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Scottish Consortium
for Rural Research

SCRR Newsletter
Issue 95 (digital only)
Summer 2020

www.scrr.ac.uk

PICTURE: SALVADOR PIERCE VIA WALLPAPERFLARE.COM



New dawn:
life returns
to the city of
Edinburgh

This issue in anniversaries

Moredun celebrates 100 years, founded in March 1920 – **page 2**

Forest Research Northern Research Station is 50 years old, set up in May 1970 – **page 3**

The Forestry Commission was 100 in 2019 and is now sharing the public's centenary tributes to trees – **page 4**

Adapting and connecting for a collective future

Prof Sarah Skerratt, Scientific Director of SCRR, describes the ways in which dialogue and engagement have continued in a time of global challenges

WE ARE LIVING and working through unprecedented times due to the impact of Covid19. We have temporarily lost the majority of our physical connection since late March. Almost simultaneously, we have created new digital connections, Zooming, Teams-ing, WhatsApping and Skyping with a frequency unknown prior to Spring 2020.

While not pretending that all have equal access to these digital enablers, the tools we've used in 2020 have supported a new and evolving 'business as usual' that has enabled dialogue and engagement to continue within our scientific and social worlds. We are not yet experiencing the 'end of geography' or 'death of distance' promised by the internet in its excitable earliest days, but we have seen a reach that has become a new norm.

One example was the SCRR's Annual Peter Wilson Lecture, held online for the first time in its 17-year

history, in partnership with the Royal Society of Edinburgh (RSE). With speakers from California and Vietnam as well as Scotland, we heard diverse perspectives from young people on the future of our global and local environment. We were challenged to listen to their truths and multiple voices, including from those who use British Sign Language (BSL) as their first language and are often excluded from mainstream debate.

Evidence of the impact of climate change is also illustrated in this summer's newsletter, with reports from SAMS on how the UK's seas are responding to climate change and how coastal creatures are being affected.

We have collectively experienced the impact of changes compressed into a period of a few months; in this Newsletter, we also see how an extended timeframe of 50 to 100 years allows us to reflect on longer-term shifts. For example, it is 50 years since

the opening of the Northern Research Station of Forest Research, and this year sees the 100th Birthday of the Moredun Foundation, established from 'humble beginnings' in the south of Edinburgh to being an international research hub in the Pentland foothills. Partnership working clearly endures, as we see in many other examples in this month's newsletter.

We cannot predict how the next few months will evolve. However, we do know that we have an internal imperative to adapt in order to be able to connect and work together. We see this from 50 and 100 years past, as well as from recent weeks and months. We can therefore take heart that we will continue to adapt for a connected, collective future.

About SCRR

THE SCOTTISH CONSORTIUM FOR RURAL RESEARCH exists to promote sharing of ideas and techniques among a group of organisations active in research into land, freshwater, coastal and marine resources, and their uses.

Our member organisations have bases throughout Scotland and are at work all over the world: details are on the back page.

Members' reports

Moredun Research Institute



Left the original ADRA mobile laboratory. A new bus will help Moredun to continue their outreach and educational programme across the country

infection of young sheep; lamb dysentery, an intestinal disease of newborn lambs; and equine grass sickness, which affects the nervous system of horses. In the same year that it moved to the site at Moredun, ADRA received a donation of £1500 from its president to purchase and equip a mobile field laboratory to facilitate field investigations into these diseases.

The mobile laboratory undertook a 'grass sickness' tour around the Blairgowrie district, where it acquired a lot of valuable data. It also made regular trips to a farm in Selkirk to carry out on-site investigations into lamb dysentery while keeping a control flock back at Moredun. The joint efforts of the team on-site and off meant that veterinary scientists were able to isolate the bacteria responsible and soon developed the first effective vaccine against the infection. Work on other diseases caused by the same group of widespread bacteria quickly followed, including braxy, and their associated vaccines became precursors of the commercial vaccines available today.

Past meets present

The mobile laboratory became something of an iconic image for Moredun over the years that followed. As an homage to that time, the modern-day Foundation is overseeing the construction of a new mobile laboratory for its centenary year.

The updated vehicle will also be used for educational and outreach work, in keeping with Moredun's ethos of communicating new developments in science and technology to improve farm practices. The new outreach vehicle will help Moredun to reach the wider public as it travels to roadshow events, onto farms and to visit schools, including those in more remote and under-served communities.

Its construction and future operations will be made possible by kind donations from industry partners and individuals, and it is hoped that following the lifting of restrictions due to COVID-19, the Moredun Bus will be on the road.

For more about Moredun's centenary, see www.moredun.org.uk/centenary where you can also view a film telling 'The Moredun Story'.

Follow the adventures of the Moredun Bus at moredun-bus.blogspot.com/

Moredun celebrates 100 years of excellence in animal health research

Moredun was established as the Animal Diseases Research Association in March 1920, but it will have to wait until 2021 to celebrate properly

THIS YEAR, the Moredun Foundation should be marking its centenary and celebrating everything it has achieved in the past 100 years. Although the COVID-19 pandemic has meant that planned celebrations have been postponed until 2021, the 100-year milestone is none the less a reality.

From humble beginnings in the south of Edinburgh to today's international research hub at the foot of the Pentland hills, the ethos of the Moredun Foundation has remained the same: to work in direct partnership with the farming community and address its needs concerning livestock health and welfare.

Moredun Research Institute, which sits within the Foundation, strives to improve livestock health and support sustainable agriculture through the development of diagnostic tests and the creation of novel vaccines to combat infectious disease. Moredun's science programme also helps find solutions to other major challenges such as ensuring safe and sustainable food and water supplies, the consequences of a changing climate and conserving biodiversity.

In 1917, the 'Conference on Improvement of Agriculture' attracted over 900 delegates to Edinburgh. Its keynote talk, entitled 'Problems for Veterinary Research after the War', highlighted the need for research into livestock diseases.

Three years later, on March 17th, 1920, representatives of the Highland

and Agricultural Society, the Scottish Chamber of Agriculture and the National Farmer's Union of Scotland came together and agreed to form a new society, and the Animal Diseases Research Association (ADRA) was born – the forerunner to the Moredun Research Institute.

The initial objectives were two-fold: 'To research infectious diseases of livestock and to apply available knowledge to farm practice.'

It is interesting that these are still the aims of the organisation today.

After several years of working in labs rented from the Glasgow Veterinary College, ADRA moved into a permanent, purpose-built home at Moredun, Edinburgh in 1926.

Major research priorities in the late 1920s included braxy, a fatal bacterial

Below: the opening of the Animal Diseases Research Association, forerunner of the Moredun Institute, November 4th, 1926



Members' reports

Forest Research

Forest Research marks 50 years of the Northern Research Station

Opened in May 1970, the northern base for Forest Research's activities has more than fulfilled its early potential through five decades of excellent work



THE NORTHERN Research Station (NRS) on the Bush Estate was opened by the Rt Hon William Ross MBE MP, Secretary of State for Scotland on May 8, 1970 with the aspiration: 'The new laboratories and equipment of the station should strengthen the support we are able to give forestry,

not only in the north but throughout Britain. The location of the NRS on a campus of research institutes on the Bush Estate is excellent.'

Such hopes have been fulfilled in the research and innovation this vibrant community has delivered to underpin the successful reforestation

of upland Britain and the development of a strong domestic industry.

Some of its achievements include technical advice on site preparation and nutrition; ground-breaking decision support systems such as Ecological Site Classification and the ForestGALES wind risk model; long-term success in the genetic improvement of Sitka spruce; evolution of advice on ways of countering biological threats such as Hylobius and Heterobasidion; new uses of spatial data; and timber testing.

The Northern Research Station has collaborated with leading institutes in the UK and overseas, and in outputs and knowledge exchange for the skills development of many professionals and the training of many applied scientists.

Although we are mere striplings compared to our neighbours Moredun, achieving their centenary, we share a similar commitment to applied research and meeting the needs of an important land use sector for Scotland.

Collaboration with SCRR members is always welcome – and indeed the development of NRS was facilitated in 1970 by the University of Edinburgh and the Royal Botanic Gardens Edinburgh – whose 350 years is clearly something to aim for!

During the current COVID-19 crisis it is unlikely that we will be able to celebrate our birthday with staff and friends but we will do our best when things start to settle.

Forest Research staff receive honours

TWO STAFF MEMBERS have been recognised in the Queen's New Year's Honours List. Dr Helen McKay (nee MacGilp), Head of Centre for Sustainable Forestry and Climate Change, is awarded an OBE for services to forest science and forestry, while Steve Penny receives an MBE for voluntary work with mountain rescue.

Helen joined FR in 1988 and her research has contributed significantly to policy and practice. She has made outstanding contributions to the forestry profession through her work with the Scottish Forestry Trust and as editor of the Institute of Chartered Foresters' flagship journal, *Forestry*.

Helen said: 'I am so very pleased to have been nominated by my FR colleagues for my research to improve forestry policy and practice. It is important to me that I have helped younger members of staff, especially women, develop their potential.'

Steve, a senior communications officer in FR, has volunteered with the Galloway and Tweed Valley mountain rescue teams for 28 years, and with the Scottish Search and Rescue Dog



Association. He is national wellbeing officer for Scottish Mountain Rescue and is recognised for driving forward work to support volunteer

responders and their families. He follows in the footsteps of his grandfather, James, awarded a MBE in 1959.

Steve said: 'The Forestry Commission has been very supportive over the years. This award is fantastic for the mountain rescue team as it will help the public to see what goes on and the work that is done by volunteers across the board.'

See www.forestryresearch.gov.uk/news/two-fr-colleagues-recognised-queens-new-years-honours/

Members' reports

Forest Research



more than 32,000 stand assessments, leading to a total of ten reports and more than 30 datasets.

The work established the area of native and non-native woodland in Britain and found over half a million more hectares of native woodland than previously estimated, principally through Forest Research developing improved techniques in earth observation and survey. The reports also established for the first time the area of each priority woodland habitat type.

The reports have been well received. They were described by the Woodland Trust as 'awesome', while the Royal Forestry Society said: 'This is a hugely significant piece of work and an amazing resource for future monitoring,' and the Confederation of Forest Industries UK (CONFOR) hailed them as 'a fantastic baseline to assess success of future policy, and lots of fun data for the researcher to interrogate.' The report's findings have also received coverage in the *Times* and *Scotsman* newspapers.

The ecological condition of woodland

A new report from Forest Research's National Forest Inventory shows that there is more native woodland in Britain than had previously been thought

THE RECENTLY PUBLISHED National Forest Inventory (NFI) report on Woodland Ecological Condition provides a statistical assessment of 15 indicators of woodland ecological condition and a classification of woodland habitat condition status.

Evidence of the current state of woodland ecological condition and how it changes over time can inform the targeting of resources and woodland management in support of biodiversity and ecological resilience. This work took 10 years and involved

For more and to download the report, see www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/what-our-woodlands-and-tree-cover-outside-woodlands-are-like-today-8211-nfi-inventory-reports-and-woodland-map-reports/nfi-woodland-ecological-condition/

Feelings to the fore in 100th anniversary tributes to trees

IN THE CENTENARY year of the Forestry Commission, 2019, members of the public were invited to submit a poem, letter, story, memory or image explaining what trees mean to them, via a dedicated Tributes to Trees website. Forest Research analysed these tributes based on a cultural ecosystem services framework, focusing on different aspects of place and activities, to understand how those contribute to well-being.

When engaging with trees, woodlands and forests, the aspects of place that are important to people are: broadleaf trees; trees in the wider man-made or natural environment; parts of the tree such as the bark and leaves; and being able to see other biodiversity, such as birds, mammals and other plants. The most frequently mentioned activities undertaken in woods and forests include walking, climbing and exploring. Family is often mentioned; and experiences of trees



and woods are filtered through time, the seasons and weather.

The way people talk about trees is different in poems than in conventional prose, so to fully understand how people derive well-being from trees, it is necessary to give people scope to express this through different avenues.

Overall, both prose and poetry were full of expressions of emotional and sensory experiences, and these themes were found more often than all the other themes that were explored.

Find out more at www.forestresearch.gov.uk/research/tribute-trees/

Genetic analysis explains TB spread

Research led by Roslin Institute has found that tuberculosis is transmitted from badgers to cattle, but more often spreads within one species or the other

WHOLE GENOME SEQUENCING of tuberculosis bacteria from 230 badgers and 189 cattle, in a study at a site where TB infections occur frequently, has shown that disease spread within badger populations and within cattle herds happens at least twice as frequently as transmission from one species to the other.

Researchers analysing genetic data from the bacteria that cause the disease also found that cattle are approximately 10 times more likely to catch TB from badgers than badgers are to catch it from cattle.

The findings of the research, conducted in Gloucestershire over a 15-year period, could improve control strategies, reduce disease transmission and cut associated costs.

Bovine TB is an infectious respiratory disease of cattle that is mainly spread through inhaling infectious particles in the air. It is caused by the bacterium *Mycobacterium bovis*, which can also infect and cause disease in other mammals, including humans, deer, goats, pigs, cats and dogs.

Using data from a population of badgers in Woodchester Park in Gloucestershire and nearby cattle farms, the study provided the first direct evidence of transmission between badgers and cattle.

Researchers analysed the entire genetic make-up of the bacteria from badgers and cattle, a process known as whole genome sequencing.

They combined this with detailed information on where the cattle and badgers lived, when the animals were infected and whether they could have had contact. The researchers were then able to estimate how often the

two species spread TB, and found that badgers play an important role in the maintenance of the disease.

The work was led by experts from the Roslin Institute with collaborators from institutions including the Animal and Plant Health Agency, the University of Glasgow and University College Dublin.

The study, published in the journal *eLife*, was funded by the Biotechnology and Biological Sciences Research Council, Defra and the Wellcome Trust.

Contact Shane Canning, press and PR office, shane.canning@ed.ac.uk



World-leading research facility to provide insights into livestock and human health

THE UNIVERSITY OF EDINBURGH'S Large Animal Research and Imaging Facility (LARIF), situated close to the Roslin Institute at the campus of the Royal (Dick) School of Veterinary Studies, Easter Bush, was officially opened by Prof John Loughhead, chief scientific adviser to the UK Department of Business, Energy and Industrial Strategy (BEIS), in March 2020.

The LARIF will enhance food security and the health and welfare of farmed animals, through research aimed at producing livestock that are genetically resistant to disease and developing improved vaccines. Research will also safeguard human

gene-editing and infection-containment facilities. It offers exceptional capability for in-depth studies into the health and wellbeing of all major farmed livestock.

Also housed at the LARIF is the Wellcome Trust-funded Critical Care Laboratory for Large Animals, which supports the study of large animal biology with all the resources of a human hospital.

Development of the purpose-built facility is supported by a £25 million investment from the University of Edinburgh and the Centre for Innovation Excellence in Livestock (CIEL), which includes £10.6 million of funding from Innovate UK. The LARIF is situated close to CIEL-partnered livestock investments. Collectively, the Easter Bush Campus represents the largest concentration of animal science-related expertise in Europe.



Dr Ian Campbell, Lyndsay Chapman, Prof John Loughhead, Prof Jonathan Seckl and Prof David Argyle

health by helping to tackle food-borne infections and developing strategies against antimicrobial resistance.

The LARIF houses an unparalleled combination of imaging, surgical,

Members' reports

Scottish Association for Marine Science

Climate change and coastal creatures

A study led by the Scottish Association for Marine Science (SAMS) shows that the population of species in our waters is changing with the climate

PHOTOGRAPH: ALINE DASSEL VIA PIXABAY



TEMPERATURE SHIFTS ARE transforming the make-up of the UK's coastal species, giving a clear indication of the rapid effect of climate change on our coastal habitats in just 40 years. A study led by Prof Michael Burrows of SAMS, newly published in *Global Change Biology*, examined data from 1980 to 2018 and shows how populations of commonly found coastal creatures such as barnacles, seaweeds, limpets and snails had changed, from Shetland in the north to Cornwall in the south.

Changes in these so-called 'indicator species' show a 250km



Above: Shetland now has coastal species like the west coast of Scotland had 40 years ago

Left: creatures like purple topshells (*Gibbula umbilicalis*) are one species with an affinity for warm water on the increase in Scotland

northwards shift of communities in response to warming seas to the extent that Shetland's coastal marine community is now similar to that of north-west Scotland 40 years ago.

Prof Michael Burrows of the Scottish Association for Marine Science (SAMS), who led the study,

said: 'We can get extremely detailed and reliable long-term data on responses to climate from the animals and plants living on our shoreline, as it's obviously a lot easier to access than the open sea.'

'Having nearly 40 years of data allows us to examine trends in the make-up of the seashore community. Throughout the UK we are seeing an increase in species with an affinity to warmer water and a decrease in the number of creatures that prefer colder water. The result is that the shorelines at the very north of the country are becoming similar to those seen further south in the UK in the 1980s.'

'It is clear evidence that warming seas are affecting the distribution of these species and influencing whether these species thrive.'

The research team matched the known distributions of rocky shoreline species to patterns in the average annual sea surface temperature. This allowed them to measure how animals and plants were responding to temperature changes, across regions and over time.

They also found that when seaweeds covered a shoreline, they played a key role in allowing some species to take shade from the sun, allowing species from cooler environments to persist.

The study is at onlinelibrary.wiley.com/doi/full/10.1111/gcb.14968 and for more information please contact Euan.Paterson@sams.ac.uk

Response of UK seas to climate change

A REPORT on how the UK's seas are responding to climate change had input from seven SAMS scientists, one of the largest representations of any institute. The Marine Climate Change Impacts Partnership (MCCIP) Report Card 2020 includes evidence on 26 topics relating to the seas around the UK and had input from 150 scientists at 50 research organisations.

SAMS scientists contributed to topics as diverse as coastal habitats, Atlantic heat exchange, harmful species, sea ice and aquaculture.

There is clear evidence that warming seas, reduced oxygen, ocean acidification and sea-level rise are already affecting UK coasts and seas. Increasingly these changes are having an impact on food webs, with effects



Prof Michele Stanley was one of the seven contributors from SAMS

seen in species on the seabed as well as plankton, fish, birds and mammals.

The upper range for the latest UK sea-level rise projections is higher than previous estimates, implying increased coastal flood risk. The likelihood of

compound effects from tidal flooding and extreme rainfall is increasing, which can greatly exacerbate flood impacts.

Oxygen concentrations in UK seas are projected to decline more than the global average, especially in the North Sea and fisheries productivity in some UK waters has been negatively impacted by ocean warming and historical overexploitation.

The SAMS scientists contributing to the MCCIP Report Card 2020 were: Prof Michael Burrows, Dr Thomas Brown, Prof Stuart Cunningham, Prof Keith Davidson, Dr Clive Fox, Dr Bhavani Narayanaswamy and Prof Michele Stanley.

The report is at www.mccip.org.uk/impacts-report-cards/full-report-cards/2020/ and for more information contact Euan.Paterson@sams.ac.uk

Members' reports

Royal Botanic Garden Edinburgh

PHOTOGRAPHS © MARIA VORONTOVA / RBG KEW



Grasslands: all the work of nature

A collaboration in Madagascar involving the Royal Botanic Garden Edinburgh has shown the value of a landscape previously thought to be destroyed forest

IN A WORLD of assumptions, for many years the people of Madagascar have been blamed for destroying their magnificent environment by making grassland from forest. Now, research from the Royal Botanic Garden Edinburgh and Royal Botanic Gardens, Kew, has uncovered evidence of how ancient (and now extinct) quadrupeds shaped these open spaces.

Against a common narrative, that Madagascar was only covered by forest prior to human settlement, botanists from the two research institutes have shown that the vast grasslands of the Central Highlands are not degraded forests: rather, they were shaped by animals and by fire over millions of years and they urgently require further research.

Dr Caroline Lehmann of RBGE and the University of Edinburgh, senior author of the research paper, explains: 'Grasslands are important in their own right, with their own irreplaceable benefits to people and other biodiversity. There are some deep and important issues needing to be addressed beyond the fact that we have evidence of animals shaping grasslands in Madagascar over the last millions of years.

'It is a real call for cross-disciplinary work. While our research is conclusive about the role of megafauna shaping some grasslands in Madagascar, it is also part of a building narrative of grasslands as a widespread ancient

part of Madagascar's landscapes. Scientifically, this is interesting because the palaeo-record and biodiversity data do not see eye-to-eye.'

In a modern sense, the findings are important for the people of Madagascar who, for hundreds of years, have been told by outsiders that their arrival destroyed the biodiversity of the world's most magnificent island, where grasslands were only a product of human degradation.

Dr Lehmann pointed out the profound irony that the only reason it is possible to link the extinct megafauna

to grasslands is because modern people introduced domestic livestock. 'Cattle are almost a megafauna substitute in the grasslands, without which the capacity to detect links would have been lost like the megafauna itself. The grass species observed in the research are dependent on grazing to proliferate. Such grasses would have rapidly become extinct without the presence of a grazer to keep that niche open.'

The research was a collaboration with Dr Maria Vorontsova, Kew's research leader in grasses, and Cédrique Solofondranohatra, lead author, who said that the discovery was made possible by drawing on the legacy of research in African grasslands to see Madagascar through a new lens. 'Co-evolution between plants and animals spanning millions of years now supports the livelihoods of millions of people in a set of ecosystems that Malagasy people have been told they destroyed.'

Caroline Lehmann stresses the urgency of further research. 'There is a clear need for all areas of science to engage with landscapes dismissed as being of no value. Cross-disciplinary efforts are now urgently required to unlock mysteries about how these ecosystems are assembled and how resilient they are to climate change in a region with fragile food security.'

Below: Cédrique Solofondranohatra and Maria Vorontsova with their team sampling grass species composition in a fire-maintained grassland in Isalo National Park

Solofondranohatra, et al. (2020). Fire and grazing determined grasslands of central Madagascar represent ancient assemblages. Proc. R. Soc. B†287: 20200598. For further information, please contact Shauna Hay, s.hay@rbge.org.uk



News from SCRR

Young People and Evidence: lessons from youth debate on climate change – the Peter Wilson Lecture 2020

A report by Professor Sarah Skerratt, Scientific Director of the Scottish Consortium for Rural Research and RSE Director of Programmes



YOUNG PEOPLE FROM as far afield as Vietnam and California, as well as from here at home in Scotland, challenged our thinking around climate change and our shared futures at the 2020 Peter Wilson Lecture, which was held online for the first time in its 17-year history.

The Lecture was created in memory of the distinguished agriculturalist and former Royal Society of Edinburgh (RSE) General Secretary, Professor Peter Wilson CBE, and is held as a partnership event between SCRR and the RSE.

We'd challenged our five young speakers to summarise their thoughts into video podcasts of only seven minutes, which the audience of over 100 then watched before engaging in the live debate.

Our panellists were:

- Le Hong Ngoc, doctoral researcher, Institute of Human Geography, Vietnam Academy of Social Sciences
- Alison Hendry, British Sign Language development officer, The University of Edinburgh

Four panellists, clockwise from top: Le Hong Ngoc, Alison Hendry, Kristy Drutman, Holly Gillibrand

- Kristy Drutman, founder and media creator, Brown Girl Green, California
- Holly Gillibrand, 14-year-old environmentalist and activist from north-west Scotland
- Rachel Grant, freelance curator, Fertile Ground

The speakers' key points centred around the need to create compelling,

Right: the Zoomers, Prof Colin Campbell as respondent



evidence-based narratives, putting lived experience at the centre, while valuing different types of knowledges (local and external).

What struck me, chairing the event – wearing both my SCRR and RSE hats – was the diversity of voices on the panel, and the importance of that diversity for ensuring a more complete understanding of the challenges and opportunities we now face.

We were challenged to act both as individuals and as a collective, look forward with hope rather than building scenarios only around deficit models, using data and technology.

Professor Colin Campbell, chief executive of the James Hutton Institute and fellow of the RSE, was given the unenviable task of being respondent to the five panellists. He noted the power of communication, in terms of digital as the enabler of this international event, that we were using British Sign Language (BSL) throughout the debate, plus ensuring we were listening to the messages from young people as key voices in the climate change debate.

Colin also highlighted the authenticity of the panel members' real stories, and particularly the simplicity of truth and how young people are often inclined to see and state such truth.

Finally, Colin emphasised the importance of intergenerational connections through events such as this – something that Peter Wilson CBE would have applauded as part of his legacy.

Details of the event can be found at www.rse.org.uk/event/young-people-evidence-lessons-from-youth-debate-on-climate-change/

A recording of the event is now available at www.youtube.com/watch?v=I2zsiJdUOAM

SCRR member organisations

The University of Edinburgh	www.ed.ac.uk
Moray House School of Education.	www.ed.ac.uk/schools-departments/education
Royal (Dick) School of Veterinary Studies	www.ed.ac.uk/schools-departments/vet
School of Biological Sciences	www.ed.ac.uk/schools-departments/biology
School of Engineering	www.see.ed.ac.uk
School of GeoSciences	www.ed.ac.uk/schools-departments/geosciences
School of History, Classics and Archaeology.	www.shca.ed.ac.uk/Research/
School of Social and Political Studies	www.sps.ed.ac.uk
Biomathematics and Statistics Scotland.	www.bioss.ac.uk
British Geological Survey, Edinburgh	www.bgs.ac.uk
Centre for Ecology & Hydrology, Edinburgh.	www.ceh.ac.uk
Edinburgh Napier University, School of Applied Sciences	www.napier.ac.uk/fhlss/SLSSS
Field Studies Council, Millport.	enquiries.sco@field-studies-council.org
Forest Research, Northern Research Station.	www.forestry.gov.uk/forestresearch
Heriot Watt University, School of Life Sciences	www.sls.hw.ac.uk
James Hutton Institute	www.hutton.ac.uk
Moredun Research Institute	www.moredun.ac.uk
National Museums of Scotland	www.nms.ac.uk
Roslin Institute, University of Edinburgh.	www.roslin.ed.ac.uk
Royal Botanic Garden Edinburgh	www.rbge.org.uk
Royal Society for the Protection of Birds - Scotland	www.rspb.org.uk/scotland
Royal Zoological Society of Scotland	www.rzss.org.uk
Science & Advice for Scottish Agriculture	www.sasa.gov.uk
Scotland's Rural College (formerly Scottish Agricultural College)	www.sruc.ac.uk
Scottish Association for Marine Science, Oban.	www.sams.ac.uk
Scottish Natural Heritage	www.snh.gov.uk
SNIFFER	www.sniffer.org.uk
Society of Antiquaries of Scotland	www.socantscot.org
Society, Religion and Technology Project	www.srtp.org.uk
University of Glasgow	www.gla.ac.uk
College of Medical, Veterinary and Life Sciences	www.gla.ac.uk/colleges/mvls/
College of Social Sciences	www.gla.ac.uk/colleges/socialsciences/
University of the Highlands and Islands (UHI)	www.uhi.ac.uk
Agronomy Institute, Orkney College	www.agronomy.uhi.ac.uk
Centre for Mountain Studies, Perth College	www.perth.uhi.ac.uk/specialistcentres/cms
Centre for Remote and Rural Studies, Inverness College	www.crrs.uhi.ac.uk
Environmental Research Institute, North Highland College	www.eri.ac.uk
Lews Castle College, Stornoway	www.lews.uhi.ac.uk/research
NAFC Marine Centre, Shetland	www.nafc.ac.uk
West Highland College, Fort William	www.whc.uhi.ac.uk
University of St Andrews, Earth and Environmental Sciences	www.st-andrews.ac.uk/gg
University of Stirling	www.stir.ac.uk
Institute of Aquaculture.	www.aquaculture.stir.ac.uk
Biological & Environmental Sciences	www.stir.ac.uk/natural-sciences/about-us/bes/

Events

www.scrr.ac.uk/events

Challenging Upland Futures

Perth Theatre, 1-2 September 2020

Aim: To integrate knowledge and understanding on the uplands of Scotland, and to agree priority actions to help ensure that our uplands deliver the widest possible range of benefits. Participants: the wide diversity of stakeholders living in, and concerned with, the uplands of Scotland.

For more information contact Professor Martin Price, Martin.Price.perth@uhi.ac.uk

Please see our website for more events.

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FUTURE ISSUES

Contributions to the SCRR newsletter are welcomed. All contributions, comments and suggestions should be emailed to the Secretary/Treasurer as above.

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