Talking Points on Natural History Collections for the 2018 Biological Sciences Congressional District Visits

This information is provided for your reference and to help you craft a clear and well-informed message. You do not need to repeat these points verbatim; use those that are appropriate or comfortable for you and convey them in your own words.

• Scientific collections are critical elements of our national research enterprise.

- Scientific collections, whether held at museums, government managed labs or archives, university science departments, field stations or botanic gardens, contain data (for example, genetic, tissue, organism, and environmental) that are a unique and irreplaceable foundation from which scientists study and explain life and living systems.
- The institutions and professionals who care for scientific collections enable scientists to conduct biological, geological, anthropological, and environmental research, and to integrate research findings from across these diverse disciplines.

• Federal research programs are an important supporter of biological research and natural history collections.

- Federal funding from the National Science Foundation, as well as other federal research agencies, is vitally important to supporting the research and education conducted at natural history collections.
- NSF provides about two-thirds of federal support for fundamental biological and environmental research conducted at colleges, universities, and non-profit research centers across the nation.
- NSF funding supports the Advancing Digitization of Biodiversity Collections (ADBC) program that enables digitization of biological collections across the U.S., thereby increasing access to this digitized information to enable research and improve STEM education.
- The Collections in Support of Biological Research (CSBR) program, also funded by NSF, strives to secure existing collections, improve the accessibility of digitized specimen-related data, and develop better tools for collection curation and management.
- *Speak about the federal program that funds your museum/collections.*

• Sustained investments in scientific collections are in our national interest.

- Research specimens and the vast amounts of data and samples associated with them are used to solve current problems and are helping to predict threats to human health, methods for ensuring food security, and understand and mitigate the impacts of future environmental changes.

• Public investments in research yield positive returns.

- Since 1960, growth in U.S. employment in science and engineering has increased by an average rate of 3 percent per year, outpacing the 2 percent annual growth rate in total employment.
- 19.4 million U.S. jobs require science or engineering expertise at the bachelor's level.
- With few exceptions, workers in science and engineering occupations have for decades had lower unemployment than workers in other kinds of jobs.
- In FY 2017, an estimated 359,000 people (researchers, postdoctoral fellows, trainees, teachers and students) were supported directly by NSF. Nearly 56,000 graduate students have been supported by NSF Graduate Research Fellowships since 1952.
- Federal research funding has given rise to numerous successful companies, such as Genentech, Allylix, Chromatin, and Google – to name only a few. Federal investments have also created entire new fields, such as genomics and its applications in forensics, agriculture, and medicine.
- *Include an example from your state.*

• All scientific disciplines contribute to innovation and economic growth.

- Research is increasingly an interdisciplinary endeavor where tools from one field are borrowed by another field, and insights from one discipline help guide research in another (e.g. neuroscience, psychology, artificial intelligence and systems biology).
- To enhance our global competitiveness, we need a strong foundation of basic research across all scientific disciplines.

• Federal support for research has declined.

- Since 1976, federal investment in research and development (R&D) as a share of Gross Domestic Product has declined from 1.23 percent to 0.67 percent. Over the past decade, federal R&D as a share of the U.S. economy decreased by 32 percent.
- Meanwhile, other countries are increasing investments in science. China, India, and other countries in Asia are ramping up investments in R&D.

• Sustained investment in research is required if we are to solve our greatest problems.

- Fluctuations in funding result in a backlog of unfunded but highly competitive research. This demoralizes researchers and slows the pace of discovery. Predictable annual investments allow federal research managers, scientists, and industry executives to plan wisely in setting research priorities.

• Thank you for rejecting the President's proposed cuts to science and research.

- The President's FY 2019 budget request would cut many research programs by 20% or more and terminate IMLS. Such cuts are devastating and do permanent damage to U.S. science and innovation.
- We urge you to support additional federal investments in scientific research and infrastructure.

FY 2019 Budget Numbers Relative to FY 2018 level:

Agency/Program	President's Request	Senate Bill	House Bill
IMLS	-90%	+1%	0%
IMLS OMS	-100%	0%	0%
NSF Overall	-4%	+4%	+5%
NSF RRA (including BIO or CISE)	-3%	+4%	+5%
Smithsonian	-8%	0%	+1%
Smithsonian NMNH*	0%	0%	-
USGS	-25%	0%	+2%
USGS Ecosystems	-39%	0%	0%

*This reflects the Salaries and Expenses account. The President has requested $3.5 million in additional funds under the Facilities account for renovations at NMNH, which have been approved by the House and Senate so far.

FY 2019 Asks for Federal Agencies and Programs:

Agency/Office/Program	Our Ask	President's Request	Senate Bill	House Bill
NSF	$8.45 billion	$7.47 billion	$8.06 billion	$8.17 billion
USGS	$1.2 billion	$860 million	$1.15 billion	$1.17 billion
IMLS OMS	$38.6 million	$0	$34.7 million	$34.7 million

IMLS: Institute of Museum and Library Services
NSF: National Science Foundation
BIO: Biological Sciences Directorate
NMNH: National Museum of Natural History
OMS: Office of Museum Services
RRA: Research and Related Activities
CISE: Computer and Information Science Engineering
USGS: U.S. Geological Survey