

A SWEDE ABROAD

Carl Linnaeus the Younger in London

Historians have not paid much attention to Carl Linnaeus's son, Carl Linnaeus the Younger (1741–83). Overshadowed by his father's pre-eminence, he also died young, in 1783, before having really achieved anything of consequence. Carl Peter Thunberg's (1743–1828) frank and unfavourable opinion, expressed after the death of Linnaeus the Younger, has not helped his legacy. Thunberg, who worked as demonstrator of botany under Linnaeus the Younger's professorship, thought him 'a very useless man and full of pride, even ignorant'. Manuscripts at the Linnean Society from both father and son have recently been catalogued, digitised and conserved thanks to funding from the Andrew W. Mellon Foundation, and they show that there is much more to Linnaeus the Younger's life than has previously been published.

His handwriting appears on Linnaeus's notes from the early 1760s, suggesting that he assisted his father, both with teaching and with wider scientific endeavours. From 1763, he was appointed head of Practical Medicine at Uppsala University, and took over some of the teaching from his father. In April 1781, three years after Linnaeus's death and sadly only two years before his own, Linnaeus the Younger set sail from Göteborg to London, where he stayed until the autumn of 1782. He was a regular visitor to Sir Joseph Banks's house at 32 Soho Square, along with the French naturalist Pierre Broussonet (1761–1807) and fellow naturalists and former students of Linnaeus, Daniel Solander (1733–82) and Jonas Dryander (1748–1810). He was by Solander's side, in May 1782 when the latter suffered a cerebral haemorrhage. Solander died a week later.

Records from Linnaeus the Younger's visit to England are

RIGHT **Linnaeus the Younger**
© The Linnean Society of London

BELOW **The amended description of *Hystrix macroura***
© The Linnean Society of London



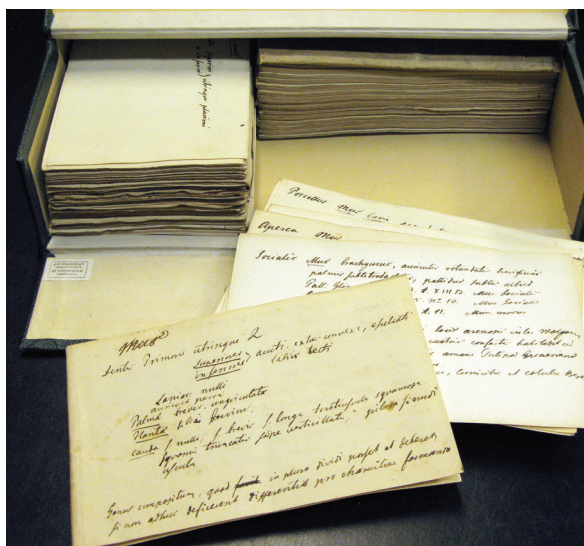
macroura. Hystrix cauda elongata, spinis oblongis inanis compressis pedicellatis aristatisque, in ista cervicali ex setis com. profusis, pedibus tuberculatis, plantis parvis dactylis. Excl. mamm. p. 346. Hystrix macroura Penn: quest. p. 391. Longtailed Porcupine Sch: thes. 1. p. 84. t. 52. f. 1. Porcus aethiops Sylvestris et Schreb: mamm. t. 170. f. 9. lib. Hystrix macroura Habitat in India orientali Sylvest. vivens in India Specim. in Mus. Brit. magnitudo melis caput longius quam in reliquis, apicem vixit. Labium superius bipartitum pilosum. Nares rotundae. Vibrissae plures plusquam spithamales, longius quam in reliquis speciebus, nigrae.

numerous. They include his passports, medical prescriptions (possibly for the illness that would kill him a short time later), lists of expenses, fragments of a diary and many annotations which have never been looked at in detail by historians, but which reveal much of what Linnaeus the Younger thought of England. They comprise numerous notes

on natural history (botany, zoology and horticulture), made during visits to Kew Gardens, Chelsea, Painshill Park and to the collections of individuals, like those of botanist-cum-entomologist Henry Smeathman (1742–86). They also comment on English women, on the use of electricity as a cure for several ailments and on Lady Banks's goldfish...

More importantly, annotations on small paper slips show that, had Linnaeus the Younger lived longer, he might have been credited with much more. These slips, begun in England and often completed in Paris and in Holland, are full of rich details concerning the collections Linnaeus the Younger visited, which included the Leverian and Hunterian museums, the British Museum, Banks's collections and those of the Royal Society in London; the menagerie ('vivario') of Versailles and the 'museo Parisii' which might refer to the Jardin du Roi in Paris; the collections amassed by Jean-Nicolas-Sébastien Allamand (1713 or 1716–87) at the University of Leiden, and Vesalius's museum in Holland.

He records whether he has seen a live specimen, such as the malnourished and desultory marmot that roamed Banks's collections, or an illustration of a species,



such as the arctic fox hanging in Banks's breakfast room ('in Breakfast rum apud Banks'). It also appears that Linnaeus the Younger's slips correspond exactly in their size (16 x 10 cm) and paper stock (watermarks and countermarks) to the slips that Solander and Dryander used to catalogue Sir Hans Sloane's and Banks's collections (now kept at the Natural History Museum, London). Significantly, Dryander seems to have copied verbatim some of Linnaeus the Younger's diagnoses of new species of plants,

ABOVE **Linnaeus the Younger's paper slips detail collections all over Europe**
© The Linnean Society of London

indicating that the latter was not simply a visitor, but that he took an active part in the scientific life of Banks's circle, and played a collaborative role in identifying, naming and describing new species.

Linnaeus the Younger left London sometime in the autumn of 1782, arriving in Paris by mid-November. He would often complete the slips he had begun in London during his travels through Paris and Holland. For example, the description of *Hystrix macroura* (Brush-tailed porcupine), initially based on a specimen at the British Museum ('specim: in Brit: mus:'), was corrected when Linnaeus the Younger encountered a live specimen in Paris ('vivam vidi Parisiis').

Linnaeus the Younger returned to Uppsala in early 1783. On 1 November 1783, he died from the illness (probably jaundice) that had begun in London. Historians have long focused on Linnaeus the Younger's illustrious father—and rightly so, given his stature as the 'Father of Taxonomy'. Nonetheless, the wealth of manuscripts related to Linnaeus the Younger should encourage them to turn their attention to the life of his less well-known (and indeed less well-liked) son.

Dr Isabelle Charmantier, Manuscripts Specialist
isabelle@linnean.org

Arnold Arboretum: 6–8 May 2016 Linnean Society Meeting in the US



In spring 2016 the Linnean Society will hold its first US-based meeting at Harvard University's Arnold Arboretum in Boston, Massachusetts. With a mix of speakers from both the US and the UK, the event will take place between 6–8 May 2016.

Lecture sessions will cover topics such as evolution, biogeography, collections and conservation, and will include speakers such as Dr Vicki Funk and Dr Lynn Parenti (Smithsonian's National Museum of Natural History), Dr Joel Cracraft (American Museum of Natural History), Dr Greg Edgecombe and Dr Sandy Knapp (Natural History Museum, London), current Society

president Professor Paul Brakefield (University of Cambridge, University Museum of Zoology) and past president Professor Dianne Edwards (Cardiff University).

Hosted by Professor Ned Friedman of the Arnold Arboretum, guests will have the opportunity to join tours of the museums and the Arboretum itself. New Fellows attending the evening event on Saturday 7 May will also have the chance to be officially sworn in. More details will be announced in 2016—keep an eye on our website (www.linnean.org) and *PuLSe* for further information.

RIGHT **The Arnold Arboretum, Harvard University**
© Wikimedia Commons, Bostonian13

Monty Don at the University of Bristol's Botanic Garden

In July, gardening writer and popular television presenter Monty Don gave a lecture at the University of Bristol's Botanic Garden to celebrate Bristol's European Green Capital Year 2015, the 40th anniversary of the founding of the Friends of the Botanic Garden and the 10th anniversary of the relocation of the botanical collections to their current home at Stoke Hill. Supported in part by the Linnean Society, and organised by Professor Simon Hiscock FLS, the event proved to be a great draw, with well over 500 attendees.



Natural Associations

Joseph Cornell and Nature as a Theatre

From 4 July–27 September, the Royal Academy of Arts will be home to 80 works of 20th-century American artist Joseph Cornell (1903–72). Famed for his use of images, textures and materials from the natural world, Cornell helped to pioneer the art of 'assemblage'.

Though he barely left his home state of New York, Cornell scoured old dime stores and book shops to enrich his collections and to build his pieces. His most well-known works are his glass-fronted boxes—unique 'cabinets of curiosity' that use everything from illustrations, newspaper clippings, clay pipes, clock springs and jars of coloured sand to offer a glimpse into the abstract.

In support of the *Joseph Cornell: Wanderlust* exhibition at the Royal Academy, the Linnean Society will have on show a temporary display that will highlight Cornell, his inspiration and his links to Linnaeus. In one of his most famous pieces, *Untitled (Great Horned Owl with Harvest Moon)* c. 1942, Cornell uses an image from Alexander Wilson's *American Ornithology* (1808–14)—a title held within the Society's library collections. This work, alongside other publications and specimens that connect Cornell and Linnaeus, will be on show for a limited time from 4 September.



LEFT Great horned owl and others from Alexander Wilson's *American Ornithology* (1808–14)
© The Linnean Society of London

Celebrating 50 Years of the Biological Records Centre (BRC)

As mentioned in the previous issue of *PuLSe*, the Biological Records Centre is celebrating its 50th anniversary. The *Biological Journal of the Linnean Society* has produced a Special Issue to mark the occasion. Visit www.ceh.ac.uk/news-and-media/blogs/special-journal-issue-marks-50-years-biological-records-centre to hear authors David Roy, Michael Pocock and Suzanna Mason explain more about their papers covering climate change, citizen science and biological recording technology.

Medals and Prizes 2016

The Society's 2016 medals and prizes are now open for nominations. For more information or to nominate, visit www.linnean.org/medalsawards and complete the appropriate form online. All suggestions should be entered no later than 30 November 2015. We look forward to hearing from you!

Explore Your Archive

Natural History on Record

As part of the National Archives and the Archives and Records Association's 3rd annual *Explore Your Archive* initiative, the Linnean Society's historic library will hold a small-yet-perfectly-formed display of records that showcase over 200 years of studying the natural world. Archival materials connect many institutions together, but the initiative also aims to promote awareness of the essential role archives play in academic study and cultural understanding. The Society's display 'Natural History on Record' will be available to view from 16 November–20 November 2015.

Additionally, from 17–19 November (Tues–Thurs only), a 45 minute guided tour of both the library and the display will be led by our Manuscripts Specialist Dr Isabelle Charmantier. Tours begin at 12.00pm; spaces are limited and booking is essential. Book your place via isabelle@linnean.org and don't miss out.

ARCHIVE EXPLORED



LEAPS AND BOUNDARIES

How Great Apes are Adapting to Human Impact

We are in the Anthropocene, a new epoch dating from ca. 1945 in ecology and conservation (Corlett 2015) and while humans and wildlife have interacted for thousands of years, in more recent times the dynamics have changed, with the increasing human population altering natural habitats at unprecedented speed. Research into our closest living relatives, the great apes, should try to keep pace with the impact our species has on ape habitats in Africa and Asia, whether these are islands of protected areas or mosaics of forest patches and farms. No long-term great ape research sites, even those in protected areas, are free from human influence, and research on apes across the anthropogenic continuum offers new opportunities to develop understanding of great ape flexibility in the face of rapid environmental changes (Hockings *et al.* 2015).

Assessing Behavioural Flexibility

Many people are unaware that great apes are highly endangered and numbers

are decreasing. Wild chimpanzees (*Pan troglodytes*) have declined by more than 66% over the last 30 years, to current estimates of a mere 200,000 individuals—about double the number of people that fit into a football stadium. Experts predict that by 2030 more than 90% of great ape habitats will have suffered moderate to high impact as a result of human activities (Nelleman and Newton 2002), thus compounding the already widespread problem of negative human-great ape interactions. However, scientists have only recently appreciated the degree to which great apes can survive in disturbed and degraded ecosystems. For example, in West African countries, ca. 45–81% of chimpanzees exist outside designated protected areas (Kormos *et al.* 2003), often in areas markedly modified by humans (Junker *et al.* 2012); in Southeast Asia, more than 80% of orangutans (*Pongo pygmaeus*) now survive in multiple-use forests (protected or not) and in ecosystems transformed by human exploitation (Wich *et al.* 2012). The environment and behaviour recorded at even the most famous great ape sites

(e.g., chimpanzees in Gombe and mountain gorillas in Bwindi) is influenced to varying extents by current or former human presence and activities.

Whenever great apes in anthropogenic habitats are exposed to potentially dangerous stimuli (e.g., vehicles, farmers, snares, crop protection techniques, domestic dogs), we are able to examine their behavioural flexibility and the role it might play in their survival, as well as opening a window into the evolution of modern human and ape adaptability (Hockings *et al.* 2015). Great apes, unless hunted or persecuted, have the flexibility needed to exploit these new 'human-modified' environments (McLennan 2013). Globalisation means that new foods, especially cash crops, are being introduced into areas where they were previously absent, providing apes with opportunities to access different high-energy food sources. Chimpanzees display a distinct preference for fruits and seem to ignore some crops altogether, often those that are too spicy or contain toxic compounds (Hockings and McLennan 2012). At the same time,

ABOVE Waiting in a slashed and burned field

BELOW A chimpanzee takes a papaya

BELOW RIGHT Local children observe the chimpanzees



rapid clearance of the apes' forest for farming throughout Africa means loss of chimpanzees' natural foods, which drives them to exploit human foods for survival.

Night Feeding and Snare Awareness

Studies are showing that apes assess the risks of exploiting these changing habitats and respond accordingly. Chimpanzees at various sites across Africa become more cohesive and quieter when entering agricultural areas to feed on human crops (Hockings *et al.* 2012), with some reports of crop feeding at night (Krief *et al.* 2014). During road-crossings by chimpanzees, the positioning of dominant and bolder individuals varies according to the risk posed by humans and vehicles, with adult males displaying more protective behaviours when risks are higher (Hockings *et al.* 2006). Chimpanzees, bonobos (*Pan paniscus*) and gorillas show "snare awareness"—at some sites the animals have been shown to safely deactivate snares, and even remove them from the limbs of conspecifics. For example, a female bonobo at Wamba, Democratic Republic of Congo, was directly observed examining and trying to remove a snare from the finger of a conspecific, and succeeded in removing the stick from the metallic wire (Tokuyama *et al.* 2012). Many individuals still suffer limb injuries from snares, but chimpanzees and mountain gorillas (*Gorilla beringei*) in Uganda have adapted their feeding techniques to their disabilities (Byrne and Stokes 2002). However, this flexibility should not be used as justification to continue the destruction of their remaining habitats. Unlike some monkeys, such as baboons and macaques, apes cannot adapt to urban areas, and are unable to survive in cities and towns.

The Human Perspective

From a conservation perspective, strategies to reduce both crop damage and aggressive interactions between humans and apes must address the animals' feeding behaviour and take into account the complex responses of large-brained

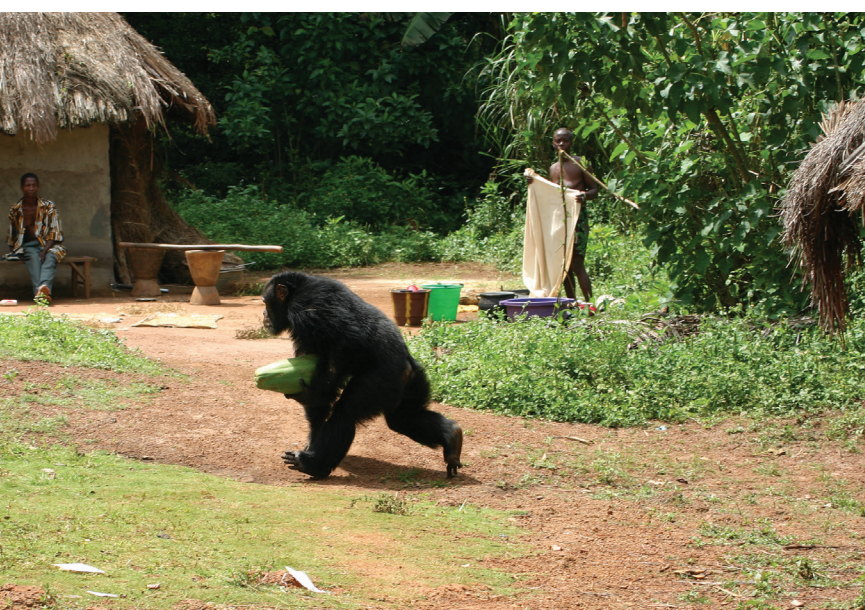
species (Hockings and Humle 2009). It is sentient to take sensible precautions in these areas: children should not be left alone near forest boundaries, and in general people should avoid running or scattering when confronted with these species. By understanding which crops are attractive to chimpanzees and which are not, farmers and wildlife managers will be better able to develop appropriate preventative measures, such as buffer zones (Hockings and McLennan 2012). In addition, future negative interactions (due to the introduction of novel crops and changes in land-use) can be predicted, particularly in areas where human and ape habitats meet. Crop feeding and attacks are only one part of the problem. Perhaps you're sitting by your front door when a chimpanzee moves past you, heading straight for your mango tree, or your path to school is blocked by a huge male orangutan. For many people throughout Africa and Asia whose houses and farms border great ape habitat, this is the reality. Yet human social drivers (cultural norms and expectations, social tensions, lack of knowledge and fear) can often intensify this problem. By extension, conservation conflicts are fundamentally driven by humans (conservation practitioners, NGOs, local people, etc.), who have different goals, agendas and levels of empowerment (Hill 2015). Understanding the complexities of human-ape interactions is vital, as the choices and actions of rural people in daily contact with these species will ultimately determine their survival.

While parks and other protected areas must remain a key conservation strategy, the survival of large, diverse populations also requires coexistence outside of protected areas. As human cultivation makes deeper incursions into forest habitats, negative interactions between humans and great apes will become more widespread and prevalent. Mitigation of this conflict will become increasingly challenging as human demands continue to put pressure on ape terrain: there is no immediate resolution.

REFERENCES

- Byrne R.W. & Stokes E. 2002. *Effects of manual disability on feeding skills in gorillas and chimpanzees*. International Journal of Primatology 23, 539–554.
- Corlett R.T. 2015. *The Anthropocene concept in ecology and conservation*. Trends in Ecology and Evolution 30, 36–41.
- Hill C.M. 2015. *Perspectives of 'conflict' at the wildlife-agriculture boundary: 10 years on*. Human Dimensions of Wildlife 20, 1–6.
- Hockings K.J., Anderson J.R. & Matsuzawa T. 2006. *Road-crossing in chimpanzees: a risky business*. Current Biology 16, 668–670.
- Hockings K.J. & Humle T. 2009. *Best practice guidelines for the prevention and mitigation of conflict between humans and great apes*. Gland, Switzerland: IUCN/SSC Primate Specialist Group, 40 pp.
- Hockings K. J., McLennan M.R., Carvalho S., Acrenaz M., Bobe R., Byrne R., Dunbar R.I.M., Matsuzawa, T., McGrew, W.C., Williamson E.A., Wilson M., Wood B., Wrangham R. & Hill, C.M. 2015. *Apes in the Anthropocene: flexibility and survival*. Trends in Ecology and Evolution 30, 215–222.
- Hockings K.J. & McLennan M. 2012. *From forest to farm: systematic review of cultivar feeding by chimpanzees—management implications for wildlife in anthropogenic landscapes*. PLoS ONE 7, e33391.
- Hockings K.J., Anderson J.R., & Matsuzawa T. 2012. *Socio-ecological adaptations by chimpanzees (Pan troglodytes verus) inhabiting an anthropogenically impacted habitat*. Animal Behaviour 83, 801–810.
- Junker, J. et al. 2012. *Recent decline in suitable environmental conditions for African great apes*. Diversity and Distributions 18, 1077–1091.
- Kormos R, Boesch C, Bakarr M.I & Butynski T.M, eds. 2003. *West African Chimpanzees: Status Survey and Conservation Action Plan*. IUCN/SSC Primate Specialist Group.
- Krief S, Cibot M, Bortolamiol S, Seguya A, Krief J-M & Masi S. 2014. *Wild chimpanzees on the edge: nocturnal activities in croplands*. PLoS ONE 9, e109925
- McLennan, M.R. (2013) *Diet and feeding ecology of chimpanzees (Pan troglodytes) in Bulindi, Uganda: foraging strategies at the forest-farm Interface*. Int. J. Primatol. 34, 585–614
- Nellemann C. & Newton A. 2002. *Great Apes—The Road Ahead. An Analysis of Great Ape Habitat, using GLOBIO Methodology*. United Nations Environment Programme.
- Tokuyama N., Emikey B., Bafike B., Isolumbo B., Iyokango B., Mulavwa M.N. & Furuichi T. 2012. *Bonobos apparently search for a lost member injured by a snare*. Primates 53, 215–219
- Wich S.A. et al. 2012. *Understanding the impacts of land-use policies on a threatened species: is there a future for the Bornean orang-utan?* PLoS ONE 7, e49142

Kimberley Jane Hockings, Research Fellow,
Faculty of Humanities and Social Sciences, Oxford Brookes University
khockings@brookes.ac.uk



Noah's Latter-Day Arks

THE ACCLIMATISATION SOCIETIES

In the second half of the 19th century, acclimatisation societies were formed throughout the world for the introduction of alien animals and plants. The objectives were to improve domestic stock, supply additional food, provide new game animals, satisfy nostalgic yearnings by early colonists, control pests and, in Russia, to substantiate the claims of evolutionists. They died out due to declining and unscientific membership, apathy from the public and scientific bodies, inadequate funding, increasingly strict legislation, and the growing realisation that such introductions were ecologically unsound.

France and its colonies

In 1854 a group of savants, under the chairmanship of Isidore Geoffroy Saint-Hilaire (1805–61), founded La Société Zoologique d'Acclimatation in Paris; later, satellite societies were formed in Grenoble, Nancy, and Algeria, and on the islands of French Guyana, Guadeloupe, Martinique and Réunion.

The most significant plant introduced by the Société to France was a new variety of potato from Australia, imported to combat the impact of the same blight (*Phytophthora infestans*) that had caused the widespread potato famine in Britain and Ireland in the 1840s. The most potentially valuable animal introductions were the Chinese silkworm and various species of fish.

By the late 1860s, membership of the Société and revenue had both declined, and in 1901 the Société was declared insolvent.

Germany and Italy

Elsewhere in Europe, acclimatisation societies were formed in Berlin, Germany (Akklimations-verein) in 1858 and in Palermo, Italy (Società di Acclimazione) in 1861.

Britain

The prime influence behind the acclimatisation movement in Britain was the naturalist Francis (Frank) Buckland (1826–80). At the time of his birth Britain was still suffering from the economic consequences of the Napoleonic Wars of 1792–1815 and the Industrial Revolution. During this period corn harvests were exceptionally poor, and the wars hindered the importation of grain from abroad. The population and the price of food both increased dramatically, and the rising labour pool helped to lower wages. It was against this background that Buckland began to develop an interest in acclimatisation. Thus in 1860, with the assistance of the zoologist Sir Richard Owen (1804–92), Buckland founded the Society for the Acclimatization of Animals, Birds, Fishes, Insects, and Vegetables within the United Kingdom; in the same year a branch was formed in Glasgow and in 1861 in Guernsey. In 1865 the Society, clearly in dire financial straits, merged with the Ornithological Society of London: a decline in membership and an apparent apathy by the council led to the Society's demise in 1868.

The main reasons for the ephemeral life of the Society were its failure to attract enough scientific members, most of the membership being drawn from the upper class; its inability to



LEFT European starlings were first introduced in America in the late 1800s, and now number upwards of 200 million
© The Linnean Society of London

gain adequate government funding; and a lack of proper facilities for keeping alien species. Furthermore, in contrast to the French Société, which examined the commercial and economic benefits of acclimatisation to all classes of society, the British organisation inclined to the introduction of species to benefit only the upper class. Moreover, most of the species chosen for acclimatisation by the Society were entirely unsuitable for the purpose.

Australia

Acclimatisation societies in Australia were formed in 1879 in New South Wales (in Sydney, having evolved from a society founded in 1852); in 1861 in Victoria (Melbourne); in 1862 in South Australia (Adelaide) and Queensland (Brisbane); in 1895 and 1899 in Tasmania (Hobart and Launceston respectively); in 1896 in Western Australia (Perth); and at various provincial centres. One introduced species was the Secretarybird (*Sagittarius serpentarius*), an African species imported in 1865 to combat venomous snakes in Australia. However, as had also happened in Algeria, the acclimatisation societies in Australia reached their zenith during the final days of protective tariffs, especially in such colonies as Victoria. The acclimatisation movement met with the same lack of interest as in Britain, due to the belief that the



societies were acting in the interest of the privileged minority. The societies claimed that their introduction of insect-eating birds favoured crop productivity, but conversely pastoralists believed they consumed crops and displaced native species. Introduced deer provided sport and meat, but damaged crops and trees. Eventually, many societies metamorphosed into mere menageries—few, if any, attempted to 'improve' domestic stock or cultivars; those that survive are concerned mainly with the introduction of fish.

New Zealand

The 30 or so acclimatisation societies that were formed in New Zealand between the 1860s (the earliest in Nelson in 1861) and the early 1900s were principally involved in the importation of game animals (red deer, *Cervus elaphus*, in 1851, moose, *Alces alces*, in 1900, etc.) and insectivorous birds.

As elsewhere, some of the New Zealand societies failed due to falling membership and revenue and absence of public support. Founded and managed by amateurs, they failed to maintain proper records that would have shown their critics the revenue derived from overseas sportsmen and the benefit to crops.

After the Second World War, the societies' operations became principally confined to conservation, sport and, in a complete volte-face, the prevention of further importations of exotic species. Today, the main income of New Zealand acclimatisation societies is derived from the sale of sporting licenses, which funds the acquisition of wetland habitats; research; public education; and the societies' own conservation projects.



ABOVE **Frank Buckland**, pioneer of the acclimatisation movement in Britain
© Wikimedia Commons

RIGHT **Moose** were introduced, unsuccessfully, in New Zealand
© The Linnean Society of London

BELOW **The secretary bird**, was introduced in Australia with ill-fated results
© John Michael Evan Potter 2015, shutterstock.com



Russia

Interest in the acclimatisation and domestication of non-native species existed in Russia from at least the early 1840s, under the leader of the biologist Karl Frantsevich Rul'e (1814–58). The primary topic among contemporary scientists was the immutability or mutability (evolution) of species. Rul'e used the transformation of species through acclimatisation, domestication and cultivation to support the latter theory. Under Rul'e's guidance, the Imperial Russia Society for the Acclimatization of Animals and Plants was formed in Moscow in 1864, and was followed by the foundation of branches in St Petersburg, Khar'kov and Orel.

After Rul'e's death, his successors, led by his protégé Anatoli Petrovich Bogdanov (1834–96), continued his work by establishing a scientifically-based zoo in Moscow. Dissension, however, broke out between those who favoured pure research and those who supported applied research. This controversy dragged on well into the 20th century and had a profound effect on the development of Russian science. Thereafter, due to financial problems, the society began to stagnate; by the early 1900s it had become accepted that conservation had superseded acclimatisation. Among the public, however, interest in acclimatisation actually increased, especially in the translocation of native fur-bearers and the construction of many research *sad* (gardens). By 1930 the Society had ceased to exist.

United States of America

The founder of the acclimatisation movement in the USA was an eccentric New York pharmacist, Eugene Schieffelin (1827–1906), who had conceived the bizarre notion of introducing all the birds mentioned by Shakespeare. Alongside John Avery, in 1871 he founded the American Acclimatization Society, which in the latter half of the 19th century successfully released the first European starlings (*Sturnus vulgaris*) in Central Park.

In 1873, Andrew Erkenbrecher (1821–85) founded The Cincinnati Society of Acclimatization which, in 1873–74, unsuccessfully released 21 alien bird species in the city. At around the same time the Society for the Acclimatization of Foreign Birds was founded in Cambridge, Massachusetts, where, in 1872–74, it successfully released a large number of goldfinches. In 1880, in Portland, Oregon, C. F. Pfluger founded the Society for the Introduction of Useful Songbirds into Oregon (the Portland Songbird Club) which in 1889 and 1892 unsuccessfully liberated 15 different species. These societies spawned several others throughout the USA. In 1884, the Cincinnati Society of Natural History declared that the introduction of alien species was fundamentally unsound—the death knell for acclimatisation in the USA.

The Hawaiian Islands

Although since 1865 private individuals had released in the Hawaiian Islands a variety of alien bird species with varying degrees of success, it was not until 1930, under the presidency of Mrs Frederick J. Lowery, that the Hui Manu (Hawaiian for 'bird society') was formed, for the introduction to Hawaii of exotic songbirds. In the same year, Japanese immigrants founded the Honolulu Mejiro (the national name for the Japanese white-eye) Society, for the importation of Japanese songbirds. Under the auspices of these two organisations, species such as white-rumped shamas, *Copsychus malabaricus* (1931), Japanese bush-warblers, *Horornis diphone* (1929) and black-headed mannikins or munias, *Lonchura malacca*, were successfully released on the islands. In 1968, diminishing funds and stricter regulations about the release of exotic species forced the Hui Manu to disband; nevertheless, many species survive to this day.

Sir Christopher Lever FLS

This article is based on the author's more in-depth entry in *Encyclopedia of Biological Invasions* (University of California Press, 2011): <http://www.ucpress.edu/book.php?isbn=9780520264212>

BioMedia Meltdown

Ross Ziegelmeier

In May, Ross Ziegelmeier joined the team to lead the Society's educational competition, the BioMedia Meltdown. Funding for the 18-month project was generously given by the John Lyons Fund, and will support the study of evolution in line with the UK's National Curriculum at Key Stage 3. The project will build a variety of resources, including loan kits, workshops and teacher CPD sessions.

Ross's work in the field of science communication and education has encompassed many roles over the last few years. As well as representing the Edinburgh International Science Festival in Abu Dhabi, he helped to develop an exhibition with the University of Edinburgh for the 2015 Festival at the National Museum of Scotland. Ross has implemented and overseen education programmes for Frontier International in Fiji, and has more recently worked with various scientific institutions creating digital media for public engagement, including Technopop, a pop-up science festival for hands-on learning (<http://technopop.co.uk/past-events/>). Another of these organisations was NASA, for which Ross created a video as part of the Humans in Space Art Challenge, and is now part of a touring exhibition raising public awareness of the impact space research has had on our understanding of Earth. Ross writes: "I am delighted to have the opportunity to work on the BioMedia Meltdown project, and through the use of creative media I am seeking to not only enthuse Key Stage 3 students with a definite interest in natural history, but to engage those who may not. I hope the project will inspire these students to recognise how the natural world affects them."

Ross Ziegelmeier
© The Linnean Society
of London



Some Farewells and a Welcome

Over the past few months we've sadly said goodbye to a few familiar faces at the Society. Tom Kennett (Smith Biographer) has moved on to a well-deserved archivist role at Lambeth Palace Library, Andrea Deneau (Digitisation Project Officer) went on maternity leave, and at the end of September we say farewell to both Helen Cowdy (Smith Project Conservator) and Tom Simpson (Communication and Events Manager). In July the Society's long-serving Membership Assistant and Room Hire Manager, Tom Helps, left to travel the world. We wish Tom all the best in his adventures.

Taking over Tom Helps's role is Tatiana Franco, whose previous role in admin at an organisation dealing with light and sound equipment for TV production companies will no doubt prove to be a great asset to the Society's room hire. A fluent Spanish-speaker, Tatiana's background in Historical Tourism and Business will also help to bring new ideas to the table and boost the Society's profile. She also currently volunteers in her local community, helping to run media-related workshops for young people with disabilities.

Tatiana writes: "Joining the Linnean Society has been an amazing experience; I feel very privileged to be a part of it. I hope it will be here for many years to come, passing on its unique history to future generations." Contact Tatiana at tatiana@linnean.org



Tatiana Franco
© The Linnean Society
of London

FORTHCOMING EVENTS 2015

23 Sept

Day Meeting
11.00–18.00

Invertebrate Link (JCCBI) Symposium

Organiser: **Oliver Cheesman**, in association with the Linnean Society's Taxonomy and Systematics Committee
Registration essential: www.linnean.org/invertebratelink

24 Sept

Day Meeting
09.30–17.00

The Joy of Discovering the Natural World

Plenary Meeting of the Taxonomy and Systematics Committee
Organiser: **Dr Robert Scotland**, University of Oxford
Registration essential: www.linnean.org/taxo

29 Sept

Book Event
18.00–19.00

The Naming of the Shrew

Speaker: **John Wright FLS**
No registration required

15 Oct

Evening Meeting
18.00–19.00

Evolution from Beyond Genetics?

Speaker: **Dr Ovidiu Paun**, University of Vienna
No registration required

19 Oct

Evening Meeting
18.30 start

The 2015 Darwin Lecture, in Partnership with the Royal Society of Medicine

Speaker: **Professor Sir John Bell FRS**, University of Oxford
Taking place at the Royal Society of Medicine
Registration essential: www.linnean.org/darwinlecture2015

4 Nov

Book Event
18.00–19.00

James Sowerby: The Enlightenment's Natural Historian

Speaker: **Professor Paul Henderson**, UCL
No registration required

2 Dec

2 Dec
18.00–19.00

Founder's Day Lecture 2015: The Lord Treasurer of Botany

Speaker: **Tom Kennett**
No registration required

Please check our website for other events not listed here



The Linnean Society of London
Burlington House, Piccadilly,
London W1J 0BF UK

T: +44 (0)20 7434 4479
E: leonie@linnean.org
W: www.linnean.org

Manufactured in the UK, using paper with a minimum 75% recycled content that is FSC accredited.
Printed to ISO 14001 accreditation.

Charity Reference No. 220509

All articles welcome – please submit news, reviews, events and articles in MS Word format to the Editor at leonie@linnean.org. Accompanying images must be a high resolution JPEG or TIFF with appropriate permission and copyright.