

VIRGINIA MUSEUM OF NATURAL HISTORY
Board of Trustees Research and Collections Committee

Saturday, May 16, 2026

9 a.m.

A G E N D A

- Call to order
- Roll call: Dr. Carole Nash, Dr. Art Evans, Dr. Tom Benzing, Dr. Melany Clark, Dr. David Furth
- Approval of minutes from the Nov. 15, 2025 meeting of the Research and Collections Committee
- Approval of acquisitions from September 2025-March 2026
- Recommendation to full board regarding changes to live animals policy
- Consideration of Dr. Paul Sattler and Dr. Kevin Bezy as Research Associates
- Discussion of historic kitchen facility owned by Carter Bank and Trust (Dr. Hayden Bassett)
- Other business
- Adjourn

The mission of the Virginia Museum of Natural History:

To interpret Virginia's natural heritage within a global context in ways that are relevant to all citizens of the Commonwealth.



**VIRGINIA MUSEUM OF NATURAL HISTORY BOARD OF TRUSTEES
MINUTES OF THE RESEARCH AND COLLECTIONS COMMITTEE
Nov. 15, 2025, 9 A.M.
Virginia Museum of Natural History, Room 237 Conference Room A**

Present at the meeting were Dr. Art Evans, Dr. Carole Nash, Dr. Melany Clark, Dr. Tom Benzing, Dr. Hayden Bassett, Dr. Kal Ivanov, Dr. Collin Van Buren, Marshall Boyd, Jonathan Martin, Dr. Joe Keiper, Ambria Wood, Sarah Bowman, and Ben Williams. Dr. David Furth was absent and a quorum was provided.

Committee Chair Dr. Art Evans called the meeting to order. The committee unanimously approved the meetings from the August 9 meeting. The committee circulated the acquisitions sign-off sheet and approved it unanimously.

Dr. Joe Keiper introduced Ambria Wood, the museum's new representative from the Virginia Attorney General's Office, and Sarah Bowman, the museum's newest trustee.

Dr. Art Evans said that the committee was initially going to recommend to the full board that it approve the changes to the museum's live animals policy, but that it had been decided to table that recommendation until the following board meeting in February. Dr. Melany Clark said it was likely that the February board meeting would be a virtual meeting. Dr. Carole Nash asked how often the museum has to update its live animal certifications. Jonathan Martin said that the museum has a live animal permit that must be updated annually, and Dr. Collin Van Buren clarified that it's a permit rather than a certification since the museum's animals are ambassadors and not research subjects.

Dr. Art Evans extended the committee's congratulations to Dr. Maddy Bassett for receiving her Ph.D.

Dr. Kal Ivanov said that the previous Wednesday, the herpetology curator search committee completed its first round of virtual interviews with the second round taking place on Monday. Three candidates will be chosen from the nine total interviews for in-person interviews.

Marshall Boyd and Jonathan Martin provided an update on the museum's Douglas Avenue facility. Boyd said that the museum's library is in the process of being stabilized. Martin said that the museum received its first cost estimate for the total project. He's

looking through the estimate line-by-line and noticed that the costs for certain things (such as finishings) were high, so he's going to go room-by-room with the architect to get the cost down to a more reasonable level. Martin added that asbestos remediation will be taking place concurrently with renovations. Dr. Joe Keiper added that a decision was made the day prior to go with a larger HVAC unit for the new facility rather than two smaller HVAC units, which would have been both more expensive and less efficient. Dr. Tom Benzing said it was too early to schedule another joint meeting between the Facilities Committee and the Research and Collections Committee, but another meeting would likely be scheduled prior to the February 7 board meeting.

Dr. Carole Nash said that she sits on the science advisory committee for the Wintergreen Nature Foundation and the foundation's new executive director is planning to develop a field station north of Waynesboro. Nash said she was tasked with coming to the Research and Collections committee and asking if anyone had ideas for the field station. The committee agreed that it was an exciting prospect once a site has been chosen.

Dr. Art Evans said that given how much the museum's endowment has grown, he thinks the museum should consider purchasing a dedicated field vehicle for the research staff. Dr. Melany Clark asked if any staff are wanting for vehicles, and Dr. Kal Ivanov explained that the state motor pool vehicles are readily available but not suitable for field work. The one field vehicle — a Subaru Outback — is rapidly nearing the end of its life. Clark said that Frank Mariels, the late donor who substantially grew the VMNH endowment with his generous gift, was a frugal man, and the museum had also been frugal. However, she said, she thinks that it's possible to strike a balance between being frugal with the endowment and spending enough of it to make a substantial difference for the museum.

Dr. Art Evans said that he will be rotating off of the Board of Trustees in June 2026. As a result, he is going to begin stepping back from some of his board responsibilities. The February meeting will be the last Research and Collections Committee meeting that he chairs, he said. He added that he feels comfortable leaving the board as the museum is in an excellent position and the future looks bright.

Dr. Tom Benzing congratulated Marshall Boyd for being featured in an article produced by the Virginia Retirement System that focused on a state employee early in their career. He also thanked both Boyd and Dr. Joe Keiper for attending the most recent Waynesboro Science Talk.

Dr. Art Evans adjourned the meeting.

**VIRGINIA MUSEUM OF NATURAL HISTORY
RESEARCH AND COLLECTIONS ACTIVITIES**

**Report to the Board of Trustees
January-March 2026**

**Kaloyan Ivanov, Ph.D.
Associate Curator of Invertebrate Zoology**

**Dr. Jackson Means
Associate Curator of Myriapodology**

- Drs. Ivanov and Means, L. Hightower, and colleagues published a paper at *European Journal of Taxonomy*.
- Drs. Ivanov and Means, and colleagues published a paper at *Invertebrate Systematics*.
- Drs. Means and Milne published a paper at *Banisteria*.
- Drs. Ivanov and Means, and colleagues have manuscripts accepted at *Zoologia* and *Spixiana*.
- Dr. Means and colleagues have a paper accepted at *Banisteria*.
- Drs. Ivanov and Means, and colleagues have a manuscript in review at *Austral Ecology*.
- Drs. Means, Ivanov, Hennen, and L. Hightower presented research findings at the 2026 Center for Systematic Entomology annual conference in Gainesville, FL.
- Dr. Ivanov participated in the West Virginia Entomological Society winter meeting in Charleston, WV.
- Drs. Ivanov and Means, and L. Hightower organized and hosted VMNH's Science Saturday: Bug Day, which attracted over 400 children and adults.
- Drs. Ivanov and Means, and L. Hightower, participated in VMNH's Starlington special event.
- Drs. Means and Jantzen received funding from the Virginia Outdoors Foundation's Forest CORE Fund, which will allow the non-profit Virginia Institute for Invertebrates to purchase land in Giles Co., Virginia to use for monitoring invertebrate diversity, abundance, and health.

Research & Collections

Drs. Ivanov and Means, L. Hightower, Drs. R. S. Bouzan, A. D. Brescovit, and J. P. P. Pena-Barbosa (Instituto Butantan, Brazil), Dr. L. F. M. Iniesta (Universidade Federal de Pernambuco, Brazil), Dr. J. Bueno-Villegas (Universidad Autónoma del Estado de Hidalgo, Mexico), Dr. C. Rojas-Buffet (Universidad de la República, Uruguay), and Dr. P. Sierwald (Field Museum of Natural History) published a paper at *European Journal of Taxonomy*. The work is the first worldwide catalog of the millipede family Chelodesmidae and includes detailed data on all 771 valid species along with synonymies, bibliography, and distributional information.

[Bouzan, R. S., J. C. Means, L. F. M. Iniesta, K. Ivanov, L. Hightower, J. P. P. Pena-Barbosa, A. D. Brescovit, J. Bueno-Villegas, C. Rojas-Buffet, and P. Sierwald. A

worldwide catalog of the millipede family Chelodesmidae Cook in Cook & Collins, 1895 (Diplopoda: Polydesmida). *European Journal of Taxonomy*. 1046: 1-271.]

Drs. Ivanov, Means, Bouzan, Iniesta and Brescovit published a paper at *Invertebrate Systematics*. The taxonomic revision of the Brazilian endemic millipede tribe Cornalatini (Polydesmida: Chelodesmidae) includes the description of two new genera and three new species along with the first molecular analysis of the family Chelodesmidae. In addition, the paper provides an identification key to all known Cornalatini genera and species.

[Bouzan, R. S., J. C. Means, K. Ivanov, L. F. M. Iniesta., and A. D. Brescovit. The false dragon millipede tribe Cornalatini Verhoeff, 1941: taxonomic revision and phylogenetic analysis (Polydesmida: Chelodesmidae). *Invertebrate Systematics* 40: 1-65.]

Drs. Means and M. Milne (U Indianapolis) published a paper at *Banisteria*. The work is the first catalog of the spiders of Virginia and offers a complete list, including bibliographic history and references, of the 713 species of spiders found in the Commonwealth and includes 147 species previously unrecorded from the state. [Milne, M. A., J. C. Means, and R. L. Hoffman. 2026. Catalog of Virginia spiders. *Banisteria* 60: 1–130.]

Drs. Ivanov, Means, Bouzan, Brescovit, and Iniesta, and Caroline T. Paranhos and Ricardo Cezar Ramos Nicolau (Instituto Butantan) have a manuscript accepted at *Zoologia*. The study reports the first record of the paradoxosomatid *Helicorthomorpha holstii* (Pocock, 1895) in Brazil, expanding the known distribution of this East Asian millipede to South America.

Drs. Ivanov, Means, Bouzan, Brescovit, and Iniesta have a manuscript accepted at *Spixiana*. The work reports the first case of an adult female with fully developed gonopods (specialized male copulatory structures) in the millipede family Chelodesmidae. This rare morphological condition expands our understanding of intersexuality in millipedes and raises questions regarding developmental pathways and genetic regulation of sexual traits in the order Polydesmida.

Dr. Means, Dr. E. Day, T. A. Dellinger, A. D. Thompson, and A. G. Swenson (Virginia Tech) have a manuscript accepted at *Banisteria*. The paper summarizes 25 years of survey efforts of native and introduced woodboring insects at Virginia Ports of Entry (VPN) and Emergency Action Notification (EAN) sites and will help inform efforts to reduce the importation of potentially harmful insects into the state for years to come.

Drs. Ivanov, Means, Bouzan, Iniesta, Brescovit, Dr. R. A. Castro-Souza (Universidade Federal de Mato Grosso, Brazil), and Ph.D. student M. D. Faustino-Magalhães (Instituto Butantan) have a manuscript in review at *Austral Ecology*. The paper explores the sampling biases associated with the known distribution of the millipede order Spirostreptida in Brazil's Atlantic Forest biome.

Drs. Ivanov and Means, Dr. J. Pérez-Schultheiss (Museo Nacional de Historia Natural, Chile), and A. Parra-Gómez (Universidad Austral de Chile) are revising the South American millipede genus *Monenchodesmus* (Polydesmida: Dalodesmidae). The work includes the description of a new genus and species from Chile.

Dr. Ivanov, Dr. C. Bartlett and student L. Hook (U Delaware), Dr. J. Leavengood (USDA- APHIS), and Dr. B. R. Garcete-Barrett (Museo Nacional de Historia Natural, Paraguay) are working on a revision of the South American planthopper genus *Protachilus* (Hemiptera: Fulgoridae). The work includes the description of the previously unknown male of *Protachilus rex* Fennah, 1944 and the description of a new species from Ecuador and Peru.

Drs. Means (presenter), Hennen (Virginia DCR), Ivanov, and L. Hightower presented research findings at the 2026 Center for Systematic Entomology annual conference (Gainesville, FL) regarding the recently launched "Millipedes of Virginia" project. (January 17)

Dr. Ivanov participated in the West Virginia Entomological Society winter meeting in Charleston, WV. (January 9)

Drs. Ivanov and Means secured research permits from the Virginia Department of Conservation and Recreation (incl. Division of Natural Heritage) for the 2026 season.

Dr. Means conducted fieldwork at various sites in Florida, Georgia, South Carolina, and Virginia in support of ongoing research projects.

Dr. Ivanov visited and worked on sorting and identifying ant specimens at the West Virginia Department of Agriculture insect collection in Charleston, WV.

Dr. Means processed (removed and sorted specimens for identification) 11 litter samples from recent collecting trip to Vietnam.

Dr. Means identified and curated 17 specimens for VMNH's molecular collection with another 2,000+ specimens put aside for various taxonomic experts.

Liberty Hightower prepared 1,288 ants and 175 non-ants from recent field work in Paraguay and Vietnam; and digitized 4,176 ant specimens (550 records) which were added to VMNH's invertebrate collection.

VMNH Collections Manager H. Cartmell, with help from Dr. Ivanov, completed work on curating and digitizing the museum's Mollusca (mollusks) holdings. The collection includes 48,455 specimens representing 199 species, of which 22,302 Bivalvia (clams, mussels, and allies; 80 species) and 26,153 Gastropoda (snails and allies; 119 species).

Dr. Ivanov satisfied a loan request regarding VMNH's invertebrate holdings: 58 lots of alcohol-preserved Holistophallidae millipedes Dr. W. A. Shear (VMNH Senior Fellow).

Dr. Ivanov oversaw the acquisition of 192 pinned/pointed identified Coleoptera donated to VMNH by Dr. C. Harden (WVDA; RIM2026-01); 9 frozen arthropods from pet trade for outreach and education donated to VMNH by T. Gearheart (RIM2026-02); 629 identified Asellidae (freshwater isopods), including paratypes of *Caecidotia malardi* Lewis & Lewis, 2025, and 281 of identified Oniscidea (terrestrial isopods) in ethanol donated to VMNH by Dr. J. J. Lewis (Lewis & Associates; RIM2026-05).

Education & Outreach

Drs. Ivanov and Means, and L. Hightower organized and hosted VMNH's Science Saturday: Bug Day. The 4-hour event, which offered a variety of displays and activities including specimens recently collected by museum scientists, live arthropods, and bug-themed children activities and crafts, was attended by 444 children and adults from Virginia and North Carolina. The social media campaign associated with the event was highly successful and reached over 175,000 people from North America, South America, Southeast Asia, and Europe. (February 7)

Drs. Ivanov and Means, and L. Hightower participated in VMNH's Starlington special event which was attended by nearly 150 museum patrons. (March 21)

Dr. Ivanov provided training in insect collecting, identification, and natural history to members of the Blue Ridge Foothills and Lakes Chapter of the Virginia Master Naturalists. (February 28)

Liberty Hightower participated in the Patrick Henry Elementary Career Fair and interacted with over 50 students and teachers. (February 27)

Drs. Ivanov and Means, and L. Hightower gave tours of the museum's laboratories and collections to members of the general public, the Blue Ridge Foothills and Lakes Chapter of the Virginia Master Naturalists, and students and faculty from Averett University. (February 28, March 17, 30, and 31)

This quarter, volunteer Lauren Apel continued work in the Department of Recent Invertebrates by processing litter samples from Texas and Vietnam in support of various research projects.

Exhibits

Dr. Ivanov prepared a display focused on Virginia's beetle diversity for VMNH's Mobile Science Outreach unit in Waynesboro, VA.

Professional Service

Drs. Means and B. Jantzen (Virginia Institute of Invertebrates, VII; Virginia Tech) were awarded \$700,131.00 from the Virginia Outdoors Foundation's Forest CORE Fund (Mountain Valley Pipeline Region) in association with VII and the 500-Year Forest Foundation. The CORE Fund provides money for the purchase of property for conservation and protection from development in perpetuity, which aligns with the goals of both aforementioned organizations. With this grant, VII will purchase a 222 acre property in Giles Co., Virginia to use for monitoring invertebrate diversity, abundance, and health, as well as research for staff at VMNH, VT, and other collaborators.

Drs. Ivanov and Means participated in a board meeting of the Virginia Institute for Invertebrates. The meeting was devoted to discussing details regarding the recently funded Virginia Outdoors Foundation's Forest CORE proposal. (March 16)

Dr. Means, VMNH Executive Director Dr. Joe Keiper and Administrator of Science Ben Williams met with the executive director and other staff at The Nature Foundation at Wintergreen, a non-profit operating within the Wintergreen Resort in Nelson Co., VA to discuss potential avenues for research, outreach, and other forms of collaboration. (April 1).

Dr. Means served as an editor for a manuscript submitted to *Banisteria*. (completed February 26)

Dr. Ivanov served as an editor for a manuscript submitted to *Historia Naturalis Bulgarica*. (completed March 4)

Dr. Ivanov copy edited four articles for *Banisteria* (Volumes 60 and 61). (completed January 14 and February 26)

Dr. Ivanov reviewed manuscripts for *Historia Naturalis Bulgarica* and *Diversity*. (completed January 28 and March 27)

Hayden Bassett, Ph.D.
Assistant Curator of Archaeology

Introduction

The VMNH Archaeology Department is currently staffed by 8 personnel as of April 2026. This includes the Department Curator, the VMNH Archaeologist, the four core staff of the Cultural Heritage Monitoring Lab and two Archaeology Lab technicians. Over the past three months, Dr. Hayden Bassett focused the department's efforts on publications, collections management, and assistance to cultural heritage organizations impacted by natural disaster.

Research and Collections

The VMNH Archaeology Department continued collections organization efforts with the goal of enabling research in Virginia Archaeology. The lab coordinated volunteers to organize and label artifact assemblage bags from several sites in Virginia with high research potential. This effort ensures that the VMNH is maximizing research potential with the Commonwealth's collections.

From March and April, the Archaeology Department continued work on the Smith River Survey, a grant-funded project that seeks to document all in-water cultural resources in a 25-mile section of the Smith River in Henry County, VA. The team completed its desktop review, 50% of report writing, and will resume its fieldwork this month.

As a producer and curatorial repository of digital collections, the VMNH Archaeology Department has expanded its digital collections holdings by nearly 2,000 "objects" this quarter and anticipates further growth in digital collections with each new quarter. At the request of its research stakeholders, the new objects include expanded cultural heritage site locations for Hawaii. The Archaeology Department's CHML is using these data to assess impacts to cultural heritage from the recent floods in Hawaii at the request of state and local governments. These digital objects in the VMNH's digital collections have already been requested/accessed by multiple outside organizations.

A part of Dr. Bassett's research efforts this quarter were dedicated to continuing the leading role played by the VMNH's Cultural Heritage Monitoring Lab (CHML) in response to the destruction of museums, archaeological sites, and other cultural heritage sites in Ukraine and Sudan. Since February 2022, the VMNH-CHML team has been monitoring over 28,000 cultural heritage sites in Ukraine, identified potential damage to 4,383 sites, and confirmed damage to 740. The VMNH team is also monitoring Sudan's museums, religious sites, and archaeological sites in the areas impacted by the ongoing civil war. As previously mentioned, the CHML at VMNH also responded to the recent Hawaii floods by assessing natural disaster impacts to cultural heritage for emergency responders.

Publications

Dr. Bassett and his team submitted a manuscript title "Riverine Settlement and Aquatic Resource Use in Late Woodland Virginia" for publication. It is currently in peer review.

Additionally, VMNH's CHML team published two open access reports this quarter through the Smithsonian Institution. As of April 2026, the total readership of the VMNH's Archaeology Departments publications from the past 30 months is 64,847 reads and 9,302 downloads.

Published Reports this Quarter (VMNH Archaeology authors in bold):

Fitzgerald, K., Hanson, K., **Bassett, H.**, **Gunter-Bassett, M.**, **Welsh, W.**, **Maher, A.**, Averyt, K., Kane, K. E., Muller, C. E., and Daniels, B. I. (2026). "[Damage to the Palace of Sultan Ali Dinar Museum in Al Fashir, Sudan.](#)" Virginia Museum of Natural History, Cultural Heritage Monitoring Lab; University of Pennsylvania Museum of Archaeology and Anthropology, Penn Cultural Heritage Center; and Smithsonian Institution, Museum Conservation Institute—Smithsonian Cultural Rescue Initiative. DOI: <https://doi.org/10.25573/data.30625025>.

Hanson, **K.**, **Fitzgerald, K.**, Meharry, J. E., Yefimova, V., Cil, D., Tuttle, E., Bakhshi, R., Rozhko, V., Makar, R., Zadorozhna, M., Oleksii, A., Frolova, Y., **Bassett, H.**, **Welsh, W.**, **Maher, A.**, Averyt, K., Kane, K. E., Aronson, J., Muller, C. E., **Gunter-Bassett, M.**, and Daniels, B. I. (2026). "[Rapid Site Report: Damage and Looting to the Sergei Prokofiev Museum in Sontsivka, Ukraine.](#)" Ukrainian Heritage Monitoring Lab; Virginia Museum of Natural History, Cultural Heritage Monitoring Lab; University of Pennsylvania Museum of Archaeology and Anthropology, Penn Cultural Heritage Center; University of Maryland, Center for International Development and Conflict Management; and Smithsonian Institution, Museum Conservation Institute—Smithsonian Cultural Rescue Initiative. DOI: [10.25573/data.30246196](https://doi.org/10.25573/data.30246196)

Education and Outreach

Museum Exhibits / Services / Outreach:

This quarter, the VMNH Archaeology Department visited Salem Museum & Historical Society to see the archaeological exhibit on the Graham-White Site, a Late Woodland and contact period village in Roanoke County, VA. In late 2025, the VMNH Archaeology Department provided lab space, collections, and exhibit preparation support for this exhibit.

In late February, Dr. Hayden Bassett and Dr. Madeleine Gunter-Bassett gave a lecture in Salem, VA on research they recently submitted for peer-review. The lecture, titled "Riverine Settlement and Aquatic Resource Use in Late Woodland Virginia," was sponsored by the Archaeological Society of Virginia's Headwaters Chapter and attended by 90 people.

Professional Service:

Dr. Bassett continued his appointments as a Research Associate at the Smithsonian Institution, a Fellow of The Explorers Club, a Fellow of the Royal Geographical Society, and an Adjunct Lecturer in William & Mary's Department of Anthropology. He continued his duties as Vice President of the Board of Trustees for Falmouth Heritage Renewal, an international historic preservation non-profit.

This quarter, Dr. Hayden Bassett and VMNH staff archaeologist Dr. Madeleine Gunter Bassett continued to fulfill their duties in the Archaeological Society of Virginia (ASV)

and Council for Virginia Archaeologists (CoVA). This included participating in the annual ASV and CoVA meeting in Staunton, VA. In their roles on committees in these organizations, VMNH Archaeology staff provide direction, technical review, grant approvals, among other tasks for state-wide archaeological research for the foreseeable future.

Adam Pritchard, Ph.D.
Assistant Curator of Paleontology

- Dr. Pritchard submitted a new scientific article and has a second in press.
- Dr. Pritchard worked with intern Joshua Safley (January-May) on the 3D modeling of the Virginian reptile *Tanytrachelos*. The project is funded by the Luck Companies Foundation and will produce an exhibit (coordinated with Lila Dougherty) and scientific publications (to be submitted as presentation for Society of Vertebrate Paleontology 2026 meeting).
- Dr. Pritchard coordinated a return visit to the Solite Quarry (currently owned by Luck Stone corporation) with technician Lucy Treado and Dr. Paul Olsen (Columbia University) to re-examine the site and gauge the possibility of return fieldtrips.

Research & Collections

Dr. Pritchard has two papers in press and in revision in Q1 2025.

- A description and analysis of a toothless bipedal reptile from Triassic New Mexico in the *Journal of Vertebrate Paleontology*, led by Dr. Alan Turner of Stony Brook University.
- An analysis of VMNH reptile skull bones from Fraser sites in the United Kingdom that represent a new taxon of small carnivorous reptile in revision for *Earth & Environmental Science Transactions*, led by Dr. Sterling Nesbitt of Virginia Tech.

Dr. Pritchard co-authored a poster presentation at the Tri-Sectional Geological Society of America meeting in Memphis, TN, led by University of Lynchburg intern Nicholas Brewton. The presentation focused on Mr. Brewton's project developing a repeatable framework for 3D scanning fossils, creating computer models, and animating those models.

In ongoing projects, Dr. Pritchard worked on figures for an article on Triassic drepanosaurs of Utah and developed the first three-dimensional reconstruction of *Tanytrachelos* in collaboration with intern Joshua Safley. He and Mr. Safley coordinated with former VMNH intern Gina Workman on describing unique tail bones from *Tanytrachelos* for a separate publication.

Dr. Pritchard developed the collections in several targeted ways:

- Dr. Pritchard took in a collection of large dinosaur track casts from the Cretaceous Period of Virginia, taken by Dr. Robert Weems (USGS, retired) and Jon Bachman (amateur paleontologist). Representing some of the only records of dinosaurs from the Cretaceous of Virginia, these include footprints from very large carnivores, armored dinosaurs, and long-necked sauropods.
- Dr. Pritchard brought in fossil donations from the Jurassic and Triassic of northern Virginia sites by Dr. Paul Olsen (Columbia University), including a large armored fish and a reptile trackway.

Dr. Pritchard worked with several scientific workers and private citizens seeking to use VMNH collections in their work:

- Loan of two large sperm whale skulls from Virginia to Dr. Alton Dooley of Western Science Center (Hemet, CA), coordinated with three staffers from WSC and transported by truck cross-country.
- Loan of Early Jurassic fish and plants from Virginia to Dr. Ben Kligman of UT Austin for a descriptive study.
- CT scanning of a half-dozen *Tanytrachelos* skeletons for the Luck Companies internship project with paleontologists at Virginia Tech.
- Assessment of palynological (pollen fossil) samples for independent research studying Maryland paleobotany from after the Cretaceous extinction.

Education & Outreach

Dr. Pritchard presented a lecture to a natural history collections course at Virginia Tech on the benefits of small museums and ways to advance collections utility for different audiences.

Dr. Pritchard coordinated with technician Lucy Treado and exhibits manager Lila Dougherty on the setup and display of Smithsonian-loaned ground sloth fossils for the Virginia 250 celebrations. He manned a station presenting the fossils to the VA 250 Reception event on 2/19/2026.

Dr. Pritchard served eight requests for specimen identifications and one request for information about the mastodon fossil record.

Dr. Pritchard hosted collections tours for over 10 students and a professor for a natural history collections course from Averett University.

Grants & Funding

Dr. Pritchard worked with Lucy Treado and Dr. Brooke Haiar on using the remaining funds of the National Science Foundation grant to develop lab capacity for the fossils collected and to continue the 3D modeling and reconstruction components of internship projects and resultant research products in perpetuity.

Professional Service

Dr. Pritchard reviewed an article for the *Journal of Vertebrate Paleontology*.

Dr. Pritchard provided beta-testing and feedback for new features in the Morphobank software (www.morphobank.org) package for managing phylogenetic datasets and testing evolutionary relationship hypotheses.

Dr. Pritchard reviewed content for and participated in a dissertation committee meeting for a Ph.D. student in the Geosciences department at Virginia Tech.

Collin VanBuren, Ph.D.
Visiting Scholar

- Dr. VanBuren and colleagues resubmitted one paper that is now in review and received comments back on another paper that is under revision
- Dr. VanBuren gave multiple presentations, including at state conferences and the King's Grant Retirement Community
- Dr. VanBuren joined the Advisory Board of the Amphibian Survival Alliance as a Strategic Youth Advisor

Research & Collections

Dr. VanBuren resubmitted one paper and is revising another:

- van Rees, VanBuren, et al. *In revision*. Eight recommendations to enhance biodiversity outcomes of nature-based solutions at multiple scales. *Journal of Environmental Management*
- Stevenson et al. *In review*. Changes in plant community composition and diversity in a high-elevation rangeland: implications for pollinators. *Rangeland Ecology & Management*

Dr. VanBuren worked with M. Boyd and H. Cartmell to onboard five new volunteers to assist with collection curation and management tasks

Dr. VanBuren, M. Boyd, and Dr. H. Bassett have been documenting beaver foraging on invasive autumn olive and preparing a natural history note documenting the interactions.

Dr. VanBuren and M. Boyd have surveyed multiple new sites for potential fieldwork this summer, including beaver activity at Fairy Stone State Park to help strengthen connections with their staff

Dr. VanBuren submitted two abstracts to BeaverCON, a conference later this year. One is for a panel discussion with the Southeast Beaver Alliance and other is for a youth inclusion workshop.

Education & Outreach

Dr. VanBuren gave a presentation at the King's Grant Retirement Community for their Science Café series

Dr. VanBuren participated in the Starlington Event

Dr. VanBuren presented a poster with co-author Dr. Emily Fairfax titled "Expanding the framework for understanding beaver contributions to socio-ecological systems" at the Virginia Chapter of the Wildlife Society meeting in Lexington, VA

- His two students also presented posters the same week at the Southeastern Chapter of the Geological Society of America meeting

Dr. VanBuren, with M. Boyd and L. Dougherty, has been working on developing an infographic to educate the public about bird window strikes, including mitigation

techniques and information about donating deceased individuals to the museum to become specimens

Professional Service

Dr. VanBuren continues to participate in the “nutria task force” monthly calls with state and federal wildlife managers, and in his role as Strategy Planning and Implementation Chair of the Southeast Beaver Alliance

Dr. VanBuren officially joined the Advisory Board of the Amphibian Survival Alliance as a Strategic Youth Advisor

Dr. VanBuren is also in discussions with national leadership of The Wildlife Society to support their efforts to engage with youth as part of their contributions to international conservation and restoration goals (e.g. 30 by 30)

Vertebrate Zoology
Marshall Boyd, Research Technician

Research & Collections

Field work

M. Boyd, C. VanBuren, and H. Bassett have begun documenting beaver activity across areas surrounding about a 1 hour radius of Martinsville including site visits, trail camera documentation and dendrochronology specimen acquisition. Anticipation of intern involvement for continued data collection and hopeful publication of this activity will continue throughout 2026.

Professional Presentations/Conferences

M. Boyd and C. VanBuren traveled to Virginia Military Institute (VMI) for the annual Virginia Chapter of The Wildlife Society meeting where VanBuren presented a poster. Boyd accepted the position within the Executive Committee of Social Media Coordinator.

Ongoing research

M. Boyd began correspondence for documenting Timber Rattlesnake populations at Fairy Stone State Park with 2026 fieldwork delayed due to weather conditions. Fieldwork anticipated to begin again with more ideal conditions for snakes to be active.

Professional Development

M. Boyd along with all search committee members completed the process of in person interviews for the vacancy of Assistant Curator of Herpetology. The selected candidate is anticipated to be onsite in June 2026.

Collections Growth, Management and Use

M. Boyd along with H. Cartmell, C. VanBuren, and L. Hightower initiated a group of Virginia Master Naturalist volunteers to identify and sort the Rosenberg Owl Pellet collection. Coordination of volunteer schedules, photography of the VMNH reference collection and utilization of the Mammalogy Lab and Microscopy Lab have all been portions of this ongoing project.

M. Boyd and J. Harris have coordinated with Margaret Harden for the digitization of the

VMNH nest and egg collection. M. Harden is documenting all the information of the ledger catalog that is associated with that collection into a digital spreadsheet. This ongoing project, when finished, will contribute towards the recuration of the collection and hopeful research project collaboration(s) in the future.

M. Boyd collaborated with Jason Gibson of Averett University to identify the frog specimens of the VMNH herpetology backlog collection helping to further those collections towards cataloging and curation for future insertion to the VMNH research collections.

M. Boyd partnered with Dr. Noel Boaz for a specimen loan of multiple large carnivore species leg bones to conduct a comparative CT scan with collaborators in California. Specimens have been returned safely to the VMNH with data on the scans anticipated to be sent soon.

M. Boyd continues to collect DOR specimens and those donated by other institutions for the growth of vertebrate zoology research collections along with the education/outreach collections.

Education & Outreach

VMNH-based Activities

M. Boyd and the rest of the VMNH staff hosted the Science Saturday Bug Day showcasing VMNH specimens from across all museum collections featuring Virginia Master Naturalists and Philpott Lake.

M. Boyd and the rest of the VMNH staff hosted the Starlington event where Boyd partnered with Virginia Master Naturalist Christine Stewart to showcase natural history items such as sea turtles, birds, and whale specimens that all contributed to fashion accessories and/or status symbols of the time.

M. Boyd supervised and worked alongside a VMNH intern hosted by Zach Ryder to learn about zoology collections where the intern had the opportunity to work on herpetology backlog specimens.

M. Boyd hosted a cohort of students from Averette University for a behind the scenes tour. The Natural History Collections Course students learned about specimen preparations, collections management and what it means to be a collections technician. Boyd partnered with curators and staff from all departments of the VMNH to have students get the full experience of each collection and what it is like to work within a natural history museum.

M. Boyd attended the annual meeting of the Virginia Master Naturalists Southwest Piedmont Chapter.

Non-VMNH based Activities

M. Boyd and C. VanBuren partnered with the rangers of Fairy Stone State Park to begin fieldwork plans of documenting beaver as well as Timber Rattlesnake activity within the park. Fieldwork associated with both animals is anticipated to begin with more ideal weather conditions as the snowstorm in this quarter postponing plans.

M. Boyd and C. VanBuren traveled to Kings Grant for a presentation on beaver research conducted by VanBuren with emphasis on the plans of local research anticipated to begin in the region. About 20 residents of the community were in attendance.

M. Boyd and Virginia Master Naturalist Christine Stewart traveled to Kings Grant for an Education Station on "Leaving the Leaves" presentation where residents learned about the benefits of best practices of spring cleaning in their respective gardens. About 10 residents of the community were in attendance.

M. Boyd, C. VanBuren, and L. Hightower attended the Virginia Chapter of The Wildlife Society meeting held at the Virginia Military Institute (VMI).

M. Boyd partnered with Bee City Martinsville and Hives for Heros for the annual Books and Bunnies event held at the Sports Complex where visitors learned about the benefits of pollinator gardens, leaving the leaves, and what it means for Martinsville to be a Bee City.

Media

M. Boyd continues to be the Social Media Chair for the Virginia Herpetological Society (VHS) where educational material, announcements for programming and community outreach occur.

M. Boyd has accepted the role as Social Media Coordinator for the Virginia Chapter of The Wildlife Society including the Facebook and Website where educational material, announcements for programming and community outreach occur.

Professional Service

M. Boyd continues to be the Vice President and Social Media Chair for the Virginia Herpetological Society.

M. Boyd has accepted the role of Social Media Coordinator for the Virginia Chapter of The Wildlife Society

M. Boyd continues to serve on the executive committee for the Friends of Fairy Stone State Park nonprofit organization.

M. Boyd continues to be a member of the local young professionals (“Yo-Pros”) group by attending events. The group is working to connect younger professionals of the Martinsville/Henry County area in a social but also collaborative way.

Research and Collections

Jill K. Harris, Registrar

Eight (8) collections acquisitions were recorded for 1,123 individual specimens and 3 boxes of specimens. These specimens were added to the invertebrate zoology, vertebrate zoology, and paleontology collections.

Four (4) outgoing loans were recorded from the invertebrate zoology, vertebrate zoology, and paleontology collections. The loans were made to: University of Delaware, Western Science Center, Cedars-Sinai Cancer Oncobiobank Shared Resource, and University of Texas Jackson School Museum of Earth History.

Ms. Harris (database administrator) reports that, within the collections management system *Re:discovery Proficio*, VMNH staff added/modified/updated 32,841 catalog records, according to database statistics.

Haley Cartmell, Collections Manager

Curators and staff modified/updated 25,378 existing records and added 117 new records to the VMNH collections databases (Proficio and EGEMS) during the months of January, February, and March 2026.

SEPTEMBER-DECEMBER 2025
VMNH ACQUISITIONS FOR APPROVAL BY BOARD OF TRUSTEES RESEARCH AND COLLECTIONS COMMITTEE

RIM* #	Collector/Donor	Date at VMNH	VMNH Dept.	QTY	Description	Method	To Be Accessioned (Y/N)
RIM 34-2025	VA Dept of Wildlife Resources (Leah Card)	10/18/2025	MAMMALOGY	1	American Porcupine (<i>Erethizon dorsatum</i>)	Transfer	Y
RIM 35-2025	Dr. Steven M. Roble	11/10/2025	RECENT INVERTEBRATES	1035	pinned beetles (Coleoptera), most unidentified	Transfer	Y
RIM 36-2025	Dr. Arthur V. Evans	5/16/2025	RECENT INVERTEBRATES	57	pinned insects, with data	Gift	Y
RIM 37-2025	Dr. Arthur V. Evans	5/16/2025	RECENT INVERTEBRATES	347	pinned insects, no data	Gift	N
RIM 38-2025	Canadian Museum of Nature (Dr. Robert S. Anderson)	9/30/2025	RECENT INVERTEBRATES	3	pinned weevil (Coleoptera: Curculionidae) PARATYPES; <i>Eurhoptus cariniventris</i> , <i>E. limbricatus</i> , <i>E. occidentalis</i>	Gift	Y
RIM 39-2025	Dr. Arthur V. Evans	11/13/2025	RECENT INVERTEBRATES	1029	pinned insects, with data	Gift	Y
RIM 40-2025	USDA-APHIS (John M. Leavengood, Jr. PhD)	11/19/2025	RECENT INVERTEBRATES	398	pinned insects (124 Coleoptera, 274 Hemiptera)	Gift	Y
RIM 41-2025	John D. Kleopfer	4/29/2025	HERPETOLOGY	1	Mole Kingsnake (<i>Lampropeltis rhombomaculata</i>)	Gift	Y
RIM 42-2025	Arianna Kuhn	3/4/2025	HERPETOLOGY	1	Bluetongue Skink (<i>Tiliqua scincoides</i>)	Gift	Y
RIM 43-2025	Marshall Boyd	11/24/2025	HERPETOLOGY	4	Wormsnake (<i>Carphophis amoenus</i>), Five-lined Skink (<i>Plestiodon fasciatus</i>), Dekay's Brownsnake (<i>Storeia dekayi</i>), Mole Kingsnake (<i>Lampropeltis calligaster rhombomaculata</i>)	Salvaged	Y
RIM 44-2025	Marshall Boyd	11/24/2025	MAMMALOGY	3	Flying Squirrel (<i>Glaucomys volans</i>), American Beaver (<i>Castor canadensis</i>), Raccoon skull (<i>Procyon lotor</i>)	Salvaged	Y
RIM 45-2025	Marshall Boyd	11/24/2025	ORNITHOLOGY	2	Barred Owl (<i>Strix varia</i>), Sharp-shinned Hawk (<i>Accipter striatus</i>)	Salvaged	Y

JANUARY-MARCH 2026
VMNH ACQUISITIONS FOR APPROVAL BY BOARD OF TRUSTEES RESEARCH AND COLLECTIONS COMMITTEE

RIM* #	Collector/Donor	Date at VMNH	VMNH Dept.	QTY	Description	Method	To Be Accessioned (Y/N)
RIM 01-2026	Curt W. Harden	12/26/2025	RECENT INVERTEBRATES	192	dry, pinned beetles	Gift	Y
RIM 02-2026	Todd Gearheart	12/28/2025	RECENT INVERTEBRATES	9	frozen (deceased) invertebrates from pet trade: 7 tarantulas, 1 scorpion, and 1 centipede	Gift	N
RIM 03-2026	Elizabeth Moore	Pre 2017	HERPETOLOGY	3 boxes	turtle shells, no data	Found In Collection	N
RIM 04-2026	Robert Weems	2/19/2026	PALEONTOLOGY	7	footprints: dinosaur: theropod, sauropod, thyreophoran	Gift	Y
RIM 05-2026	Dr. Julian J. Lewis	3/13/2026	RECENT INVERTEBRATES	164 lots (910 Individ.)	75 lots (629 specimens) of identified Asellidae, including 4 male paratypes of <i>Caecidotea malarki</i> , 89 lots (281 specimens) of identified Oniscidea all lots in 95% ethanol	Gift	Y
RIM 06-2026	Marshall Boyd	3/25/2026	HERPETOLOGY	1	Eastern Rat Snake (<i>Pantherophis alleghaniensis</i>)	Salvaged	Y
RIM 07-2026	Liberty Hightower	3/3/2026	ORNITHOLOGY	1	Eastern Screech Owl, red phase (<i>Megascops asio</i>)	Salvaged	Y
RIM 08-2026	Todd Gearheart	12/28/2025	HERPETOLOGY	3	frozen (deceased) vertebrate lizards from pet trade: 2 <i>Uromastyx ocellata</i> (male and female) and 1 <i>Trioceros hoenelii</i>	Gift	N

**SEPTEMBER-DECEMBER 2025
and
JANUARY-MARCH 2026
VMNH ACQUISITIONS FOR APPROVAL BY BOARD OF TRUSTEES RESEARCH AND COLLECTIONS COMMITTEE**

VMNH Collections Committee and Executive Director have Approved Acquisitions:

RIM 34-2025 through RIM 45-2025 and RIM 01-2026 through RIM 08-2026

VMNH Board of Trustees Research & Collections Committee Review of Acquisitions:

RIM 34-2025 through RIM 45-2025 and RIM 01-2026 through RIM 08-2026

Carole L. Nash, Chair	_____	_____
	(signature) Carole L. Nash, Chair	Date
Thomas R. Benzing	_____	_____
	(signature) Thomas R. Benzing	Date
Melany Clark	_____	_____
	(signature) Melany Clark	Date
Arthur V. Evans	_____	_____
	(signature) Arthur V. Evans	Date
David Furth	_____	_____
	(signature) David Furth	Date
	_____	_____
	(signature)	Date

Note: this info will not print on final version, it is for informational purposes only, to help reviewers.

The only edits made to this document since the August 2023 BOT approved version are:

- the leaf cutter ant colony paragraph was removed, since we no longer have the ant colony, and
- all animal care sheets were removed. These care sheets are not policy, so they will become a procedural document, rather than a policy document. This is due to how frequently these care sheets change and every time they do, they would need BOT approval.

These changes have been approved by the VMNH Collections Committee and Executive Director.

Virginia Museum of Natural History

Policies for Live Animals

Table of Contents

I. Preface 3

II. Institutional Commitment and Animal Care 3

III. Acquisition..... 3

IV. Access and Use of Collections 4

V. Removal and Disposal of Deceased Animals 4

VI. Administration and Employee Responsibilities..... 4

VII. Permits, Inventory, and Annual Assessment of Resources 5

VIII. Transparency and Accountability 5

APPENDIX I. Live Animal Acquisition Consideration Form 6

APPENDIX II. Gift-In-Kind Form 9

APPENDIX III. Live Animal Annual Assessment Form 10

APPENDIX IV. Guidelines for Care and Maintenance..... 12

I. Preface

The Virginia Museum of Natural History (VMNH) uses live invertebrates, fish, amphibians, and reptiles in exhibits, education, and public programs as part of its mission to interpret Virginia's natural heritage within a global context in ways that are relevant to all citizens of the Commonwealth. These living collections serve an important role by helping to instill a sense of understanding and respect for creatures that are often misunderstood for a variety of reasons. The VMNH will not keep live mammals or birds without undergoing the American Zoological Association's accreditation process.

II. Institutional Commitment and Animal Care

The VMNH is committed to providing the financial, physical, and human resources necessary to safely and humanely care for the animals entrusted to its care. The Manager of the Department of Education and Public Programs (DEPP) and the Exhibits Manager, in consultation with other relevant staff and outside animal-care experts, are responsible for recommending to the VMNH Executive Director all the resources needed to effectively care for the VMNH's live animals that are housed at the museum. Research and Collections Division staff are responsible for effective care of all live animals housed in their research laboratories and office spaces.

The VMNH staff research the best practices of care and maintenance for each type of animal, and then apply these practices to the fullest extent possible. Under no circumstances will the VMNH take on responsibilities for numbers or types of animals that are beyond its ability to care for humanely, nor will it engage in any activity that threatens the welfare of animals, staff, or visitors. All staff assigned to assist in the maintenance of VMNH animals receive detailed training in the care and handling procedures for each species. The live animal collection at the VMNH is under the care of a licensed veterinarian, as required by permits issued by state and federal regulatory agencies. Yearly wellness checks will be conducted, and veterinary medical staff are contacted if emergency care is needed.

The live animal collection is funded in a variety of ways, such as through grants and individual donations. Funds acquired for the live animal collection may be secured through the Virginia Museum of Natural History Foundation, a 501(c) 3 non-profit organization that exists to support the mission and programs of the VMNH.

III. Acquisition

Acquisition of live animals is in full compliance with all applicable laws and regulations of local, state, federal, and international authorities. Animal ambassadors that are used in education and public programs are generally acquired through proposed donations that are considered on a case-by-case basis.

Acquisition of live animals requires VMNH staff to consider multiple criteria, including: the animal's health, habitat needs, veterinary care requirements, cost of care, legal concerns, and available

staff resources. These criteria are detailed in the Live Animal Acquisition (LAA)-Consideration Form (Appendix I).

When an opportunity to acquire an animal arises an LAA-Consideration Form is completed by the Manager of DEPP, Exhibits Manager, or a Research Curator who ultimately will be responsible for the animal's care. After completion of the LAA-Consideration Form, that staff member will consult with other staff, as needed, and make a recommendation of whether or not to acquire the animal.

If recommended that the VMNH should acquire the animal, the VMNH Executive Director is asked to review and sign the LAA-Consideration form. If the Executive Director approves the acquisition, the staff member ultimately responsible for the animal's care, will, if applicable, ask the potential donor to complete a Gift-In-Kind form (Appendix II). Copies of all of these forms are provided to the VMNH Registrar.

Upon arrival at the VMNH, all live animals are placed in an appropriate enclosure and quarantined for an appropriate length of time, as determined after consultation with a licensed veterinarian and reviewing pertinent live-animal care procedures.

IV. Access and Use of Collections

The VMNH living collections are not available for loan. Animals used in exhibits are housed on display. Animals used in public programs are either housed in the Suzanne M. Lacy Education Center, or they are housed in research laboratories and office spaces that are not accessible to the public.

V. Removal and Disposal of Deceased Animals

Live animals are not accessioned (or deaccessioned) by the VMNH. Deceased animals are removed from their enclosure and frozen as soon as possible after death. They are then considered by a Research Curator or the Manager of DEPP for acquisition as VMNH specimens, subject to the review process outlined in the VMNH Collections Policies. VMNH staff will properly dispose of remains not under consideration for acquisition.

VI. Administration and Employee Responsibilities

The live animals housed in exhibits and the Suzanne M. Lacy Education Center are under the day-to-day care of the DEPP. Animals housed in research laboratories and office spaces are under the daily care of the Research and Collections division staff. All staff follow a chain-of-care in the case of unplanned absences. Outside of DEPP, the Exhibits Manager, and the Biology Research Technician are equipped to care for the collections on display in the absence of DEPP staff. Animals housed in research laboratories and office spaces are cared for by curators, staff scientists, and research technicians. All staff responsible for animal care are trained in proper methods for care, feeding and

watering, habitat maintenance, and emergency procedures. Staff are also trained on species-specific information to share with the general public during programming.

In the event staff determines that resources are no longer available to appropriately care for a live animal, the VMNH will make every attempt to rehome it with a suitable organization.

VII. Permits, Inventory, and Annual Assessment of Resources

The state of Virginia requires a permit, issued by the Department of Wildlife Resources, to exhibit wild animals. This permit requires the signature of a certified veterinarian, as well as annual wellness checks. Permit applications are submitted annually, with updated inventories of all live animals housed at the VMNH. As part of this process, the VMNH will annually assesses the financial, physical, and human resources necessary to care for each live animal, using the Live Animal Annual Assessment Form (Appendix III).

It is the responsibility of the Manager of DEPP to maintain current state permits and update inventories as needed. The Manager of DEPP is responsible for providing a copy of all state permits to the VMNH Registrar.

VIII. Transparency and Accountability

The VMNH manages its collection of live animals in the public trust. The VMNH Policies for Live Animals, and all other documents related to live animals housed at the VMNH (e.g., Guidelines for Care and Maintenance, Appendix IV) are available for public review.

The Virginia Freedom of Information Act (FOIA), located in § 2.2-3700 et seq. of the Code of Virginia, guarantees citizens of the Commonwealth and representatives of the media access to public records held by public bodies, public officials, and public employees. Citizens have the right to request and/or receive copies of public records, and to request that any charges for the requested records be estimated in advance. The VMNH is legally obligated to comply with all FOIA requests, if the request is for existing documents and the records are identified with “reasonable specificity.”



LIVE ANIMAL ACQUISITION - CONSIDERATION FORM

Date: _____

Name of Source (Seller or Person/Institution Making Offer to Donate) _____

Email Address: _____

Phone Number(s): _____

Has the animal(s) been seen in person by VMNH Staff?	Yes	No	
Has the animal(s) been formally offered to the VMNH?		Yes	No
Or, is this a pre-offer review?	Yes	No	

TYPE OF ANIMAL(S):

- _____ Invertebrate
 - _____ Arthropod (insects, arachnids, crustaceans, myriapods)
 - _____ Mollusk (chitons, snails, bivalves, squids, octopuses)
 - _____ Annelid (earthworms, leeches)
 - _____ Cnidarians (hydras, jellyfishes, sea anemones, corals)
- _____ Amphibian
- _____ Reptile
- _____ Fish (circle one): freshwater saltwater

PRICE, QUANTITY, AND PHYSICAL CONDITION: (Be as accurate as possible.)

Sales price (if applicable) and quantity of each type of animal being offered, include size of the animal:

HABITAT:

Are there any supplies being donated or sold with the animal? YES NO
If yes, please describe and provide sales price, if applicable:

Is there any equipment being donated or sold with the animal? YES NO
If yes please describe and provide sales price, if applicable:



HEALTH:

Does the animal show signs of illness? _____ YES _____ NO SOME: _____
When was the last time it was seen by a vet? _____
How old is the animal? _____

Are quarantine facilities available? _____ YES _____ NO

LEGALITIES:

Does the source (owner) have all necessary permits and any other paperwork (e.g. sales documentation) for each animal? _____ YES _____ NO SOME: _____
If not, how was it acquired? _____
When was the animal acquired? _____
Are there any legal restrictions to consider (i.e., endangered, threatened)? (list all concerns):

FUTURE NEEDS:

SUPPLIES AND EQUIPMENT:

1. Are there any supplies that will need to be purchased? _____ YES _____ NO
If yes, please describe and include estimated cost:
2. Is there any equipment that will need to be purchased? _____ YES _____ NO
If yes please describe and include estimated cost:

CARE: What food will the animal need?

VET SERVICES: Describe anticipated veterinary care needs:

STAFF RESOURCES: Estimate how much time for care is needed weekly?

What is the projected annual cost of food and supply needs?

Supplies/Equipment:

Food:

Vet Services:

Total Annual Cost Projected:

APPENDIX II. Gift-In-Kind Form



GIFT-IN-KIND FORM

Date(s) Item(s) Donated: _____

Item(s) Received From (Donor's Name): _____

Donor's Address:

Donor's Phone #: _____

Donor's Tax Identification Number: _____ (Only if value claimed for tax deduction purposes.)

Item(s) for (VMNH Recipient): _____ Department: _____
(Printed name and Title)

Quantity and Type/Description of Item(s) [e.g., supplies, equipment, specimens(s)]:
Note that "specimen(s)" includes donated live animal(s) and the progeny of said specimen(s).

Total Value* of Donated Item(s): \$ _____

Means of Valuing (e.g., fair market value): _____

** In accordance with the Tax Reform Act of 1984, it is the responsibility of the Donor to obtain any appraisals necessary for donated property claimed as charitable deductions.*

By signing this document, the Donor indicates they have the right to transfer said item(s), such item(s) being free and clear of all encumbrances. The Donor transfers the item(s) noted on this document, which shall constitute an irrevocable and unconditional gift of same by the Donor to The Virginia Museum of Natural History, including all rights, title, and interest in and to the above item(s) absolutely and forever.

Signature of Donor: _____ Date: _____

Signature of VMNH Recipient: _____ Date: _____
Signature and Printed Name/Title

Original form should be given to the museum registrar for the museum's permanent files.

APPENDIX III. Live Animal Annual Assessment Form (Front of Form)



LIVE ANIMAL ANNUAL ASSESSMENT FORM

Date: _____

TYPE OF ANIMAL(S):

- _____ Invertebrate
 - _____ Arthropod (insects, arachnids, crustaceans, myriapods)
 - _____ Mollusk (chitons, snails, bivalves, squids, octopuses)
 - _____ Annelid (earthworms, leeches)
 - _____ Cnidarians (hydras, jellyfishes, sea anemones, corals)
- _____ Amphibian
- _____ Reptile
- _____ Fish (circle one): freshwater saltwater

QUANTITY AND PHYSICAL CONDITION: (Be as accurate as possible.)

Quantity and size of the animal(s):

HEALTH:

Does the animal show signs of illness? _____ YES _____ NO SOME: _____

When was the last time it was seen by a vet? _____

How old is the animal? _____

How long has the animal been at VMNH: _____

Other comments/considerations:

NEEDS WITHIN THE NEXT YEAR:

SUPPLIES AND EQUIPMENT:

1. Are there any supplies that will need to be purchased? _____ YES _____ NO
If yes, please describe and include estimated cost:

2. Is there any equipment that will need to be purchased? _____ YES _____ NO
If yes, please describe and include estimated cost:

APPENDIX IV. Guidelines for Care and Maintenance

Guidelines for Use of Live Amphibians and Reptiles in Field and Laboratory Research, Second Edition. 2004. Revised by the Herpetological Animal Care and Use Committee (HACC) of the American Society of Ichthyologists and Herpetologists.
https://static1.squarespace.com/static/618bf11a71fcd5398996eda/t/618fbed9a68bdd5cbcc95f78/1636810457669/guidelines_herps_research_2004.pdf

Guidelines for Use of Fishes in Research. 2013. UFR (Use of Fishes in Research) Committee, American Fisheries Society, Bethesda, Maryland.
<https://static1.squarespace.com/static/618bf11a71fcd5398996eda/t/618fbed1f40e6c713dfa71ee/1636810449675/asf-guidelines-use-of-fishes-in-research-2013.pdf>

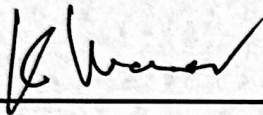
Guidelines for Care of Invertebrates, as provided on 2 January 2023 by staff of the Cincinnati Zoo and Botanical Garden (see following pages).

NEW APPLICATION
AS RESEARCH ASSOCIATE

Dr. Paul Sattler

I have reviewed the information submitted for Dr. Paul Sattler and have indicated his/her recommendation as Research Associate for the Virginia Museum of Natural History.

Signature of approval/date



23 Apr. 2026

Dr. Kal Ivanov



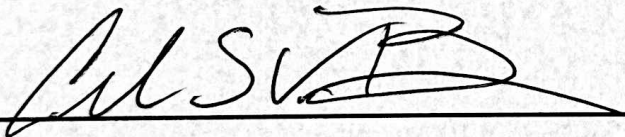
4/23/2026

Dr. Adam Pritchard



4/23/26

Dr. Hayden Bassett



23 April 2026

Dr. Collin VanBuren

Marshall Boyd
Virginia Museum of Natural History
21 Starling Ave.
Martinsville, VA 24112
Marshall.boyd@vmnh.virginia.gov

22 December 2025

Virginia Museum of Natural History
21 Starling Ave.
Martinsville, VA 24112

To Whom It May Concern,

I am writing to express my full support for the application of Dr. Paul Sattler to become a Research Associate at the Virginia Museum of Natural History. For more than 40 years, Dr. Sattler has been a professor of biology at Liberty University with more than 50 publications during that time. Dr. Sattler is anticipated to retire from Liberty University but is interested in utilizing the Virginia Museum of Natural History facilities to continue his work in partnership with the museum itself, local universities, and conservation societies.

In addition to a passion for the herpetofauna of Virginia, Dr. Sattler has supported many students dating back to his days at Texas Tech University. At Texas Tech, he served as a professor and lab manager for biology, biochemistry, zoological anatomy, and genetics courses. He is anticipated to continue utilizing those skills with the specimens and technology housed at the Virginia Museum of Natural History. With Dr. Sattler as a Research Associate, his continued work could provide a research portal not currently represented within the vertebrate zoology department along with a newly developed collaborative connection to Liberty University itself. Dr. Sattler has seen and contributed to the Herpetology collections within the VMNH through his research either at Liberty University or through the Virginia Herpetological Society for many years. His close relationship with Dr. Jason Gibson of Averette University (also of the Virginia Herpetological Society) could allow the opportunity for students studying coursework with Dr. Gibson to then apply their skills with Dr. Sattler here at the VMNH while contributing to ecological research on the herpetofauna of Virginia.

I sincerely believe that Dr. Sattler would make an excellent Research Associate for the Virginia Museum of Natural History by utilizing his expertise, research efforts, and extensive background to contribute to the museum's mission.

Sincerely,

Marshall Boyd

Vertebrate Zoology Research and Collections

Virginia Museum of Natural History

LIBERTY

UNIVERSITY™

Department of Biology & Chemistry

Bord of Trustees
Research and Collections Committee
Virginia Museum of Natural History
Martinsville, Virginia

December 18, 2025


Dear Sirs:

At the end of June 2025 I will be retiring from Liberty University's Biology Department after a tenure of 40 years. Since moving to Lynchburg in 1985 I have been interested in salamander research. My first project in Virginia was to establish the ranges of and the contact zone between the Northern and Southern Two-lined Salamanders using protein electrophoresis. I found the contact zone was approximately 100 km north of where the Field Guides indicated. That work was published in *Banisteria*. With Jason Gibson, I am currently working on a book "The Amphibians of Virginia" to mirror Joseph Mitchell's "The Reptiles of Virginia". My current research is centered on trying to determine the ranges in Virginia of salamanders which have recently been split from *Desmognathus fuscus* and *Plethodon wehrlei*. I have been using DNA sequences to verify species identity from the field since the morphology of the different species is quite similar.

With Jason Gibson, I have briefly worked with the Museum's herpetology collection, taking measurements on specimens for our book. I would like to request being granted a Research Associate position with the Museum. It would be convenient to have greater access to the herpetology collection and the DNA lab for our continuing work with amphibians.

I am also the editor of the Virginia Herpetological Society's journal *Catesbeiana*, and curator of the VHS's digital archive. The archive currently has over 800 entries, mostly of digital photos and sound recordings which are vouchers for new county and city distribution records. It might be nice to work with your staff to integrate our archive into or separate from the digital photo depository which I understand the Museum has begun. I am interested in a closer working relationship with the Museum's herpetology collection and I hope you will give my request for a Research Associate position consideration.

Sincerely yours,



Paul Sattler, Ph.D.

Curriculum Vitae Paul Sattler

Born: Toledo, Ohio
Marital Status: Happily Married, with four grown children
Local Address: 1134 Ardmore Dr.
Lynchburg, VA 24501

Education: B.S. in Biology – The University of Toledo
M.S. in Zoology- Miami University
Ph.D. in Biology – Texas Tech University

Employment:

1974. Lab Assistant at Miami University, teaching freshman-level biology labs.
1978. Teaching Assistant at Texas Tech University, teaching freshman-level biology labs and upper-level labs in plant systematics. Summer internship in the herpetology section of the Texas Tech University Museum (1977).
1983. Biology Instructor and Chair of General Studies at College of the Southwest, Hobbs, NM. Taught a wide variety of biology courses and chaired a department of four full-time and numerous part-time faculty. Was responsible for preparing teaching schedules and hiring part-time faculty.
1985. Postdoctoral position at the Livestock Insects Laboratory, Kerrville, Texas. Set up and ran an electrophoretic lab to investigate biological control methods for ticks.
1990. Associate Professor of Biology at Liberty University. Taught courses in General Biology, Genetics, Cell Biology, Biochemistry, and Vertebrate Natural History.
- 1990-2010 Professor and Chair of the Department of Biology and Chemistry at Liberty University. Taught Foundations of Biology, Genetics, and Vertebrate Natural History. Chaired a department of 21 full-time faculty. Supervised the budget, faculty hiring, curriculum development, class schedule preparation, and faculty evaluations. 2000-2003 chaired Faculty Senate Undergraduate Curriculum Committee. Strategic Planning Committee member in 2001, 2002 and 2004.
- 2010 – Present Professor of Biology at Liberty University. Taught Principles of Biology I, Herpetology, and Vertebrate Natural History. Supervised labs for Principles of Biology I.

Publications:

Sattler, P.W. and S.I. Guttman. 1976. An electrophoretic analysis of

- Thamnophis sirtalis* from Western Ohio. *Copeia* 1976:352-356.
- Sattler, P.W.** and J.S. Mecham. 1979. Gene duplication at an isocitrate dehydrogenase locus in *Scaphiopus*. *Journal of Herpetology* 70:352-353.
- Sattler, P.W.** 1980. Genetic relationships among selected species of North American *Scaphiopus*. *Copeia* 1980:605-610.
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Professional Memberships:

Virginia Herpetological Society
Virginia Natural History Society

Professional Activity:

Virginia Herpetological Society – President 1996-97, editor of journal
Catesbeiana 1990-1998 and 2008-Present, Secretary/Treasurer
2001-2008.

Grants and Awards:

1993 – 2015 – Grant from the US Forest Service to study the effects of
Timbering on the endemic salamander *Plethodon hubrichti*. About
\$80,000 over 12 years of study.
2020 – Liberty University PRI Grant for the Molecular Genetic Analysis of
Salamanders. \$7473

References:

Dr. Matthew Becker
Liberty University
1971 University Blvd.
Lynchburg, Virginia 24515
434-582-7627
mbecker5@liberty.edu

Jason Gibson
Patrick and Henry College
STEM Division
Martinsville, Virginia 24112
434-709-0111
Frogman31@gmail.com

J.D. Kleopfer
State Herpetologist
Virginia Department of Wildlife Resources
3801 John Tyler Memorial Highway
Charles City, Virginia 23030
804-829-6508
john.kleopfer@dwr.virginia.gov

Kyle Harris
Liberty University
1971 University Blvd.
Lynchburg, Virginia 24515
434-582-7705
kjharris@liberty.edu

Ph.D. in Biology

1997-2000, 2001-2002, 2003-2004, 2005-2006, 2007-2008, 2009-2010, 2011-2012, 2013-2014, 2015-2016, 2017-2018, 2019-2020, 2021-2022, 2023-2024, 2025-2026, 2027-2028, 2029-2030, 2031-2032, 2033-2034, 2035-2036, 2037-2038, 2039-2040, 2041-2042, 2043-2044, 2045-2046, 2047-2048, 2049-2050, 2051-2052, 2053-2054, 2055-2056, 2057-2058, 2059-2060, 2061-2062, 2063-2064, 2065-2066, 2067-2068, 2069-2070, 2071-2072, 2073-2074, 2075-2076, 2077-2078, 2079-2080, 2081-2082, 2083-2084, 2085-2086, 2087-2088, 2089-2090, 2091-2092, 2093-2094, 2095-2096, 2097-2098, 2099-2100, 2101-2102, 2103-2104, 2105-2106, 2107-2108, 2109-2110, 2111-2112, 2113-2114, 2115-2116, 2117-2118, 2119-2120, 2121-2122, 2123-2124, 2125-2126, 2127-2128, 2129-2130, 2131-2132, 2133-2134, 2135-2136, 2137-2138, 2139-2140, 2141-2142, 2143-2144, 2145-2146, 2147-2148, 2149-2150, 2151-2152, 2153-2154, 2155-2156, 2157-2158, 2159-2160, 2161-2162, 2163-2164, 2165-2166, 2167-2168, 2169-2170, 2171-2172, 2173-2174, 2175-2176, 2177-2178, 2179-2180, 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