

# 2023



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...the mural our giant  
...feathers? That's  
...fossils from China  
...feathers on them. They  
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...ossils of *Citipati*, a kind  
...raptor  
...been found with their  
...like a chicken broods  
...is today.

More distant  
...have been  
...bones  
...today.

...es of oviraptorosaurs  
...special bumps on their  
...old feathers in place like  
...ts are very certain  
...feathers. With its  
...athers, it resembles a  
...ecting her nest.

This is how big Idaho's  
giant oviraptorosaur  
could have been!

ANNUAL REPORT



## Idaho Museum of Natural History



# IDAHO MUSEUM OF NATURAL HISTORY

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## MESSAGE FROM THE DIRECTOR



“ We’re turning 90 and fabulous! The Museum had an outstanding year in 2023, with more visitors and opportunities for STEM education in eastern Idaho. Our Museum was vibrant with student energy, from the dozens of ISU student interns learning new career skills to the groups of fourth-graders learning about Idaho’s state symbols in our gallery.

On the subject of State Symbols, 2023 was the year of dinosaurs! We celebrated Governor Little’s decision to make *Oryctodromeus*, a burrowing dinosaur from our region, the Official State Dinosaur of Idaho. The proposal, brought to the House by Ucon Elementary fourth-graders, was spearheaded by Museum affiliate paleontologist, L.J. Krumenacker. This has been a passion project of his for many years, and we thank him for bringing pride to our state’s history!

You may have noticed, dinosaurs have taken over our building. Our latest exhibit, Dinosaurs from the Mountain, has delighted audiences with a fresh look at our ancient history. I just love to see the jaw-dropping expressions when kids see our dinos (the cover photo of this report). The exhibit leans into the strength of our Museum collections and expertise to give visitors an experience they can’t get anywhere else. It was especially rewarding to team up with the College of Technology to create our centerpiece *Gigantoraptor* – lovingly called the Hell Chicken!

*It’s a testament to our Museum that we can build, from scratch, customized and unique exhibits that tell specific stories of our specific history, guided by the best research. Our staff and university partners do an excellent job.*

You can expect more quality exhibits and programming at the Museum in 2024. In addition to the dinosaurs, members will see new stories featured in our popular This is Idaho exhibit. The education room will re-open and include a variety of interactive displays about the inner-workings of the Museum, from how collections are made to how fossils are excavated. Our monthly Behind the Scenes will explore a variety of dinosaur topics throughout the year, and look forward to our flagship education events, Summer Camps and Fall Fossil Fest, too.

We thank the many wonderful collaborators and community partners who make this Museum a real Gem of Idaho. Together, through education and inspiration, we are building a lasting legacy for generations to come.

Leif Tapanila



## SERVING OUR MISSION

Fiscal Year 2023

EXHIBIT VISITORS

**8,619**

EDUCATIONAL PROGRAMS SERVED

**8,346**

children

MUSEUM OBJECTS IN COLLECTIONS

**1.5 MILLION**

in public trust

STUDENT INTERNSHIPS

**12,000**

hours

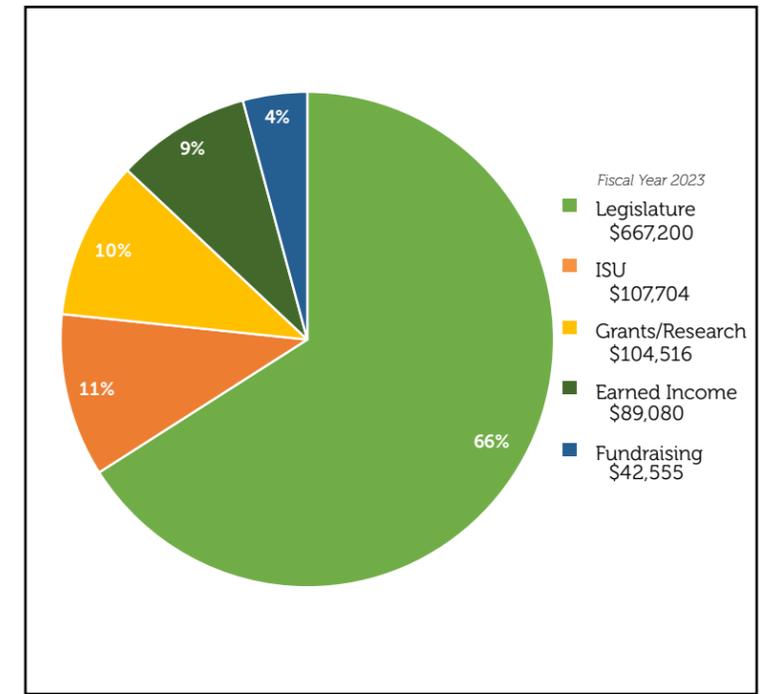
DIGITAL ENGAGEMENT

**337,479**

NATURE OF IDAHO RADIO AUDIENCE

**200,000**

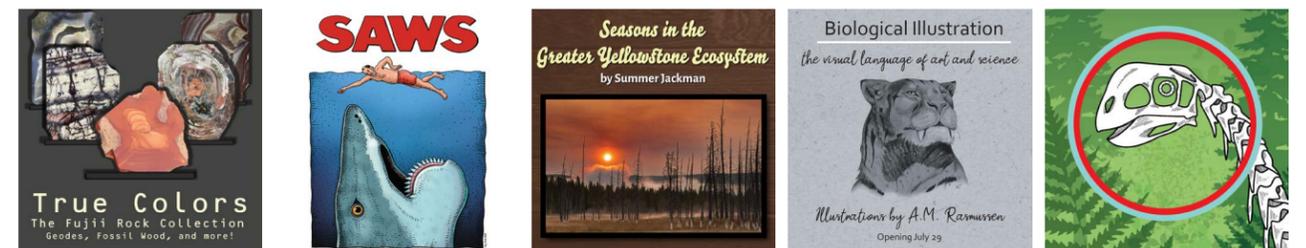
## FINANCIAL



## EDUCATION HIGHLIGHTS



## EXHIBITS HIGHLIGHTS



# IDAHO MUSEUM OF NATURAL HISTORY RESEARCH

## ANCIENT DNA UPENDS THINKING ON NEW MASTODON SPECIES



Work by Museum paleontologists on fossil bones found at American Falls Reservoir are providing more insight into where and which one of North America's largest-ever land animals was thousands of years ago.

"Back in 2019, some researchers established a new species of mastodon, the Pacific mastodon, using specimens from American Falls to help lay out the claim that the Pacific mastodon ranged from California to here in Southeast Idaho," said Brandon Peacock, Curator of Vertebrate Paleontology.

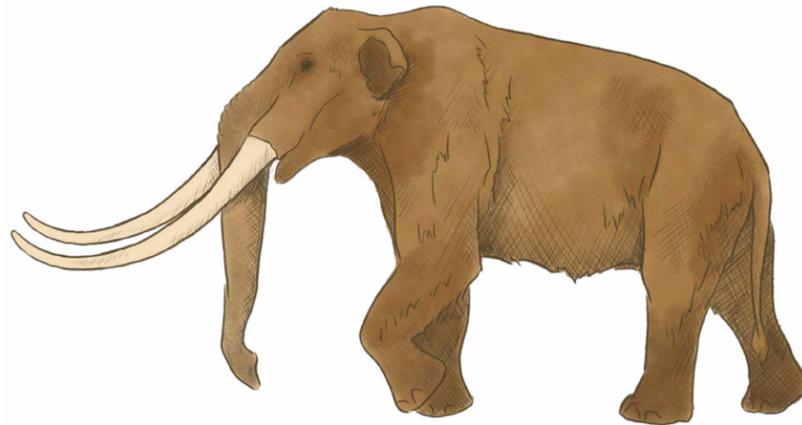
"Their assertion was based on mastodon teeth. We've been able to get DNA out of Idaho Ice Age fossils so we thought we'd see whether the DNA supports the idea of two species of mastodon. So far, the answer is: no."

So, how do you unravel where a long-extinct species called home? The bones, of course. But not just by looking at the fossilized mastodon remains; Peacock and his fellow researchers had to get *inside* these bones. Peacock cored fossil teeth to gather up between 200 and 500 milligrams - about the size of two pills of over-the-counter ibuprofen - of material from two mastodon teeth found at American Falls Reservoir in the Museum's collections.

"It's been a complete surprise these last few years to discover that Idaho's Ice Age megafauna have such incredibly preserved genetic material in their teeth and bones. It's an open question why, how and even if the Snake River sands and muds helped somehow in this rare preservation."

Once they had their samples, they shipped them to the McMaster Ancient DNA Centre at McMaster University in Hamilton, Ontario for processing. It's there where the DNA was extracted from the ~100,000-year-old fossils and compared to all the other complete American mastodon sequences.

"American mastodons were one of the first animals EVER to be recognized as extinct by western science, back in the late 1700s. So it's a big deal to think there is another possible species out west. Our results however show that the Idaho mastodons all belong in the American mastodon genetic lineage, and aren't



their own separate "Pacific" lineage."

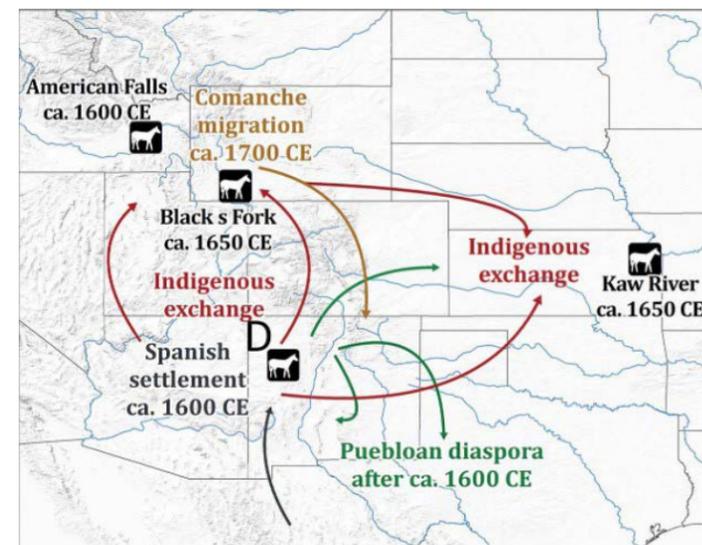
But which species wasn't the only secret revealed by the DNA. The sequences also yielded some insight into these mastodon's family tree.

"It was delightful to see hard evidence that the mastodons living in Idaho were in fact close relatives of mastodons living up in Alaska and the land bridge with Asia, as opposed to other mastodons from around the continent. It seems like Idaho's mastodons were part of a population that followed the ebb and flow of the giant ice sheets that came and went

many times during the Pleistocene. To even be able to know things like that was unthinkable just a few years ago."

Click to read Peacock and his collaborators' work published in [Quaternary International](#).

## RESEARCH REWRITES HISTORY OF THE HORSE IN IDAHO



The story of the horse in North America is complicated, but this year, anthropologists and indigenous collaborators found some incredible new twists based on horse remains from the IMNH.

To set the stage: much of the history of horse evolution over the last 52 million years took place in North America before they spread all over the world, and when the first peoples came here at least 20,000 years ago they encountered several horse species, including some in the modern genus *Equus*. But by ~10,000 years ago horses were extinct on this continent. Starting in the 1500s Europeans brought horses back to North America, many of which spread through indigenous networks and became important cultural animals.

So where does the IMNH come in? Researchers were dating several Ice Age horse fossils from American Falls, and surprisingly (to say the least) one of the bones was from the 1630s, and not a fossil at all! Being in Idaho and from the early 17th century makes this one of the most compelling pieces of scientific evidence that indigenous people were using and spreading horses much earlier than some people thought based on historical records. The team published their findings in Science earlier this year, [read full article!](#)



## EARLY REPTILE RENDEZVOUS

In 2023, IMNH paleontologists headed to France on an exciting new research avenue led by Earth Sciences Graduate Assistant and ISU PhD candidate Xavier Jenkins and Curator of Vertebrate Paleontology Brandon Peacock. Xavier's work is focused on the early evolution of reptiles: from the time of the split between reptile and mammals to the evolution of familiar reptiles like dinosaurs, crocodiles, and lizards. This is a poorly studied area of the tree of life spanning about 310 to 260 million years ago in the Carboniferous and Permian periods.



animals and usually are left mostly in the rock they were found in to protect their delicate skeletons. Jenkins and Peacock (and team) proposed to have the fossils scanned at the European Synchrotron Radiation Facility (ESRF) in Grenoble, France: basically, to have them put into a super powerful X-ray with incredible resolution. Thankfully, the ESRF supported the project and the team headed to the Alps in September.

These data are being processed at the Museum's Idaho Virtualization Lab by our students and staff!

The most important early reptile fossils come from places like South Africa. These are small

## NEW ADVENTURES FROM THE 'AGE OF DINOSAURS' IN THE INTERMOUNTAIN WEST

In 2023 Curator Brandon Peacock Curator of Vertebrate Paleontology, started two new field programs: one focused on the origins of dinosaurs in the mountains of Colorado and another looking at the very end of dinosaur time in the high plains of eastern Wyoming. Both new field sites will yield cutting edge research results, but also offer exciting opportunities for ISU students, both in the field and back in the IMNH.



the first dinosaurs appeared in North America, while in Wyoming we are truly looking at the last days of the dinosaurs about 66 million years ago in the Cretaceous Period," said Peacock. "In both places we're finding much more than dinosaurs though!"

As part of this work the IMNH Paleontological collections now contain fossils of bizarre Triassic

crocodile relatives, including armored and even bipedal species! In the Cretaceous the team found incredible fossils of small animals, like mammals, lizards, fishes, and rare dinosaurs.

"In Colorado we're exploring Triassic rocks that are about 220 million years old, which is when

## BEARS EARS NATIONAL MONUMENT FIELD WORK



The IMNH Paleo Team was busy in 2023 with work revolving around Bears Ears National Monument (BENM). In early February, Education Coordinator Rob Gay joined a team from the St. George Dinosaur Site, the Natural History Museum of Utah, and Virginia Tech. The goal was to investigate historic fossil sites and explore previously unsurveyed lands on the southern border of BENM in order to shed light on the early rise of dinosaurs in North America. The team battled snow and below-freezing temperatures to make some remarkable discoveries!

In June, Rob Gay and, Xavier Jenkins, PhD candidate, brought ISU Master's student Henry Thomas to Bears Ears in order to dive into the origin of reptiles. Rocks from the Valley of the Gods region in the southern part of BENM preserve a crucial time when early reptiles were diverging from their amphibian ancestors. Only a handful of bones were found, but each bone from this time provides new information to gaining increased understanding the past.

Over the Labor Day weekend Rob Gay took ISU students Mica Frasure, Henry Thomas, and Gary McGaughey to join teams from the St. George Dinosaur Site and the Natural History Museum of Utah in an area near Moab, Utah. We joined in a decades-long investigation into the Late Triassic (220 million years ago) fossils of the area. New sites and fossils were discovered,

including the armored plates of a prehistoric plant-eating crocodile relative!

Finally, in November, Rob Gay went to St. George, Utah, to start an ambitious 3D scanning collaboration with the St. George Dinosaur Site. Fossils of rare tritylodonts from Utah, as well as numerous fossils from BENM and the surrounding area were scanned, and more brought back to the IMNH to continue the scanning process. In 2024 more fossils will be digitized from this collection, taking advantage of the IMNH's unique, world-class capabilities through the Idaho Virtualization Lab (see our articles Hagerman and USFS for more on page 17).

[Learn more about the tritylodont discovery.](#)



## FROM THE COLLECTIONS



It has been a busy year for Collections at the Museum! All of our Divisions have been incredibly active in inventorying and processing specimens and providing access for research.

To date:

- We have processed 19 new accessions representing over 4,000 new specimens.
- Inventoried over 18,000 objects.
- Provided access to over 1,350 objects for research from five institutions plus in-house graduate student work.

We were also lucky to obtain two new stereo zoom microscopes and 25 new metal drawers with funding from the Bureau of Reclamation. The USDA Forest Service provided over \$8,500 to create educational materials about Idaho's dinosaurs, including 3D scanning and printing of replicas of real specimens, for use both in-house as well as in classrooms across the state.

With continued state and federal funding we have been able to employ ten Idaho State University students in our Collections. These students gain hands-on experience in their desired fields as we bring our inventories up-to-date and ensure all objects are housed appropriately for long-term preservation.

As an exciting step forward, in 2024 our Collections will be available for the public to search online. This online database will include non-classified catalog information associated with each object, associated multimedia, and interpretive narratives on the more significant collections, made possible by a grant from the Institute of Museum and Library Services. We hold collections in public trust and as such we are excited to give the public the opportunity to search, learn, and explore our collections from anywhere in the world. We anticipate this will greatly increase access to Idaho's natural and cultural heritage collections for the purpose of research, education, and collection concerns, as well as for pure general interest! Stay tuned for more information.

## FOSSIL FOUND: IDAHO NO. 5 RETURNS HOME AFTER 60+ YEARS



"This thing is king," Tapanila said. "It would swim around feasting on nautiloids - squids with a shell two feet or larger - eating other sharks, maybe even snacking on each other. In East Idaho, we find their fossils in what's left of the Phosphoria Sea, a large tropical bay on the west coast of prehistoric North America. Because of the many fossils we've found here, we think the area was a shark nursery like the waters of Cape Cod in Massachusetts are for today's great white sharks."

The Museum has more than 90 specimens of *Helicoprion* sharks, but,

for Tapanila and others in his field, this fossil is different. It's the specimen — the fossil that proved that *Helicoprion ergassaminon* is an entirely new species. This ancient object, called a holotype, is sacred to folks like Tapanila.

"We measure everything we can on a fossil to get an idea of what we are looking at. In the case of prehistoric sharks, we count the teeth, measure tooth height, width, the enamel's thickness, and on and on," explains Tapanila. "When it's all done, we can say, 'We are looking at a species we already know about,' or if the measurements don't match anything else, we'll say, 'It's a brand new species, this fossil is the holotype, and future discoveries need to be checked against this specimen to see if they're the same species.'"

A little bigger than a dinner plate, the fossil features the distinct impressions of more than 100 of *Helicoprion ergassaminon*'s razor-sharp teeth arranged in a spiral pattern - also known as a whorl - in limestone. The specimen was plucked from the ground at the long-closed Gay Mine east of Fort Hall, Idaho, by Walter Youngquist, a graduate of the University of Iowa who was teaching at the University of Idaho in the 1950s.

[Click to read full story.](#)

A late-night glance at his inbox almost caused Leif Tapanila to fall out of bed.

Looking at the screen of his phone, our Director scrolled through the words in an email from a colleague in Copenhagen, Denmark: "Some years ago in our collection, I came across a specimen of tooth whorl referred to *Helicoprion ergassaminon* by Bendix-Almgreen. It appears not to belong to our collection, so I hope you can help us find its correct home again."

"I have this habit of waking up in the middle of the night," said Tapanila. "I check my email to reset my brain and go back to sleep. My first thought after I read the email was, 'Wuh-what, I can't believe it,' and I thought I had read it wrong. I went back and reread the statement two or three more times to ensure I understood it correctly, and the fossil they were talking about was the one I was thinking of. Once I put my mental map together, I had a tough time going back to sleep."

The fossil specimen is what remains of the fiercest animal to inhabit the seas more than 250 million years ago: *Helicoprion ergassaminon*. Dwarfing a great white shark at more than 30 feet in length and sporting a mouthful of teeth the size of big steak knives, it was the largest predator on the planet.



## MUSEUM PALEONTOLOGISTS FEATURED ON NOVA AND IDAHO PUBLIC TELEVISION



expertise, as well as the Idaho Museum of Natural History, to a BBC/PBS co-production with such a huge global reach," said Peecook. "The support from the Bengal community has been great; I've even had emails from folks who graduated in the 60s telling me how much they enjoyed the show."

In May, Peecook and his colleague, L.J. Krumenacker, adjunct professor of geosciences and affiliate curator at the IMNH, were featured on Idaho Public Television's Outdoor Idaho. In the episode titled [Prehistoric Idaho](#), the show delved into what Idaho's fossil record "can tell us about the area's history and wildlife" and took "a look back at what the state looked like millions of years ago, 10,000 years ago, and what remains today."

Brandon Peecook, Curator of Vertebrate Paleontology, was one of the experts on a recent episode of [PBS' NOVA](#). Peecook shared his insight into the largest mass extinction event in Earth's history, the Permian mass extinction, in an episode titled Ancient Earth: Inferno. The Permian mass extinction happened roughly 252 million years ago and decimated 80 percent of all the species on the planet. The episode is one of five exploring "the epic story of our planet, featuring the most dramatic events in Earth's 4.5-billion-year history, from its birth to the emergence of humanity." In addition to running in the United States under the NOVA banner, the series originally aired on the BBC earlier this year as EARTH: One planet. Many lives.

"It was a thrill to bring my science and



relevant to the modern world that we humans are changing so severely: how do we know what we know about past extinction events, and how can we use that information to make the best choices today?"

"Alongside conducting scientific research and engaging students in the classroom, reaching out to the public is one of the most important things a scientist can do," Peecook said. "Unsettling as it may be, the fossil record and mass extinction events, in particular, are exceedingly

relevant to the modern world that we humans are changing so severely: how do we know what we know about past extinction events, and how can we use that information to make the best choices today?"

## MUSEUM AND ISU PROGRAMS TEAM UP TO CREATE EXHIBITS



When paleontology meets auto repair and welding, a prehistoric giant comes to life. The Museum and the College of Technology's Welding and Auto Collision Repair & Refinishing programs at Idaho State University joined forces to create a 3D fossil replica for our groundbreaking exhibit, "Dinosaurs from the Mountain." The unique collaboration exemplifies the multi-disciplinary approach the university fosters, blending art, technology and science to engage the community in educational experiences.

The exhibit's crown jewel is a 10-foot tall, 20-foot long model of the *Gigantoraptor*— a dinosaur from the Late Cretaceous period that lived around 100 million years ago. The dinosaur was first discovered 18 years ago in the Iren Dabasu Formation in Erenhot, Mongolia. However, the model at IMNH features elements based on fossils from Idaho, Utah, Montana and even China.

"This collaborative effort is really exciting to us here at the Museum," said Robert Gay, the Museum's Education Coordinator.

Over the last year, Tim Gomes, the Idaho Virtualization Laboratory Manager at the IMNH, utilized ZBrush modeling software to meticulously create individual bones of the *Gigantoraptor*. This challenging project was a result of a close collaboration with Dr. Brandon Peecook, Curator of Vertebrate Paleontology.

"This project has been one of the hardest projects I have ever worked on," said Gomes. "I have certainly learned a great deal from it."

Once 3D printed, the fossil replicas were handed off to Russel Butler and the Auto Collision Repair & Refinishing students for finishing and painting. The welding program then expertly welded the fossil replicas onto a robust metal frame, ensuring the exhibit's stability and authenticity. The students were thrilled to tackle a project so different from their usual work.



"It's really cool to work on," said Joseph Allen, one of the students painting the fossils. "It's nice to have something so different from what we usually do."



# IDAHO MUSEUM OF NATURAL HISTORY EDUCATION

Robert Gay, Education Coordinator

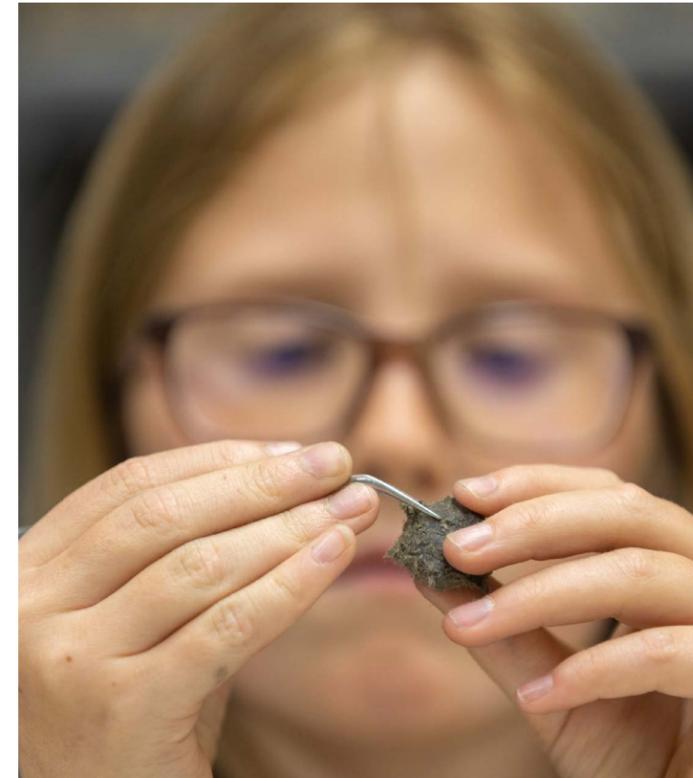
“2023 saw a variety of educational programs come to fruition across Idaho and beyond! With new programs happening in Swan Valley and Butte County, we’ve expanded our in-person reach this year, while growing the number of students served as well. Museum Education programming has occurred every week in 2023 except during Thanksgiving and Winter Break, and has led to over 7,500 K-12 students (Idaho and out-of-state learners), ISU students, and community members learning and discovering Idaho’s natural history with us.

We aren't shy about the amazing things we're doing here in the Education Department either. In 2023 we presented educational findings and best practices at internationally-attended conferences in Seattle and Cincinnati. We have received overwhelming interest in the work we are doing here from natural history educators from around the world. Our Education is at the forefront of museum education when it comes to natural history and rural states. Our "Dinosaurs from the Mountain" exhibit is our most interactive exhibit since COVID, and the Book Nook (sponsored by the Sarah Jackson & the Dr. Melvin and Mary Jackson Endowment) has proved to be the most cozy spot in the Museum for both the young and the young at heart, with books for all ages, games, and puzzles all related to the latest dinosaur discoveries.

Looking forward into 2024, we are excited to be launching our Bison Box project, which will expand Idaho educators' abilities to teach natural history lessons in areas far-removed from our Pocatello campus. Two Bison Boxes, which are educational kits with materials and lesson plans, are already complete and two more will be available by the start of the spring semester. These kits can be checked out by teachers across Idaho at no cost and

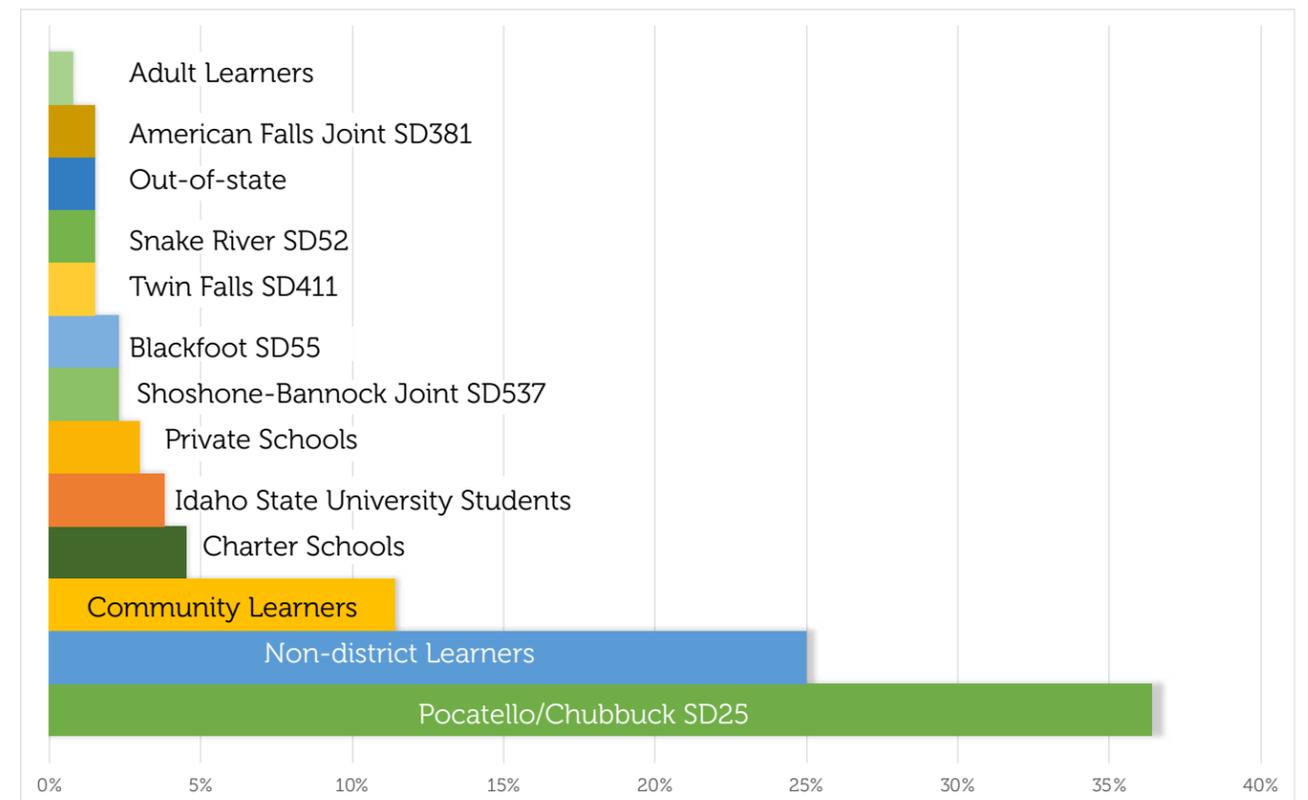


will allow students to have hands-on interaction with real objects of natural history that align with Idaho's science and history standards. We also look forward to the grand re-opening of our Museum classroom as a hands-on exploration of what makes museums so important. This renovation has been sponsored by the Idaho STEM Action Center and will incorporate numerous interactive exhibits in a no-cost classroom and exhibit space. We also hope to acquire a new museum education vehicle so that we can spread our outreach programs even further afield.



**EDUCATION RESULTS**  
 Idaho School Districts Served **10%**  
 Idaho Learners Served **~6,000**  
 Number of Programs **160, on average 3 per week**  
 People Reached **7% increase over 2022**

Do you want to help make our vision for 2024 come true? [Consider becoming a donor today](#)



Museum Education programming reached a variety of different communities in 2023.



## SCANNING PROJECT ENHANCES ACCESS TO FOREST SERVICE FOSSILS



Participants in the IMNH's 2023 Fall Fossil Fest event examine, hands-on 3D printed replicas of Idaho's tyrannosaur and *Oryctodromeus* leg bones as part of our new *Dinosaurs from the Mountain* exhibit.

If you've been to see our newest exhibit, "Dinosaurs from the Mountain," you already know that Idaho has some amazing dinosaur fossils. All of Idaho's Cretaceous dinosaurs come from a small area of land between Soda Springs and Idaho Falls, and all of them (every single one!) comes from lands administered by the Caribou National Forest.

To celebrate this and to help ensure data safety as well as enhance our education and outreach around US Forest Service fossils, the Museum partnered with the Caribou National Forest to undertake a digital scanning project. This ambitious project will take advantage of the Museum's status as the state's repository for natural history and our unique capabilities in the state with our Idaho Virtualization Lab (IVL).

All of Idaho's Cretaceous-aged fossils, from 100 million years ago, are being laser scanned and

digitized in the IVL. These scans help provide data security for the physical specimens, and will allow Museum educators to use these 3D scans in education and outreach projects. In fact, the first 3D prints of *Oryctodromeus* have already started to be used in classrooms around southeastern Idaho and full Bison Box education kits will be available for teachers across the state in 2024.

Once all the scanning has been completed we will be updating our "Dinosaurs from the Mountain" exhibit with a new, more accurate *Oryctodromeus* skeleton based on these scans and supported by our USFS partnership.

Want to help us continue to bring the story of Idaho's dinosaurs to the state and the world? [Consider becoming a donor today!](#)



## MUSEUM TEAMS UP WITH HAGERMAN FOSSIL BEDS NATIONAL MONUMENT



per limb and hundreds of them have been discovered right here along the Snake River in the town of Hagerman. But did you know that many other animals' remains have been found alongside the Hagerman Horse? Trout, beavers, birds, mastodons, saber-toothed cats, among many others, have been recovered from the rocks at Hagerman. In May, a team from the Museum's IVL traveled to Hagerman Fossil Beds National Monument to 3D laser scan some of the fossils held in their collections.

The Hagerman Horse is Idaho's official State Fossil and in 2023 the Museum teamed up with the National Park Service at Hagerman Fossil Beds National Monument to help increase awareness and education around this amazing Idaho animal. The Hagerman Horse is the oldest horse in the fossil record to have only one hoof

These 3D scans are going to be the keystones of a new series of accessible education kits that the Hagerman Fossil Beds National Monument staff will use in their education and outreach efforts. We're proud to have this partnership and are excited to help spread the word about Idaho's amazing fossil heritage!



# IDAHO MUSEUM OF NATURAL HISTORY EXHIBITIONS

*"I love Oviraptorosaurs (hence why I got so excited when you were teasing them before the exhibit opened)! So cool to see one of these guys at the museum."*

*T.K. Arispe, Museum Member*

## DINOSAURS FROM THE MOUNTAIN EXHIBITION

In October of 2023 we unveiled our newest exhibit, "Dinosaurs from the Mountain." This extraordinary exhibition provides an unparalleled journey back in time, offering visitors a unique opportunity to explore Idaho's rich past from the Age of Dinosaurs, a hidden gem in Idaho's natural history.

The IMNH is the only place in the country where you can encounter the complete roster of Idaho's dinosaurs and the only place outside of China to display an awe-inspiring full skeleton of the gigantic Hell chicken.

"We are more than excited to give Idahoans the chance to meet their dinosaurs," said Brandon Peacock, Curator of Vertebrate Paleontology. "The truth is that though Idaho's dinosaur fossil record is often overlooked, we have some incredible animals and wonderful specimens. It's Idaho as you've never imagined it. Guests are going to be surprised; they're going to have fun!"

"Dinosaurs from the Mountain" is a unique view into the Cretaceous fossil record of Idaho. It showcases the Museum's expertise, our Idaho Virtualization Lab, dedicated researchers, collaborations with ISU College of Technology and the College of Science and Engineering, and exhibits the real fossils found here in Idaho.

Idaho boasts a diverse but under appreciated Cretaceous fossil record, featuring some of the only dinosaurs known to roam the uplands of North America. "Dinosaurs from the Mountain" takes visitors back 100 million years ago to the lush forests of the Wayan Formation where armored plant-eaters, tiny mammals, fox crocodiles, tiny tyrannosaurs, Idaho's state dinosaur *Oryctodromeus*, and giant bird-like dinosaurs roamed.

## LOCAL COMMUNITY MEMBERS SUPPORT THE BUILDING OF DINOSAURS FROM THE MOUNTAIN



Gene and Beverly Gillette generously sponsored the tyrannosaur mount in the IMNH's newest exhibit, "Dinosaurs from the Mountain."

Gene has loved history since he was a child. He would explore the Hagerman Fossil Beds with his father when he was young. He later came to ISU where he majored in history. He got the opportunity to really enjoy his love of natural history as a park ranger for the summer at Craters of the Moon, right after marrying Beverly. They considered living there for their three-month honeymoon.

As a former board member of the IMNH, Gene has supported other exhibits at the Museum. However, he is truly impressed by the "Dinosaurs from the Mountain."

"We are so impressed with what you've put together, it's eye-catching, we are very pleased to be a part of it." Beverly goes on to say, "This will attract the interest of children and get them engaged. As a former 4th grade teacher I would have loved to have brought my class to see this exhibit!" Beverly taught at Tendoy Elementary School from 1976 to 1997.

The exhibit also features a reading nook, where families can sit and enjoy books for all ages about dinosaurs. The reading nook is supported by Sarah Jackson and the Dr. Melvin and Mary Jackson Endowment. The Jackson endowment at the IMNH is used to support youth educational programming. This was a perfect fit for the educational activities within the exhibit that were made with the child's perspective in mind.

The support of the Gillettes and Sarah Jackson and the Dr. Melvin and Mary Jackson Endowment helps the IMNH further its mission of inspiring an appreciation and understanding of Idaho's natural history and creating unforgettable educational experiences.

Don't miss out on the chance to be a part of "Dinosaurs from the Mountain" – there are still funding opportunities available within this exhibit! To get involved contact Tabatha Butler at [tabathabutler2@isu.edu](mailto:tabathabutler2@isu.edu) or click on the [link](#). Your support is greatly appreciated!

[Click to donate today](#)





"Great educational place to take your kids to! Hands on large room with fun exploratory stations for elementary on up to engage in! Exhibit itself is fairly large and worth the ticket price to go through. The biggest specimens are at the very end in the back of the museum. Awesome gift shop with lots of cool things to purchase, too!"

~Bonnie, Google Review



## BIOLOGY ALUMNA'S ART FEATURED AT THE MUSEUM

Seeing her artwork adorn the walls of the Museum, ISU Alumna Ashelee Rasmussen describes it as a bit of a homecoming.

"This is where it's meant to be," says Rasmussen, "and there's not a better place for it."

The Renaissance-era works of Raphael or Picasso's cubist creations would be out of place in a museum dedicated to the natural world; however, Rasmussen's nature-focused pieces of saber-toothed cats, peregrine falcons, peacock spiders, tropical pitcher plants, and landscapes from her excursions in Oregon, fit right in.

"Some of my earliest memories are of me watching my mom draw mountain lions and horses," said Rasmussen. "I've always been interested in nature, and as I got older, I realized I could draw the things I was seeing as a way to help remember them. My mom, being an artist herself, helped cultivate my interests in art and science."

Throughout her youth in Malad, Idaho, Rasmussen nurtured her love of art and nature by capturing what she saw in nature with a pencil and sketchbook. Later, she ventured into other mediums.

"I started with detailed pencil drawings, which led to ink and watercolor, which is kind of my main medium currently," said Rasmussen. "I didn't explore digital illustrations until much more recently, but even my digital art seeks to replicate the traditional techniques and media I already love."

When she started thinking of her education beyond high school, she knew she wanted to fuse her two twin passions.

"I wanted to pursue science education, and art was going to be part of it," Rasmussen said.

Majoring in ecology at ISU, Rasmussen devoured classes on botany, herpetology, mammalogy, ornithology, and more. "I tried to take as many organismal classes as possible because I felt it would be important to have a broad knowledge base," said Rasmussen. Along the way, she found support from Professors Emeriti Rick Williams and Chuck Peterson, who encouraged her to use her talents on her class projects.

"Ashelee has been applying her skills as a biological illustrator since I met her as an undergraduate student taking my amphibians and reptile class," said Peterson. "For her

class project, she chose to illustrate all of the Idaho species of amphibians and reptiles with line drawings. Since then, we have used those drawings on multiple projects. I share her view that there is more of an overlap between art and science than is usually recognized."

"As a young scientist and budding illustrator, it was such a huge thing for me to have the support of my professors like Rick and Chuck," Rasmussen said. "To know these scientists saw value in my interest in using art in my biology classes and projects helped me to see the potential in developing these skills. I am so grateful to them for not just accepting my somewhat unusual interests, but their encouragement and inclusion set me on the path I am on today."

As a student, Rasmussen interned at the Museum and was initially hired to work in the herbarium, to help care for the pressed plant collections. But, her interests and knowledge about other organisms led to her working in

other life science collections. Also recognizing her artistic talents, she was soon tasked with creating illustrations for the Museum's exhibits.

"At the Museum, I learned that there are many uses for illustration in communicating science and nature," Rasmussen said. "Sometimes art is used to attract attention or set the scene for specimens and information. Other times, illustration is the main way of explaining important ideas or showing unique organisms. I had many wonderful learning experiences figuring out the best ways to use combinations of illustration, words, and natural objects to engage and teach about nature and science."

Earlier this year, she wrapped up her graduate studies at ISU with a doctoral degree in biology. Rasmussen's dissertation focused on ways science teachers can utilize drawing in their classrooms to help students learn the material.

"With this research, we designed and implemented drawing methods to use in natural science classrooms to help students develop observation skills, learn the material, and develop specific ways of thinking and learning," said Rasmussen. I developed and refined various ways to use drawing for different purposes, topics, learning levels, and skill levels. I had many opportunities to take what we learned about the benefits of using drawing as a science learning tool and put it to work in nature illustration workshops and courses. I also presented these methods in

workshops for local educators to help them bring drawing directly into their science classrooms."

Over the course of writing her doctoral dissertation, she created over 60 illustrations and was planning to highlight the works at an art show. It was her advisors who pointed her back in the direction of the Museum and their new Community Gallery.

"I jumped at the idea because it was the perfect place for my biological illustration-themed exhibit," Rasmussen said. "I approached my friends at the Museum with the idea, and they happily agreed it was a great fit."

"Ashelee's artwork is something special," said Leif Tapanila, Museum Director. "We're eager to support Bengals with a venue to showcase their creative work and make connections between art and science."

The exhibit marks Rasmussen's first formal art show and explores "how illustrative art tells the stories of science and nature to explain, educate, and engage."

"Ashelee's work is not only technically excellent but quite beautiful," said Brandon Peacock, Curator of Vertebrate Paleontology. "It's been a real treat to work with her on her reconstructions as she merges the seemingly combative, but actually complementary, features of science and art."



## TRUE COLORS SUPPORTED BY THE FUJII FAMILY



The Museum had the great privilege of hosting the Fujii family reunion in April this year. Several generations of the family gathered to celebrate Fumiko and Henry Fujii and their beautiful collection of fossil wood and colorful agates on display in the "True Colors: the Fujii Rock Collection" exhibit. The rocks had a way of bringing out stories and memories of the people

and places of the past – an important reminder that Museum collections are so much more than mere objects. We are grateful to the Fujii family for their support in bringing this exhibit to the public.

Photo credit: Keiko Neufeld

## SHARKS IN VANDAL COUNTRY

As part of the Museum's Idaho Bound traveling exhibit program, we brought the story of Buzzsaw sharks to the University of Idaho (UofI). The new exhibit, "SAWS: Sharks on the Cutting Edge" features Museum research on ancient sharks, and includes a gorgeous *Helicoprion* specimen from the UofI collections. Working with our partners from the Department of Earth and Spatial Sciences, this exhibit will be an education resource serving K-12 outreach in the Moscow region.



## IDAHO FISH AND WILDLIFE FUND STREAM TABLE

The Museum is redesigning its Discovery Room around the theme of "Waters of the West." The room is open to the public, free-of-charge, and is the venue for education programs at the Museum. The redesign aims to integrate existing water-themed exhibits and programming, such as *Trout in the Classroom*, with new educational resources.

The addition of a sediment stream table helps teach about river processes and its connection to human lives, economies, and the environment. The stream table is an engaging, dynamic feature that supports a wide variety of educational programs in the Discovery Room, and because it is a portable unit, can also be used for a variety of outreach activities.



## MAKING THE MUSEUM MORE ACCESSIBLE



*an initiative of the*  
Institute of Museum and Library Services

We have joined the Institute of Museum and Library Services' *Museums for All* program. This project supported in part by an Idaho National Laboratory: Battelle Energy Alliance Community Grant. Through *Museums for All*, those receiving food assistance (SNAP benefits) can gain free or reduced admission to more than 1,200 museums throughout the United States simply by presenting their SNAP EBT card.

*Museums for All* is a national access program encouraging individuals of all backgrounds to visit museums regularly and build lifelong museum habits.

Up to four individuals can receive the *Museums for All* benefit with the presentation of one EBT card. The individuals should all be part of the same group. EBT cards from any state are valid for receiving this benefit.



## NATURE OF IDAHO AT FIVE YEARS

Our radio collaboration with Zoo Idaho completed its 127th episode this year! We had a blast talking about fireflies, wolverines, paragliding, and snowboarding. We're also keeping our eyes focused on the changes affecting our western environment, from our warming climate to invasive species.

Tune in to KISU-91.1 FM for Season 6, and catch all episodes on podcast.



## ALUMNA APPLIES MUSEUM SKILLS



One of our own, Dr. Ashley Ferguson (Idaho State University Department of Geology BS'14 and PhD'22) is applying skills she learned at the IMNH to lead collections management efforts at the Orma J. Smith Museum of Natural History at the College of Idaho in Caldwell. Starting this year she is developing and implementing a database system for over 2 million specimens, including one of the best insect collections in the West. The project will improve accessibility of the collection to the scientific and local communities.

## DR. MARY THOMPSON HONORED



Mary Thompson, retired Senior Collections Manager at the Museum and well-respected paleontologist, has studied and cared for the Museum's thousands of fossils and other specimens for more than 30 years. For her dedication to preserving Idaho's natural history the Idaho State Historical Society (ISHS) awarded Dr. Thompson the 2023 *Esto Perpetua* Award. "I am thrilled," Thompson said. "I was totally surprised when I received the phone call that I was being awarded."

The ISHS pays tribute each year to remarkable individuals and organizations that have dedicated themselves to preserving and promoting the rich history of Idaho and its communities. Established in 1999, the *Esto Perpetua* Award has recognized over 200 inspiring individuals and organizations throughout Idaho who have demonstrated unwavering dedication, commitment, and passion for the preservation and promotion of Idaho's history.

## THANK YOU TO OUR DONORS AND FUNDERS WHO HELPED US RAISE OVER \$42,555 FOR THE 2023 CALENDAR YEAR

Judith Damewood  
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Idaho Native Plant Society: Pahove Chapter  
Battelle Energy Alliance  
Gate City Rotary Club





# Idaho Museum of Natural History

## 2024 EVENTS

<p>January:</p> <p>9: Dinosaurs from the Mountain programming</p> <p>12: Greater Yellowstone Wetlands &amp; Amphibians</p> <p>25: Honoring Bear River Program</p> <p>30: Natural History Trivia - Adults Only</p>	<p>February:</p> <p>6: Greater Yellowstone Wetlands &amp; Amphibians Lecture</p> <p>10: Kid's Natural History Trivia Bowl</p> <p>13: Dinosaurs from the Mountain programming</p>
<p>March:</p> <p>12: Dinosaurs from the Mountain programming</p> <p>12-13: Bengal Giving day</p> <p>19-22: Spring Break Activities</p>	<p>April:</p> <p>16: Dinosaurs from the Mountain programming</p>
<p>May:</p> <p>18: Blue Star Museum Begins</p> <p>28: Summer Hours</p>	<p>June:</p> <p>Every Tuesday: Forest School</p> <p>18-20: Summer Camp: Hiking the Hills</p> <p>22: Summer Bash</p>
<p>July:</p> <p>16-18: Summer Camp: Build a Beast</p> <p>Every Saturday: In Gallery Activities</p>	<p>August:</p> <p>10: Sabertooth Cat programming</p>
<p>September:</p> <p>1: Fall/Winter Hours</p> <p>TBA: Edson Fichter Lecture</p>	<p>October:</p> <p>12: Fall Fossil Fest</p>
<p>November:</p> <p>Winter Scavenger Hunt Challenge</p> <p>Indigenous People's Month</p>	<p>December:</p> <p>Teacher Appreciation</p>

## AFFILIATIONS AND MEMBERSHIP



*Idaho Code, §33-3012, the State Board of Education establishes the Idaho State Museum of Natural History*