



TO: Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources

FROM: Megg Rader, Chair, North Carolina Museum of Natural Sciences Advisory Commission

RE: North Carolina Museum of Natural Sciences Advisory Commission Report, FY 2020-2021

DATE: October 1, 2021

On behalf of the North Carolina Museum of Natural Sciences Advisory Commission, I want to extend our thanks and gratitude to North Carolina General Assembly for its generous support and advocacy of our state's world class science museum. The people of this state can be very proud of the innovation, data collection, research and scientific discovery that the Museum is engaged in daily, as well as the opportunities for citizen engagement in hands on, online and immersive experiences the Museum offers.

The Museum recently completed a 2021-2023 Strategic Plan that will further foster our mission and vision. The plan includes work on infrastructure, building strong teams and, above all, embedding best practices into our institutional culture. Throughout this process, the Museum will continue learning from our visitors and constituents, engaging in outstanding scientific scholarship and setting an example to other educators in our field.

The 2020-2021 Annual Plan for the North Carolina Museum Natural Sciences ensures that we stay focused on strategic priorities with annual goal setting and measurable action steps to be monitored, reviewed and adjusted as needed in order to accomplish our bold mission and vision:

Mission: To illuminate the natural world and inspire its conservation

Vision: A knowledgeable and empowered society, making decisions informed by science

This Report will highlight current and significant activities, initiatives and programming that the NCMNS has engaged in over this year.

Prairie Ridge Eco-station

Prairie Ridge Eco-station and Research Laboratory sits on a 45-acre parcel of land in Wake County. Prior to the pandemic, it played host to approximately 22,000 people per year, including school children on field trips and programming focused on underserved communities.

The vision is to use the Eco-station and Lab to its full capacity for education, research, and as a storage facility sufficient to allow the Museum to create a visitor experience around its globally important natural history specimens. The first step along this path is to improve its ability to house education and citizen science programs in all weathers, as well as the staff who are primarily responsible for delivering these programs. The newly planned Mary Ann Britain Education Center will serve the joint purpose of housing staff, providing an all-weather classroom and helping visitors orient themselves around the rest of the site. About one-third of the funds have been raised for this \$1.5M project.

Collections Research

The Museum is home to about four million specimens, which are in constant use for scientific research. Discovery of new species is a common occurrence, as is deepening our knowledge of species relationships and conversations.

Researcher, Dr. Bryan Stuart, led a team to identify a new species of frog in Cambodia and Viet Nam, for which he won the prestigious E. O. Wilson award from the Journal of Natural History.

Dr. Christian Kammerer, one of our distinguished paleontologists recently made the news for discovering a tiny predatory ancestor of both the dinosaurs and pterosaurs (flying reptiles). The 237-million-year-old fossil reptile, named *Kongonaphon kely*, or “tiny bug slayer,” would have stood just 10 centimeters (or about 4 inches) tall.

Insect Behaviorist, Dr. Adrian Smith received 2.38 million views during the month of August on his Ant Lab YouTube videos. <https://youtube.com/AntLab> This work, equal parts research and public engagement, provides fresh insights into the mechanics and evolution of insect flight.

North Carolina Race Project

In 2017, with the help of community partners alongside the Department of Natural and Cultural Resources, the Museum purchased one of two copies of the blockbuster touring exhibition, *Race: Are We So Different?* The Museum has reengaged Dr.

Yolanda Moses, the exhibit's original curator, to assist us in reinventing our copy of the exhibition for North Carolina. When complete, we have the option of touring this revamped exhibition throughout North Carolina, and to South Carolina, Georgia, and Florida. As the main exhibition is being redeveloped, the Museum is also putting together a series of satellite and popup exhibitions designed specifically for smaller venues.

100 Counties Project

The statewide mandate of the Museum could not be more important and a charge we take very seriously. Our engagement with communities across North Carolina takes many forms, including curriculum-correlated classes; volunteer opportunities; support for other science institutions by administering the North Carolina Science Museum Grant Program; programming from summer camps to nature hikes; fulfilling information requests; and professional development for teachers. This work augments welcoming more than 1 million visitors each year through our facilities.

To celebrate this important work, and to help in future planning, the Museum has created the "100 Counties Project" <https://interactives.naturalsciences.org/100-counties-project/index.php> This offers an interactive map that provides data on the ways we serve each county in North Carolina. People interested in our impact on any particular part of North Carolina can click on a county and see the kind of work we are doing in each locale. On the back end, this information gives us a baseline to ensure we spread our effort as evenly as possible across the state, focusing on areas of greatest need.

Innovation through Virtual Learning

The pandemic has turned online programming from an added bonus to an absolute necessity. We have had great success with virtual offerings through online events, programs, classes lectures, podcasts and tours. About a year ago the Museum invested in enhancing its digital learning offerings with training and repurposing classroom spaces in downtown Raleigh and in Whiteville in order to offer expanded online learning. Our structured online programming went from approximately 200 in FY18/19 and FY19/20 to approximately 900 in FY20/21. Participation went from about 5,000 to 25,000 logins in the same timeframe.

Additionally, over this period, the Museum started a new podcast: *Love Nature*, co-hosted by the Museum's Director and CEO, Dr. Eric Dorfman and the Museum's Director of Veterinary Science, Dr. Dan Dombrowski. The hosts interview a variety of people, from authors, artists, scientists, comedians, to TV personalities, all exploring their personal relationship with nature. Season II kicks off with a two-part

interview with NY Times best-selling author, Richard Louv, discussing his most recent book *Our Wild Calling*.

Dueling Dinosaurs & Dino Lab Groundbreaking

Dueling Dinosaurs are two fossils, a *Tyrannosaurus rex* and a *Triceratops horridus* that were locked together at the time of their death, 67 million years ago. They are special both because of the fame of these species and the mystery surrounding their death, as well as the unique completeness of the specimens, which were preserved 100% intact. Our Head of Paleontology, Dr. Lindsay Zanno, and her team will be able to uncover unprecedented information about these iconic dinosaurs and provide the information to the public via a state-of-the-art interactive exhibit space and laboratory, which is due to open in Spring of 2023. The initiative is predicted to bring in more than \$100M to the local economy.

Groundbreaking for the SECU DinoLab took place on September 8, 2021 to a group of almost 200 online and in-person supporters. The celebration culminated with the presentation of a \$2M check from the State Employees Credit Union Foundation to the Chair of the Board of the Friends of NCMNS.

Traveling Exhibit

On October 14, 2021, NCMNS will open *Exquisite Creatures: The Art of Christopher Marley*. It is the first temporary exhibit the Museum has hosted in five years. We are thrilled to be bringing this work to the public, a seamless relationship between science and art. Christopher Marley is an artist and designer who uses natural artifacts as his medium of expression. To create this work, he collects specimens in an environmentally responsible manner from a worldwide network of people who share his passion for nature. The resulting works are both spectacular and moving and have been universally well received. This exhibition joins the two concepts of our mission, "illumination" and "inspiration" in a single statement – the 'effect' of illuminating with science and technology with the 'affect' of inspiring with art, fun and emotion. Increasingly, this is the hallmark of the Museum's 'voice' and flavors the work we undertake.

NCMNS at Greenville

On September 18, 2021, the Museum opened a branch facility in Greenville. The new facility, formerly A Time for Science, will significantly increase the institution's reach into Pitt County and eastern North Carolina. The new facility features many aspects of science relevant to the region, including the Science of Pirates, featuring a replica pirate ship, displays of wildlife and fossils, and an interactive exhibit on astrophysics. The downtown Greenville facility is augmented by an outdoor campus at Contentnea Creek, with an observatory, canoeing program and wilderness education.

On behalf of the Advisory Commission, each of us look forward to our continued work and support of the Museum under the visionary leadership of Museum Director and CEO, Dr. Eric Dorfman; and to fulfilling our role as statewide ambassadors and advocates for this internationally recognized museum.

Respectfully submitted,

Megg Rader

Megg Rader, Chair
NCMNS Advisory Commission