

# 2018-20 Strategic Plan

## Virginia Museum of Natural History [942]

### Mission

The mission of the Virginia Museum of Natural History is to interpret Virginia's natural heritage within a global context in ways that are relevant to all citizens of the Commonwealth.

### Vision

The vision of the Virginia Museum of Natural History's Scientific Research and Collections division is to ensure that the collections held in trust for the Commonwealth of Virginia are handled in a professional manner, are preserved for future research, are provided state-of-the-art care and management, and are accessible in appropriate ways to a variety of constituents. This division also ensures that scientific expertise guides appropriate development of the collections, uses those collections to investigate the natural history of Virginia in a global context, and communicates the findings of those investigations to popular and technical audiences via publications, programs, exhibits, and the VMNH website. Collections care involves developing and implementing policies and procedures to protect the long-term integrity of specimens and artifacts as well as their associated data and documentation. The Museum is committed to providing a professional research and collections staff trained in the method and theory of preparing specimens, managing collections and their data, and conducting and reporting specimen-based research to ensure that this vision is met.

The vision for the Administration and Services Division is to ensure excellence in financial services, procurement, payroll and human resource services, and operations of the facility. The division endeavors to keep abreast of and adhere to all state rules and regulations. With a well-trained staff and effective communication, the division delivers the highest quality services to the Museum staff. The agency's vision for technology is to ensure that the overall quality of service provided to the community is not compromised because of inadequate technology. The Museum's charter mandate will be supported by up-to-date infrastructures and staff who are well-trained in technology and information systems. The agency pursues, where appropriate and sustainable, technology tools that increase its capacity to educate the public, get vital information to those who need it most, measure and evaluate its work, enable staff to do their work efficiently, and effectively communicate with the Commonwealth.

The vision of the agency's division of Education and Public Programs is to further the interpretation of Virginia's natural heritage in ways that are relevant to all citizens of the Commonwealth. To achieve this vision, the division will ensure an inclusive educational program for all people in a welcoming, supportive, and visitor-oriented environment; will collaborate with and lend departmental expertise to other functional areas of the Museum, community organizations, and other state agencies; will serve as a professional center for life-long learning programs; and will pursue the appropriate use of technology to expand interactive learning opportunities for the citizens of Virginia and beyond.

The vision of the agency's Advancement division is to have a broad and deepening awareness of all of the Museum's programs and services and how to increase awareness of these offerings to the Museum's constituencies. Increased awareness will result in increased Museum attendance, participation in special events and programs, increased membership and increased financial support to leverage State funds.

### Values

**Professionalism-** The Museum staff will conduct themselves in a professional manner and apply their knowledge, skills, and abilities to offer services, exhibits, research, and programs of the highest quality.

**Responsiveness-** The Museum staff will respond to customer needs quickly, thoroughly, and courteously while always seeking to improve service.

**Performance-** The Museum will strive to improve performance in achieving our mission.

**A MUSEUM WITHOUT WALLS-** The museum works to engage all citizens of the Commonwealth through science and science literacy programs in all geographic areas.

### Finance

#### Financial Overview

The Museum's budget is comprised of general fund (87%) and nongeneral fund (special funds and federal funds) appropriation (13%). Special funds are generated from miscellaneous sources such as admissions to the Museum, festivals and events, field trips, sale of Museum publications, memberships, education programs, gift shop sales, and grants from private foundations. The Museum also receives funds from the city and county and the Museum's Foundation. Federal funds are received from National Science Foundation (NSF) grants, and pass-through grants from other state agencies.

## Biennial Budget

	2019 General Fund	2019 Nongeneral Fund	2020 General Fund	2020 Nongeneral Fund
Initial Appropriation for the Biennium	3,083,105	439,006	2,833,105	439,006
Changes to Initial Appropriation	0	0	0	0

*(Changes to Initial Appropriation will be 0 when the plan is created. They will change when the plan is updated mid-biennium.)*

## Customers

### Anticipated Changes to Customer Base

In reference to 14508 (Scientific Research), this customer base is currently being served by a reduced collections and curatorial staff. Additional staff would allow us to reach more groups of customers. Some programs are on-going and some programs are opportunistic.

### Current Customer List

Predefined Group	User Defined Group	Number Served Annually	Potential Number of Annual Customers	Projected Customer Trend
Adult	American Society of Mammalogists	300	300	Stable
Adult	Archaeological Society of Virginia	500	500	Stable
Adult	Council of Virginia Archaeologists	200	200	Stable
Adult	Department of Conservation and Recreation, Division of Natural Heritage	6	6	Stable
Adult	Geological Society of America	1,300	1,300	Stable
Adult	Mineralogical Society of America	40	40	Stable
Adult	Nature enthusiasts who go on special tours of the collections	90	75	Stable
Adult	Scientists and researchers from various universities, agencies, and organizations worldwide	90	100	Increase
Adult	Southeast Association of Vertebrate Paleontology	50	50	Stable
Adult	Virginia Academy of Sciences	60	60	Stable
Adult	Virginia Polytechnic Institute and State University	10	20	Increase
Adult	Visitors to website accessing an online collections database	660	1,600	Increase
Communication	Website visitors	225,378	500,000	Increase
Adult	Virginia Master Naturalists	73	55	Stable
Adult	K-12+ Teachers	543	800	Stable
Student	Youth volunteers and summer interns.	20	30	Stable
Student	K-12 students participating in in-house and outreach educational programs.	30,000	35,000	Increase
Families	Children over 18	8,709	25,000	Increase
Families	Museum Visitors	32,269	100,000	Increase
Higher Education Students	Interns and volunteers at a college or graduate school level	15	6	Stable
Natural Resources and Earth Science	Natural history enthusiasts including tourists and eco-tourists	40	50	Increase
Natural Resources and Earth Science	Scientists and researchers	90	60	Increase
Aged	Senior citizens 60 and over	1,399	5,000	Increase
Student	K-12 school groups who go on special tours of the collections	7	15	Stable
Higher Education Students	Hollins University	0	30	Stable

Student	Piedmont Regional Governor's School for Math, Science & Technology	2	5	Stable
Higher Education Students	Roanoke College	5	5	Stable
Student	Lynchburg College Residential Governor's School	160	160	Stable
Consumer	Visitors to Website (Research Blogs)	18,340	3,000	Stable
Adult	Middle Atlantic Archaeology Conference	300	300	Stable
Higher Education Students	Virginia Commonwealth University	30	30	Stable
Adult	Ohio Biological Survey	250	250	Stable
Adult	Entomological Society of America	800	2,000	Stable

## Partners

Name	Description
Martinsville-Henry County Historical Society	The Museum is currently partnering with Piedmont Arts Association (PAA) on a joint marketing grant to promote area museums.
Martinsville-Henry County (MHC) After 3	The MHC After 3 program is a local, community cooperative youth development program administered by Patrick Henry Community College between after school service providers and local education and civic organizations. The program provides out-of-school programming for middle and high school students.
Martinsville-Henry County Office of Tourism	The Museum's Division of Marketing and External Affairs staff work closely with staff of the Martinsville-Henry County Office of Tourism to maximize marketing efforts for both the Museum and the entire region. A strong working relationship ensures that marketing resources are used to their fullest potential. Specially, the Museum recently partnered with the tourism office on a joint marketing grant.
National Museum of Scotland	Collaborative research
Maryland Historical Trust	Collaborative research
New York College of Osteopathic Medicine	Collaborative research
North Carolina Museum of Natural Science	Collaborative research
Patrick Henry Community College (PHCC)	As an underwriter of educational programs, like the Jefferson Awards and scientific symposium, PHCC is able to strengthen its regional identity among the scientific community and students desiring a career in the sciences. In reference to 14508 (Scientific Research), the focus will be on collaborative research and program development. Museum staff collaborates with PHCC on STEM educational programming.
Piedmont Arts Association (PAA)	The Museum is currently partnering with PAA on a joint marketing grant to promote area museums.
Piedmont Regional Governor's School for Math, Science & Technology	Students are receiving valuable experience in the sciences by year-long placement in labs and other areas of the Museum.
James Madison University	Collaborative research
Girls RISE Net	Girls RISEnet is strengthening the professional capacity of informal science educators to engage and motivate minority girls in grades 6-12 to explore and pursue science and engineering careers.
Global Learning and Observation to Benefit the Environment (GLOBE)	The Museum serves as a state Global Learning and Observation to Benefit the Environment (GLOBE) partner, providing training and support for teachers participating in the GLOBE program.
Hollins University	Since its inception, the education and public program director has been involved in planning and content delivery of the Hollins Elementary Science Institute for Teachers, a professional development opportunity, summer institute with academic year seminars for elementary teachers in Southwestern Virginia addressing content in life, physical, and earth-space science specified in the Virginia Standards of Learning (SOL).
Radford University	Exhibit loans to Geology Museum.
Residential Governor's School Program in Mathematics, Science, and Technology	The Residential Governor's School Program in Mathematics, Science, and Technology based at Lynchburg College partners with the Museum each year to provide a museum visit and programs to the participants.
Roanoke College	Collaborative research

Rockfish Valley Foundation (RVF)	The Museum entered in an affiliate agreement with RVF. The RVF Nature Center has some Museum exhibit components now and discussions are underway to develop educational programming to benefit each other's mission toward natural history-related programming in Nelson County.
Science Museum of Virginia (SMV)	In collaboration with SMV and other state agencies, the Museum coordinates professional development opportunities supporting the Virginia Standards of Learning.
Smithsonian Institution	Through the Smithsonian Affiliates Program, participate with almost two hundred other program members as an affiliate member to share information and potentially develop joint educational programming, distance learning, exhibits, and research programs.
The American University	Collaborative research
Archaeological Society of Virginia	Collaborative research
Calvert Marine Museum	Collaborative research
Carnegie Museum of Natural History	Collaborative research and program development
Caroline County, Virginia	Collaborative research and program development
Clean Virginia Waterways	Through the Clean Virginia Waterways program, administered by Longwood University, and in collaboration with the City of Martinsville and Friends of Wilson Park, the Museum provides volunteer support for neighboring Wilson Park to monitor water quality, provide educational experiences, and to improve and maintain water quality.
College of William and Mary	Collaborative research
COPUS	COPUS is a grassroots effort that builds connections that support a better understanding of the nature of science and its value to society. COPUS is built around three values: community, celebration, and promotion. VMNH partners with COPUS to promote educational and programmatic synergies and cross-promotional opportunities.
Danville Science Center	Both the Museum and the Danville Science Center regularly partner for joint promotions of exhibits and programs. This partnership provides the Museum with a strong presence in the nearby Danville-Pittsylvania County region.
Department of Conservation and Recreation, Division of Natural Heritage	The Museum serves as the repository for Recent invertebrate specimens acquired through systematic survey conducted by the Division of Natural Heritage.
Department of Game and Inland Fisheries	The Museum is the repository for vertebrate specimens that serve as vouchers to document distribution and occurrence.
Towson State University	Collaborative research
U.S. Bureau of Land Management (BLM)	The Museum curates and houses vertebrate fossils from federal lands. BLM provides access to these vertebrate fossils for the Museum to use in research and exhibits.
University of Virginia	In partnership with the Virginia Coast Reserve Long-Term Ecological Research (VCR/LTER) program at the University of Virginia, Department of Environmental Sciences, which is funded by the National Science Foundation, the Museum serves as the repository for specimens acquired by project members.
University of Wyoming	Collaborative research projects
Utah State University	Collaborative research
Virginia Association of Science Teachers (VAST)	The department director is VAST webmaster; serves on the board of directors; and, serves on the editorial review board of the Journal of Virginia Science Education. The Museum provides free admission to VAST members and delivers presentations and exhibits at the annual VAST Professional Development Institute.
Virginia Commonwealth University (VCU)	In reference to 14508 (Scientific Research), the focus will be on collaborative research.
Virginia Department of Conservation and Recreation, Division of Natural Heritage	Identify fauna collected by Natural Heritage staff during inventories and curate and house voucher specimens to maintain a database of the Commonwealth's fauna.
Virginia Department of Education, Virginia Department of Game and Inland Fisheries, Virginia Department of Forestry	In collaboration with other state museums and natural resource agencies, the Museum coordinates or participates in periodic teacher training opportunities supporting the Virginia Standards of Learning. The Museum also provides support for these agency initiatives including the Science Standards of Learning and other state educational initiatives.
Virginia Department of Forestry, Game and Inland Fisheries, Recreation and Conservation, Environmental Quality, Virginia Master Naturalist Program, Virginia Tech	Operate a joint Virginia Master Naturalist program related to natural resource outreach, education and stewardship. The goals of this joint effort are: to enhance existing natural resources stewardship, education, and outreach activities by providing natural resources training at the local level, thereby developing a supply of dedicated, informed and certified "Master Naturalist" volunteers and provide leadership, guidance and oversight to a largely self-sufficient network of local Master Naturalist chapters that adhere to a set of objectives, procedures, and minimum requirements set at the state

	level.
Virginia Department of Historic Resources	Collaborative research
Virginia Department of Recreation and Conservation, State Parks	Work with the parks to promote programs of mutual interest
Virginia Department of Transportation	The Museum serves as a repository for archaeological materials generated by transportation projects.
Virginia Tourism Corporation (VTC)	With the opening of the new Museum facility, efforts were made to strengthen the Museum's partnership with the VTC. The VTC's relatively abundant marketing resources are vital to the Museum's ongoing efforts to reach potential visitors from a wide radius.
Virginia Master Naturalist Program	The Museum staff serves on the state steering and executive committees and as volunteer members of local chapters.
Virginia Polytechnic Institute and State University	Adjunct appointments of the Museum curators to teach courses at Virginia Tech and to supervise graduate students. Multiple collaborative research projects. Accepts from time to time geological and biological collections developed in the course of university research.
Virginia Resource Use Education Council (VRUEC)	VMNH is a member organization of the VRUEC. The Governor's charge for VRUEC is to coordinate the development and consistent delivery of environmental education programs in the Commonwealth by linking current environmental education efforts to creative, innovative approaches; nurture and promote alternative methods of reaching and educating our citizens from all sectors of the public; and, promote sustained life-long learning and professional development based on Virginia's academic standards.
U.S. Geological Survey	Collaborative research
Virginia Department of Game and Inland Fisheries	Collaborative research and house voucher specimens of the Commonwealth's fauna
Virginia Beach Law Enforcement Training Academy	Museum staff provides annual training for Virginia law enforcement officers in crime scene and trace evidence techniques
Dovetail Cultural Resource Group	Identify archeological fauna to assist with federal and state legislated mitigation requirements.
Virginia Junior Academy of Science	The department director provides ongoing support for VJAS as webmaster and in judging papers for the VMNH Special Award at the annual symposium.
Virginia Initiative for Science Teaching and Achievement	The department director serves as VISTA staff through Virginia Tech includes video recording and coaching teachers in science methods in the program.
Southeast Missouri State University	Collaborative research
John Carroll University	Collaborative research
University of Lynchburg	Collaborative dinosaur dig and research
Association of Science Museum Directors	Board Service

## Agency Goals

- **Create and deliver life-long learning opportunities for the citizens of the Commonwealth of Virginia as well as its visitors through programs, exhibits, and publications based on scientific and educational research.**

### Summary and Alignment

1. Be the premier resource in understanding and interpreting Virginia's natural heritage within a global context in ways such as programs, exhibits and publications that are relevant to all the citizens of the Commonwealth. 2. Develop meaningful education programs that are aligned with state and national education standards and reform initiatives. 3. Develop well-designed and maintained exhibits which are emotionally charged, immersive, well-paced, dramatic, social, and grounded in content. 4. Integrate updated technology and visitor experiences into existing exhibits through LED lighting upgrades and long-term exhibit upgrades. 5. Develop and support external exhibits in conjunction with Museum affiliates and promote Museum programs that are informative and memorable. 6. Retain existing volunteers and recruit new volunteers. 7. Raise awareness of current and upcoming exhibits and programs resulting in increased attendance. 8. Continue to enhance the web site and social media outreach to include functionality enhancements including database development, e-Commerce integration, and content management systems.

### Objectives

- » **Provide meaningful educational programs using a variety of electronic and distance learning technologies.**

#### Description

Staff design, produce, deliver, evaluate, analyze, and modify educational programs using electronic and distance learning technologies throughout the state.

### *Objective Strategies*

- Various museum staff will meet regularly to plan, produce, deliver, evaluate, analyze, and modify distance learning programs.
- Design, implement, and modify evaluation tools to assess level of quality and customer satisfaction.
- Plan, design and produce a distance learning program guide for educators.

#### Measures

- ◆ Number of outreach education programs and services delivered

### » **Provide meaningful education programs that are aligned with state and national education standards and reform initiatives.**

#### *Description*

Education staff design, produce, deliver, evaluate, analyze, and modify educational programs to ensure a high level of quality and customer satisfaction in correlation to state and national education standards.

### *Objective Strategies*

- Analyze all existing, modified, and new programs for the associated academic content. Keep abreast of existing and new national, Virginia, and North Carolina learning standards.
- Provide professional development opportunities for museum staff and volunteers in program design, delivery, evaluation, and improvement. Share results with staff as a means of providing feedback and make program adjustments as needed.

#### Measures

- ◆ Number of outreach education programs and services delivered
- ◆ Percentage of educational program evaluations with overall rating of good or better
- ◆ Percentage of educational programs correlated to learning standards

### » **Increase museum attendance annually; both at the museum and at remote museum exhibit sites.**

#### *Description*

Promote the museum and its programs, exhibits, and events, as a visitor destination to a wide range of potential visitors across the Commonwealth and the region. Ensure that visitors have a positive experience at the museum and at off-site exhibits to increase repeat visitation.

### *Objective Strategies*

- Develop new and strengthen existing institutional relationships across the region in order to create new opportunities to reach potential visitors. Potential relationships include convention and visitor bureaus, chambers of commerce, other museums and cultural institutions, other state agencies, new and existing VMNH Affiliates, and other educational institutions.
- Implement museum marketing and public relations efforts including press releases, Web site and social media, advertising, signage and promotions to a wide geographic region. Continue to promote the museum's exciting outreach programs and exhibits, special exhibits, opportunities for lifelong learning, groundbreaking scientific research, and innovative educational programs that continue to reach broader audiences across Virginia.
- Support the efforts of other departments in order to effectively disseminate information to the public about the important mission and programs of the museum. Particular departments to be supported and promoted include Education and Public Programs and Research and Collections.

#### Measures

- ◆ Cost per visitor to provide temporary Museum exhibits
- ◆ Number of visitors to the Museum and remote Museum exhibit sites

### » **Stimulate use of the museum by increasing individual memberships and corporate partnerships and expanding benefits and cost-benefit to members and partners.**

#### *Description*

Members are informal marketers for the museum through their social networks, and their level of engagement ensures that the museum and its programs are used to the benefit of natural history and learning.

#### *Objective Strategies*

- Evaluate Advancement staff to enable the Department to effectively meet and exceed its goals.
- Increase and refine membership benefits.
- Reflect the specific needs of businesses through corporate partnership benefits and pricing.

#### Measures

- ◆ Number of Museum members

### » **Operate scientific labs that are visitor-friendly and provide public education by encouraging interaction with Museum visitors.**

#### *Description*

Operate the Vertebrate Paleontology and Archaeology laboratories so that the visitors can see and understand cutting-edge scientific research in action. Specimens will be prepared and examined by trained staff and volunteers in the laboratories on public view. Develop a vehicle that will aid K-12 students in understanding the scientific method and provide visitors with an interactive experience of fundamental research procedures. This is particularly important in the surrounding underserved rural community.

#### *Objective Strategies*

- Continue the operation of the two laboratories that can be viewed by the general public and increase the number of staff, volunteers and students that work in the laboratories.

#### Measures

- ◆ Number of hours that laboratories are operational and available for public viewing each week

### » **Provide natural history-related retail products to customers in the Museum Store and PALEO Cafe, both onsite and online.**

#### *Description*

Provide natural history related products in the Museum Store and PALEO Cafe to help develop a more interesting visitor experience.

#### *Objective Strategies*

- Evaluate and modify merchandise in both the Museum Store and PALEO Cafe to best meet the demands and interests of customers and the mission of the Museum.
- Promote merchandise in the Museum Store and PALEO Cafe to onsite and online visitors.

#### Measures

- ◆ Amount of revenue generated through retail sales

### » **Maintain and seek new strategic partnerships with individuals, agencies, and formal and informal educational organizations that seek to serve more areas of the state.**

#### *Description*

Museum staff will maintain and seek new strategic partnerships with individuals, agencies, and formal and informal educational organizations that seek to serve more areas of the state through outreach education programs and services.

#### *Objective Strategies*

- Identify, cultivate, and develop new relationships with individuals, agencies, and formal and informal educational organizations that may be able to further the objective.
- Maintain and strengthen existing outreach programs and locations.

#### Measures

- ◆ Number of outreach education programs and services delivered

### » **Produce well-designed and maintained exhibits that are dynamic, educational, interactive, thought provoking, and grounded in scientific and social content for a wide range of audiences.**

#### *Description*

Permanent exhibits, special exhibits and displays, rented or internally produced, are well-designed and have a high level of quality and

customer satisfaction.

#### *Objective Strategies*

- Collaborate with scientific and education staff, along with relevant outside individuals and organizations.
- Upgrade existing exhibits to include new technology and visitor experiences by 2020 as part of the "Museum Without Walls 2015-2020" vision plan.
- Replace existing exhibit lighting with energy-efficient LED lighting by 2020.

#### Measures

- ◆ Percentage of exhibit evaluations with overall rating of good or better

### » **Produce text, electronic, and web-based publications and educational materials.**

#### *Description*

To design, produce, evaluate, analyze, and modify publications to ensure a high level of quality, accuracy, and customer satisfaction.

#### *Objective Strategies*

- Work with scientists and educators to determine upcoming publications that highlight the museum's current and upcoming education and research programs.

#### Measures

- ◆ Number of publications produced and distributed annually.

### • **Conduct and disseminate research relevant to the stewardship of Virginia's natural environment, leading to enhanced appreciation of these resources for improving the quality of life for our citizens and contributing to the global reservoir of knowledge.**

#### **Summary and Alignment**

1. Build collections through appropriate research. 2. Operate scientific labs that are visitor friendly and provide public education by encouraging interaction with Museum visitors. 3. Develop a web-accessible collections and scientific library database that enables scientists and educators to find information and perform research. 4. Provide collections management, preservation, care, and accessibility to protect the long-term integrity of specimens and artifacts, as well as their associated data documentation.

#### **Objectives**

### » **Be the premier resource in understanding Virginia's natural heritage within a global context in ways that are relevant to the citizens of the Commonwealth.**

#### *Description*

The Museum is the state repository for natural history collections, including voucher specimens. The Commonwealth boasts an incredible diversity of plant and animal life that is surpassed by few other states in the nation. It also has a wealth of world-class archaeological and paleontological sites, and specimens from many of these localities are housed at the Museum. With these rich resources it is incumbent upon the Museum to develop world-class research programs that form the basis for innovative and exceptional educational programs. To realize the full potential of the Commonwealth's rich natural heritage requires expertise in numerous specialized areas. This will be facilitated by developing and enhancing formal collaborative programs with scientists at other state agencies, universities, and scientific institutions around the nation and the world. Dissemination of the results of the research programs to the scientific community is critical. In order to facilitate this process, the Museum has its own peer-reviewed publications series including "Jeffersoniana," "Virginia Museum of Natural History Memoirs," and "Virginia Museum of Natural History Special Publications". Production of these series enables the Museum to reach not only the state and national scientific communities, but also the international one. Contributions to these publications are open to the entire scientific community, not just Museum researchers and affiliates. Museum scientific staff also disseminates results of their research through technical presentations at conferences and by publishing in other peer-reviewed scientific literature.

#### *Objective Strategies*

- Produce peer-reviewed scientific publication series such as Jeffersoniana, Virginia Museum of Natural History Memoirs, and Virginia Museum of Natural History Special Publications.
- Publish the results of research findings in peer-reviewed scientific publications on a regular basis.
- Seek continued scientific collaboration with colleagues at institutions in the Commonwealth as well as nationally and internationally.

#### Measures

- ◆ Number of scientific publications produced by the Museum, and number of other scientific publications and technical presentations by Museum scientific staff and research associates

### » **Build collections through appropriate research.**

#### *Description*

Determining the impacts of human activities and natural processes on our state and world relies on up-to-date knowledge of natural history. Natural history collections form the most comprehensive base reference for inventories of fauna and flora in Virginia, and must be kept up to date. Collections form the reference "library" and the database for research into all aspects of natural history, and therefore must be continually updated to reflect advances in our knowledge. Building collections through research also includes curatorial field work programs in the Commonwealth. Collections from areas outside the Commonwealth provide comparative material, which is necessary for proper investigation and accurate interpretation. Museum collections will be developed based on areas of greatest need.

#### *Objective Strategies*

- Accept collections from private sources that increase the diversity of the collections.
- Conduct field work in Virginia and elsewhere and incorporate new material into the collections.
- Receive and catalogue specimens received from other institutions with the goal of an extensive inventory of the Commonwealth's fauna and flora.

#### Measures

- ◆ Number of specimens added to Museum collections

### » **Develop a web-accessible collections and scientific library database that enables scientists and educators to find information and perform research.**

#### *Description*

The Museum is developing a web-accessible database for collections and library holdings to permit all citizens of the Commonwealth some access to the collections that are not on exhibit.

#### *Objective Strategies*

- Add specimens to the database as they are accessioned into the Museum's collections.
- Make part of the database accessible to the public via the Museum's website.

#### Measures

- ◆ Percentage of time public access to the Museum's online collections database is available

### » **Operate scientific labs that are visitor-friendly and provide public education by encouraging interaction with Museum visitors.**

#### *Description*

Operate the Vertebrate Paleontology and Archaeology laboratories so that the visitors can see and understand cutting-edge scientific research in action. Specimens will be prepared and examined by trained staff and volunteers in the laboratories on public view. Develop a vehicle that will aid K-12 students in understanding the scientific method and provide visitors with an interactive experience of fundamental research procedures. This is particularly important in the surrounding underserved rural community.

#### *Objective Strategies*

- Continue the operation of the two laboratories that can be viewed by the general public and increase the number of staff, volunteers and students that work in the laboratories.

#### Measures

- ◆ Number of hours that laboratories are operational and available for public viewing each week

### » **Retain existing volunteers and recruit new volunteers.**

#### *Description*

Support Museum programs by providing volunteers and assigning them in appropriate areas where needed.

### *Objective Strategies*

- Offer incentives for individuals and groups to increase their participation in the Museum and its programs.
- Recognize the contributions of volunteers and their respective service hours at annual volunteer appreciation events.

#### Measures

- ◆ Number of active Museum volunteers

- **Develop visitor experiences that are interesting, emotionally charged, immersive, well-paced, dramatic, social and grounded in content which result in multiple visits per person.**

#### Summary and Alignment

1. Develop meaningful education programs that are aligned with state and national education standards and reform initiatives and promote repeat visits. Create ongoing learning opportunities with educators. 2. Improve communication with schools, education-related organizations, and the public to increase visibility of new and ongoing programming. 3. Increase collaboration with other museums and agencies. 4. Implement effective methods of gallery interpretation. Create multiple levels of interpretation to enhance learning opportunities to enable a full family learning experience. 5. Provide Museum experiences that are engaging, educational, memorable and visitor friendly. 6. Provide a high level of customer focus that enhances the visitor experience. 7. Provide a safe and secure environment for the Museum visitor.

#### Objectives

- » **Operate scientific labs that are visitor-friendly and provide public education by encouraging interaction with Museum visitors.**

#### *Description*

Operate the Vertebrate Paleontology and Archaeology laboratories so that the visitors can see and understand cutting-edge scientific research in action. Specimens will be prepared and examined by trained staff and volunteers in the laboratories on public view. Develop a vehicle that will aid K-12 students in understanding the scientific method and provide visitors with an interactive experience of fundamental research procedures. This is particularly important in the surrounding underserved rural community.

#### *Objective Strategies*

- Continue the operation of the two laboratories that can be viewed by the general public and increase the number of staff, volunteers and students that work in the laboratories.

#### Measures

- ◆ Number of hours that laboratories are operational and available for public viewing each week

- **Generate operating revenue through increased grants and other voluntary contributions from the public and private sectors and through cooperative arrangements with other museums, state agencies and organizations.**

#### Summary and Alignment

1. Increase Corporate Partnership support for the Museum. 2. Increase Foundation/corporate grants for education and research programs. 3. Increase contracts and contacts for the Museum. 4. Increase upper level memberships. 5. Increase membership base annually. 7. Develop quality and popular fee-based programs. 8. Develop a strong retail environment that encourages visitor purchases. 9. Develop revenue averaging \$2,000 to \$10,000 per year via a molding and casting program.

#### Objectives

- » **Increase revenue from contributed or grant support from individuals, corporations, foundations and range of public sector sources and rental of museum facilities.**

#### *Description*

Increase funding for museum programs through: (1) Memberships, (2) Discovery Fund, (3) Corporate Partnerships, (4) Grants, and (5) ongoing prospect identification, cultivation, and solicitation.

#### *Objective Strategies*

- The museum continues to add new off-site displays and exhibits throughout Virginia and the region. Host sites include state park visitor centers, partnering museums, and VMNH Affiliates. The museum's traveling exhibits program is growing with the recent addition of the Dinosaur Discovery maze exhibit now available for rental.

- The VMNH Foundation completed a \$4 million capital campaign in 2012, with fundraising efforts now focused on soliciting support for mission-centric programs in Research, Education and Exhibits. Current areas of focus include Memberships, Corporate Partnerships, and the annual Discovery Fund.

Measures

- ◆ Amount of contributed support

- **Preserve and maintain the record of the Commonwealth's natural history - the library of our natural heritage - for present and future generations.**

**Summary and Alignment**

Protect, conserve and wisely develop our natural, historical and cultural resources.

**Objectives**

- » **Provide collections management, preservation, care, and accessibility to protect the long-term integrity of specimens and artifacts, as well as their associated data documentation.**

*Description*

Collections staff will provide appropriate collections management, preservation, care, and accessibility for the natural history collections of the Commonwealth held in trust by the Museum.

*Objective Strategies*

- Catalogue specimens as numbers are requested by research workers both from inside and outside the institution.
- Continue pest management program by monitoring pest traps. Staff will identify and record presence of pests observed in traps, and will enter data into existing spreadsheet. Staff will make recommendations to be implemented in conjunction with Building and Grounds staff.
- Maintain collecting permits and submit all reports associated with the permits.
- Monitor fluid levels for fluid-preserved specimens and adjust as needed.
- Undertake accessions and any necessary deaccessions of specimens.
- Monitor and record temperature and humidity
- CO2 bubble - pest control

Measures

- ◆ Percentage of specimens monitored for pest infestation and excessive heat and humidity fluctuations

- » **Build collections through appropriate research.**

*Description*

Determining the impacts of human activities and natural processes on our state and world relies on up-to-date knowledge of natural history. Natural history collections form the most comprehensive base reference for inventories of fauna and flora in Virginia, and must be kept up to date. Collections form the reference "library" and the database for research into all aspects of natural history, and therefore must be continually updated to reflect advances in our knowledge. Building collections through research also includes curatorial field work programs in the Commonwealth. Collections from areas outside the Commonwealth provide comparative material, which is necessary for proper investigation and accurate interpretation. Museum collections will be developed based on areas of greatest need.

*Objective Strategies*

- Accept collections from private sources that increase the diversity of the collections.
- Conduct field work in Virginia and elsewhere and incorporate new material into the collections.
- Receive and catalogue specimens received from other institutions with the goal of an extensive inventory of the Commonwealth's fauna and flora.

Measures

- ◆ Number of specimens added to Museum collections

» **Develop a web-accessible collections and scientific library database that enables scientists and educators to find information and perform research.**

*Description*

The Museum is developing a web-accessible database for collections and library holdings to permit all citizens of the Commonwealth some access to the collections that are not on exhibit.

*Objective Strategies*

- Add specimens to the database as they are accessioned into the Museum's collections.
- Make part of the database accessible to the public via the Museum's website.

*Measures*

- ♦ Percentage of time public access to the Museum's online collections database is available

• **Maintain existing and expand outreach education programs to more areas of the state, reaching more Virginians.**

**Summary and Alignment**

1. Be the premier resource in understanding and interpreting Virginia's natural heritage within a global context in ways such as programs, exhibits and publications that are relevant to all the citizens of the Commonwealth. 2. Develop meaningful education programs that are aligned with state and national education standards and reform initiatives. 3. Maintain and improve existing outreach programs offices including Southside, Central, and Eastern Virginia outreach programs. 4. Explore new opportunities to strategically identify and cultivate new outreach programs in different regions of the state. 5. Explore existing and emerging technologies to reach more areas the state. 6. Raise awareness and appreciation of the important work of the Museum throughout the state.

**Objectives**

» **Provide meaningful educational programs using a variety of electronic and distance learning technologies.**

*Description*

Staff design, produce, deliver, evaluate, analyze, and modify educational programs using electronic and distance learning technologies throughout the state.

*Objective Strategies*

- Various museum staff will meet regularly to plan, produce, deliver, evaluate, analyze, and modify distance learning programs.
- Design, implement, and modify evaluation tools to assess level of quality and customer satisfaction.
- Plan, design and produce a distance learning program guide for educators.

*Measures*

- ♦ Number of outreach education programs and services delivered

## Supporting Documents

**Title**

**File Type**

**Collections Management and Curatorial Services [14501]**

**Description of this Program / Service Area**

Collections Care and Management: Develop, maintain, and preserve the state's natural history collections held by the Virginia Museum of Natural History (the Museum); make them available to scientists and the public; utilize them in research projects, exhibits, and education programs; and preserve them in perpetuity as a record of Virginia's natural history.

**Mission Alignment**

Title 10.1 Conservation, Chapter 20, Virginia Museum of Natural History, Code of Virginia: This service area supports the mission of the Museum by preserving the various elements of natural history found in Virginia and other parts of the United States and the world, where specimens of natural history, especially those of Virginia origin, can be properly housed, cared for, cataloged, and studied to ensure a permanent repository of the state's natural heritage.

**Products and Services**

**Description of Major Products and Services**

Natural History Collections: 1) Scientific specimens used for research and as a record of the natural history of the Commonwealth, including preservation of specimens collected from sites or areas that no longer exist. 2) Exhibit quality specimens. 3) Educational program specimens: Specimens appropriate for use in educational programming where objects can be handled by students and visitors.

Specimen Information: Information such as the presence and distribution of certain species or other natural resources in various geographic areas, the effects of varying preservation practices upon specimens, and historical information about the collection and acquisition of some of our older 19th century collections.

Ongoing preservation, and accessibility to collections.

Preservation of at-risk collections obtained from other state agencies and universities.

Products / Services					
Product / Service	Statutory Authority	Regulatory Authority	Required Or Discretionary	GF	NGF
Care and Management of collections	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	87,242	324
Natural History Collections	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	5,740	0
Research and preservation of specimens	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	9,183	0
Exhibit quality specimens	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	2,296	0
Educational program specimens	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	3,444	0
In-Coming Loans	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	1,722	0
Hands-on specimens	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	574	0
Specimen Information and study	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	4,592	0

**Anticipated Changes**

Specimen acquisition and accessibility cannot increase much beyond current levels without additional staff.

**Factors Impacting**

Constraints related to budgets and staffing levels.

**Financial Overview**

The Museum's Division of Collections Management and Curatorial Services area is funded partly by general fund appropriation and partly by grants.

Biennial Budget

	2019 General Fund	2019 Nongeneral Fund	2020 General Fund	2020 Nongeneral Fund
Initial Appropriation for the Biennium	114,792	35	114,792	35
Changes to Initial Appropriation	1,789	324	1,789	324

**Supporting Documents**

Title	File Type
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**Education and Extension Services [14503]**

**Description of this Program / Service Area**

Develop meaningful education programs that are aligned with state and national education standards and reform initiatives; provide Museum experiences that are engaging, educational, safe, memorable, and visitor friendly by implementing effective methods of interpretation to provide a full range of learning experiences. Provide scientifically informed and accurate natural history and related educational programs for students, teachers and the public; and develop awareness of Virginia's natural heritage among all citizens through a variety of learning experiences, including programs, presentations, exhibits, electronic media, and publications.

**Mission Alignment**

Title 10.1 Conservation, Chapter 20, Virginia Museum of Natural History, Code of Virginia: This service area supports the agency's mission to exhibit the various elements of natural history found in Virginia and other parts of the United States and the world, and to foster an understanding and appreciation of how man and the earth have evolved. This service area also supports the Museum's mission to encourage and promote research in the varied natural heritage of Virginia and other parts of the world while encouraging individuals and scholars to study Virginia's natural history and to apply this understanding of the past to the challenges of the future.

**Products and Services**

**Description of Major Products and Services**

Education programs and presentations

Instructional technology services and products

Outreach education programming from centers in Martinsville/Southside, Lynchburg/South Central, Charlottesville/Central, and Newport News/Eastern regions.

Products / Services					
Product / Service	Statutory Authority	Regulatory Authority	Required Or Discretionary	GF	NGF
Education Programs and presentations	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	339,902	52,715
Instructional Technology services and products	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	91,512	0
Outreach Education Programming	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	4,358	79,072

**Anticipated Changes**

Outreach education programs will likely continue to increase.

**Factors Impacting**

Depending on the nature of the program, economic factors have impacted, to some degree, most products or services.

Outreach education programs have seen an increase in demand likely affected by school system budget decreases for expenses that are associated with field trips.

**Financial Overview**

Based on current levels, 32% of the funding for this service area will come from the general fund for FY2019. Special funds (68%) will be generated from programs and federal and state grants. This budget also reflects a one-time funding of \$250,000 in the general fund for a pre-planning study. Information technology was transferred from the service area to the Operational and Support Service area as recommended by our DPB budget analyst.

Biennial Budget

	<b>2019 General Fund</b>	<b>2019 Nongeneral Fund</b>	<b>2020 General Fund</b>	<b>2020 Nongeneral Fund</b>
Initial Appropriation for the Biennium	435,772	131,787	185,772	131,787
Changes to Initial Appropriation	-110,627	22,287	-110,627	22,287

**Supporting Documents**

**Title** **File Type**

**Operational and Support Services [14507]**

**Description of this Program / Service Area**

The Operational and Support service area provides overall direction and management of the Museum, ensuring adherence to applicable state laws, rules and regulations. This service area is comprised of two major divisions:

1. Administration and Services. This area provides management of the Museum's cash flow, internal controls, cost effectiveness, and overall operations of facilities and resources. It ensures that the Museum continues to be well-managed and cost-efficient, using its resources effectively to advance its mission. It provides policies and procedures and ensures that the Museum has an efficient and diverse workforce; provides efficient facility operations, maintenance, protection, and improvement of the Museum facility; supports the Museum in providing goods and services for operations and programs; and manages capital outlay and maintenance reserve projects.
2. Advancement. This division raises awareness of the Museum, resulting in increased attendance; provides information to the public on the Museum's programs and services; and supports the Museum's programs by generating revenue from admissions and retail sales. This division also promotes an active membership base, resulting in increased membership retention and increased levels of membership; provides increased individual, foundation, corporate, and a range of government support for exhibits, events, education, research, and public programs; and expands the Museum's fundraising efforts to a broad audience across the Commonwealth.

**Mission Alignment**

Title 10.1 Conservation, Chapter 20, Virginia Museum of Natural History, Code of Virginia: This service area directly aligns with the Museum's mission to "interpret Virginia's natural heritage within a global context in ways that are relevant to all citizens of the Commonwealth" as it seeks to build awareness of the Museum, and increase attendance, participation, and support.

**Products and Services**

**Description of Major Products and Services**

Development of contributed income from individuals, corporations, and foundations through the Museum's Foundation; provides income to the Museum for education, exhibits, research, and public programs.

Communications: Marketing and External Affairs staff will continue to provide information to broad and specialized audiences through the monthly e-newsletter, the website, calendar and events listings in a variety of media and other organization's literature, press featuring coverage in newspapers, periodicals, radio and television, and social media.

Advertising and Promotions: Marketing and External Affairs staff will continue to promote programs and events for the different areas within the Museum through paid advertising, brochures, coupons and other incentives and discounts as budget allows.

Special Events: Development and Special Events staff and Marketing and External Affairs staff will continue to create and implement major special events, family festivals, exhibit openings, guest lectures and performers to provide additional enhancements to visitors' Museum experiences.

Membership Development: Provide membership value and opportunities for increased engagement to Museum visitors and supporters through the cultivation of new members and nurturing of existing members. Provide increased revenue to the Museum.

Products / Services					
Product / Service	Statutory Authority	Regulatory Authority	Required Or Discretionary	GF	NGF
Direction and Management	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	1,120,552	52,440
Budgeting and Financial Reporting	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	271,309	68,172
Marketing, Special Events, and Financial Support	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	19,865	19,228
Risk Management and Security	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	41,386	0

Information Technology	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	91,969	0
Human Resources, Fiscal, and Procurement Services	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	275,907	8,740
Performance Management	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	18,394	0

### **Anticipated Changes**

Because of the Museum's increased focus on outreach programming through remote exhibits, programs, and events, the number of events, programs, and events held at remote locations will likely increase.

With significant increases in the density of exhibits on display at the Museum, the agency has greatly enhanced visitor experiences, which is expected to result in increased repeat visits and increased memberships.

Although many of the Museum's recent and upcoming exhibits will be developed in-house, the agency will continue to identify selected exhibits for rental in order to enhance visitor experiences while generating new sponsorship opportunities.

The agency will likely continue to produce publications electronically.

### **Factors Impacting**

Because many programs, events, and exhibits are dependent on non-state funds for both marketing and implementation, the scheduling of particular programs, events, and exhibits will depend on the availability of necessary funding from outside sources.

Exhibits and educational programs are mainly based on the science produced by the Museum and other scientific researchers. The exhibits themselves are rich with selected specimens and artifacts from our vast collections; visitors get the unique experience of seeing/touching real objects representing Virginia's natural heritage.

Special exhibits can be very costly depending on the type of exhibit (rented exhibits vs. exhibits developed in-house by Museum staff). Funding for special exhibits comes primarily from donated funds, including sponsorships, grants, and other support. Particularly in the past two to three years, Museum staff members have greatly increased the number of exhibits produced in-house, while significantly decreasing the amount of funds spent on outside rentals. However, while exhibit costs have been drastically reduced, the workload for exhibits staff members has increased significantly.

Due to a decreased operating budget and the associated costs of producing hard copies, several Museum publications, both scientific and general, are being produced, either in-part or entirely, electronically. In addition to reduced or eliminated printing costs, electronic publications can be distributed more widely through a variety of web, email, and social media outlets.

Largely due to limited staff, the traveling exhibit program has been drastically reduced in offerings with some key exceptions.

Festivals and special events rely on external funding sources for support.

### **Financial Overview**

The Museum's operational and support services are funded mostly by general fund appropriation and earned income. The Museum generates earned income from admissions, gift shop sales, room rentals, memberships, miscellaneous sources such as sales tax, and special events. A portion of the payroll is funded by the Museum's Foundation and various grants. Exhibits are partially funded by sponsorships through the Foundation. The overall budget reflects a transfer of information technology to the Operational and Support Service area as recommended by our DPB budget analyst. It was previously budgeted in Education and Extension Services.

#### Biennial Budget

	2019 General Fund	2019 Nongeneral Fund	2020 General Fund	2020 Nongeneral Fund
Initial Appropriation for the Biennium	1,832,488	170,396	1,832,488	170,396
Changes to Initial Appropriation	138,059	-3,109	138,059	-3,109

### **Supporting Documents**

**Title** **File Type**



**Service Area Plan**

**Scientific Research [14508]**

**Description of this Program / Service Area**

This service area provides scientifically informed and accurate natural history publications, programs and exhibits for researchers, students, teachers and the public. It also develops awareness of Virginia's natural heritage among all citizens via popular and technical presentations and publications and the Museum's website, newsletter and publication series.

**Mission Alignment**

Title 10.1 Conservation, Chapter 20, Virginia Museum of Natural History, Code of Virginia: This service area supports the mission of this agency to investigate and preserve the various elements of natural history found in Virginia and other parts of the United States and the world and to foster an understanding and appreciation of how man and the earth have evolved while encouraging and promoting research in the varied natural heritage of Virginia and other parts of the world.

**Products and Services**

**Description of Major Products and Services**

The Scientific Research Service Area offers various products and services to support education, exhibits and the general public.

<b>Products / Services</b>					
<b>Product / Service</b>	<b>Statutory Authority</b>	<b>Regulatory Authority</b>	<b>Required Or Discretionary</b>	<b>GF</b>	<b>NGF</b>
Natural History Research	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	665,050	61,876
Scientific Publications	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	3,500	38,893
Public Programming and Presentations	Title 10.1 Conservation, Chapter 20, Code of Virginia		Required	10,501	14,143
Scientific Knowledge to Support Educational Programs and Exhibits, and to advance scientific research at the Museum and elsewhere	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	0	1,768
Identification of Specimens, objects, and artifacts for individuals and other agencies	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	0	8,839
K-12 Teacher Education Programming	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	14,001	33,590
Service to public, museums, and other professional organizations	Title 10.1 Conservation, Chapter 20, Code of Virginia		Discretionary	7,001	17,679

**Anticipated Changes**

Number of programs, publications and other services cannot increase much beyond current levels without additional staff.

**Factors Impacting**

Constraints related to budgets and staffing levels.

**Financial Overview**

This area is financed partially by general fund appropriation and partially by grants and federal funds.

Biennial Budget

	<b>2019 General Fund</b>	<b>2019 Nongeneral Fund</b>	<b>2020 General Fund</b>	<b>2020 Nongeneral Fund</b>
Initial Appropriation for the Biennium	700,053	136,788	700,053	136,788
Changes to Initial Appropriation	-29,221	-19,502	-29,221	-19,502

**Supporting Documents**

**Title** **File Type**