So how do we actually do all this?

Hopeful futures and turning theory into practice for big issues in natural history collections

NatSCA AGM & Conference 27th & 28th April 2023 The Potteries Museum & Art Gallery, Stoke-on-Trent Museums, Staffordshire

ABSTRACTS FOR ALL SESSIONS





DAY ONE: Thursday 27 April 2023

Day one: 9.30 – 10.15 First Session: Lightning Talks (5 minutes each)

1. Lisa Winters, Naturalis Biodiversity Center, Leiden

How to use object biographies to tell new and more diverse stories

Natural history collections hold many different stories. Not only can they be viewed as part of an ecosystem or evolutionary history, but they are also historical objects. Many collections originate from the 19th and early 20th century, and the context in which they were collected is deeply socio-political. Natural history collections are an under-used source of information about for example past views on climate and ecology, colonial relationships and the history of science more generally. These stories are all locked up in these collections, waiting to be told. So how do you start telling new and more diverse stories with natural history collections?

Archaeologists use the concept of 'object biography', which describes the relationship between objects and people throughout time. Objects have meant different things to different people at different times; not only is it important to know what an object represents (its original context), but also what it has meant to the local inhabitants over time, what different motivations there were for collecting it and for what purpose it was studied and exhibited throughout history. This also includes the meaning we attach to it now, and acknowledges that different cultures and individuals value these objects in different ways.

In this paper I argue that this method can (and should!) also be used to study and exhibit natural history collections.

A lightning talk will focus on the motivation behind object biographies, the types of stories it can help uncover and how to present them to the public. A full 20 minute presentation will also include a brief background on the

validity of this method for natural history collections by looking at the shared history and exhibit practices between archaeology and natural history, as well as a case study of a natural history object examined through an object biography lens.

2. **Diana Arzuza Buelvas**, Manchester Museum, The University of Manchester @MuseumInsight

Who uses our collection and what for? Part 1

At Manchester Museum Arthropod Collection, we are interested in learning more about the users, uses and impact of our specimens in academia and beyond. As the first part of this study, we look at recent academic papers resulting from the collection.

During four consecutive years, starting in 2018, publications using specimens from our collection have been compiled and analysed. Almost 100 peer reviewed papers were published in this period, in the following areas. 1) Taxonomic and phylogenetic reviews, including descriptions of species new to science (60% of publications). Studies are at different taxonomic levels. with Araneae and Coleoptera featuring strongly. Many of the specimens treated were from overlooked collections, which shows the continuing importance of research in collections. 2) Unravelling stories of collectors and documenting collections, many of them historic. These studies add value to the curatorial work by making specimens and data available, for example, an insect collection from Sierra Leone, donated in 1904. 3) Updating species check lists and adding new faunistic records, incrementing knowledge of biodiversity, especially of Central, South and South-East Asia, as well as parts of Africa and Europe. 4) Supporting conservation. Using historical data from extinct species in Britain, one study used our records to help understand the decline of the Chequered Skipper Butterfly Carterocephalus palaemon and support conservation initiatives. 5) Ecology and evolution. For example, one study reviewed melanic morphs of moths to support theories on rapid adaptive response to a changing environment in Britain. Making our collections available, through loans and visits, to over 50 researchers. volunteers and naturalists from diverse institutions around the world has been key to achieving this impact. The next part of our study attempts to understand and quantify other users and uses, for example in exhibitions, public engagement, art and education.

3. Amy Geraghty, National Museum of Ireland

How do you get the measure of a wet collection quickly?

The National Museum of Ireland Natural History Division (NMINHD) has a historic, varied and growing wet collection. I started in my role in July 2020 and was made responsible for the wet collection. My appointment co-occurred with a national lockdown and the start of the museum's

redevelopment project. Due to a moratorium on hiring in the Irish civil service, there was a 10-year gap between my appointment and the retirement of my predecessor. There was a collections care system in place in the form of cards in the wet collection documenting the date, person and number of specimens topped up.

To familiarise myself with the wet collection and its care I undertook surveys, attended online training, contacted professionals and my predecessor. For this talk, I hope to cover a resource and time efficient survey to asses the wet collection. This survey was of a sub-sample of fluid-preserved specimens stored in cupboards. Due to the size of the wet collection and time constraints, specimens were randomly and haphazardly (non-randomly) sampled from drawers. There was no statistical significance in concentrations between the two methods. So, the rest of the survey was completed with non-random sampling. In total, the concentration of 796 alcohol-preserved specimens belonging to 14 taxa were surveyed with a handheld refractometer. Overall, the majority of specimens surveyed had a concentration >50% and only 5% of assessed specimens were dried out. This survey allowed for the update of collection care cards, an estimation of the concentration of preservation fluids, and the condition of specimens stored in cupboards.

4. Patricia Francis, Gallery Oldham

How to reimagine a 117-year-old diorama of seabirds which has been kept in open storage for c. 40 years for a 2021 gallery

This diorama is in the form of a sea stack made to be viewed from all sides, it is signed by the maker FJ Stubbs and dated 1905. It shows 25 specimens representing 16 species. It was decided to return this to display. Gallery Oldham was fortunate to have a HLF grant to conserve the diorama and clean the birds. However the intervening 117 years since the diorama was constructed has seen new threats to our living seabird colonies. It was decided to use the original structure to tell another story that of ocean plastics.

The primary conservation work was done professionally as part of capital project.

The second part of this project is a simple, low cost one making non-destructive additions to the original diorama. The addition of 21st century plastics all collected from the nearest rocky coast to Oldham, 38 miles away, in 2020. Fork, cup lid, straw, wrapping, ice pop tube, vape bottle, balloon and cord etc. All were quarantined by freezing before simply placing on ledges and base of the diorama.

The diorama was originally labeled with caption labels identifying each bird. The feeling was this method was intrusive to a naturalistic display. A

volunteer sketched the cliff and added simple bird outlines. These sketches were scanned and Microsoft Publisher was used to add the names.

This now forms an impressive standalone centrepiece to the gallery. It not only celebrates UK seabirds but also engages audiences with the climate and biodiversity crises and is included in school sessions - Oldhamers by the seaside, Observing and Classifying Animals and Adaption and Food Chains all KS1 & 2.

5. Patrick Roycroft, National Museum of Ireland- Natural History

Down To Earth Exhibition: Problems and Solutions

The exhibition Down To Earth is a simultaneous celebration of Ireland's geology and of the 175th anniversary of the founding of the Geological Survey of Ireland (now termed Geological Survey Ireland, or GSI). It is co-curated between the National Museum of Ireland - Natural History and GSI and is currently running at the Riding School in the Collins Barracks complex in Dublin. The original plan and organisation was done by Dr Matthew Parkes of the National Museum of Ireland, but, tragically, Matthew passed away before its completion. Nigel Monaghan then oversaw the exhibition's opening to the public. However, not everything had been fully completed and several unforeseen problems subsequently arose. I am now employed with the museum as the new Curator of Geology, taking over where Matthew left off, and it has been an interesting challenge to make sure the exhibition remains open. Among the problems that I had to solve were the following (not exhaustive): a glass case randomly opening (a material risk to the contents); excessive heat and poor heat regulation in the building; expansion and bending of large display panels (which were a material risk to the public); case drawers that could physically damage the public; rock plinths that could not accommodate signage; problems with items on loan for the exhibition (and their lenders); parts of the exhibition being damaged by the public; threatened complete shutdown due to apparent missing certification for a series of lighting beams. Solutions to these problems were found by defining the problem, contacting the relevant persons and/or organisations who could help, having face-to-face discussions, and needing to sometimes think a bit laterally.

6. **Mathew Lowe**, University Museum of Zoology, Cambridge @MigratoryMatt

How to say a good "last goodbye"

We rightly focus on the wellbeing benefits to volunteers during their time working alongside us, but we talk little about the effects their volunteering has in the years after, or how volunteering affects their wider family.

Recently the museum had to say a sad goodbye to one of our former volunteers, Liz Wetton, who passed away in her nineties but were pleasantly

surprised to learn how much we had featured in her later life, how much joy it had brought her, and how much the family had appreciated the friendships made.

From sorting out our egg collections, to becoming a worldwide star for a while, our anecdotal stories and affection for our friend brought huge comfort to her relatives at the time when it was most needed. A tour for the family to review the work Liz had done, including the discovery of the hallowed "Darwin Egg" brought the reassurance that her legacy will live on, especially now that the Newton egg collection is being made available online.

7. Louise Gibson & Alex Thomas, Institute of Zoology, Zoological Society of London

How to diversify collections usage using a biobanking programme on a shoestring budget

Over several decades the Zoological Society of London has built an extensive collection of frozen, wet, and dry biological specimens. Procurement of these items has come via standard pathological investigation of captive animal mortality, contributions from border force and police wildlife crime investigations and from public donations. Although extensive the collection is currently underutilised, and knowledge of its contents limited to those that manage it. Potential was seen to create a biobanking programme with the objective of creating an accessible biological archive open to the scientific community and beyond. We aim to achieve this on a shoestring budget so that other organisations with similar collections, but minimal resources, have the opportunity to replicate our work and enhance the impact factor of their collections. Despite being in its infancy the programme has already been a valuable resource. By opening up the collections we have seen them used for public engagement, innovative science, therapeutics arts programmes and wildlife forensics research. By increasing the accessibility of such collections, we envision this program will help diversify their usage, demystify their current existence behind locked doors, and demonstrate their potential for impact in previously overlooked ways.

8. Darren Reidy, Christina Campbell, Wuu Kuang Soh, Matthew Jebb & Colin Kelleher, National Botanic Gardens of Ireland @DBNHerbarium & @NBGGlasnevin

Sowing Seeds of Hope; Establishing the National Seed Bank at the National Botanic Gardens of Ireland

The National Herbarium (DBN) at the National Botanic Gardens of Ireland houses a growing collection of more than half a million specimens of plants and fungi from Ireland and around the world. The collection comprises of historical and 21st century specimens and is important from the perspectives of scientific research, culture and natural heritage. However, in a time of

global ecological crisis botanic gardens and herbaria are responding by adapting their collections to also ensure the ex situ conservation of the global flora. Seed banks are an efficient method of ex situ plant conservation, capable of conserving genetic diversity of flora should it be lost in the wild. At the National Biodiversity Conference in 2019, the Office of Public Works (an Irish Government department) committed to establishing the National Seed Bank at the National Botanic Gardens, and it has since become a key target in the 4th National Biodiversity Action Plan (Draft). Following the conference theme of "How to..." this presentation will outline how the new seed bank has evolved by adapting international best practice to suit local needs and limitations. We developed a seed collection strategy and viable workflow which meets the standards required by the Millennium Seedbank Partnership. Collected seeds are dried at 15°C to 15% relative humidity and frozen at -20°C to maximise their viability over time. Seed viability is monitored periodically to ensure quality control. To date the seed bank has preserved seeds from over 100 populations of 90 taxa of vascular plant, contributing to the ex situ conservation of populations of a number of rare & threatened flora in Ireland. The seed bank will serve as an ark for threatened Irish flora into the future.

9. **John-James Wilson* and Jing Jing Khoo**, World Museum, National Museums Liverpool & University of Liverpool @wijoja

How to find ectoparasites on study skins and explore the ecological heritage shared between colonial and provincial museums

In 1914, hundreds of birds and mammals were given to the Liverpool Museums by the Selangor Museum in Kuala Lumpur, the de facto national museum of Malaysia pre-independence. The director of the Selangor Museum was a former curator at the Liverpool Museums. The collections were amassed during large-scale wild animal collecting by Sarawakian staff of the Selangor Museum across the Thai-Malay peninsula at the turn of the 20th century. As part of an ongoing NERC funded project, we've been evaluating the potential of these collections to shed light on historical ecological networks through the presence of ectoparasites on study skins. We've also been connecting with students in Selangor, through guest seminars, and Southeast Asian communities in Liverpool, through a display and event at World Museum, to understand levels of awareness of the history and heritage shared by Selangor and Liverpool through the activities of our two museums. We'll share the projects' findings in this lightning talk.

Day one: 10.35 – 11.55 Second Session: Talks

Kimberly Glassman, QMUL School of English and Drama & Kew Gardens Enhanced Partnerships Department (PhD Humanities Cohort) @KMGlassman

How to Find Female Contributors in the Postcolonial Herbarium

In 1840, the first director of Kew Gardens, William Jackson Hooker (1785-1865), published an unprecedentedly robust flora on the botany of British North America, titled *Flora Boreali-Americana* (1829-1840). The project brought together botanicals collected from Arctic expeditions, travelling British naturalists, and local herbariums such as that of Linnaeus, Banks, and Lambert. In the 500-page work of approximately 5,000 plants and more than 120 contacts, three women, Harriet Sheppard (1786-1858), Anne Mary Perceval (1790-1876), and Lady Dalhousie (1786-1839), were responsible for over 80% of Quebec plants in Hooker's Herbarium (now the basis of Kew's Herbarium). Though once a complete collection at Kew, today, specimens from Hooker's herbarium have been found in museums and archives as close as France and Edinburgh, and as far afield as New York and Montreal. This has led to an incomplete and inaccurate narrative of the *Flora* that glazes over its female contributors. How did these women go unnoticed for two centuries?

Using my PhD research as a case study, I will explain how to find female contributors in herbarium archives, focusing primarily on Kew Gardens and the potential for inter-archive communications to address the histories of objects and names that have been dislocated, displaced, and, consequently, disregarded over time. This presentation will further demonstrate how to follow the movements of female botanists using 'unusual archives' related to natural history collections. In doing so, we can better demystify how plants, people, and ideas travelled to herbariums across continents such as Kew. By drawing connections and unearthing networks, we can better tell the postcolonial stories of underrepresented female contributors to natural history collections.

Lukas Large, Birmingham Museums Trust @lukaslarge

Devolving restitution and natural science at Birmingham Museums

Natural science has not received the same amount of attention as other collection areas in discussions of the restitution and repatriation of objects. This is changing as awareness of the history of museums collections and the role that they played in empire and colonialism grows among visitors and museum staff.

In 2022 Birmingham Museums Trust took part in the devolving restitution project. This was a national project in association with the Pitt Rivers Museum and the African Foundation for Development (AFFORD). This was looking at African collections in British regional museums with the aim was to bring together museums, community heritage practitioners and communities from across the UK for six events, each addressing a different theme in African collections histories and opening up new dialogues with African claimants, UK heritage institutions and local communities.

This involved a collections review of African natural science specimens and research into their history and provenance as well as contacting people and organisations in the source countries to explore the possibility of repatriating natural science specimens.

This presentation will cover how we approached this project, what we found, the lessons learned and how these could be applied to similar museum collections.

Jack Ashby, University Museum of Zoology, Cambridge @JackDAshby

Telling honest stories about natural history collections

I didn't start my title with "How to..." as there is no single way to engage in decolonial practice in natural history museums. Instead, I will share some of the approaches to research to better understand the troubling cultural histories behind natural history collections.

Despite a late start, our sector is now making good progress in understanding the kinds of questions we should be asking of our institutions' histories and practices, and many museums have begun work to address them.

This paper shares broad ideas stemming from research into the colonial histories of mammal specimens in museums – with particular emphasis on Australian species – exploring different kinds of injustice involved in their acquisition. This will include collections made by members of the military whilst administrating wartime concentration camps; specimens that were exported alongside Indigenous remains following acts of genocide; and collections amassed using unacknowledged Aboriginal labour in a post-frontier landscape after Indigenous populations had been dispossessed of their land and/or sovereignty. A key aim of the third example is to recognise and celebrate a greater diversity of people who were involved in key discoveries in the history of science. The paper intends to raise questions for discussion about telling honest stories involving violence in collections; how the infrastructure of colonial expansion was entwined with the development of natural history knowledge; and the anonymisation of First Nations collectors.

Rachel Jennings, Powell-Cotton Museum @rachisaurus

Reimagining the museum of the Great White Hunter

Percy Powell-Cotton (1866-1940) was the archetypal Great White Hunter. The museum he founded in Birchington-on-Sea (east Kent, UK) displays his collection of animals and objects amassed from across Africa and India between 1890 and 1939.

This is an intrinsically colonial collection. Its creation was enabled by Powell-Cotton's network of powerful contacts in both the colonies and the metropole, and by the knowledge and labour of hundreds of people across Africa and South Asia. The Museum itself has stood as a memorial to Percy since his death in 1940, carefully curated to cultivate an image of him as a kindly humanitarian, conscientious scientist and conservationist...an image that is undermined by Powell-Cotton's own writings.

Change is finally happening. But how do we go about tackling these colonial legacies? This presentation will discuss the approach we are taking to reinterpreting the natural history displays through the project 'Colonial Critters', which aims to place the collections into their historical context and de-centre the Powell-Cotton family by highlighting the stories of some of the many people across the globe who helped make the Museum.

Day one: 13.00 – 13.40	Third Session: NatSCA AGM
Day one: 13.50 – 14.50	Fourth Session: Talks

Kathryn Royce, University of Oxford

The DP Method: A Novel Semi-Quantitative Method for Surveying Heritage Collections

Collection assessments are a well-known and widely employed tool for examining the overall state of a collection and identifying any processes which may be causing negative changes to collection items. However, as assessments are time-intensive, they occur fairly infrequently. Thus, a well-designed method is critical for easy and effective data capture, analysis, and replication within a reasonable timeframe. The difficulty in striking this balance has produced nearly as many methods as there are museums, but there is still a high degree of subjectivity, ambiguity, and variability in both procedure and result.

The DP Method is a novel, semi-quantitative approach to collection assessment that was designed in an attempt to tackle these challenges. This new method can be quickly performed on an entire or substantial fraction (≥25%) of a collection. This coverage is achieved by recording only the presence or absence of pre-defined visible 'Deterioration Phenomena' (DP). The extent and severity of these criteria are not determined in order to decrease surveying time, reduce variability due to interpretational bias, and solve the quandary of assigning quantitative values to subjective perceptions. The DP Method has already been successfully applied to six natural history collections: two paleontological and four mineralogical. Results from the individual collection surveys provide ample data and understanding of local deterioration processes. Additionally, cross-collection results further clarify and contextualise any changes observed. As the methodology is easy to

adapt—through selecting DP that are applicable for the items being surveyed—it is hoped that the DP Method is adopted within and beyond natural history collections to monitor change over time and to elucidate deterioration causes and pathways.

Jan Freedman, Mohammed Darwish & Chris Collins, Royal Commission for AlUla, Alula, Saudi Arabia @JanFreedman

From the field to the collections: Developing protocols for the collecting and conservation of natural history collections

The Royal Commission for AlUla (RCU), in Alula, Saudi Arabia, has an incredibly rich natural and archaeological heritage. With over 80% of AlUla protected as a nature reserve, we are only just starting to understand the unique fauna and flora of the region. The Museum in AlUla has been building a collection for the past 30 years, mostly archaeological materials from the region. However, recent work from external contractors undertaking ecological surveys, and the introduction of a new full-time geologist to the Wildlife and Natural Heritage team, has seen an increase in potential donations to the collection. This has increased the need to update the current protocols to ensure that the donations are following best practice at the very start. This talk will present a unique case study for developing key procedures and protocols for collecting and conservation: the protocols have been developed to ensure that the collections meet standards at the very first step, from the field to the collections when they are donated to the museum. A workshop was held in Paris, by teams across RCU along with external international partners to discuss the needs from both the researchers and the museum. The outcomes of the workshop focused on developing key procedures and protocols for collecting using the expertise of the attendees to ensure and maximize preservation of the data with the specimens. We present the newly developed collecting and conservation protocols for RCU, which will enable the collections to be preserved for future generations to enjoy and study.

Erika Anderson, The Hunterian @andersonmineral

Bringing geoethics into the museum: considerations for best practices in curation

Geoethics is an emerging field in the geosciences and is a framework to develop a new way of thinking while working in the geosciences that incorporates ethical, social, and cultural values (Peppoloni and Di Capua 2017; Bobrowsky et al. 2017). While sustainability is a frequent focus, it has wide ranging impacts and touches upon geoheritage, education, and communication. The role of museums in this field has not been much expanded upon, yet museums are uniquely placed to spotlight and educate on ethical and unethical practices in the geosciences in the past and present, while geoethics can guide many aspects of curatorial best practices. Collections are used to teach, including student geoscientists, offering an

opportunity to weave in best practices and untold stories. Museum exhibits can reach a wider audience while incorporating ethics into the subject matter, such as potential exhibits showing the disproportionate impact on communities of Black, Indigenous, and People of Colour by pollution caused by mining and other industries (Bullard 2002). Work on social justice, decolonization, and anti-racism has become more common in the museum sector and is an important part of ethical work. Geoethics are also applicable to workers in the museum field, for example requiring permits for collection, destructive sampling, or reciprocal interchange of knowledge. The principles of geoethics are also applicable to other natural history disciplines and has already initiated the field of palaeontoethics (DeMiguel et al. 2021).

Day one: 15.10 – 16.00 **Keynote Panel**

Oliver Crimmen, The Natural History Museum, London, Nigel Monaghan, The National Museum of Ireland - Natural History Maggie Reilly, Hunterian Museum, Glasgow

Observations from a full career in the Natural Science

DAY TWO: Friday 28 April 2023

Day two: 9.35 – 10.35 First Session: Talks

Heather Pardoe & Nathan Kitto, Amgueddfa Cymru

How to work with local communities to decolonise botanical collections; experiences of the Rights and Rites project at Amgueddfa Cymru

This paper describes the outcomes of a small participatory project entitled *Rights and Rites*, supported by the Arts and Humanities Research Council. The project focused on botanical specimens from South Asia, predominantly from the Economic Botany Collection.

Rights and Rites aimed to co-create new interpretations for South Asian specimens, drawing on people's lived-experiences and cultural understanding of the specimens' country of origin; to engage community groups of Asian heritage with relevant biocultural specimens; and to encourage dialogue and knowledge-exchange about the South Asian flora. Furthermore, the intention was to raise awareness of our collections and to reach a wider audience.

We developed new partnerships with members of the local South Asian community through a series of three interactive workshops. These events provided a valuable opportunity to share knowledge about the use of plant products in cooking, medicine and rituals in traditional Asian cultures. Questionnaires were used to gauge the interests of the workshop participants and to record their perception of Amgueddfa Cymru and their views on plans for future events. Selected specimens were used as catalysts to initiate conversations and to evoke memories. The participants explained how they regularly use familiar foods to cure minor ailments, based on knowledge held in the local community and passed down through the generations. The workshops illustrated the importance of recognizing and valuing expertise held in community and the necessity to work with community partners to broaden our interpretation and provide cultural context for Museum collections. The questionnaires revealed a lack of awareness of the collections and the reticence of some parts of the community to visit the Museum. Workshop participants indicated that they would welcome more exhibitions and events for all sections of community, to increase the diversity of visitors. The results of the project have been disseminated through films, blogs and presentations.

Wednesday Batchelor, Tullie House

How to change vergency by urging divergency to inspire urgency in a climate emergency

Tackling the subject of climate change and the biodiversity crisis can be daunting, repetitive and demoralising, and such a global topic can feel distant to many in the U.K. We have started to change this.

Our collections have huge potential to teach and inspire, and as an organisation we had much to learn to reduce our carbon footprint and support Carlislians to feel connected to nature and make positive changes in their daily lives.

To engage our visitors and local communities with this theme, we embarked on multiple projects to bring climate change to the forefront of our values and prompt audiences about their impact on the future we face.

Our designated natural science collections have motivated young adults, schools, families, and community groups in caring for our planet, nurturing passion for local wildlife through street art, protest, wildlife conservation, impactful displays, sustainable craft and positive change.

Our two-year, Esmee Fairbairn Collections Funded project, Once Upon a Planet, saw the co-curation of a multi-faceted exhibition. To meaningfully address issues around environmental sustainability, we worked collaboratively with local partners, Natural England and Sustainable Carlisle, and supported Heathlands Trust (a charity supporting adults with disabilities

and neurodiversity) and Young Advisors, to consider collections and develop interpretation, art and displays in response.

We are now exploring habitat biodiversity with three schools, engaging community groups and developing a strategic plan for the future of our Natural Science collections.

Isla Gladstone, Ella Trudgeon, & Euella Jackson, Bristol Museum & Art Gallery and Rising Arts Agency @isla_gladstone @ellatrudgeon @bristolmuseum @RisingArtsAgency

Co-creation between young emerging artists and museums: Inclusive Partnership, Courage to Disrupt, and Storytelling Beyond 'Neutrality'

Extinction Silences (2022-24) is an experimental participatory project, exploring the contemporary relevance of Bristol museums' collections, their colonial histories, and their connection to extinction and ecological opportunity – with focus on the World Wildlife Gallery at Bristol Museum & Art Gallery. This two-year project is funded by the Essmée Fairbairn Collections Fund and delivered in partnership with Rising Arts Agency.

Extinction Silences is working to develop and extend models of collaboration. Drawing on learning from the first phase of our work, this talk will share reflections on collaboration between museum staff and young emerging artists who are underrepresented in museum spaces.

Themes and questions we aim to explore include:

Creating Inclusive Partnerships: How can museums create inclusive and empowering opportunities for collaboration? How can we work beyond the facilitator/participant binary?

The Courage to Disrupt - Welcoming Change: How can museums embrace vulnerability, centre care, and invite emotion in collaboration? How can we extend our impact beyond the timeline of our projects? What are we trying to sustain and what are we trying to change?

Beyond Neutrality: Co-creation between museums and young artists: how do we make space for difficult truth and unheard stories?

Day two: 11.05 – 12.05 **Second Session: Talks**

Ellie King, Oxford University Museum of Natural History @ellietheking

Three Ways to engage visitors in the climate crisis

Oxford University Museum of Natural History has developed methods of evaluation that measure impact of various museum topics for visitors. This talk walks through three different museum exhibits which engage the public with messaging on the climate crisis in different ways: leading with evidence in our *Meat the Future* exhibition; exploring the benefits of our natural world in *Connected Planet*; and pulling on the heartstrings in *Future in our Hands*.

Each of these exhibits is a totally different way of engaging visitors in the same, crucial, topic. Each one isn't necessarily better than the other, but this talk will enable attendees to think about their climate messaging and how they can be most impactful in different scenarios. This talk will explore results from exhibit evaluation, identifying what is important to visitors, and providing recommendations to those looking to develop exhibits of their own. Museums, especially those with natural science collections, have an authority and duty to talk about the crisis of biodiversity facing our world, but this data will help museums ensure these discussions are a success.

The methods of evaluation used for these exhibits were developed by a doctoral researcher at the museum, who has conceptualised a framework of understanding for visitor experience and developed methods which quantitatively capture visitor experience and qualitatively explore the impact of museums within visitors' existing beliefs and values. By using this data for future development, we can ensure our stories are the most engaging and impactful they can be.

Jazmine Miles Long, Independent Taxidermist @Taxidermylondon

Taxidermy. Inspiring a new generation of STEM creatives

Over the past year I have been working with Hastings Museum & Art Gallery, The Booth Museum of Natural History and Bexhill Museum to create workshops for children. Through these workshops, we aspire to inspire young people to see the value in natural history collections and the natural world. Explore positive ways to care for our planet. To stimulate minds and engage with children that might not usually go to museums or see themselves in a STEM career. In this paper I will show you how we did this.

The workshops start by exploring what taxidermy is, how it's made, where it came from and why it's useful today. Showing a child (or anyone) how taxidermy is created is like giving them x-ray glasses, you can visibly see how much closer they engage with the animals afterwards. Teaching children that taxidermy is a skilled craft not only answers 'is it real?' but also enables an opportunity to talk about death and leads into a broader conversation about how humans interact with animals and how we can improve our relationship with nature.

The workshops explore science subjects in a hands-on, creative and unusual way. Activities such as creating a taxidermy bind-up, dissecting owl pellets

and 'Dead Zoo' story time for preschool children. Offering them something unusual to spark curiosity. In the workshops we cover KS themes such as climate change, habitats, skeletons and evolution. All of these workshops are free to school groups or members of the public and some will run for over a year delivered by museum staff funded by various grants.

As a female Taxidermist I represent an uncommon career choice, sharing my experience with children gives them the opportunity to learn about a creative STEM career path they may otherwise never be exposed to.

Sarah Marden, The Box, Plymouth

Climate notes of hope: how to share positive stories of climate action through natural history collections

The Box, Plymouth's major new museum, art gallery and archive, has declared a climate emergency. We are committed to shining a light on environmental loss, raising awareness and becoming a catalyst for urgent action amongst the communities we serve. The varied and extensive natural history collections at The Box are an excellent vehicle to achieve these goals, through the exhibition space in the Mammoth Gallery that showcases our planet's biodiversity, a varied programme of engagement and outreach activities and collaboration opportunities with artists and conservation organisations.

However, we recognise that the changing climate and associated terms of "crisis" and "emergency" can be a barrier to engagement, along with high levels of stress felt by those who experience climate or eco anxiety.

This paper is based on a curator's bitesize talk given to the public in January 2023 entitled "climate notes of hope", where I explored positive stories of climate action in our collections. It will also explore other upcoming events such as "Bee Positive", our offering as part of the Arts Council "The Wild Escape" initiative where we will be working with targeted schools with high pupil premium who have not visited before to imagine a better future for Britain's rarest bee. These events allow us to reach new audiences as part of our climate emergency pledge, but also encourage wellbeing and positive targeted action to address local environmental issues.

Day two: 13.05 – 14.20 Third Session: Talks

Lucy Brown, Institute of Zoology, Zoological Society of London

How to co-design a creative and equitable engagement programme for wildlife conservation with refugees and asylum seekers

Successful conservation action depends on support and understanding at a societal level, requiring conversations with everyone in society. Asylum seekers and refugees experience extensive barriers to participation as they are focussed on addressing their basic needs.

Over the past six months *Refugia*, an equitable engagement programme, created a space for therapeutic art practice alongside wildlife conservation. *Refugia* has been developed by the wildlife conservation charity <u>Zoological Society of London (ZSL)</u> and the therapeutic arts group for asylum seekers and refugees, the <u>New Art Studio</u>. This unique programme focused on topics at the interface of wildlife conservation and the lived experiences and cultures of asylum seekers and refugees. Hence the name 'Refugia', derived from the scientific term meaning 'an area in which a population of living things can survive through a period of unfavourable conditions'; a term uniting themes relevant to both members of the New Art Studio and ZSL conservationists.

The fully co-created programme enabled a safe and inclusive environment for mutual learning, expression, discussion and understanding. By making art together, participants connected in profound ways, immersed in the therapeutic benefits of nature and art.

We used creative practices and translators to reduce reliance on language, co-design to embed equity and reduced barriers to participation (guided by Louise Archers' Equity Compass). In the co-designed workshops, conservation science researchers and New Art Studio members both participate, sharing knowledge and creative skills with each other. Power-sharing ensures this project is socially just. These practices were used to maximise the depth of engagement and impact with the conservation science and messaging.

We would like to share our insights and outcomes from Refugia.

Stephanie Holt, Natural History Museum, London @batgirlsteph78

How to inspire and teach the naturalists of the future in a post-pandemic world

During the pandemic, many people turned to nature to provide both solace and fascination in lives suddenly constrained to their homes and short daily walks. Many became interested in finding out more about this world of wildlife that they suddenly discovered had been on their doorsteps all along; budding naturalists in the making, looking for an opportunity to put names to birds outside their windows, or insects spotted in the park and the flowers they were pollinating. As we know, in this planetary emergency there has never been a greater need or urgency to inspire interest in the natural world, and to develop and train essential skills for understanding it like species identification and good biological recording practices. The Angela Marmont Centre for UK Nature has previously run successful programmes in natural

history skills training, but during the pandemic, like many other institutions, we had to pivot our training programme in UK natural history skills to online delivery, we thought temporarily. Post-lockdown we anticipated people would want to come back to face-to face-training, but in reality, few did. The demand for online training delivery; cheaper, more flexible, and able to fit around busy lives, remains high. So how do we deliver effective natural history skills training online? What can be delivered, and where are the challenges? Is it possible to teach identification skills without specimens in hand or supervised time in the field? How can we inspire people to really participate and become the scientists, biological recorders, or community scientists of the future if the only time they spend learning with us is at the computer? This talk will look at what we've done so far with the UK Natural History Training Programme, what we're planning to do next, and what we've learnt along the way.

lan Beavis, The Amelia, Tunbridge Wells (formerly Tunbridge Wells Museum)

How to get your stakeholders to love bugs – the contribution of museum natural history to local conservation initiatives

In recent decades, smaller regional and local museums have tended to downplay natural history. The specimen collections and stuffed birds and mammals seemed old-fashioned, and people struggled to see their relevance in the modern era. Paradoxically, that same modern era has seen increasing concern about environmental issues such as climate change and biodiversity loss on a global level, and about the protection of open spaces and wildlife habitats nearer home. But the potential of museums to raise awareness of conservation issues at a local level has often not been realised. Tunbridge Wells Museum was founded in 1885 by a local natural history society in a community with a remarkable history of pioneering habitat and wildlife conservation long before those concepts took on their modern form. Throughout the 20th century and into the new millennium the Museum continued to give natural history a high profile both in its displays and exhibitions and in its outreach and events programme. The Amelia, opened in 2022 to bring together museum, library and adult education services, maintains that tradition.

This presentation will demonstrate with practical examples how a museum can use its natural history collections and associated knowledge to promote and celebrate grassroots conservation initiatives through partnership with local amenity groups, conservation charities and statutory bodies like the High Weald AONB Unit. Working in the community with colleagues in other local government teams like Planning and Parks, it is possible to build a consensus on ecologically friendly management of public open spaces, and to increase knowledge of — and enthusiasm for — the often nationally scarce flora and flora that people can observe on their own doorstep.

Paolo Viscardi, National Museum of Ireland @PaoloViscardi

So how do we actually get a whale through a window?

The Dead Zoo in Dublin is the densely-packed Victorian cabinet exhibition space for the National Museum of Ireland – Natural History. While full of charm, historic furniture and important specimens, it is also full of leaks, pests and other problems resulting from a century of underinvestment. Until now.

As part of the National Development Plan for Ireland, the Dead Zoo is preparing to undergo a significant redevelopment. The first step of this process has been to decant parts of the collections from the upper levels, including the skeletons of a young humpback whale and a 20m long adult fin whale.

Due to the phasing of the construction works package, the whales had to be moved before the space below them could be emptied, creating a logistical nightmare due to the restricted physical access within the building. The proximity of high-security government buildings to either side of the Dead Zoo also restricted access outside the building, meaning that the only route available for moving large specimens offsite was through a first floor window measuring 120cm wide by 237cm tall.

Bespoke scaffolding, a crane and skilled carpentry (as well as a lot of careful planning) allowed not only the dismantled whales, but also a variety of large taxidermy specimens including walrus, giraffe, rhinoceroses and several large antelopes, to be removed from the building. In this presentation I will share the key practical considerations involved in the process of getting a whale through a window.

Day two: 14.40 – 16.00 **Tours**