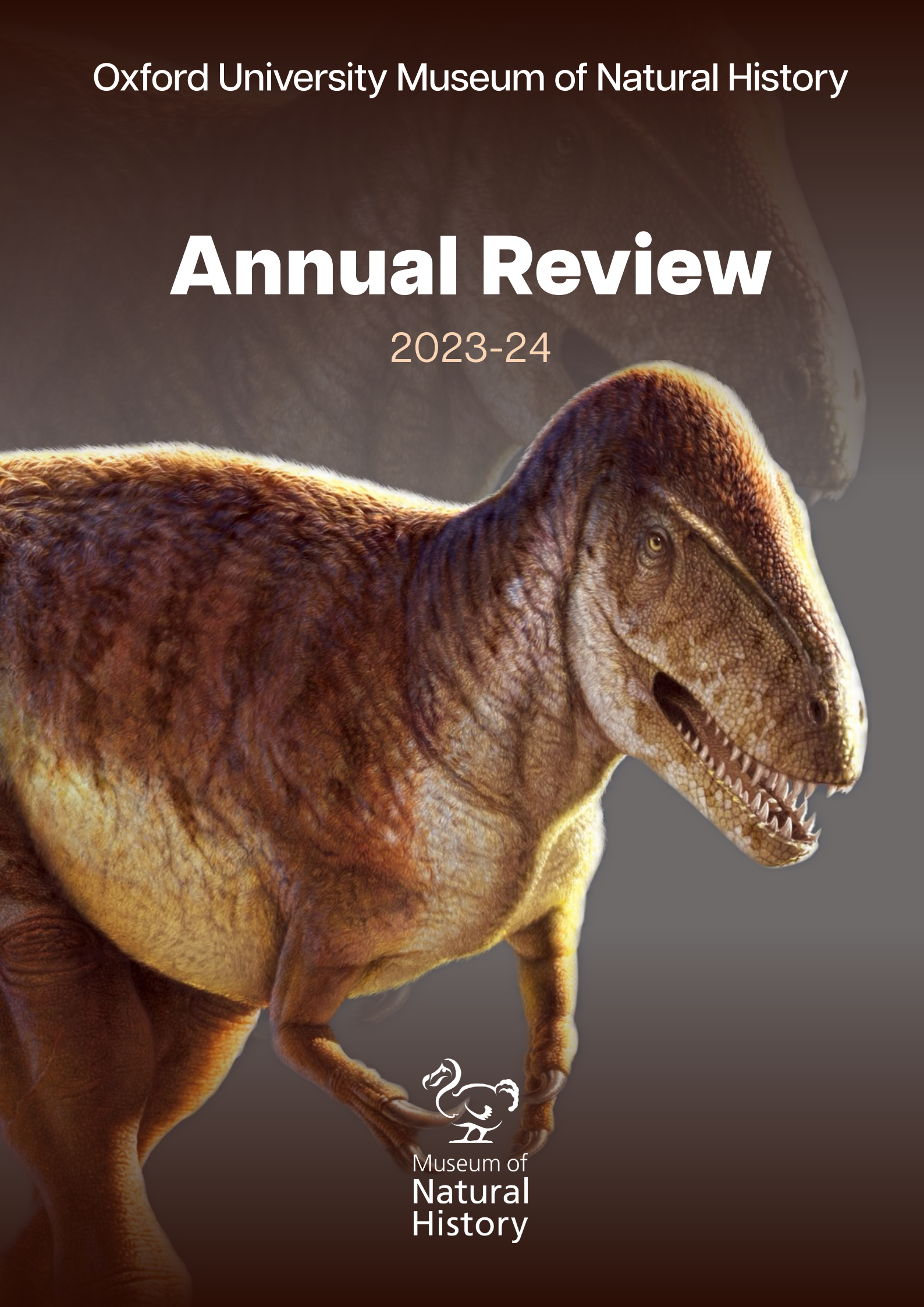
Oxford University Museum of Natural History

Annual Review

2023-24



Museum of Natural History

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The Oxford University Museum of Natural History Annual Review 2023-24
was compiled from reports supplied by members of staff

Photographs are by members of Museum staff unless otherwise stated

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Design: Vanessa Moore

Cover image: *Megalosaurus* was the largest terrestrial predator in Britain, during the Middle Jurassic. Artwork by Julius Csotonyi.

Contents

Director's Report

The start of each new academic year always represents a turning point; a time to pause, take stock, and reflect on the year just ended. In September 2024, however, we were also reflecting on an ending of much greater significance as Professor Paul Smith, after 13 years at the helm of the Museum, stepped down from the post of Director.

The end of an era is undoubtedly a cliché but it would seem remiss, with reference to a Professor of Natural History, not to use it and there could hardly be more appropriate terminology to capture the magnitude of the impact of his tenure. Paul has always had a clear vision for the Museum as institution where art and science meet and where the interplay between the two can be explored and celebrated. He has driven forward ever more ambitious projects and collaborations that have seen the Museum recognised as a centre for excellence in both research and public engagement. After successfully steering the Museum through the turbulence of recent external events, his final year, the 2023-24 academic year, has had a feeling of consolidation and of reaping rewards as the Museum has gone from strength to strength, with the highest ever visitor figures, and a commercial income of £1.167m, equating to 24.3% of total income In March we received the welcome news that the Museum had been awarded £569,708 annually for the next five years from the Higher Education Museums, Galleries and Collections Fund, a slight increase on the previous allocation.

At the forefront of collective activity, the *Life, As We Know It* redisplay project entered its third phase, with 16 new displays installed in the main court. The aim of the redisplay has been to bring a fresh approach to the presentation of the collections with a focus on engaging visitors with key scientific concepts and careful attention to aesthetics. With a large proportion of the project now completed, the new displays of specimens, models and sculptures have already had a transformative impact on engagement and teaching.

The exciting new offer across the permanent displays has, as always, been complemented this year by a dynamic programme of temporary exhibitions and events, many of which were delivered in collaborative partnerships with the wider University. The *Fair Water* exhibition presented research on water security from the REACH global research programme based at the School of Geography and the Museum also contributed to the University-wide activity for *Oxford Kafka 2024* and *Alice Day 2024*. The *Fair Water* exhibition presented a unique opportunity for international collaboration and the Museum's schools day activities were live-streamed to four schools in Cameroon where students were able to speak directly with their peers here in the UK. Live-broadcasting has been a particular strength across the whole of the learning programme and outreach numbers have continued to grow: at primary school level, a *STEM Live!* event reached 6,020 pupils on the day with a further 6,370 viewing the material later on demand.

Working in partnership has always been key across all the Museum departments and the 2023-24 academic year has included particularly significant contributions to the field of museum practice – including the development of a new three-day conservation course focusing on working with wax artefacts and treatments – and within the scientific community – including a new interpretation of the Cambrian fossil *Pikaia* and Museum research fellows undertaking field work in South China and Papau.

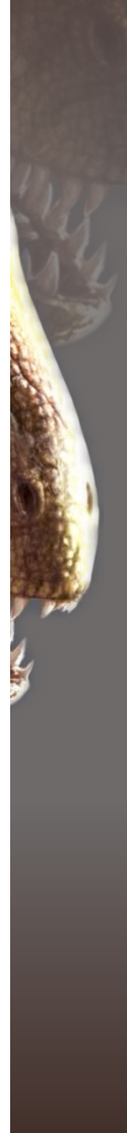
Underpinning all this activity, major developments to the Museum's physical and digital infrastructure have taken place this year to enhance and streamline collections management. More than 1.5 million entomological specimens and approximately 1,600 specimens from the Museum's mammal osteological collections have been rehoused in the new Collections Research and Teaching Centre in the first phase of the collections ingest. The Museum's Axiell EMu Collections Management System has continued to be upgraded to improve performance and the new ResourceSpace Digital Asset Management System has been installed to allow staff to more efficiently manage and reference the Museum's vast media collections.

With so much activity across core disciplines, you may expect a quiet public profile, but the Museum is rarely out of the headlines and our dedicated staff never pass up additional opportunities to draw attention to our collections. This year's highlight was the celebration of the 200th anniversary of *Megalosaurus*, the first scientifically described dinosaur, the fossil material of which is housed at the Museum. The Museum made the most of this incredible moment in history with a varied programme of events as well as bespoke branding devised just for the occasion.

It is a privilege to take over the leadership of the Museum as Interim Director following such a successful year of major developments across all departments. We enter the 2024-25 academic year in high spirits and with a sense of excitement about continuing to strengthen our offer and grow our partnerships within and beyond the wider University.

Janet Stott

Interim Director

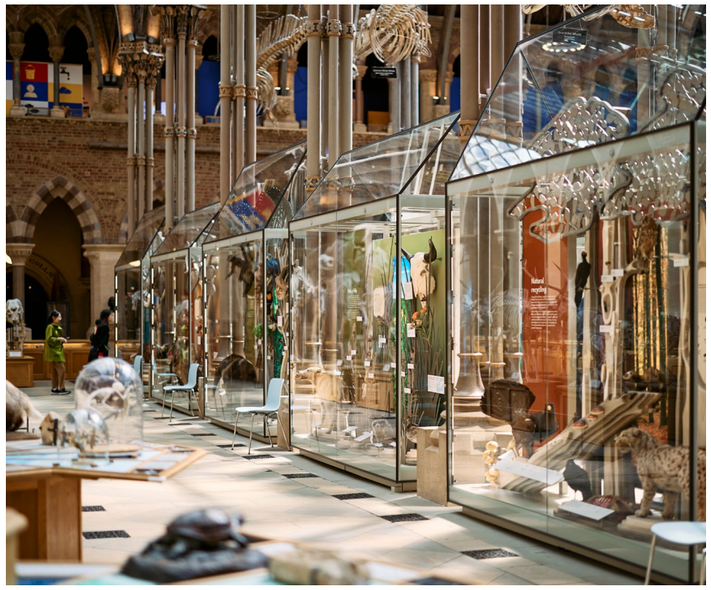


Highlights

Life, As We Know It redisplay - Phase 3

The major redisplay of the main court continued with Phase 3 of the *Life, As We Know It* project running from October 2022 to April 2024. This phase saw the development, design and installation of 16 new displays across the court: six on present-day ecosystems in the north court; seven on evolution in the north narrow aisle, completing the Evolution gallery; the final two on Biodiversity in the centre court; and one in the Earth gallery in the south narrow aisle.

The *Life, As We Know It* project brings a fresh approach to the presentation of the collections. Using hundreds of specimens, bespoke taxidermy and models, and exquisite glass sculptures, each display illustrates key scientific concepts in our understanding of how the natural world works. Together, they show how Earth's natural processes are deeply interconnected through geology and biology to create complex ecosystems.



New showcases in the north court

Funded by FCC Communities Foundation, DCMS/Wolfson Museums and Galleries Improvement Project, and the Negaunee Foundation, the £700,000 redisplay project phase has involved staff from across the Museum. Working groups comprising members of Collections, Research, and Public Engagement helped to develop the content, while conservators from both Life Collections and Earth Collections prepared material and made and installed specimen mounts. The Operations team were instrumental in preparing the court for the installation and ensuring clear communication and safety for visitors.

As in Phase 2, the project was managed by Redisplay Project Manager, Scott Billings, and Public Engagement Manager, Rachel Parle. The displays were designed by Easy Tiger Creative, manufactured and installed by The Workhaus, with external mount-making by Dauphin.

Phase 3 also introduced an alternating sequence of low- and high-pitched roofs in the showcase design, chosen to echo the original arrangement from the 1860s. These cases, like those from the first two phases, were designed and manufactured by Click Netherfield.

Handover ceremony participants in the Westwood Room at the Museum of Natural History

Second repatriation of human remains to Australia

On 4 October 2023, the Museum of Natural History and the Pitt Rivers Museum held a ceremony to return the remains of eleven ancestors to representatives of their respective communities and the Australian Government. The ceremony was attended by representatives from the Bathurst Local Aboriginal Land Council and the Wiradjuri Community, the Far West Coast Aboriginal Corporation, the Metropolitan Local Aboriginal Land Council and Gadigal communities, the Ngarrindjeri Community and the Wadawurrung Traditional Owners Aboriginal Corporation and the Wadawurrung Community, who attended the handover ceremony to receive their ancestors and accompany them home.

This was the second part of a return, the first of which was organised in November 2022. The Museum of Natural History returned six ancestors. Three of these ancestors are being returned to the custodianship of their respective communities, whilst three are being returned under Australian Government stewardship. All of the remains were acquired by the Museum in the 19th-century as the University Museum, as it was then known, became a concentration of material culture collections.

Summer placement programme

For the second year running, the Museum was delighted to be recognised as a Gold Standard Internship Host, based on feedback from students participating in the Oxford University Summer Internship programme. This award reflects the Museum's commitment to supporting and inspiring new generations of scientists and to the Museum's partnership with the Internship Office. In total, the Museum hosted eight interns, who took part in projects such as *Unlocking the Museum's Glass Plate Negative Collection* and *Recurating the Keen Collection of British and Iberian Insects*.

In 2024, the Museum also hosted eight students as part of the Undergraduate Bursary Scheme which aims to provide students from underrepresented backgrounds with hands on experience working within a museum. Projects included *Connecting Families and Young People with Nature* and *Cataloguing Exceptionally Preserved Marine Fossils* from Silurian Hertfordshire.

These programmes, funded by the EPA Cephalosporin Fund and Carey Family, provide invaluable early career experience for young people.

200th anniversary of *Megalosaurus*

On 20 February 1824, the first scientific description of a dinosaur, was published. The fossil material used to describe this new animal, named *Megalosaurus*, is held at the Museum and these specimens are widely considered to be the fossils that started dinosaur science. Consequently, on the 200 year anniversary of this event, the Museum was thrust under a global spotlight, with researchers, institutions and dinosaur fans around the world getting in touch, as well as coverage featured in newspapers, and television and radio programmes.

The Museum took every opportunity to engage the public with this incredible point in history and subsequently devised a year-long, varied programme of events and exhibitions. Stunning branding accompanied all communications and adorned merchandise in the shop.

To mark the anniversary in February, the Museum hosted a one-day symposium in collaboration with the History of Geology Group (HOGG), attended by an international delegation of scientists, history of science experts, and enthusiasts. Amongst a varied programme, presentations were given by staff and research associates, showcasing the expertise we have at the Museum. The symposium included tours of collections, public spaces, and the Library and Archives.

Megalosaurus *was the largest terrestrial predator in Britain, during the Middle Jurassic. Artwork by Julius Csotonyi.*

Megalosaurus *type specimens and associated archive material laid out for 'behind-the-scenes' tour*

Megalosaurus *jaw and lithograph, both used for the 1824 description of the first dinosaur ever named.*

Further programming throughout the year included opportunities to go behind-the-scenes to see *Megalosaurus* fossils and archival material, school and family sessions run by Public Engagement, numerous pop-up exhibitions by both Collections and Conservation staff, a creative response from GLAM volunteers, digital content across our social media platforms and website, 3D modelling demonstrations, evening talks by invited speakers, numerous externally-based talks by collections staff, and a *Megalosaurus* birthday party on the anniversary itself.

In the classroom they received a grounding in the nuts and bolts of biodiversity data as well as how to understand, access and critically use natural history museum collections and how to critically think about and manipulate biodiversity data associated with museum collections. They then worked up field collected specimens gaining skills in insect specimen pinning and dissection. The course will be assessed by the presentation of research posters on course-linked topics.

Megalosaurus footprint at Dewars Farm

Dinosaur highway excavation

In spring 2022, a few large dinosaur footprints were discovered by a quarry worker in Dewars Farm, near Bicester. Subsequent inspections from colleagues at both the Museum and the University of Birmingham identified evidence of extensive trackways. As a result, the Museum co-led a large-scale operation in June 2024 to excavate the site, involving a team of 98 people from the Museum and the Universities of Oxford and Birmingham. Over seven days, 200+ dinosaur footprints were uncovered, forming at least five huge trackways. The footprints belonged to two different types of dinosaur, the 18-metre-long herbivorous sauropod, *Cetiosaurus*, and the nine-metre-long ferocious carnivore, *Megalosaurus*. The site links up to other (now inaccessible) areas, excavated at various times since 1997, and combined they make this dinosaur track-site the most extensive in the UK and fifth largest in the world.

With the support of the Museum's Senior Leadership Team, the Museum's excavation leaders Collections Managers, Dr Emma Nicholls and Dr Duncan Murdock, sought to put together an inclusive team open to all, including those with no fieldwork experience. This is the first time that staff from all sections were invited to participate together in research and fieldwork activities, with around half of all Museum staff taking part. This fostered an immense sense of collective ownership around the discovery across the Museum.

The site was meticulously documented and digitised, which included taking 20,000+ photographs to create 3D models of the footprints. Physical moulds were also taken and aerial footage documented the whole area in one asset, capturing the sheer scale of the site. After publication, the digital models and associated scientific data were shared open-source to enable researchers around the world to interrogate dinosaur biomechanics, environmental conditions, and interactions between different dinosaur species. Finally, the excavation was filmed by both BBC News and BBC Two's Digging for Britain which resulted in worldwide press coverage of this important Oxfordshire site.

(opposite) Megalosaurus *footprint heatmap*
© Dr Luke Meade University of Birmingham

Paper Conservator Anna Espanol Costa at work

Conservation of the Buckland Archive

An important archival collection relating to pioneering 19th-century geologist and theologian, William Buckland (1784-1856) was purchased by the Museum in February 2023. The archive remained with the family following Buckland's death and, due to storage conditions, needed stabilisation and conservation before it could join the Museum's existing Buckland archive. With generous funding from National Manuscripts Conservation Trust and the Helen Roll Charity, Anna Español Costa was hired as a paper conservator to work in the Museum for eight months to ensure the long-term preservation of this newly acquired archive.

The archive had ingrained dirt, tearing, cracked wax seals, rusty paperclips, insect damage, iron-gall ink corrosion, and past repairs which were disfiguring. Considering the Museum had not had a paper conservator since the mid-1990s, Anna was incredibly resourceful with her use of tools and materials, utilising everything from makeup sponges and soft brushes to tweezers and dental picks. She used a range of interventive conservation treatments, all of which were reversible, to halt degradation and tackle the worst of the archive. She mechanically surface cleaned, washed manuscripts with iron-gall ink and stabilised them with gelatine, used acrylic adhesives to consolidate wax seals, flattened letters, removed unsuitable 'repairs' and backing papers, eliminated old animal glues which had left the papers shiny, and mended tears with Japanese tissues.

Overall, Anna used a combination of practical skills, scientific knowledge and historical research to ensure the repair and treatment of the Buckland archive was performed safely and sensitively. Following Anna's work, the newly acquired archive was in a better state for cataloguing, digitisation, consultation, and display in the Museum's temporary exhibition, *Breaking Ground*.

A team in a million

The Museum hit a high-point in the 2023/24 financial year, with income from commercial activity and visitor donations totalling over £1m. In fact, the total income hit a fantastic £1,167,000; over £200k higher than our already-ambitious budget target.

The structure of the income-generating team is extremely lean; just five part-time staff members in the Museum shop taking over £400k in gross sales, one bookings officer generating £42k from groups and schools, and our small team of busy Visitor Services staff soliciting nearly £200k in visitor donations amidst their varied workload. Operations team colleagues also fit in cafe and caterer management and filming location work.

Special commendation is due to the Events team – our full time Events Manager, Paris Grovener, and Deputy, Louis Lofthouse, and fifteen evening assistants – whose stellar performance attracting and retaining venue hire clients exceeded the budget by £160k, generating a total of £380k. The trust that clients repeatedly place in our venue is testament to the consistent excellence in delivery by this expert team.

What marks our commercial team out is how much they all care about creating a wonderful experience for everyone who visits the Museum. They can be proud that this year more children than ever from Oxford and beyond are lulled to sleep at night with a stuffed stego-saurus, a plush panda, or a tactile tarantula (all recycled, of course), more visitors to our city felt that 'Oxford thrill' at an atmospheric dinner in the Main Court or an education session, and more locals and tourists made a donation because they found a warm welcome and a new way to look at the natural world through visiting our beautiful building.

CTRC ingest starts

Over the course of 2024, the Museum has been boldly going where no museum has gone before as the first GLAM institution to begin housing collections in the new shared Collections Research and Teaching Centre (CTRC), recently established underneath Reuben College.

Following the installation of 572 airtight cabinets, an estimated 5500 drawers containing in excess of 1.5 million entomological specimens have been transferred from an offsite store and the Museum to the stores in the CTRC. Drawers were bagged and frozen to guard against pest species before transportation, with the end result being that the CTRC now houses the Museum's British Insect Collection, its global collections of Diptera, and most Small Order collections. A further 96 steel cabinets are re-locating from the Museum to the CTRC stores, providing much needed space for future entomological collections work.

The CTRC has also become home to most of the Museum's mammal osteological collections. Approximately 1,600 specimens including articulated skeletons, boxed material, fossilised mammal casts, and hundreds of rack-mounted antlers have been ingested from the offsite store at SERS and from the Museum, representing another massive bagging, freezing and logistical effort from GLAM's Move Team and Museum colleagues. This work continues by uniting specimens from other onsite stores before incorporating them into modern taxonomic arrangements, making them more accessible for staff and researchers.

Entomology drawers in the CTRC

The temperature and humidity control in the new stores, combined with new racking and airtight cabinetry, results in much improved storage conditions and protocols for the continuing care of the Museum's collections. Newly installed teaching, digitisation, conservation and research suites will enable collections-adjacent teaching and work spaces for visitors and staff.

The Pitt Rivers Museum has recently begun the ingest of its own collections into the stores and it is anticipated that the CTRC may be open to visitors from the beginning of the 2026 academic year.

Collections

The Present Day Ecosystems *aisle completed as part of Phase 3 of the redisplay project*

Life, As We Know It redisplay - Phase 3

After more than 18 months of hard work by many people across the Museum, the third phase of the *Life, As We Know It* redisplay project was completed in May 2024. To mark the achievement, staff held a celebratory drinks event in the north court beside the six new *Present-day Ecosystems* displays. This phase of 16 new displays saw the completion of the Evolution aisle, which includes four glass sculptures by UK artists: three by Luke Jerram, and a piece especially commissioned from Pratibha Mistry. *The Flow of Energy*, one of the new *Ecosystems* displays, required a major restoration of the historic sunfish skeleton by Museum Conservators, Jackie Chapman-Gray and Juliet Hay. The centre court *Biodiversity* displays were also completed, along with the *Snowball Earth* display which finishes one half of the *How the Earth Works* aisle.

A Royal Mail stamp to honour Mary Anning

In March 2024, the Museum collaborated with Royal Mail on a Miniature Sheet paying tribute to fossil collector and palaeontologist, Mary Anning.

Royal Mail commissioned the Museum to supply an image of a near-complete, 190 million-year-old fossil fish called *Dapedium*, having seen an article on the Museum blog detailing its interesting backstory.

Librarian and Archivist, Danielle Czerkaszyn, and Collections Manager, Dr Emma Nicholls, holding the Mary Anning stamp set in front of the Anning display featuring the Dapedium specimen

An 1829 letter in the Museum archive to William Buckland from former student Beriah Botfield, reveals the specimen was found, identified and prepared by Anning, and Botfield bought the specimen from Anning before gifting it to the University. This connection to Anning had been lost until 2021, when Dr Sue Newell read Botfield's letter and later recognised the specimen in the collections.

This was the first Museum specimen to be featured on a Royal Mail stamp. The stamp set was displayed alongside the real specimen in the Anning case near the Museum's entrance.

LEAF Silver Award

Sustainability is integral to the Museum and to the Life and Earth Conservation laboratories, which focus on national benchmarking schemes such as the Laboratory Efficiency Assessment Framework (LEAF) and balancing energy saving initiatives with preservation needs of the collections. In July 2024, the Museum's Life Zoology Conservation Laboratory attained a silver award and the Earth Conservation Laboratory attained a bronze award.

Mola mola, or Sunfish, conservation

Over the course of 2.5 months between March and May 2024, the conservation, mount making and installation of the *Mola mola*, or Sunfish, skeleton for Phase 3 of the redisplay project were undertaken by Museum Conservators, Jacqueline Chapman-Gray and Juliet Hay. Overall, conservation of this specimen involved multiple departments within the Museum and took over 153.5 hours to complete.

Callum Bucklow and Jacqueline Chapman-Grey identifying bone placement

Conservation of the Mola mola *skeleton*

Jacqueline undertook the task of identifying the locations of the multitude of bones, with the help of ray-finned fish expert, Callum Bucklow, Digital Communications Officer, Dr Sarah Bell, and Deputy Head of Research, Dr Ricardo Pérez-de la Fuente. Cleaning, repair, replication and reconstruction were at times complicated due to the friable nature of the bones, resulting in a number of different conservation methods being trialled.

Conservation of the Mola mola *skeleton*

Jacqueline undertook the majority of the conservation and layout of the specimen whilst Collections Manager, Dr Duncan Murdock, undertook scanning and 3D printing of the fin and vertebral. Juliet free-modelled and cast three sections of the opercular bones and painted these and the 3D printed sections. Juliet also designed and constructed a variety of different mounts and installed the specimen in the *Open Oceans* case within the *Ecosystems* display.

Mola mola *on display*

(opposite) Mola mola *on display*

NatSCA conference attendees © Paolo Viscardi

NatSCA Conference

On 18 and 19 April 2024, the Museum hosted a two-day conference in partnership with the Natural Sciences and Collections Association (NatSCA), the UK's Subject Specialist Network for natural science collections.

The conference theme was *Trials and Triumphs: sharing practice across the museum sector*. Over 100 attendees heard 26 talks over two days, covering topics including secondary education, museum move project best practice, statistics packages for analysing museum data, digitisation workflows, specimen conservation, and a panel session on gallery redevelopment projects including the Museum's own *Life, As We Know It* project. The conference was rounded off by 15 themed tours, undertaken by 30 separate groups, of the Museum's collections, displays and architecture as well as tours of the University Herbarium.

A celebration cake featuring their brand-new logo

Geological Curator's Group – 50th anniversary

May 2024 saw the 50th anniversary of the Geological Curator's Group (recently renamed the Geological Collections Group). To reflect both the place of its inception and the 25th anniversary, GCG chose to hold its golden celebration at the University of Leicester. As GCG Chair, Collections Manager, Dr Emma Nicholls, was instrumental in organising a two-day event on the theme of *Geological Collections: Past, Present & Future* comprising a day of talks followed by a field day (co-led by Collections Manager, Dr Duncan Murdock) to the Charnwood Forest Geopark and BGS collections.

Valerie Kaufmann (print blouse), lead tutor, teaching

Conservation wax course

Museum Conservators, Juliet Hay and Jacqueline Chapman-Gray, hosted a three-day wax workshop in January 2024, covering conservation techniques, identification of deterioration, first aid treatments, handling hot wax, bonding colour matching, and looking at the environmental parameters for storing wax items, such as wax seals and models. There were 16 participants from across GLAM. The lead tutor was Valerie Kaufmann, with over 40 years' experience in wax conservation, and Chris Woods, founding member of ICON and Accredited Conservator with 40 years of experience in the heritage sector.

"Not only was it great to get out and learn something new, it was also the social event of the season for Oxford Conservators! It's great to have something to bring us all a bit closer together. I feel better equipped to have a go at some of our wax objects after Valerie's tuition."

Participant feedback

Museum Conservators and course organisers, Juliet Hay and Jacqueline Chapman-Gray

Learning wax manipulation using hot work techniques

Biogeografía y evolución exhibition

In September 2023, the Museum loaned 236 of Alfred Russel Wallace's insect specimens to the Museo Nacional de Ciencias Naturales, Madrid for the exhibition *Alfred Russel Wallace (1823-1913) Biogeografía y evolución*. This year long exhibition celebrated the bicentennial of Wallace's birth and his significant contributions to science. The loan from the Museum was featured prominently and enabled visitors to see some of the actual beetles and butterflies collected by Wallace. Another highlight was a photograph by Levon Biss of one of Wallace's jewel beetles displayed alongside the original specimen from the Museum.

Some of the Museum's Alfred Russell Wallace insects on display at the Museo Nacional de Ciencias Naturales, Madrid © Borja Mil

Just a few of the thousands of British bees identified by Ivan

Ivan Wright in the Taylor Room

Hymenoptera high times

Local entomologist and expert Hymenopterist, Ivan Wright, has been working tirelessly for many years on the Museum's British Hymenoptera collections. The Museum is extremely grateful for his freely given time, his thousands of reliable specimen identifications, his generously imparted knowledge and his good cheer. Spring 2024 saw a watershed moment, with the completion of the British mining bees. Ivan's efforts continually enrich the lives and work of many staff, students and visiting researchers.

Author, Dr Adrian Pont with a copy of Diptera Types of J.M.F. Bigot. *© Lenny de Rooy*

A monograph on the Bigot Diptera Collection

In July 2024, Museum honorary associate, Dr Adrian Pont, along with colleagues Dr Neal Evenhuis and John Chainey, published *The Types of Diptera (Insecta) Described by J.-M.-F. Bigot.* Jacques-Marie-Francois Bigot (1818-1893), a French dipterist (those studying true flies) bought specimens from collectors and dealers from all around the world. He also acquired specimens from friends and undertook his own collecting. He described 1,565 new species from every region of the world, and his collection numbered many 10,000s of individual specimens. On his death, his collection was purchased by the wealthy amateur English dipterist George Henry Verrall (1848-1911) and then passed to his nephew, the equally eminent dipterist James Edward Collin (1876-1968).

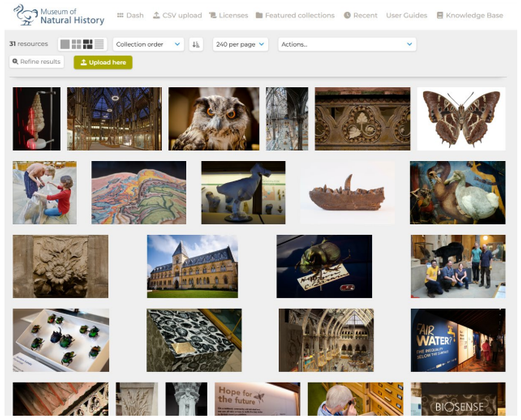
Both Verrall and Collin retained the collection in its original boxes and original arrangement, but over the years they passed some of the groups that did not interest them for research purposes to the then British Museum (Natural History), London. Shortly before his death, Collin bequeathed the collection to the Oxford University Museum of Natural History, where it still forms one of the jewels of the insect holdings. The Museum holds over 2,000 type specimens representing 591 species of fly described by Bigot, all of which have been diligently catalogued by Pont et al. in this book, making it an extremely valuable research for taxonomic and historic research. A copy of the book has been deposited in the Museum Library.

Collection Management System upgrades

For the past decade, detailed records of the Museum's vast collections of specimens and archive material have been maintained in its Axiell EMu Collections Management System. This integral part of the Museum's collections management infrastructure underwent significant performance improvements, transforming the user experience for staff, volunteers, and placement students.

Using EMu and AppStream with Museum collections

The Museum's Digital Collections team worked with the Gardens and Museums IT infrastructure team to define requirements and to configure and test the Amazon AppStream 2.0 application streaming service as the solution. Given the size and complexity of the database, a faster system was much needed to support the smooth running of large-scale projects such as the DAMS implementation and collection moves, while also increasing efficiency in day-to-day collections management.

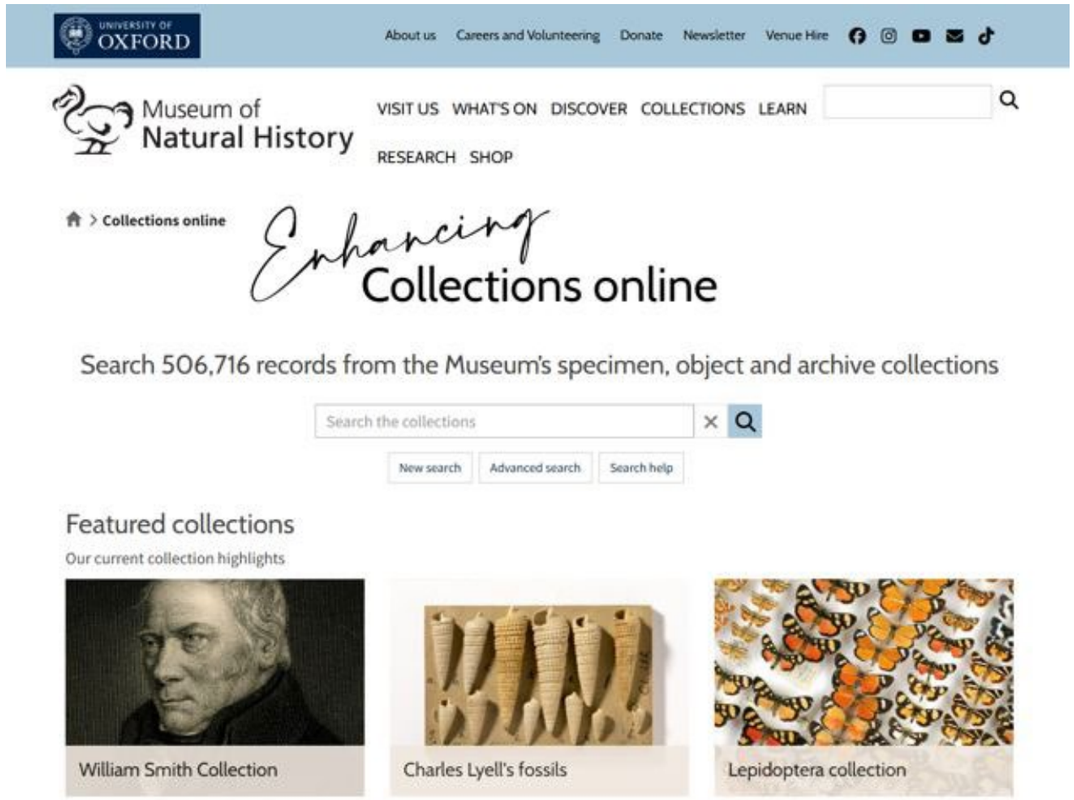


DAMS mosaic screenshot

Digital Asset Management System rollout

The implementation of a major new digital collections system for the Museum commenced, following a year-long project scoping period. The ResourceSpace Digital Asset Management System (DAMS) will serve as a single repository to store photographs, video, and other digital assets alongside their metadata, allowing staff to efficiently search for assets and manage their copyright and licensing. It will form a key part of our infrastructure for managing and preserving the products of collections digitisation and other institutional assets for the future.

The DAMS will be launched for the Public Engagement section in November 2024, with a full rollout planned for Spring 2025 after integration with the EMu Collections Management System.



Collections Online screenshot

Enhancing Collections Online

Digital Collections Manager, Dr Sarah Joomun, and Volunteer Engagement Officer, Caroline Moreau, ran a pilot volunteering opportunity as part of Enhancing Collections Online, a GLAM Labs funded project. Six volunteers researched the names of 31 people appearing on Collections Online, investigating their representation there, and verifying and adding to the biographical information shown. The volunteers also gathered detailed evidence of problems with Collections Online, which have now been logged for fixing. In many cases they struggled to find out how the people were connected to the collection, showing gaps in data published from the Collections Management System.

The volunteers enjoyed researching the names, delving into a wide variety of sources, some contacting archives, and going down many rabbit holes. As a result, they identified the individuals named, added new information and corrected misidentifications. Their work is now published on Collections Online.

Audiences

Striped House Snake and Rhombic Night Adder, used for weather forecasting in North Kenya

Fair Water

23 November 2023 - 1 September 2024

Fair Water explored the complex global issues around water security, the impact of the climate crisis, and economic and gender inequalities. The exhibition was developed in partnership with the REACH global research programme based at the School of Geography.

A striking photographic series by renowned Ethiopian photographer and contemporary artist Aïda Muluneh was a highlight of the display. The images explored the impact that living without access to clean water has on women's lives and futures. Fair Water engaged 273,370 visitors during its ten-month run and it is due to tour to Manila, Dhaka, and Nairobi.

The Art and Science of the Dodo

The Oxford Dodo is perhaps the most iconic specimen in the Museum's collection, and is certainly a must-see object for visitors. To replace the stand-alone display that was lost from the Centre Court during the Museum's redisplay project, a new exhibit was created on the Upper Gallery. *The Art and Science of the Dodo* opened in July 2024.

The Art and Science of the Dodo *display*

The cultural impact of the Dodo in art, literature and film is demonstrated by objects such as a copy of Lewis Carroll's *Alice's Adventures in Wonderland* and a Disney Dodo soft toy.

Scientific understanding of the bird's anatomy and evolutionary history is explored through specimens of the Dodo's relatives, such as leg bones of the extinct Rodriguez Solitaire. An animated 3D scan created with Warwick Manufacturing Group (WMG) at University of Warwick is included, and shows evidence of lead shot found in the back of the Oxford Dodo's skull.

Mark Carnall speaking at Curious Creatures and Fabulous Monsters *© Lenny de Rooy*

Curious Creatures and Fabulous Monsters

'Twas long before brillig on Alice's Day, 6 July, and the slithy toves (and others) gathered for the Lewis Carroll Society's lectures at the Weston Library on the theme of *Curious Creatures and Fabulous Monsters.*

Collections Manager, Mark Carnall, gave a talk on the Carrollean links with the Museum and the natural and literary history of the dodo, whilst families contributed their own crabs, owls, parrots and dodos to an epic collaborative Caucus Race artwork in Blackwell Hall. Following Mark, author Lenny de Rooy explored the meticulous Carrollean nods in her parody/sequel *Alice's Adventures Under Water.* Lastly, as a giant Jabberwock puppet, with eyes of flame, stalked the streets of Oxford, legendary broadcaster Brian Sibley poetically examined (almost) every depiction of the Jabberwock from ales to album covers, political cartoons to roadside sculptures and the many, many literary adaptations, parodies and depictions.

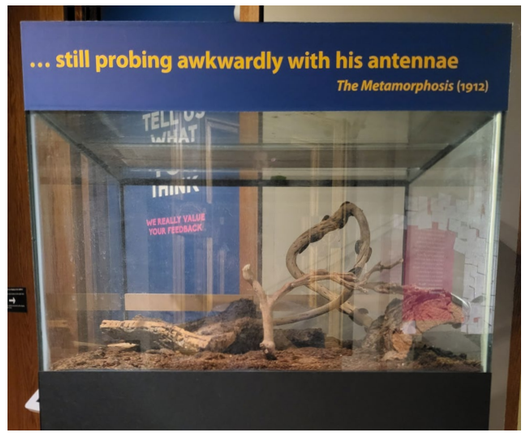
Radcliffe Science Library display

Kafka...

As part of Oxford *Kafka 2024*, a programme of University-wide events and activities, throughout the year the Museum's entomological collections and staff got involved in the absurd and the strange.

In May 2024, some of the Museum's insect specimens put in a star turn for a display in the Radcliffe Science Library for the launch of *Oxford Reads Kafka*. The case included British beetles, and a variety of large exotic specimens, together with a copy of the book. Later that month, entomological treasures from the Museum's Library went on display in the *Kafka: Making of an Icon* exhibition at the Weston Library, with some of the Museum's living insect collections (Madagascan hissing and Death's head cockroaches) taking up residence at the end of exhibition.

The final element of the Museum's involvement took place in June 2024, working with the Department of Biology to create a display in the Museum's *Presenting* case focusing on Kafka's *Metamorphosis* novella. Specimens were chosen following discussions with students, and the display included their artwork and insects from the



The Museum's Presenting *display & (opposite) The Weston Library exhibition*

collections that undergo metamorphosis during their life cycle, together with a book from the Museum Library *(Die Käfer des Deutschen Reiches 5 Bände),* which would have been a staple feature in secondary schools across all German-speaking territories when Kafka was writing Metamorphosis.

Family Activities

Super Science Saturday family activities © Ian Wallman

Our World From Space

In 2024, the Museum was one of 22 national museums and science centres to take part in the *Our World from Space* (OWFS) project, funded by the UK Space Agency and the Natural Environment Research Council and coordinated by the Association for Science & Discovery Centres. The aim of this project was to inspire the public about the role that space science can play in the health and sustainability of the planet. The Museum's family team used the opportunity to develop new learning resources for family audiences and to increase the team's knowledge about the role that remote sensing satellites can play in monitoring biodiversity. In total, the team delivered eight public-facing events based on the OWFS theme across the year as well as three weeks of closed-group activities for the Natural Science and Heritage Scheme students, including a highly successful art workshop with local artist Amy Walsh.

Super Science Saturday

On 9 March 2024, the Museum held its annual Super Science Saturday, a free family-friendly science fair, which this year was themed around *Our World from Space*. A team of 35, including Museum volunteers, staff, researchers from the University of Oxford, Oxford Brookes, WWF, and the National Centre for Earth Observation, delivered 13 different activity stalls on a wide range of space and earth-observation topics, including ocean warming, GPS animal tracking, the European Space Agency's Biomass mission, and wildlife monitoring using satellite imagery.

3,286 people attended the event over the course of the afternoon, with children and families taking part in a huge variety of activities including games based around spotting penguin poo and walruses from space, experiments related to coral bleaching and thermal imaging, and make-your-own satellite and walrus mask crafts. Some stalls also provided visitors with the opportunity to learn about some unusual applications for space science, including missions to study butterfly metamorphosis and human aging in space.

Fair water family activities

May Half Term Pond Dipping

In May Half Term, the family education team delivered two days of free family-friendly activities based on themes within the *Fair Water* exhibition with support from Museum volunteers, students and representatives from the Oxford Urban Wildlife Group. The aim was to educate local families on the water-security issues we face in the UK and draw attention to the hyper-local water justice campaigning currently happening in Oxfordshire, particularly around the sewage spills and pollution affecting the water quality of the river Thames. Amongst water-quality experiments and pond-dipping, drawing, microscopy, specimen handling and craft activities, children and families were given the opportunity to learn about the importance of fresh-water habitats for animals and the impact of pollution on local biodiversity.

Lyme Regis Fossil Festival

On 8 and 9 June, more than ten thousand people came to Lyme Regis to enjoy a range of activities, stalls and talks at the annual Fossil Festival. The Museum team, consisting of Collections Managers (Earth Collections), Dr Emma Nicholls and Dr Duncan Murdock, Education Officer, Chris Jarvis, and Head of Learning, Sarah Lloyd, were there to celebrate all things Megalosaurus. They brought specimens to get excited about, Megalosaurus masks to make and special merchandise to buy.

The Museum team at the Lyme Regis Fossil Festival

A steady stream fossil fanatics, interested locals, and tourists visited the Museum stall each day. By Sunday evening voices were hoarse and the safety scissors were blunt but it was wonderful to see so many people of all ages enjoying the range of activities the team were able to bring.

Learning

Family activities with the Natural Science and Heritage group

Sustainability for the Programme for Young People

In 2024, funding from the EPA Cephalosporin Fund enabled the Museum to embed important elements of its programme for young people:

1. Natural History Investigators - the museum recruited two Youth Leaders, Claire Marr and Maya Lucas. They have an infectious passion for science and nature and the Museum's association with the University's Department of Biology has been strengthened by their work.

2. Natural Science and Heritage Scheme - the Museum recruited two undergraduate placement students.

By providing a rich and supported youth offer the Museum is developing a reputation, not just with local young people but also with a growing cohort of teachers and carers.

The Museum plans to continue to develop the youth programming team, with a Youth Programme Leader and three Youth Mentors. The Museum's ambition is to use this additional resource to encourage a greater diversity of people to join the youth programme and build on its successes to establish a longer-term relationship with its participants.

STEM live broadcast

As well as the 5,302 primary school children that attended our standard taught sessions supporting their curricula on school visits, a highlight was the Museum taking part in a *STEM Live!* broadcast on 13 September 2023. Partially live-streamed from the Museum, with some pre-recorded material also included, Collections Manager, Dr Emma Nicholls, and Education Officer, Chris Jarvis, were quizzed by presenter, Sally-Anne Spence, on all things dinosaur, and particularly *Megalosaurus*, as they showed some of the gems of our geological collections. With challenges, a competition and children's Q+A's thrown in, the live event reached 6,020 pupils across the UK and several other countries with a further 6,370 pupils viewing it later on demand in the following weeks.

Students at Maddison primary school © STEM Live impact report

Fair Water Schools Day

In February 2024 the Museum ran a Fair Water day for schools. Ten schools from Oxfordshire, Berkshire, Buckinghamshire and Wiltshire brought groups of year 11, 12 and 13 geography students to the Museum to see the *Fair Water* exhibition and to meet the members of the University research team involved.

Students at Baptist Comprehensive School Buea (BSCB) © Lucy Diffang BCSB

Members of the REACH global research team ran a day of activities. Topics included the assessment of water quality, climate modelling, and predicting future water security. The day ended with a discussion about the availability of safe and affordable drinking water in parts of Kenya, Bangladesh and Cameroon.

The day was live-streamed to four schools in Cameroon. One of the schools, The Baptist Comprehensive Secondary School (BSCB) in Buea, is built close to Mount Cameroon. Water security is a significant issue in Buea because the town is built on loose volcanic rock and there are few permanent water sources. Students at BCSS Buea talked with the Museum audience about the challenges they face when accessing water at school.

A collaborative GLAM work experience programme

The Public Engagement team regularly offer work experience placements and career-themed activities for young people. For a week in July 2024 a group of twelve year 12 students from local state schools worked with public engagement teams at Oxford University's spaces for nature: the Botanic Garden, Wytham Woods, and the Museum of Natural History.

Work experience students from Oxfordshire state schools

Students spent two days at one of the outdoor sites exploring the ways in which visitors are introduced to and respond to the positive and negative impacts of human activity on the environment. This was an opportunity to develop a special understanding of the role and skills needed work in this sector.

The group then collaborated for a museum-based exhibition project. They chose specimens and images and wrote accessible text to communicate their findings and reflections. The temporary exhibition *Nature Among Us* was installed in the Museum's community case at the end of July 2024.

Field collection in action

Field to Museum skills course

In May 2024, for the fourth consecutive year, colleagues in Life Collections facilitated and ran a two-week Field to Museum skills course for Oxford University second year undergraduates. The intensive courses took students through the journey of biological specimens from trapping methods and field collection to preparation and preservation, identification, cataloguing and eventually big biodiversity data aggregation.

In the classroom they received a grounding in the nuts and bolts of biodiversity data as well as how to understand, access and critically use natural history museum collections and how to critically think about and manipulate biodiversity data associated with museum collections. They then worked up field collected specimens gaining skills in insect specimen pinning and dissection. The course will be assessed by the presentation of research posters on course-linked topics.

Astrophoria Foundation Year

In October 2023, the Museum welcomed, for the first time, students from Oxford University's Astrophoria Foundation Year Programme. The programme is designed for UK state school students with significant academic potential, who have faced barriers which resulted in them being unable to apply directly for an Oxford undergraduate degree programme.

Astrophoria Foundation Year students working on assembling animal skeletons © Jo Begbie

The new session for 35 students on the Humanities Foundation Year stream - for students on Classics, English, History and Theology programmes - was a practical session on the theme of the body. Following an introduction to animals, their bodies and skeletons by Collections Manager, Mark Carnall, the students got hands on with building actual animal bodies (or their skeletons at least) before reflecting on 'the body' more broadly from bodies of work to bodies of water.

Digital Morphology workshop

Following the success of the two-week Digital Morphology skills course for 1st year Biology undergraduates hosted by the Museum, a one-day version was created to share with other museum professionals, co-organised with the Geological Curators' Group. Senior Researcher, Dr Frankie Dunn and Collections Manager, Dr Duncan Murdock, co-led the course, covering the whole process of digitising the morphology of museum specimens from data collection, through analysis and the ethics of publication. It was attended by 15 delegates including students, museum curators, researchers and non-professional collectors.

Dr Duncan Murdock demonstrating 3D reconstruction of a Nile crocodile © Geological Collections Group

Adult Programme

Dinosaur Handling session © GLAM outreach team

The Vice Chancellor's Community Partnership Award

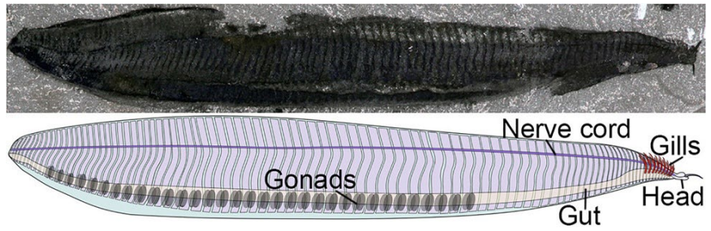
The Museum was glad to be part of the GLAM Community Engagement Team that won this year's Vice-Chancellor's Community Partnership Award. The Museum has been running free sessions for adults with learning difficulties for over 20 years. Originally these were organised and funded by the Oxfordshire County Council's social services but the offer slowly diminished as funding was withdrawn. Thanks to the GLAM Community Engagement Team taking on and administering its own programme to fill the gap, provision has continued and it has been a huge success, with 90% of attendees re-booking onto more workshops throughout the year. The group is expanding and colleagues are seeing increasing demand for space. The 2023 programme was mostly booked-up within 48 hours.

Research

Odontozona edwardsi specimen (Stenopodidae) recovered at the Cassidaigne Canyon, a female. Total length: 13.0 mm. Chevaldonné et al. (2023), Marine Biodiversity. DOI: 10.1007/s12526-023-01386-5

Out of the mud

A study with the participation of Senior Researcher, Dr Sammy De Grave, assessed marine fauna associated to the slopes of the Cassidaigne Canyon (Southern France), where red mud (alkaline bauxite residue) was dumped at 330 m depth for half a century (1966–2015). The area was surveyed in 2021 with remotely operated vehicles. Among the most significant findings were the observation of living *Neopycnodonte zibrowii* oysters, previously only known as dead shells in that canyon, and the capture of the rare stenopodid shrimp *Odontozona edwardsi,* found in the Mediterranean for the first time. These results show some signs of biological resilience in seafloor affected by heavy human alteration that will still need decades to recover.



Pikaia specimen (top) and idealised reconstruction with body parts noted (bottom). Modified from Mussini et al. (2024) Current Biology. DOI: 10.1016/j.cub.2024.05.026

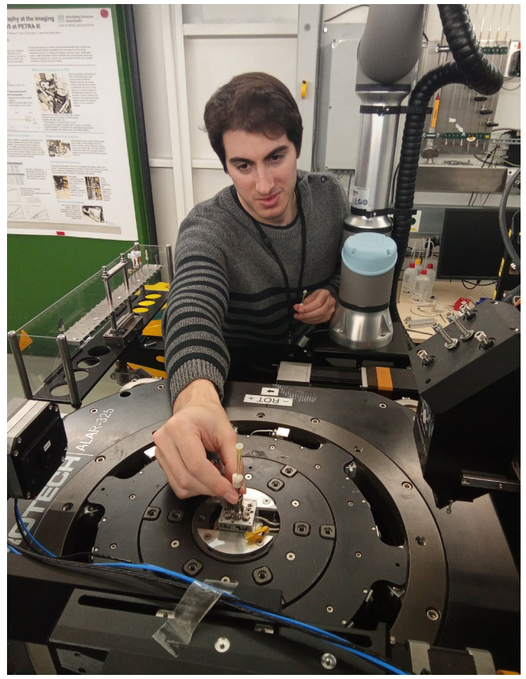
Flipping the fossil

A team led by former Museum-based Biology master's student, Giovanni Mussini, Senior Researcher, Dr Frankie Dunn, Museum Director, Prof. Paul Smith, Collections Manager, Dr Duncan Murdock, and Museum honorary associate, Dr Imran Rahman, reinterpreted the iconic (and traditionally problematic) Cambrian fossil *Pikaia.* The new interpretation included key features such as a gut canal and a nerve cord in dorsal position, which concluded that the fossil had been previously interpreted upside down. The results support classical evolutionary-developmental hypotheses of the origin of chordates (vertebrates and relatives) and reveal a "lost chapter" in the history of the phylum.

Fieldwork in South China

In summer of 2023, Senior Researcher and NERC Independent Research Fellow Dr Frankie Dunn travelled to South China to take part in field work excavating a new site which sheds light on the origin of animals. Working with a team at Yunnan University, Museum Senior Researcher, Dr Ross Anderson and Museum associate researcher, Dr Luke Parry, are now writing their findings up for publication. In 2025, Prof. Peiyun Cong from Yunnan University will arrive in the Museum for a year-long sabbatical to work collaboratively on this new discovery.

Dr Frankie Dunn splitting rock slabs during fieldwork in South China © L. Parry.



Dr Leonidas-Romanos Davranoglou places a sample for scanning at the synchrotron Imaging Beamline P05, DESY

Scanning insects at a particle accelerator

In December 2023, Leverhulme Trust Early Career Fellow, Dr Leonidas-Romanos Davranoglou, and Deputy Head of Research, Dr Ricardo Pérez-de la Fuente, together with academic visitor, Dr Alba Sánchez-García from the Spanish Geological and Mining Institute (National Research Council), went to scan extant and fossil insects at the Deutsches Elektronen-Synchrotron (DESY) in Hamburg. The scanned samples included subfossil resin (copal) with insects from the Museum's collections, which will be used in diverse research projects aiming at understanding the provenance of the copal and the associated fauna.

Dr Ross Anderson during fieldwork on Proterozoic rocks in Svalbard 2019 © A. Millikin

New research on the evolution of complex life

Dr Ross Anderson joined the Museum in April 2024 as a Senior Researcher and Royal Society University Research Fellow. Ross' lab group focuses on understanding the evolution of complex life throughout the Proterozoic Eon (2.5-0.5 billion years ago) using exceptionally preserved fossils. It also explores the processes that lead to fossilisation, particularly at the microbe-mineral interface. Dr Piyush Sriwastava, Post-Doctoral Research Assistant, who joined the Museum in July 2024 and is funded by Ross' Royal Society grant, is also developing this line of research by elucidating in experimental settings how clay and biomolecules interact to preserve soft tissues. George Wedlake, a DPhil student in Ross' lab, will undertake fieldwork in northwest Canada in search of some of the earliest multicellular eukaryotic organisms.

Overseas academic placement

Indonesian biology undergraduate Gison Morib undertook an academic bursary placement at the Museum from April to May 2024. Gison joined Leverhulme Early Career Fellow Dr Leonidas-Romanos Davranoglou on a major expedition in the Cyclops Mountains, Papua, where their team rediscovered Attenborough's long-beaked echidna.

Gison Morib on fieldwork in the Cyclops Mountains, Papua

During his time at the Museum, Gison sorted and analysed over 50,000 camera trap photographs captured over six months. This extensive dataset allowed Gison to explore changes in community ecology over elevation and delve into species-specific ecology and phenology. His visit also provided valuable networking opportunities, connecting him with international specialists. Overall, these experiences helped solidify Gison's interest and passion for conservation biology. After his stay at the Museum, he received a ZSL EDGE Fellowship, which will enable him to continue his groundbreaking work on the ecosystems of Papua, highlighting their critical role in the world's biosphere.

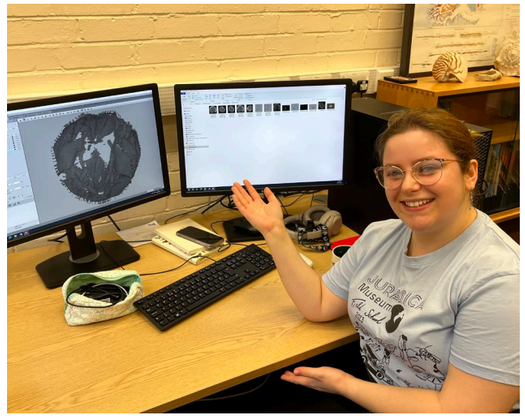
Dr Susan Newell with teaching diagrams in the Museum's Archives from the collection of William Buckland

Teaching at the Museum in the 19th century

Dr Susan Newell successfully defended her doctoral thesis during the summer of 2023. Dr Newell's doctoral project *Museum Collections, Academic Teaching, and the Making of Geology in the Nineteenth-century University* was funded by AHRC's Collaborative Doctoral Partnerships in collaboration with the University of Leeds. One of the main resources that Sue used was the William and Mary Buckland archive, which had recently grown thanks to the acquisition of the Buckland family archive. This PhD was supervised by Head of Earth Collections, Eliza Howlett, at the Museum, as well as Drs Jon Topham at Leeds and Jim Harris at the Ashmolean.

Museum-based master's degree projects

Oxford graduates, Lucy Jackson (Earth Sciences) and Harry Savage (Biology), completed Master's projects under the supervision of Senior Researcher and NERC Independent Research Fellow Dr Frankie Dunn in the summer of 2024. Lucy investigated the evolution of respiratory structures in extinct echinoderms and their relevance to living ones. Harry shed light on the timing of the coral tree of life by using an expanded dataset with morphological, genetic, and geological data, finding that the diversity of living corals was established rapidly in the wake of the end-Permian Mass Extinction.



Lucy Jackson posing with a virtual model of an extinct echinoderm she had been working on

Harry Savage admiring coral specimens

They have both now started PhDs, Lucy continuing research on Palaeozoic echinoderms at the University of Reading and the Natural History Museum, London, and Harry studying the evolution of locomotion in early bilaterian animals at the University of Manchester.

People and Culture

The Building

Protest encampment

In the early summer of 2024, students around the world staged protests about the war in the Middle East. Oxford University student activists set up a protest camp on the Museum lawn, early on the morning of 6 May, and were resident for seven weeks in total before the camp disbanded.

Whilst the protest was peaceful, and protesters open to communication with Museum staff, the encampment presented a considerable daily effort to keep the Museum open safely and securely throughout this period.

Considerable staff time from the Director and Head of Operations and many other colleagues were diverted to managing this major incident, engaging with senior University colleagues, Thames Valley Police and other stakeholders, and additional security staff were hired in to enhance security and visitor confidence.

The Visitor Experience and Events teams worked tirelessly to reassure visitors, venue hire clients and event guests, and ensure the best possible Museum experience for all. Unfortunately, the newly-laid lawn didn't fare so well, and re-laying was necessary once the protest ended.

Careful management and consistent communication ensured that visitor numbers were maintained, negative PR avoided, staff felt supported and commercial operations continued, was testament to an enormous amount of hard work and communication. throughout the duration of the encampment.

Floor works

After more than 160 years of visitor footfall, parts of the Museum floor were wearing badly. Not the visible flagstones, but the honeycomb structure of brick walls beneath the floor. A crucial element of the structure of the floor, the mortar holding these walls together was starting to crack, causing the flagstones that rest on top to wobble and crack, with some areas in danger of collapsing.

A large-scale repair project to address this concerning situation ran from winter 2022 to summer 2024. Expert stonemasons were employed to carefully lift each flagstone, repair the wall beneath and re-lay, working in 2m x 2m sections across the many affected areas on the ground floor of the Museum.

In addition to the critical repair work, the closure of areas of the floor being closed central exhibition hall presented an opportunity to remove carpeting, revealing a beautifully- patterned floor, which was painstakingly cleaned to stone conservation standards and sealed to avoid the porous stone being affected by future footfall or spillages.

Whilst work to such a large area of the Museum was disruptive during its execution, the results are a museum floor that is both safe and beautifully restored and visible

Stonework cleaning

Stonework cleaning project

Over several months in 2024, a team of four volunteers assisted the Museum Cleaning Technician in a project to deep clean the beautifully carved bases and capitals of the thirty decorative stone columns surrounding the main court.

The intricate carvings, made between 1858 and 1860 by expert stonemasons James and John O'Shea, were made from life, with plants brought up from the Oxford Botanic Gardens. The lifelike depth of these three-dimensional carvings have collected a surprising amount of dust and cobwebs over the decades.

Working methodically, with museum-grade backpack vacuum cleaners, hog bristle brushes, and air puffers the volunteers cleaned bases and capitals, managing to remove even the tiniest dust particles from the carved crevices, and in the process had the opportunity to observe the intricate carvings up close and spot details not generally seen by visitors to the Museum.

Appendices

Appendix 1: Visitors of the Oxford University Museum of Natural History 2023 - 2024

Chair: Professor Baroness Kathy Willis CBE
Senior Proctor: Dr Kathryn Murphy (until May 2024)
Junior Proctor: Professor Conall Mac Niocaill (from June 2024)
Mr Steve Backshall
Professor Tim Coulson
Dr Emily Dawson
Professor Anjali Goswami
Dr Elizabeth Jeffers
Professor Mike Kendall
Dr Miranda Lowe
Professor Yadvinder Malhi
Professor E.J. Millner-Gulland
Mr Richard Ovenden
Dr Erin Saupe
Dr Laura Van Broekhoven
Professor William Whyte
Secretary to the Board: Professor Paul Smith

Appendix 2: People

Staff of the Museum 2023-2024

Director: Professor Paul Smith (until September 2024)
Interim Director: Janet Stott (from October 2024)
Deputy Director: Janet Stott
Museum Executive Assistant: Hannah Betts

Life Collections

Head of Life Collections: Zoë Simmons
Senior Collections Manager: Darren Mann
Collections Managers: Mark Carnall, Dr James Hogan, Amoret Spooner
Conservator: Jacqueline Chapman-Gray
Collections Assistant: Robert Douglas
Museum Cleaning Technician: Eva Bosher-Krivanova
Mount Maker: Victoria Price-Rochow

Earth Collections

Head of Earth Collections and Digital Collections Lead: Eliza Howlett
Collections Managers: Dr Duncan Murdock, Dr Emma Nicholls
Earth Sciences Preparator and Conservator: Juliet Hay
Collections Assistant: Dr Emily Swaby (from June 2024)

Research

Head of Research: Professor Paul Smith
Deputy Head of Research: Dr Ricardo Pérez-de la Fuente
Senior Researchers: Dr Sammy De Grave, Dr Paris Stefanoudis (until June 2024)
Senior Researcher and NERC Independent Research Fellow: Dr Frances Dunn
Senior Researcher and Royal Society University Research Fellow: Dr Leonidas-Romanos Davranoglou (from June 2024)
Leverhulme Research Fellows: Dr Leonidas-Romanos Davranoglou, Dr Elsa Panciroli (until November 2023)
Palaeobiology Technician: Dr Carolyn Lewis
AHRC CDP Researchers: Grace Exley, Helen Goulston, Ellie King, Sif Laerke-Hall (from September 2023), Naï Zakharia

Archives and Library

Librarian and Archivist: Danielle Czerkaszyn
Buckland Project Archivist: Marina Afonso (from March 2024)
Paper Conservator: Anna Español Costa (from September 2023 until May 2024)
Digital Archivist: Matthew Barton (until October 2023)
Digital Collection Manager: Dr Sarah Joomun
CMS Manager: Lukasz Kowalski

Public Engagement

Head of Public Engagement: Janet Stott
Head of Education & Learning: Sarah Lloyd
Digital Engagement Manager/*Life, as we know it*
Redisplay Project Manager: Scott Billings
Public Engagement Manager/*Life, as we know it*
Redisplay Project Manager: Rachel Parle
Web Content and Communications Officer: Ella McKelvey
Digital Communications Officer: Dr Sarah Bell
Education Officers: Chris Jarvis, Carly Smith-Huggins, Anja Jung (maternity cover from February 2024)
Bookings Administrator and Education Assistant: Jenny Hulmes
Exhibitions Officers: Ellena Grillo, Dr Kelly Richards
Interpretation and Project Officer: Natasha Smith
Mount Maker: Vicky Price-Rochow (until December 2023)

Operations

Head of Operations: Laura Ashby
Events Manager: Paris Irving
Deputy Events Manager: Louis Lofthouse (from March to May 2024)
Museum Events Facilitators: Eva Bosher Krivanova, Danielle Czerkaszyn , Charlotte Drohan, Jane Griffin, Ellie Grillo, Maya Lucas, Megan MacLean, Ella McKelvey, Ramesh Narayan, Robert Parker, Amoret Spooner, Barbara Souto Dos Santos, Ellie Talbot, Harriet Warburton
Assistant Accountant: Nicole Cunningham
Accounts Assistant: Anne Atkinson
Visitor Experience Manager: Ellie Talbot
Deputy Visitor Experience Manager: Jordan Wernyj (until August 2023), Robert Parker (from October 2023
Visitor Services Assistants: Molly Appleby (from July 2023), Camille Britton, Isaac Caseby, Charlotte Drohan (until December 2023), Jane Griffin, Clement Lofthouse (until August 2023), Maya Lucas, Navigator Ndhlovu, Robert Parker, Rose Schwenninger (from December 2024), Barbara Souto Dos Santos, Natália Timaniková, Olivia Willson (from July 2024)
Building Manager: Peter Johnson
Maintenance Technicians: Ben Wilsker
Museum Cleaning Technician: Eva Bosher-Krivanova
Retail Manager: Fitri Puspitasari
Shop Assistants: Mayuri Chopra, Thomas Edgeworth, Marie Gwendolyn-Cox (from March 2024), Lucy Shott, Jason Weir (until August 2023), Kannika Wright (from November 2023)

Honorary Associates

Christine Buckingham
Jonathan Cooter
Professor John Holmes
Dr John W. Ismay
Dr Tom S. Kemp
Professor W. Jim Kennedy
Dr Jack Matthews
Dr George C. McGavin
Dr Nina Morgan
Dr Malgosia Nowak-Kemp
Roy Overall
Sarah Phibbs
Dr Adrian C. Pont
H. Philip Powell
Monica Price
Dr Imran Rahman
Professor Mark Robinson
Dr Katharine Scott
Professor Mike Searle
Professor Derek J. Siveter
Dr Christopher Stimpson
Dr Lauren Sumner-Rooney
John Tennent
Dr Dave Waters
Professor Mark Williams
Dr Mike Wilson

Associate Researchers

Dr Ross Anderson (until June 2024)
Neil Adams
Acheampong Atta-Boeteng
Peter Lincoln (from June 2023)
Cooper Malanoski (from October 2023)
Dr Susan Newell (from January 2024)
Dr Luke Parry
Dr Julia Schwab (from August 2023)
Matthew Sutton
Steven Williams (until March 2024)
Dr Paul Wilson (from January 2024)

Appendix 3: Finance

Donations received and grants awarded

Donations

Carey Bursary Fund
£15,875
Bursary Scheme

DCMS Wolfson Fund
£43,750

EPA Cephalosporin Fund
£78,427
Life, As We Know It

John Fell Fund
34,635
Fellowships matched funding

Negaunee Foundation
£79,320

Pilgrim Trust
£17,500
Buckland Archive

Raymond & Sandra Dwek Charitable Trust
£5,000

Research

Leverhulme Trust
£38,004
Funded fellowship

Natural Environmental Research Council
£70,838
Funded fellowship

Nautilus
£58,281
Funded fellowship

Royal Society 1851
£39,887
Funded fellowship

UK Foreign, Commonwealth & Development Office
£43,608
Fair Water?

The Museum is extremely grateful to the many individual donors, foundations and trusts who have generously contributed to its work in 2023/24.

Appendix 4: New Acquisitions 2023-2024

Earth Collections

A total of 11 accession lots comprising around 560 specimens were received by donation, purchase or transfer in 2023-24.

Notable accessions included:

- 199 speleothem samples from Iran, India, Bermuda and Slovenia (Department of Earth Sciences)
- Three slabs with pteraspid fish and one with trace fossil or plant material from the Devonian of Watergate Bay, Cornwall (Paul Davis)
- 232 Jurassic ammonites from Dorset and Gloucestershire (Martin Callomon, collected by his father, John Callomon)
- Eight Middle Jurassic echinoderm slabs from Charlton Park Estate, Malmesbury, Wiltshire (Rt. Hon. The Earl of Suffolk & Berkshire, collected by Neville and Sally Hollingworth)

Life Collections

A total of 15 Accessions lots comprising of approximately 20,000 specimens were received by donation, purchase or exchange in 2023-24.

Notable accessions included:

- A large collection of circa. 5000 pinned British insects, including some historic material collected from the Midlands.
- Paratype specimens of the Malagasy Kite Spider, donated and described by OUMNH associate researcher Dr. Steven Williams.
- A very large and scientifically important collection of Diptera: Anthomyiidae – Root-maggot flies with a global scope of circa. 1500 specimens. Assembled, curated and donated by Michael Ackland, who previously worked in the OUMNH Hope department of entomology between 1961 – 1970.

Archive and Library Collections

41 journals were subscribed to and a further 5 were donated, containing 129 parts and measuring 0.6 linear metres. 30 monographs were purchased and additional uncatalogued material was also added to the collection in 2023-24.

Notable accessions included:

- The archive of beetle specialist Trevor John James (1947-2020)
- A large number of books donated by former OUMNH Director William Kennedy relating geology and the history of the Museum

Appendix 5: Loans 2023-2024

Earth Collections

A total of 15 loans of 96 specimens were provided, all of which were to the UK.

Life Collections

A total of 35 physical loans comprising of 3319 specimens were provided, of which 24 were to the UK, 9 to the EU and 2 to the rest of the world.

A total of 37 digital loans of 81 specimens (not accounting for multiple aspects of same sp.) of which 9 were to the EU and 28 were to the rest of the world.

Archive and Library Collections

Two facsimile letters were loaned to the Lyme Regis Museum, UK.

Appendix 6: Enquiries 2023-2024

Earth Collections

Staff dealt with 319 enquiries.

Life Collections

Staff dealt with 679 enquiries.

Archive and Library Collections

Staff dealt with 385 enquiries.

Appendix 7: Official Visitors 2023-2024

Earth Collections

There were 93 collections visits, of which 82 were from UK residents, 7 were from other EU residents and 4 were from residents of other countries.

Life Collections

There were 306 collections visits, of which 271 were by UK residents, and 35 by non-UK residents.

Archive and Library Collections

There were 140 individual visitors in total. The majority of visitors were from the UK.

Appendix 8: Publications by Museum staff (1 January to 31 December 2023)

Members of OUMNH staff indicated in **bold;** OUMNH Honorary Associates indicated in ***bold italics.***
In addition to these publications, 72 journal articles and eight monographs were published on the collections by external researchers.

Ahusan, M., Rico-Seijo, N., Amjad, F. & **Stefanoudis, P.** 2023. The Nekton Maldives taxonomic workshop: Exploring the biodiversity of shallow, mesophotic and deep-sea communities in Maldives. *Research Ideas and Outcomes,* 9, e114370. DOI:10.3897/rio.9.e114370

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Ashrafi, H. & **De Grave, S.** 2023. A new species of *Automate* (Crustacea: Decapoda) from the Persian Gulf. *Crustacean Research,* 52, 79-89. DOI:10.18353/crustacea.52.0_79

Barido-Sottani, J., Pohle, A., De Baets, K., **Murdock, D.** & Warnock, R. C. 2023. Putting the F in FBD analyses: tree constraints or morphological data? *Palaeontology,* 66(6), e12679. DOI:10.1111/pala.12679

Bicknell, R. D., Schmidt, M., ***Rahman, I. A.,*** Edgecombe, G. D., Gutarra, S., Daley, A. C., Melzer, R. R., Wroe, S. & Paterson, J. R. 2023. Raptorial appendages of the Cambrian apex predator *Anomalocaris canadensis* are built for soft prey and speed. *Proceedings of the royal society B,* 290(2002), 20230638. DOI:10.1098/rspb.2023.0638

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Boyko, C. B. & **De Grave, S.** 2023. *Gossea* Spence Bate & Westwood, 1862 (Amphipoda) and *Gossea Agassiz*, 1862 (Cnidaria, Hydrozoa): reversal of presumed precedence and review of the complicated nomenclatural history. *Crustaceana,* 96(8), 791-796. DOI:10.1163/15685403-bja10308

Briggs, D. E., Siveter, D. J., ***Siveter, D. J.***, Sutton, M. D., Legg, D. & Lamsdell, J. C. 2023. A vicissicaudatan arthropod from the Silurian Herefordshire Lagerstätte, UK. *Royal Society Open Science*, 10(8), 230661. DOI:10.1098/rsos.230661

Charwat, E. 2023. Rudolf Weisker's anatomical and developmental wax models: New evidence and contexts concerning his career and sources. *Journal of the History of Collections*, 35(1), 91-110. DOI:10.1093/jhc/fhab044

Chevaldonné, P., **De Grave, S.**, Pretus, J. L., Macpherson, E., Vacelet, J., Zibrowius, H. & Goujard, A. 2023. Deep-sea fauna at a former red-mud disposal site (Cassidaigne Canyon, NW Mediterranean). *Marine Biodiversity,* 53(6), 79. DOI:10.1007/s12526-023-01386-5

Christodoulou, M. & **De Grave, S.** 2023. Redescription of *Caridina sobrina* Riek, 1953 stat. nov. and description of a new species of *Caridina* from south-eastern Queensland (Decapoda, Atyidae). *Zootaxa,* 5353(6), 582-594. DOI:10.11646/zootaxa.5353.6.5

Darroch, S. A., Gutarra, S., Masaki, H., Olaru, A., Gibson, B. M., **Dunn, F. S.**, Mitchell, E., Racicot, R. A., Burzynski, G. & ***Rahman, I. A.*** 2023. The rangeomorph *Pectinifrons abyssalis:* Hydrodynamic function at the dawn of animal life. *Iscience,* 26(2), 105989. DOI:10.1016/j.isci.2023.105989

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(opposite) Megalosaurus *jaw and lithograph, both used for the 1824 description of the first dinosaur ever named.*

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