hypotheses. The range of uses of collections expands,

and their scientific value increases, with the passage of time. Collections are clearly the basic data of nature across time and space, an irreplaceable and irrefutable record of life present and past.

Vouchered specimens serve a basic tenet of the scientific method, allowing for repeatability of studies and providing the opportunity for future studies to verify results. Every single specimen is unique, offers matchless and exclusive data, and cannot be replaced. Many came from habitats that have been permanently altered. Given how important and irreplaceable these collections are, it is vital that adequate resources be made available to care for them so that they continue to be available to future generations. However, many such specimens are under severe threat because of poor housing conditions in some of the nation's older collections and museums, or because institutions lack the funding necessary for basic care and maintenance of the collection. Too often we are faced with administrative decisions that mandate that the collections be dispersed to other institutions, if not disposed of entirely, with the subsequent irreplaceable loss of the primary data of life. Unfortunately these trends are increasing. The cost of maintaining collections requires long-term commitment, which must include federal support. Many, if not most, of the collections were developed with federal support or to meet federal needs in specimen-based research. The CSBR program is the most important source of government funding to rescue, maintain, and enhance such vitally important resources. Reducing the program funding by half would be a tragic blow to our ability to deal with serious issues facing society and keep our finger on the pulse of the planet as reflected in the biological data of specimens across both space and time.

The American Society of Mammalogists—the oldest and largest organization of mammalian biologists in the world—has long supported the natural science collections of this nation, many of which resulted from research by mammalogists and their graduate and undergraduate students. Indeed, ASM members have served as directors of the US Biological Survey, the Smithsonian Natural History Museum, and many other museums and collection repositories in the United States. The contribution of biological specimens toward meeting numerous needs of the nation cannot be overstated. Today, as species decline in abundance and diversity across the globe, as introduced species continue to cost the United States as much money each year as the Iraq War, as threats of bioterrorism involving living organisms continue to be possible, and as ecosystem integrity is threatened by an increasing numbers broken links in food webs, the nation's biological collections continue to provide the bedrock of information required by scientific disciplines across a broad spectrum.

I urge you to reconsider the proposed cuts to the CSBR program.

Sincerely,

Michael A. Mares, Ph.D.
President, American Society of Mammalogists
(mamares@ou.edu)

cc. Dr. Subra Suresh, Director NSF (ssuresh@nsf.gov)
Dr. Joann Roskoski, Deputy Assistant Director, Biological Sciences (jroskosk@nsf.gov)
Dr. Daphne Fautin, Program Director, DBI Collections (dfautin@nsf.gov)
Dr. Anne Maglia, Program Director, DBI Collections (amaglia@nsf.gov)
Dr. Jose Nelson Onuchic, Chair, BIOAC (jonuchic@rice.edu)