Testimony in Support of FY 2023 Funding for the
Smithsonian Institution, United States Geological Survey,
United States Fish and Wildlife Service, and Environmental Protection Agency

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House Committee on Appropriations
Subcommittee on Interior, Environment and Related Agencies

The American Institute of Biological Sciences (AIBS) appreciates the opportunity to provide testimony in support of appropriations for the Smithsonian Institution, United States Geological Survey (USGS), United States Fish and Wildlife Service (USFWS), and Environmental Protection Agency (EPA) for fiscal year (FY) 2023. We encourage Congress to provide additional funding to the Smithsonian Institution in FY 2023, including at least $60 million to the National Museum of Natural History with new funding to support scientific and curatorial work. We urge Congress to provide the USGS with $1.85 billion in FY 2023, with at least $360 million for its Ecosystems Mission Area. We further request that Science Support within USFWS be provided at least $36 million in FY 2023. Lastly, we request that Congress provide EPA Science and Technology with at least $850 million in FY 2023.

The unprecedented loss of biological diversity and the associated negative impacts on human health and well-being are of significant concern. As human population grows and people increasingly come into contact with new environments and species migrating into new habitats, the risk of new diseases, such as zoonotic pandemics, is of growing concern. Biological diversity, however, offers a buffer against the spread of pathogens and contributes to environmental sustainability and increases our resilience to natural disasters. Robust federal investments in scientific research and monitoring that improves our understanding of biological diversity and ecosystem function must be a priority as we emerge from the COVID-19 pandemic. The agencies funded by this appropriations bill are centrally involved in conducting, supporting, and using this scientific research for public benefit.

AIBS is a scientific association dedicated to promoting the use of science to inform decision-making that advances the biological sciences for the benefit of science and society. AIBS works to ensure that the public, legislators, funders, and the community of biologists have access to information to guide informed decision-making.

Smithsonian Institution

Scientific collections and the professionals and scientists who collect, care for, and study these resources are a vital component of our nation's research infrastructure and bioeconomy. Collections are a critical resource for advancing the knowledge needed to address current global challenges such as climate change, biodiversity loss, and pandemics.

The Smithsonian Institution's National Museum of Natural History (NMNH) is a valuable federal partner in the curation of and research on scientific specimens. Scientists at the NMNH care for 146 million scientific specimens and ensure the strategic growth of this internationally recognized scientific research institution. To increase the availability of these scientific resources to researchers, educators, other federal agencies, and the public, NMNH is working on a multi-year effort to digitize its collections and make the data available online. That effort will substantially increase the use of these collections by researchers, educators and students, and policymakers. NMNH is also working to strengthen curatorial and research staffing and to backfill positions left open by retirements and budget constraints. The current staffing level is insufficient to provide optimal care for the collections. Future curatorial and collections management staffing levels may be further jeopardized given prior funding cuts at science agencies, such as the USGS that, until recently, supported staff positions at NMNH.

The budget for NMNH has not seen adequate increases in recent years. We urge Congress to provide NMNH with at least $60 million in FY 2023 to allow the museum to undertake critical collections care, make needed technology upgrades, and conduct cutting edge research.

U.S. Geological Survey

The USGS provides unbiased, independent research, data, and assessments that are needed by public and private sector decision-makers. Data generated by the USGS save taxpayers money by enabling more effective management of water and biological resources and providing essential geospatial information that is needed for commercial activity and natural resource management. The data collected by the USGS are simply not available from other sources.

The Ecosystems Mission Area is the biological research arm of USGS and is integral to the agency's other science mission areas. It provides the science needed to achieve sustainable management and conservation of natural resources and inform land and water stewardship. The USGS conducts research on and monitors fish, wildlife, and vegetation—data that informs management decisions by other Interior bureaus. Biological science programs collect and analyze long-term data not available from other agencies, universities, or the private sector. The knowledge generated by the USGS are used by federal and state natural resource managers to maintain healthy and diverse ecosystems while balancing the needs of public use.

Examples of successful USGS Ecosystem initiatives include:
- Development of comprehensive geospatial data products that characterize the risk of wildfires on all lands in the United States. These products are used to allocate firefighting resources and to plan wildfire fuel reduction projects.
- Development and evaluation of control measures and other management interventions for

invasive species, such as Asian carp and sea lamprey, that cause billions of dollars in economic losses to fisheries, hydropower, recreation, and many other industries.

- Development of the scientific understanding needed to combat the spread of avian flu, white-nose syndrome, and other diseases spread by wildlife in North America, including diseases that can jump from wild populations to livestock, agricultural systems, and humans.

The USGS also supports critical science needed to respond to a number of national and global challenges. Examples of the important work conducted by the USGS include:

- *The National and Regional Climate Adaptation Science Centers.* This program is responsible for developing the science and tools to address the effects of climate change on land, water, wildlife, fish, ecosystems, and communities. These centers play a vital role in addressing the impacts of unique weather patterns on ecosystem health across the country.
- *The National Wildlife Health Center.* This USGS-wide program investigates national and international wildlife health issues, including the spread of zoonotic pathogens, such as the virus that causes COVID-19. Zoonoses—diseases that spread from wildlife to humans—can pose serious threats to human health and cause significant disruptions to the economy.
- *Cooperative Research Units (CRUs).* CRUs are located on 40 university campuses in 38 states. These research centers are a cost-effective way for USGS to leverage research and technical expertise affiliated with these universities to conduct actionable research, provide technical assistance, and develop scientific workforces through graduate education and mentoring programs.
- *Environmental Health Research.* The Toxic Substances Hydrology and Contaminant Biology programs work collaboratively with other USGS Mission Areas, and with many external collaborators to study environmental contaminants and pathogens in the environment and provide the critical science needed to help Federal, State, and local government agencies, the private sector, non-governmental organizations, and other stakeholder groups protect fish and wildlife health.
- *Research on ecosystems of concern.* This research is a critical component of efforts to restore and manage important national resources, such as the Everglades and the Chesapeake Bay. The Changing Arctic Ecosystems initiative conducts research on wildlife and habitat responses to ecosystem change in the Arctic to inform land and species management decisions and address the needs of Arctic residents, including Native communities.

In summary, the USGS is uniquely positioned to provide a scientific context for many of the nation's biological and environmental challenges, including pandemics, water quality and use, energy independence, and conservation of biodiversity. This array of research expertise not only serves the core missions of the Department of the Interior, but also contributes to management decisions made by other agencies and private sector organizations. USGS science also enables cost-effective decisions, as the agency's activities help to identify the most efficient management actions. Increased investments in these important research activities will yield dividends.

We urge Congress to provide significant funding increases to the Ecosystems Mission Area. In recent years, the budget for USGS has stagnated. Failure to make critical investments in the research conducted by the agency will hamper long-term data collection initiatives, lead to critical data loss, and undermine the nation's ability to address national challenges.

We request that Congress fund USGS at $1.85 billion in FY 2023, with at least $360 million for the Ecosystems mission area.

U.S. Fish and Wildlife Service

Funding for the Science Support program within USFWS has remained essentially flat at $17.3 million since FY 2018. The program is slated to receive $23 million in FY 2022, $13 million below the level requested by President Biden. The Science Support program provides scientific information needed by USFWS, such as research on conservation of priority species prior to Endangered Species Act listing, the impacts of energy production on wildlife, and best management practices for combating invasive species, and needs to be robustly funded.

We request that Science Support be provided at least $36 million in FY 2023.

Environmental Protection Agency

Funding for EPA Science and Technology supports valuable research that identifies and mitigates environmental problems. EPA research informs decisions made by public health and safety managers, natural resource managers, businesses, and other stakeholders concerned about air and water pollution, human health, and land management and restoration. This program provides the scientific basis upon which EPA monitoring and enforcement programs are built.

Despite the important role of EPA Science and Technology in the federal government's ability to ensure that people have clean air and water, funding for its programs in recent years has remained significantly lower than the level enacted in FY 2010. Although President Biden proposed to increase EPA's overall budget by 21 percent in FY 2022, Congress is slated to provide only a 3 percent increase to the agency. Strong increases in funding are needed for programs such as the Science to Achieve Results (STAR) Research Grants Program, which supports extramural research that advances EPA's mission to protect human health and the environment, and the Global Change Research program, which develops scientific information that allows policy makers, stakeholders, and society to respond to climate change.

Please provide at least $850 million in FY 2023 to support scientific research at the EPA. This much needed increase will allow the agency to provide resources for efforts to protect and restore our nation's natural resources.

Conclusion

We urge Congress to sustain its bipartisan support for science by investing in our nation's scientific capacity. Thank you for your thoughtful consideration of this request.