PULSE

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NEWS FROM THE LINNEAN SOCIETY OF LONDON – A FORUM FOR NATURAL HISTORY

NOVEL APPROACHES

Investigating Plants in Primary School Science

In September 2017, children from nine Devon primary schools met Carl Linnaeus, as part of a science drama workshop. Funded by LSL and The Wildflower Society, the workshop is part of a research project in biological education. Project co-ordinator Bethan Stagg explains: "we are investigating a variety of novel approaches to engaging adults and children in botany, from identification keys on mobile phones, to plant-themed memory games. This is our second drama project and it has proved to be a highly effective medium for inspiring children and transforming attitudes to plants." The workshop was produced in collaboration with Theatre in Education company *Act On Info*, with actor Ben Jewell playing the character of Linnaeus.

The workshop was popular with teachers and children alike, with one Year 6 (10-11 years) teacher stating: "Since the changes to the National Curriculum in 2014, it has been difficult to find quality resources and ways into teaching about Linnaeus and his work. The workshop really engaged the children and brought the learning to life." The 90-minute workshop opened with Linnaeus visiting the school to recruit apostles for his expeditions, with children undertaking a series of challenges to gauge their suitability. One of these was a game in which children formed a human obstacle course of cobwebs, carnivorous plants and swamps, which classmates navigated to capture a rare plant. In a subsequent activity, pupils classified themselves according to their names, appearance and behaviour, followed by a similar activity based on a tray of live mosses, ferns and flowering plants.

LEFT:
Students navigate the expedition game
© Bethan Stagg

BELOW:
Linnaeus teaches children about his classification system for fern, moss and flowering plant specimens
© Bethan Stagg

Linnaeus introduced children to his life's work naming and classifying biological organisms, passing around unusual plants for children to touch and smell. One pupil declared: "I want to find out and see all of those new plants. I finally understood why my granddad loved them so much." Linnaeus went on to explain the purpose of scientific names, using a pineapple, apple, pine cone and pineapple weed *(Matricaria discoidea)* to illustrate his point. After an introduction to the binomial naming system, students created their own species names, using an identification key and Latin dictionary. One pupil felt like "an actual scientist naming your own plants".

Our evaluations revealed that there was a significant increase in children's knowledge and positive attitudes towards plants. The elements that particularly benefited learning were the first-hand experiences with live plants and the physical and participatory qualities of drama. The recurrent theme in interview feedback was that children felt enhanced interest or appreciation of plants as complex and diverse organisms. The drama project outcomes provide a strong argument for increasing the use of drama in primary science.

Bethan Stagg FLS

MR & MRS (A VERY HAPPY COUPLE)
The Grays Laudatory Medal

As all Fellows know, naming a new species can be one of the most 'creative' areas of taxonomy, following the principles established by Carl Linnaeus through his binominal system. Taxonomic names can reflect the place where the species was discovered, who discovered it, or in some cases, to honour an individual. Sir David Attenborough, for example, has several species named in his honour; the most recent being a type of colourful Australian slug: *Attenborougharion rubicundus.* Even Beyoncé is honoured in the guise of a honey-winged horsefly found in the Australian National Insect Collection– *Scaptia beyonceae.*

So I don't doubt that when Dr John Edward Gray (1800–75)—zoologist and Keeper of Zoology at the British Museum—named two species of lizard (*Calotes maria* and *Calotes emma*) in honour of his wife, Maria Emma Gray (1787–1876), he did so with love. For John said of Maria:

"my wife has been my companion and helper in all my studies…and my cares."

John was actually the cousin of Maria's first husband, Francis Edward Gray, and became close to her years after she was widowed. His family had expected him to become a medical practitioner, but he was ill at the idea of surgery. This failing led to a nervous breakdown and it was Maria's support that helped him recover. The happy couple feature on a laudatory medallion held by the Society designed by the sculptor, and medallist, George Gammon Adams (1821–98) dated 1863.

Maria Emma Gray (née Smith) was a conchologist, algologist, educator and artist. She illustrated many of her husband's scientific papers, and privately published volumes of her own etchings entitled: *'Figures of Molluscan Animals for the use of Students'.* Sir William Jackson Hooker (1783–1865) recognising her aptitude for the study of living and preserved algae, delegated the arrangement of the collection of British algae at the Royal Botanic Gardens, Kew to her in 1859; she also arranged the algae collection at the British Museum (Natural History). Additionally, Maria was a pioneer of what we would today term as 'outreach', for she developed presentation sets of algae which were used by schools throughout the UK to encourage the pursuit of phycology, and shells for the study of conchology. So it's perhaps no surprise then that in 1866 her husband named a genus of marine algae found in the Gulf of Mexico after her; and so ensuring her and their relationship, will be forever remembered through the genus *Grayemma.*

Glenn Benson
Curator of Artefacts

References

Hartley, C. 2003. *A Historical Dictionary of British Women.* London: Taylor & Francis.

Oxford Dictionary of National Biography (http://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-11346)

AdoptLINN 2018
BE PART OF A METAMORPHOSIS

Join us in our role as custodians of this internationally important collection by adopting some of the most influential and beautiful works in the History of Science, often with a unique provenance.

AdoptLINN aims to support the preservation and use of these outstanding collections in research and outreach, with a view to inspiring and delighting people of all ages. Support the work of the Society and honour a mentor, friend or loved one by adopting on behalf of, or in memory of, a special person.

There are three levels of adoption: **Essential** (£150), **Highlight** (£800) and **Treasure** (£1,500). Each adoption fee reflects not only importance or rarity, but also the conservation needs of an item. Typical repairs needed for books include hinge and spine repair, re-backing, re-sewing and page repairs.

New items for adoption have been added in 2018; visit https://www.linnean.org/AdoptItems or get in touch with Collections staff at library@linnean.org to discuss.

TOP:
The Grays Laudatory Medal in the Society's collections

MIDDLE: The algal genus *Grayemma* (figs 1 & 2), published by J.E. Gray in the *Journal of Botany, English and Foreign,* in 1866

LEFT:
John Stackhouse's beautiful *Nereis Britannica* (1795–1801) needs attention due to water damage, and is available for adoption at the Treasure level

A LIFELINE TO **ACADEMICS AT RISK**

Akram*, from Yemen, studied in Syria and returned to teach at a university in his homeland. He remembers Yemen as a peaceful country. But in early 2015 it collapsed into conflict. Many hospitals, government facilities, schools and universities were destroyed, and the economy was paralysed. Taiz, his home city, was seized by Houthi rebel militias. Thousands of citizens were killed or displaced from their homes. The university closed, leaving him jobless. He was arrested by the militia, and held prisoner for a week in a former school.

Eventually, Akram could take no more. His commitment to his students was irrelevant as the university was gone. But he didn't want just to run away. He wanted to go somewhere where he could do further research, so that when he went back—as he was determined to do—he would have new skills, and could be an effective part of the rebuilding process.

Fortunately, Akram had heard about the Council for At-Risk Academics (Cara), an organisation set up in 1933 by academics and scientists in the UK to rescue their colleagues who were being forced to flee from the Nazis—at first mainly Jews, but others soon followed. The founders' aim was two-fold—*'the relief of suffering and the defence of learning and science'*—saving the people, of course, but also saving the knowledge and intellectual capital that they carried in their heads, and making sure it could be put to use, for the good of all.

Over 80 years later, the mission is essentially the same. There are still many places around the world where intellectuals who speak their mind are seen as a threat by repressive governments and extremist groups, who will go to any lengths, including murder, to silence them. Other academics risk death as conflicts rage around them, or are persecuted for many different reasons. Cara helps them to escape, by working with them to approach some of the organisation's 120+ university partners who might be able to take them in. All the people helped have held teaching or research positions at university already; they travel on regular visas, not as refugees, with the clear aim, like Akram, of returning home when they can, taking their newly-gained skills with them.

In recent months, most appeals for help have come from Syria, but altogether Cara is supporting some 290 people, and over 350 family members, from 27 different countries across the globe. These are by far the highest levels of need since the 1930s, as noted in Cara's most recent annual report. This help transforms, and often saves, their lives. Two of Cara's young Syrian Fellows recently made a short video, which gives a very moving account of what it means to be an academic in exile **(http://bit.ly/Caravideo)**.

Many universities now shoulder all the costs of hosting a Cara Fellow; Akram was fortunate that Cara managed to secure him a fully funded PhD at a UK University, including funds to cover the cost for his immediate dependents. However not all can do so, and Cara must also aid the Fellows financially (Cara receives no government support). In November last year, Cara President Sir Malcolm Grant and patron Jon Snow launched Cara's '10x20' Campaign, with the goal of persuading 10% of UK university staff and members of UK institutions and learned societies to commit to a regular donation of £20 per year. Of course, this is ambitious, but academics like Akram and their families around the world are in danger; and Cara aims at least to double the number of people that can be supported.

If you feel you are able to support this campaign please visit www.cara.ngo and click the '10x20 appeal' link. Thank you.

Martin Thornton
Head of Development, Cara
Thornton@cara.ngo

LEFT: Newsreader and Cara patron Jon Snow introduces the 10x20 campaign

ABOVE: The Yemeni city of Taiz was seized by Houthi rebel militias in 2015

BELOW: Cara Fellows from Syria

INTERCONNECTIONS

FOSTERING GREATER RESILIENCE TO CLIMATE CHANGE

ABOVE:
Building resilience to climate change in Madagascar
© Blue Ventures/ Gabriel Diamond

Nereko is a fisherman, living on the west coast of Madagascar. He's about to embark upon a journey; taking his family with him, he'll sail for hundreds of miles in search of better fishing. Nereko and his family are Vezo; semi-nomadic seafaring people who depend upon the ocean for food and income. Their very cultural identity stems from their relationship with the sea.

At home, his fisheries are collapsing. Competition from industrial fishing vessels and his fellow fishermen and women, compounded by a lack of local livelihood alternatives, are putting unsustainable pressure on fisheries.

Limited access to health services also makes life difficult for Vezo communities. A lack of reproductive health services in particular has meant that couples have been unable to plan their families and have been having more children than they would choose. As well as contributing to poorer health of women and their children, the need to provide for growing numbers of people is further contributing to the pressure on local fisheries. It is estimated that there are over 120 million people who, like the Vezo, depend on fishing for their survival, the majority of whom live in the coastal tropics. A great number of these fisheries are already overexploited; FAO analysis tells us that in 2013 an estimated 31.4% of fish stocks were at a "biologically unsustainable level" or "overfished", with another 58.1% classed as being "fully fished".[1]

Against this backdrop, these coastal communities are very vulnerable to climate change. As sea levels rise, they stand to lose their homes. Warmer and more acidic oceans affect the productivity of the fisheries that these communities rely upon. Coastal communities are also particularly vulnerable to extreme weather events such as cyclones, which may be increasing in frequency and intensity with climate change.

How will coastal communities cope with this interconnected set of challenges? How can organisations working with coastal communities support them to survive and thrive in the face of climate change? Blue Ventures **(https://blueventures.org/)**, a UK-based marine conservation organisation that has been working in partnership with Vezo communities for 14 years, has developed an approach that not only supports coastal communities to rebuild fisheries and protect marine ecosystems, it also directly addresses many of issues that make them vulnerable to climate change.

Resilience, and climate resilient development

The Resilience Alliance **(https://www.resalliance.org/)** define resilience as "the capacity of a social-ecological system to absorb or withstand perturbations and other stressors such that the system remains within the same regime, essentially maintaining its structure and functions". Climate-resilient development can be conceptualised as initiatives which respond to the risks posed by a changing climate, so that development goals are achieved while negative impacts of climate change are minimised.

At the heart of Blue Ventures' way of working is the principle of listening to communities. As well as helping to gain communities' trust, this enables Blue Ventures staff to develop an understanding of the challenges they face, as they experience them. Only then can locally appropriate solutions be developed. Development intiatives often take a single sector approach; when responding to climate change a multi-sector approach is likely to be more effective, in a way that reflects the complexity of the interconnections between communities, their environment and their changing climate.

Fisheries and marine ecosystems

Blue Ventures works with coastal communities to help rebuild fisheries, starting with temporary closures of small portions of local fishing grounds. Witnessing how such a simple measure can dramatically boost catches in the short-term can inspire communities to undertake more ambitious marine resource management. This can ultimately lead to the development of locally managed marine areas (LMMAs), designed to protect marine ecosystems, and may also help to achieve greater food and economic security. The healthier ecosystems that can result from this locally led approach to marine conservation are more likely to recover from climate change-related shocks.

Mangrove forests play a particularly important part in combating climate change, and Blue Ventures is developing a carbon credit scheme to incentivise community-led mangrove management. As well as protecting and reforesting mangroves as a key carbon storage and climate mitigation strategy, this will help safeguard the vital services that mangroves offer coastal communities, such as protection from storm surges and nurseries for juvenile fish.

TOP:
Seaweed aquaculture
© Blue Ventures/
Gabriel Diamond

MIDDLE:
Nereko and his family are Vezo, a semi-nomadic sea-faring people affected by climate change
© Blue Ventures/
Garth Cripps

BOTTOM:
A Vezo fisherwoman carries her catch
© Blue Ventures/
Gabriel Diamond

Aquaculture

Reliance on fisheries, however, will continue to leave Vezo communities vulnerable, and diversification of livelihoods has an important role in fostering greater community resilience to climate change. Blue Ventures' community-based seaweed and sea cucumber farming initiatives provide this opportunity for livelihood diversification. Families with more diverse livelihoods and greater incomes will be better placed to respond to environmental shocks, being able to focus their efforts on those activities that are least affected by a climatic event, and using their assets to recover as necessary. As well as the potential to increase overall household income and reduce reliance on fishing, it is hoped that this will ultimately reduce pressure on marine resources. Aquaculture has increased rapidly, with an output of 74 million tonnes in 2014; it is "outpacing all other food-producing systems".[2]

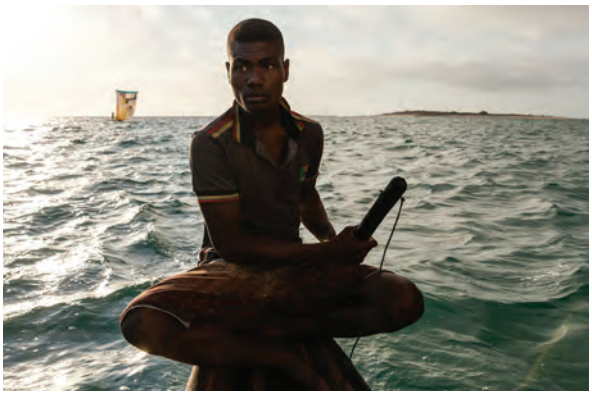
Community health

In response to an expressed unmet need for health services, and at the request of Vezo communities, Blue Ventures developed a community health programme in 2007, focusing on family planning, maternal and child health, hygiene and safe drinking water initiatives. Thanks to these services communities are healthier, making them better able to cope with adverse events and able to attend to the needs of others if necessary. As a result of couples choosing to have fewer children they are better able to feed their families, with more resources available per child (enabling families to invest more in each child's education, for example).

Fostering greater community agency

For communities to become more resilient to climate change, they need control over their resources. All of the initiatives described here aim to give communities this control alongside the ability to exercise choice: choice over how they use natural resources, what livelihood to pursue and how to stay healthy.

Managing all of this means that any community must be highly effective at self-organising. It is hoped that the skills and experience communities acquire through managing marine resources collectively, for example, will enable them to develop strategies for protecting their families and their community against environmental stresses.



More than the sum

Whilst each component of Blue Ventures' multi-sector approach can itself help to adapt to climate-led pressures, we believe that the overall impact of this approach is greater than the sum of its parts. For example, choosing to have smaller families may, over time, lessen the impact upon marine resources. As women gain control over their fertility and are able to space their births, they are better able to engage in income-generation. As well as boosting household income, this may ultimately promote greater gender equity, something of vital importance as women are currently disproportionately affected by a changing climate. As in so many parts of the world, women living in remote coastal tropical areas earn less than their male counterparts, have less access to resources and decision-making process and face a variety of socioeconomic barriers that limit their ability to cope with climate related shocks and stressors. As some socioeconomic structures favour men (i.e. vessel owners), women are more affected "in tenure systems when transfers of rights take place".[3]

Living with the sea

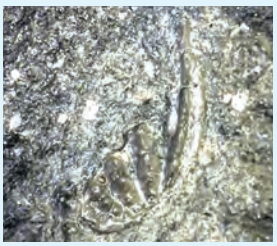
Nereko and his community are already feeling the effects of a changing climate, with less predictable rainy seasons and more intense cyclones. Any attempt to protect marine ecosystems and support the sustainable development of communities must acknowledge this reality. Blue Ventures is now casting its metaphorical net more widely and is working with coastal communities elsewhere in the Western Indian Ocean region and in Southeast Asia. We hope that this approach will mean that, as communities are increasingly able to work towards the recovery of fisheries and marine ecosystems, these improvements will be continued in the face of a changing climate.

Dr Vik Mohan, Medical Director
Blue Ventures

Reference
1, 2, 3. Food and Agriculture Organisation of the United Nations. 2016. *The State of World Fisheries and Aquaculture: Contributing to Food Security and Nutrition for all.*

THE EARLY TETRAPOD WORLD

Laying the Foundations of the Modern Vertebrate Fauna



To mark Professor Jennifer Clack's formal retirement from the University of Cambridge and celebrate her 70th birthday, a one-day conference was hosted in December 2017 by the Department of Zoology and the University Museum of Zoology, and supported by the Linnean Society, The Palaeontological Association and Dunedin Academic Press. The conference showcased new research by Jenny's colleagues, collaborators and former students on many of the topics that she has explored during her remarkable career.

Jenny has had a long association with the Linnean Society. She published her very first paper in the *Zoological Journal of the Linnean Society* in 1983 and she was elected a Fellow of the Society that same year. More than 70 delegates attended the celebration and the Society was pleased to help with the travel expenses of all those early career delegates who requested support. (This report was prepared by two of the early career delegates, postgraduate students Emma Dunne, University of Birmingham, and Roxanne Armfield, University of Cambridge.)

The conference was opened by **Dr Howard Baylis**, Head of the Department of Zoology at Cambridge, who illustrated a few of the highlights of Jenny's extraordinary career to date. A BSc in Zoology from Newcastle University in 1970 was followed by a role as a museum educator in Birmingham City Museums and Art Gallery, from where she later returned to Newcastle to undertake a PhD under the supervision of Alec Panchen. Jenny joined the Museum of Zoology at the University of Cambridge as an assistant curator in 1981, and in 2006, she was awarded a personal chair, taking the title Professor of Vertebrate Palaeontology. Jenny's greatest accolade undeniably came in 2009 when she was elected a Fellow of the Royal Society, the first woman in the field of vertebrate palaeontology to receive such an honour. Most recently Jenny was awarded the Lapworth Medal from The Palaeontological Association in 2015. Howard elucidated that Jenny's prominent dedication to early tetrapod palaeontology "revitalised the field of work", with Jenny's most recent research changing our understanding of tetrapod biology during the period of 'Romer's Gap' (approximately 360 to 345 million years ago), a supposed gap in the tetrapod fossil record during the Mississipian.

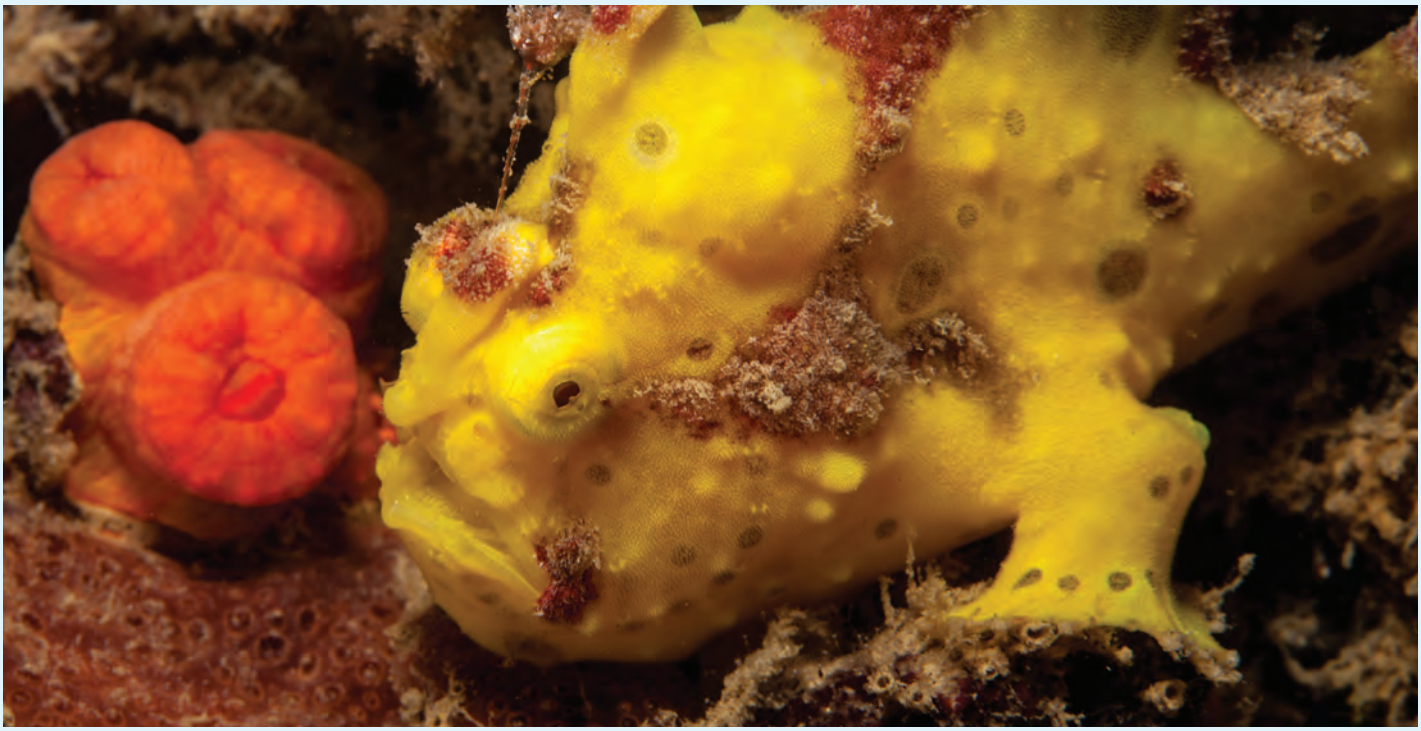
Focus on Fish

The first session focused on fish. **Dr Tim Smithson FLS** began the day by speaking about Traquair's lungfish from Loanhead and the importance of this newly-described specimen for understanding dipnoan diversity and tooth plate growth in the late Mississipian. **Dr Sam Giles** presented her team's extensive work on cryptic diversity in Devonian actinopterygians and its implications for the Carboniferous radiation. **Prof Mike Coates FLS** described findings from recent work on an exceptionally well-preserved specimen of the actinopterygian *Mesopoma*. Closing the first session, **Dr Zerina Johanson FLS** discussed the ontogenetic development of the otic region in the new model animal *Leucoraja* (the little skate).

Talks from four members of the TW:eed project (Tetrapod World: early evolution and diversification) followed. This multi-disciplinary collaborative project, led by Jenny for the past six years, concentrated on early Carboniferous tetrapods and the palaeoenvironment of key fossil localities in Scotland, and closing 'Romer's Gap'. **Prof John Marshall** began by describing the palynology of the *Acanthostega* locality in East Greenland and recent discoveries at a late Devonian site in the Scottish Borders, followed by **Dr Dave Millward** who discussed palaeogeography during 'Romer's Gap' and its potential influence on tetrapod terrestrialisation. **Prof Sarah Davies** spoke about her team's work uncovering the landscapes of 'Romer's Gap', and **Dr Henning Blom**, who previously worked with Jenny as a postdoctoral researcher, described recent work on the late Devonian successions of East Greenland.

ABOVE: Early Carboniferous lungfish tooth plates © Tim Smithson

BELOW: The conference celebrated the achievements of Prof Jennifer Clack © Rob Clack



ABOVE:
Frogfish use their pectoral and pelvic fins to 'walk' along the sea bed.
© Gerald Robert Fisher 2018, Shutterstock.com

Tetrapods and Terrestrialisation

The second half of the day focused on tetrapods, the stars of Jenny's life's work. **Prof Per Ahlberg FLS**, who was Jenny's very first PhD student at Cambridge, presented some thoughts informed by new data on the origin of tetrapods and terrestrialisation. **Dr Jason Anderson** described an enigmatic tetrapod from Five Points in Ohio and its implications for understanding the survivorship of stem tetrapod lineages. **Dr Angela Milner FLS** spoke about work she has recently been able to return to on *Keraterpeton*, the earliest horned nectridean. **Dr Andrew Milner FLS** concluded the session's talks with a description of two primitive temnospondyls from the coal mines of Nyraňy in the Czech Republic. The session was closed by a video call from **Prof Mike Lee**, now based at Flinders University in South Australia, who completed a PhD with Jenny at Cambridge. Mike spoke warmly about his years working, and later collaborating, with Jenny, emphasising the incredible generosity she shows to students, colleagues, and everyone else she meets. It was clear from every speaker just how highly Jenny is held in their esteem, not only for her passion and enthusiasm as a researcher, but as a teacher and colleague who had such a positive impact on their careers, with generous assistance for no personal acclaim.

The final session was dominated with studies on tetrapod morphology, beginning with **Dr Nick Fraser** talking about restoring the 'flat pack' skull of the Triassic protorosaur *Tanystropheus*. Per Ahlberg stepped up once again to present the work of **Dr Sophie Sanchez** on the life history traits of stem tetrapods, who was unfortunately absent on the day. **Eva Herbst** described the new insights she has gleaned from computer tomography into the morphology of the *Crassigyrinus* scoticus. **Dr Stephanie Pierce** discussed her work on how fins can turn into limbs, while introducing the room to the frogfish, bizarre fish who "walk". The session ended with insights from **Dr Marcello Ruta** on the evolution of the tetrapod humerus.

Beyond the Palaeozoic

Prof Paul Brakefield, the Director of the University Museum of Zoology and Linnean Society President, closed the conference by thanking Jenny for her outstanding contribution to the development of the Museum. But "Jenny's reach goes beyond the Palaeozoic." Reiterating the sentiments echoed by each of the speakers, it was clear that all those present owe a great debt to Jenny not only for her years of academic research and her collaborative approach to science, but also for the academic community she has helped to shape and develop across the world. (Per Ahlberg proudly stated: "Everything I've done these past 30 years is down to Jenny.") The day ended with a reception in the spectacular Whale Hall of the soon-to-be-opened Museum of Zoology, where all attendees jubilantly celebrated Jenny's life's work, and looked forward to the work still to come, despite her 'official' retirement.

BELOW:
The Whale Hall at Cambridge University Museum of Zoology
© Rachel Aucott

Most of the new and critical work presented at the conference will appear as a Festschrift in Jenny's honour published in the *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*, guest edited by the conference organisers Per Ahlberg, Marcello Ruta and Tim Smithson.

Emma Dunne (University of Birmingham) &
Roxanne Armfield (University of Cambridge)

FORTHCOMING EVENTS 2018

11 April
Lunchtime Lecture
12.30–13.00

Forensic Entomology: How to Solve a Crime
Speaker: Dr Mark Benecke FLS,
International Forensic Research & Consulting
Registration is essential:
https://www.linnean.org/events

19 April
Evening Meeting
18.00–19.00

Annual Debate 2018: Synthetic Biology
In association with the London Evolutionary Network (LERN)
Registration is essential:
https://www.linnean.org/events

26 April
Day Meeting
9.30–18.00

Remembering James Petiver (1665–1718)
Organiser: Dr Richard Coulton,
Queen Mary University of London
Registration essential:
https://www.linnean.org/events

2 May
Lunchtime Lecture
12.30–13.00

Fashioned from Nature: Learning from the Linnean Society of London
Speaker: Edwina Ehrman,
Victoria and Albert Museum, London
Registration essential:
https://www.linnean.org/events

17 May
Evening Meeting
18.00–19.00

Six Continents: Five Years: One Big Plant Book
Speaker: Prof Mike Fay FLS,
Royal Botanic Gardens, Kew,
Prof Mark Chase FRS FLS,
Royal Botanic Gardens, Kew and
Dr Maarten Christenhusz FLS, *Plant Gateway*
Registration essential:
https://www.linnean.org/events

24 May
Fellows' Event
16.00–19.00

Anniversary Meeting 2018
Medal and Award Winners; this event is for Fellows only
Registration essential:
https://www.linnean.org/events

Please check our website for other events not listed here

Special Species
at the Royal Institution

In February, *Linnean Learning* took part in 'The Language of Life' Family Fun Day at the Royal Institution (RI) to run their new activity, *Special Species*, a card game where families can combine Latin words to create a new species which they can bring to life through illustration.

With classification now part of the UK's primary-level curriculum, *Linnean Learning* aims to create more activities that will aid understanding of the subject for teachers, students and families. One of the first barriers is understanding why and how Latin is used in the creation of species names. *Special Species* was designed to introduce families to both Latin and Linnaean classification in a very simple and fun way; the point of the game is not to conjugate or show proper declensions, as you would find in real taxonomic names, but to ask young taxonomists-in-training to think about how and why species are named. And the inventive species that they created speak for themselves.

There were many favourites; some favoured for their eccentricity, like *Equus psychomultirota* (the horse that constantly changes its mind), some for their elegant simplicity, like *Vulpes polyomm* (the many-eyed fox), and others for their genuine plausibility like *trisomafoli* (the three-bodied flower).

The Family Fun Day was attended by 681 people and was jam-packed with scientific activities around Language and Life. When asked what Latin was, or what Latin is used for, some children (and parents) could identify that the Romans spoke Latin, but few could come up with a modern use for the language. One parent said: "[My child] learns Latin at school but I've never really understood why it's taught." Many families actually returned to the *Special Species* stall, suggesting a pull towards the creative aspects that this taxonomical activity presented. *Linnean Learning* will continue to reach out to families in events throughout the UK in 2018; we'll keep you updated in *PuLSe*!

Remembering James Petiver (1665–1718)

DAY MEETING: Thursday 26 April 2018, 09:30–18:00

This event marks the tercentenary of the death of James Petiver FRS, an important but often overlooked professional apothecary and compulsive natural historian in 18th-century London. Petiver made significant contributions to multiple fields of natural history, above all botany and entomology. An assiduous correspondent and collector, he successfully cultivated sources of natural historical intelligence and material from the Americas to the East Indies.

Speakers include Dr Arnold Hunt, Dr Charles E Jarvis FLS, Sebestian Kroupa and Dr Alice Marples.
To register visit:
www.linnean.org/events

The LINNEAN SOCIETY of London

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PULSE

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