



STRATEGIC PLAN  
2016–2020

# Natural History in the Age of Humans

*A Plan for the National Museum*



Smithsonian  
*National Museum of Natural History*



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# Opening Letter

As a paleontologist I have always been fascinated with the fossil record—but more and more, I am focused on the future.

One hundred years from now, what will the natural and cultural worlds look like? Will they still be documented, studied, and explained by natural history museums? Will natural history museums have played an important role in helping humanity address the global challenges of the 21st century? The answers to these questions will depend upon the choices we make today.

As staff and volunteers of the world's largest natural history museum, we have an opportunity and an obligation to make a meaningful impact over the next century. This strategic plan charts our immediate path forward.

**Over the next five years, we will make progress on two critical fronts:**

- Increasing the Museum's impact by strengthening science, collections, and education, and through service to a global network of natural history museums.
- Inspiring our stakeholders to better understand the science of our rapidly changing planet and their connection to it.

The challenges before us are daunting, but our role is clear. Future generations will rely upon our specimens, artifacts, science, educational programs, and exhibitions to understand their world. The changes we will adopt over the next five years will make the Museum more deliberate and nimble, setting it on a course toward long-term sustainability.

I believe we achieve our full potential when our collections, research, and public engagement programs work in concert. Together we can explore bigger questions, reach diverse audiences more deeply, and transform both science and minds. Whatever your role in the Museum is, you are critical to the success of this plan. We developed it with your input, and we now ask you to help realize it.



**Kirk Johnson**  
SANT DIRECTOR

# Who We Are

“an establishment for the increase and diffusion of knowledge...”

JAMES SMITHSON, 1826

## Our Mission

Understanding the natural world and our place in it.

## Our Values

**EXCELLENCE.** We strive to deliver the highest quality in everything we do.

**INTEGRITY.** We achieve our goals with responsibility and accountability.

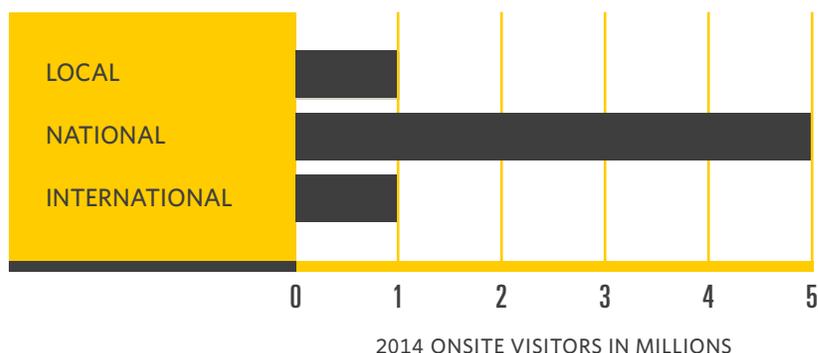
**RESPECT.** We believe that every member of the Museum community has an equally important role, and that the natural world is intrinsically valuable.

**DIVERSITY.** We capitalize on the richness inherent in differences.

**INTELLECTUAL FREEDOM.** We recruit and train the best scientists and give them the independence to pursue ambitious questions.

**COLLABORATION.** We create and maintain mutually beneficial partnerships to increase the reach and impact of our work.

## AUDIENCE





# Our Enduring Impact

The National Museum of Natural History has a critical role to play in the 21st century.

We preserve and share the scientific specimens and artifacts that tell Earth's 4.6-billion-year story. We conduct basic research and inspire curiosity about the planet, the species that inhabit it, the cultures that depend upon it, and the forces that now alter it. And we collaborate with scores of partners—within the Smithsonian Institution, in federal agencies and academia, and beyond—to serve our diverse and growing audiences.

## **An Irreplaceable Global Archive**

We preserve more than 128 million specimens and artifacts, the largest collection of its kind. These collections provide researchers and communities around the globe with an unparalleled record of our changing world and its physical, biological, and cultural diversity. They represent our species' effort to understand our planet. As the tools and techniques to study these objects advance, so does our capacity for understanding Earth's mysteries through our collections.

## **An Engine of New Knowledge**

On any given day, more than 400 scientists work in our facilities in Washington, D.C., Maryland, Alaska, Florida, and Belize, and at field sites around the world. These researchers continually extend the boundaries of knowledge. They have transformed how we understand Earth's history, evolution, biodiversity, volcanoes,

the ocean, the origins of language and agriculture, and a host of other fundamental subjects. Their discoveries precede, underlie, and accelerate applied research in topics ranging from conservation and climate change, to public health and food security.

## **A Curiosity Factory**

Our visitors enliven the Museum with their questions, ideas, and curiosity. In the next decade, we will welcome 60 million people through our doors, and millions more will engage with us digitally. Our exhibitions, The Coralyn W. Whitney Science Education Center (also known as Q?rius), and our staff and volunteers deepen people's interest in science, the natural and cultural world, and the challenges of our time. Behind the gallery walls, the Museum is building a Staircase of Academic Opportunity to inspire and diversify the next generation of scientists and museum professionals.



# Our Two Major Challenges

## 1 A Rapidly Changing Planet

The Museum's researchers have documented unsettling changes in recent decades. Healthy habitats, damaged. Abundant species, endangered. Cultural traditions, disrupted.

By 2050, the global population is projected to swell from the current 7.2 billion to nearly 10 billion people, and our footprint on the environment will continue to expand. The next few decades will be some of the most dynamic and challenging times in human history.

We are consuming Earth's resources on an unprecedented scale. In the process we are losing critical habitats, polluting our air and waterways, causing species to become extinct, and losing our direct connection to nature.

Through our greenhouse gas emissions, we are heating the planet and altering the chemistry of the ocean and atmosphere. Our actions are expected to cause a cascade of consequences: warming temperatures, rising sea levels, ocean acidification, drought, and extreme weather events.

These environmental transformations and their cultural implications are deep in the domain of natural history museums.

## 2 The State of Natural History Museums

With a triple mission of collections, research, and outreach, natural history museums enable us to grasp the significance of our planet's present condition by offering a deep record of its past.

Expanding our knowledge of Earth's systems, life, and cultures is more critical than ever. Yet, the world community of natural history museums faces an uncertain future.

Over the past several decades, funding for basic research has declined. Many natural history museums have seen expenses outpace resources, resulting in a dramatic reduction in the number of curators and collection professionals. When staffing drops below threshold levels, collections go dormant and become inaccessible to science and society.

Cultural and demographic shifts present both challenges and opportunities. The digital revolution has transformed the media landscape, opening up new channels of communication. Museums can now reach beyond traditional visitors and form an ongoing connection with diverse audiences.

The world's major natural history museums arose in the 19th century, and we must evolve in order to maintain and increase our relevance in the 21st century.



# The Way Forward

## PRIORITIES & GOALS

We find ourselves in an extraordinary position at a critical moment in history. The fate of the natural world hangs in the balance, and humanity is counting on science and technology to discover solutions to the challenges of the 21st century.

It is time to increase and share our understanding of the natural world and our place in it. As the national museum of the United States, we are poised to be a leader in this effort by optimizing the use of our collections; strengthening and focusing our science; engaging and serving a more diverse audience; training and diversifying tomorrow's museum professionals; fostering a culture of collaboration within and outside our Museum; and catalyzing a cooperative network of the world's premier natural history museums.

Fundamentally, this plan is about strengthening the Museum to ensure that we remain a "forever place." It focuses on three priorities. The first builds on the strength of our collections and research; the second focuses on supporting and energizing our audience; and the third tackles operational excellence, efficiency, and targeted partnerships.

## **Priority 1** Accelerate discoveries about our evolving planet through fieldwork, collections-based research, and cutting-edge science.

Our researchers and museum professionals carry forward a rich legacy of scientific discovery. Since the Smithsonian Institution was established in 1846, they have expanded the foundation of knowledge by assembling, studying, preserving, and sharing the national research collection. Collectively they have published more than 41,000 studies, which have shaped our understanding of the natural world and humanity's place in it. Presently organized into eight groups—anthropology, botany, entomology, invertebrate zoology, mineral sciences, paleobiology, vertebrate zoology, and the Smithsonian Marine Station—our researchers are trusted voices of authority on the science of our ever-changing world.

Over the next five years, we will energize a new wave of investigations, attract the top minds in science, strengthen collaborations with our partners, and demonstrate the power of collections-based research to uncover new insights into the evolution and diversity of life, human cultures, and the geologic systems that shape our planet.

### **GOAL 1**

#### **Incentivize innovative research and support a vibrant and collaborative museum science culture.**

- Expand the boundaries of knowledge through basic research, our programs and partnerships, and emerging opportunities that address major challenges of the 21st century.
- Attract and retain science leaders and advance basic research by establishing and growing dedicated endowment funds.
- Assess and optimize the Museum's scientific organizational structure in order to enhance research productivity and support museum-based science careers.
- Use the Smithsonian's convening power and scholarly reach to advance conversations and collaborations in areas where the Museum can take a leadership role.
- Continue to develop and support existing priority interdisciplinary initiatives, including Deep Time, Global Genome, Recovering Voices, Human Origins, the Ocean Initiative, and the Encyclopedia of Life.
- Coordinate and integrate existing marine and terrestrial biodiversity-related programs and partners to enhance our role as a national center for biodiversity.

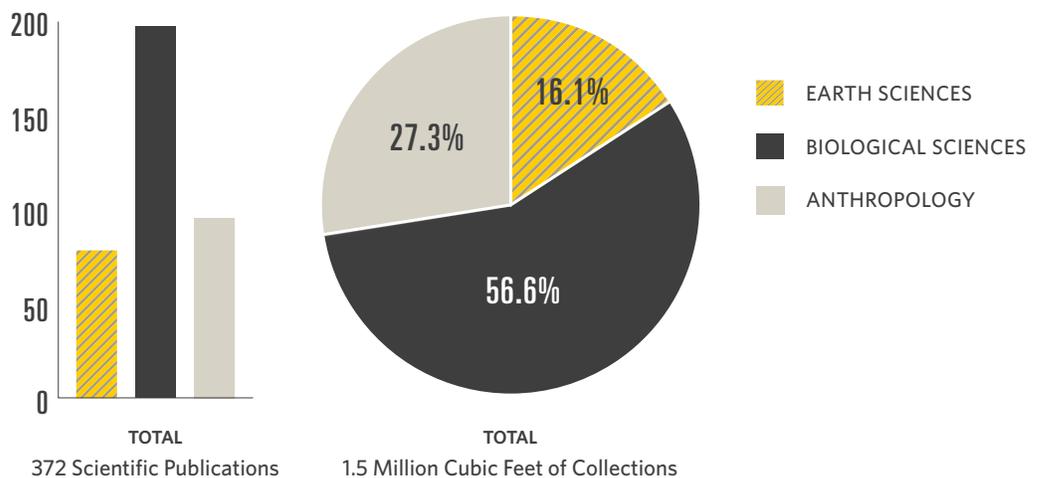
## Priority 1 CONTINUED

### GOAL 2

**Strengthen collections by focused planning, acquisition, enhanced care and preservation, and increased accessibility and use.**

- Build a comprehensive intellectual framework to guide the growth and improvement of the national collection.
- Advance and prioritize digitization and informatics that enrich the use and application of collections data.
- Work with a global network of peer institutions to define and illuminate the world's natural history collection.
- Promote biodiversity genomics by assembling a research collection of genome-grade samples in the Biorepository and the Global Genome Biorepository Network.
- Advance our understanding of culture, language, and the environment by increasing engagement with indigenous communities in the study of objects, specimens, and documents related to their heritage.

## SNAPSHOT OF PUBLICATIONS AND COLLECTIONS



2014 Data. Earth Sciences includes Mineral Sciences and Paleobiology.

## Priority 2 Inspire and motivate planet-savvy citizens.

Every day the Museum awakens thousands of visitors to the wonders of the natural and cultural world. We will continue to build an active learning environment for local residents and out-of-town visitors that inspires them to explore science and grapple with the global challenges of our time. Through Q?rius, exhibitions, volunteer and learning programs, and digital and social media platforms we will deepen engagement with visitors and populations who are underrepresented in science. Behind the scenes, we will expand our capacity to mentor and train the next generation of museum scientists and professionals.

### GOAL 1

#### **Demystify science and inspire visitors to see themselves as problem solvers and planet-savvy citizens.**

- Understand our audiences by implementing a clear research strategy that identifies unmet needs, strengthens engagement, measures our long-term impact, and guides our decision-making.
- Expand messaging, experiences, and educational offerings that help audiences comprehend and discuss the science and stories of global change and become responsible stewards of the planet.
- Implement a public communications strategy—including science communication training and expanded media efforts—that multiplies our reach, ensuring that our science is shared in a way that is exciting, accessible, and timely.
- Ensure the innovative and effective use of digital communications tools by assessing, prioritizing, and modernizing the Museum’s digital properties, unifying them under a common user experience strategy.

### GOAL 2

#### **Deliver a high-quality visitor experience that attends to the needs, comfort, and safety of our diverse visitors.**

- Connect audiences with the story of life—its origins, evolution, and future—by opening *The David H. Koch Hall of Fossils-Deep Time* exhibition and learning experience.
- Prioritize future renovations of permanent exhibitions and public spaces by completing an audience-focused, public experience master plan.
- Dramatically improve services and amenities for visitors by reconfiguring the West Court and IMAX complex, and increasing staff presence and accessibility offerings.
- Maintain and upgrade our long-term exhibitions and address 21st-century issues through relevant special exhibits and Q?rius-style programming.

## Priority 2 CONTINUED

### GOAL 3

**Welcome new audiences and build future stakeholders by deepening our engagement with local communities.**

- Engage local adults and families with timely, thought-provoking, and entertaining programming.
- Deepen partnerships with local schools to better meet their needs.
- Increase commitment to support local, diverse teens through a continuum of programs that builds a community of young science ambassadors.
- Recognize, encourage, and expand our volunteers' invaluable contributions to science and the visitor experience.

### GOAL 4

**Train the next generation of museum scientists and professionals.**

- Create a Staircase of Academic Opportunity that prepares and diversifies tomorrow's natural history researchers, museum professionals, and problem solvers through mentorship.
- Increase interactions between Museum educators and scientists to develop authentic research-based outreach experiences, particularly for students in middle and high school.
- Assess and enhance training efforts for museum professionals.
- Increase capacity to support graduate research assistants and postdoctoral fellows linked to the Museum's priorities.

## STAIRCASE OF ACADEMIC OPPORTUNITY

The Museum's commitment to mentoring the next generation of diverse scientists extends across academic levels, but participants in our programs can enter at any step.



### POSTGRADUATE

Helping establish an independent research vision



### GRADUATE

Fostering expertise



### COLLEGE

Deepening interests and offering research experiences



### HIGH SCHOOL

Opening minds to science careers

## **Priority 3** Improve operations and partnerships in support of our mission.

Our Museum has been in the making for more than a century. This rich history has produced a committed, knowledgeable, and seasoned workforce; an array of partners within the Smithsonian and beyond; and a proven track record that enables us to garner resources to advance our mission. We will build upon this legacy by diversifying our staff; improving transparency and efficiency; growing income streams; optimizing partnerships; and creating more sustainable and accessible facilities.

### **GOAL 1**

#### **Recruit, train, and retain a diverse and talented staff to accomplish our mission.**

- Strengthen the hiring process and grow the diversity of the staff and volunteers through targeted recruiting.
- Retain and grow leadership within the Museum through performance planning, training, meaningful recognition, and career advancement opportunities.
- Celebrate and preserve the legacy of long-time staff while preparing for the future through phased retirement planning and transparent succession planning.

### **GOAL 2**

#### **Manage resources efficiently, transparently, and strategically.**

- Strengthen planning, budgeting, and funds management, across all levels of the organization.
- Track our progress by creating consistent annual reporting processes.
- Share our successes, learn from our mistakes, and strengthen mission alignment through the annual review of departments, programs, and endowments.

### **GOAL 3**

#### **Increase financial stability by growing private funding streams.**

- Develop and implement a customized fundraising strategy that yields \$20 million annually through philanthropy.
- Reduce or eliminate the existing debt serviced by business activities.
- Enhance retail, food, and beverage facilities in collaboration with Smithsonian Enterprises to improve the visitor experience, model sustainability, and grow revenue.
- Grow the pipeline of sponsored grants and develop new revenue sources.

## Priority 3 CONTINUED

### GOAL 4

#### **Optimize collaborations with our community of partners.**

- Strengthen relationships across the Smithsonian Institution to support the increase and diffusion of knowledge.
- Establish clear objectives and mutual expectations with partners who have staff, collections, or programs located within our facilities by formally articulating and updating operating agreements.
- Manage and cultivate external partners that advance our research, collections, and outreach efforts.

### GOAL 5

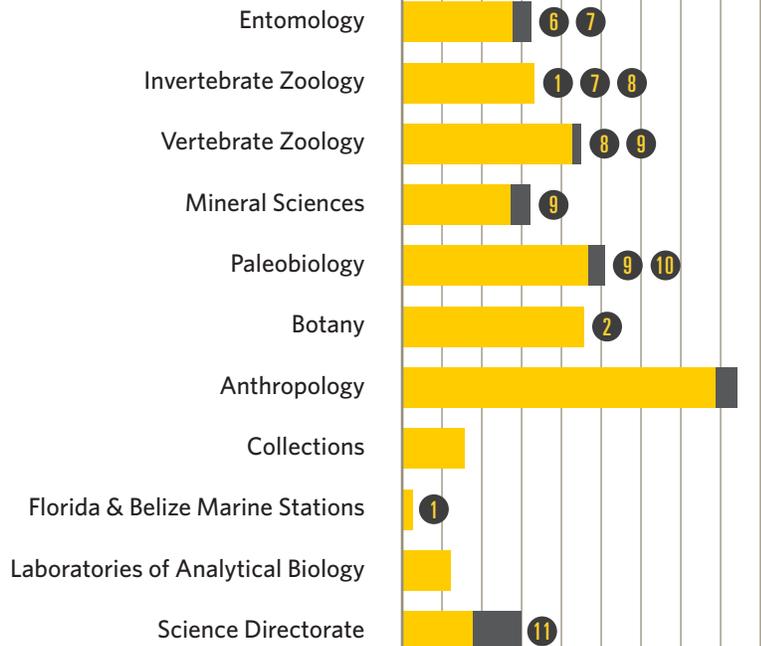
#### **Enhance the Museum and the Museum Support Center through infrastructure projects that support the mission and lead by example in sustainability and accessibility.**

- Develop a master facilities plan that identifies the next major projects by looking holistically at the visitor experience, the needs of researchers and collections, and the most efficient construction sequencing.
- Make the Museum more welcoming to visitors and staff with special needs, including physical access, processes, and information systems.
- Reduce our environmental footprint by adopting sustainable strategies and practices.

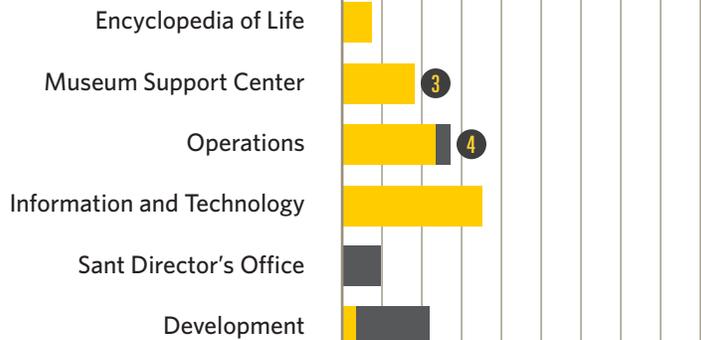
# SNAPSHOT OF THE MUSEUM'S ECOSYSTEM

NATIONAL MUSEUM OF NATURAL HISTORY (454 STAFF)

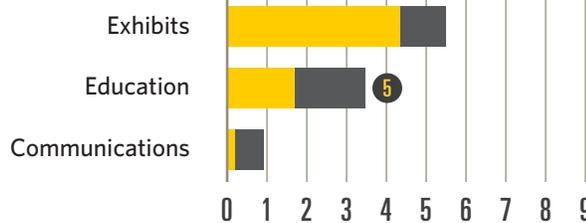
## SCIENCE & COLLECTIONS \$38.3M



## OPERATIONS \$11.9M



## AUDIENCE \$9.7M



FEDERAL FUNDS TRUST FUNDS FY15 FUNDING IN MILLIONS (\$)\*

### EMBEDDED SMITHSONIAN PARTNERS (468 STAFF)

- 1 Tennenbaum Marine Observatories Network
- 2 Forest Global Earth Observatory
- 3 Museum Conservation Institute
- 4 Collections housed for 10 Smithsonian Units, NSF, and NASA
- 5 Protection Services
- 6 Smithsonian Enterprises
- 7 Facilities Management and Reliability
- 8 Restaurant Associates
- 9 Smithsonian Libraries
- 10 Smithsonian Early Enrichment Center
- 11 Facilities Engineering and Operations
- 12 Smithsonian Gardens

### EMBEDDED EXTERNAL PARTNERS (57 STAFF)

- 6 Department of Defense
- 7 US Department of Agriculture
- 8 National Oceanic and Atmospheric Administration
- 9 US Geological Survey
- 10 Cushman Foundation
- 11 Integrated Taxonomic Information System
- 12 Council of American Overseas Research Centers
- 13 Consortium for the Barcode of Life

\* **Includes:** Federal salaries, benefits, and expenses; endowment revenues; and earned income. **Does not include:** Gifts, grants, or central SI support. Embedded partners are those with collections, staff, or programs housed in NMNH facilities.



# 2020 Milestones

## Science & Collections

- Publish 2,000 scientific papers, with a growing representation in high-impact journals.
- Strengthen the organizational structure of science and clarify the role of the 21st century curator.
- Secure \$30 million in endowments to fund basic research and science leaders.
- Describe and name 2,000 new species and add genome-grade samples of 100,000 species—representing half of the world’s known genera—to the Biorepository and the associated Global Genome Biorepository Network.
- Create the Museum’s first comprehensive intellectual argument for the growth and use of the national collection and articulate it with existing collection care and digitization plans.
- Increase the volume of collections stored in state-of-the art conditions by 25 percent and deploy informatics, digitization, genomics, and other emerging technologies to increase the research potential of collections.

## Audience

- Host and inspire more than 30 million visitors by staging 12 special exhibitions, some accompanied by Quirius-style active-learning programming, and measurably improve the quality of the visitor experience.
- Inspire visitors and a broader national audience to see how increasing their understanding of Earth’s past will help them shape its future by opening *The David H. Koch Hall of Fossils-Deep Time* and associated programming in 2019.
- Launch an effective communications program that showcases Museum research and collections, leverages media partnerships, and begins to build a diverse community of planet-savvy citizens.
- Implement an audience-driven digital strategy to maximize the efficiency of the Museum’s online and mobile efforts in the realms of collections, research, education, and communications.
- Build a Staircase of Academic Opportunity that mentors and trains the next generation of natural history scientists and museum professionals, from high school students through postdoctoral fellows.

## 2020 Milestones CONTINUED

### Operations

- Raise \$100 million and build an ongoing capacity to generate \$20 million annually through fundraising and private grants.
- Invest in resources to measurably increase operational efficiency, grow staff management skills, increase staff diversity, and improve job satisfaction as measured by the annual staff survey.
- Assess and optimize the Museum's embedded and external partnerships.
- Develop and begin to implement a master facilities plan by 2018 that identifies the next major projects for the Museum's public, work, research, and collections spaces.
- Improve the visitor experience and grow revenue to support Museum programming by renovating the National Mall entrance and reconfiguring the West Court and IMAX complex by 2019.

## Beyond 2020

In five years we will have made thousands of new discoveries; inspired millions of people; mentored tomorrow's scientists and museum professionals; and shared our research collection with investigators worldwide. In doing so we hope to support the enlightened cooperation of citizens, governments, agencies, schools, and other institutions.

Natural history museums are forever places. For the last two centuries, we have investigated, preserved, and communicated what we have learned about humanity and the natural world. In an era of ephemeral media, we think in centuries and millennia, catalyzing curiosity and inspiring life-long learning. As dedicated public servants, we will strive to ensure that the Museum is poised to serve society far into the future. This is our legacy and our promise.