



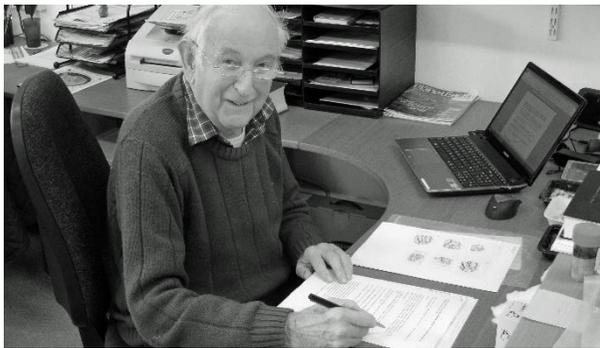
Harrison Institute

Front cover: Two Cameroonian students, with Nigerian park rangers, setting a harp trap during a training workshop (co-supported by the Harrison Institute) in Cross River National Park. Back cover: Setting a bird net with staff and students from Mawlamyine University, Myanmar.



Students of Myeik University and staff of MBNS (Myanmar Bird and Nature Society) conducting a bird survey as part of the MuEuCAP Erasmus+ project

•••enabling and empowering the next generation of young biodiversity
scientists and conservationists in the tropics•••



David Harrison, mammalogist and palaeontologist



Pamela (photographer), Jeffery (ornithologist/conservationist), Rita, and James Harrison



James Harrison, ornithologist

•••dedicated to the Harrison family,
without whose vision, science, years of
devotion, and financial support, none of
this would have been possible•••

Harrison Institute



The Harrison Institute promotes bird and mammal research in the tropics



The Institute's specialist zoological collections are of international importance



The Institute has developed award winning community-led conservation projects

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The Harrison Institute has a long tradition of collaborating closely with European colleagues, including Dr Swen Renner, Head of Ornithology, Natural History Museum, Vienna



For 20 years, Institute staff have helped build capacity in Myanmar's universities



Institute staff have participated in training workshops in a range of African countries



Institute staff have co-led and organised international conferences in UK, Asia, & Africa

01 Harrison Institute: An Introduction

For 90 years, the Harrison Institute has promoted biodiversity conservation and environmental protection through research, capacity building, and working with local communities.

Today, the Institute focuses on early career scientists and students in the UK, Asia, and Africa who are committed to challenging the extinction crisis and ecosystem degradation, and who are looking for answers within the context of Sustainable Development Goals (SDGs).

As a financially independent UK charity, the Institute has helped raise over \$2.3 million in external funding for biodiversity and environmental projects. It has much experience in running and contributing to complex, multi-party international projects in the Palaeotropics.

Institute staff have researched and published extensively on aspects of mammal and bird diversity; co-established a biodiversity hub in peninsular Thailand for the training and academic supervision of masters and PhD students; and developed award-winning, community-led conservation/nature tourism projects in Southeast Asia and beyond.

As one of the original signatories of the Ramsar Wetlands agreement in 1971, the Institute's staff have a rich heritage in conservation programmes underpinned by sound science.

Currently, the Institute is looking to strengthen further its vision of working with, and enabling, future leaders in the biodiversity sciences in the tropics and subtropics. Together with partners in the UK and abroad, the Institute wishes to develop and enhance centres of excellence in biodiversity research, citizen-science, and biodiversity conservation in Asia and Africa.



Sustainable Development Goals

What we do

The Harrison Institute seeks to enable and empower the next generation of young biodiversity scientists and conservationists in the tropics.

It has three principal objectives:

1. **Building research capacity** through training, co-supervising, mentoring, and supporting students and early career biodiversity scientists in the UK, Asia, and Africa
2. **Conducting collaborative, collections-based research** to discover and describe the world's biodiversity, especially mammals and birds, including species new to science
3. **Developing education programmes and conservation initiatives** to inspire community involvement in environmental protection in the Old World tropics.

Where we work

The Institute has a history of undertaking transformative, collaborative projects in Asia, Arabia, and Africa and more recently, through our honorary research fellows, in Melanesia.



Areas where the Harrison Institute is currently working or has a history of undertaking biodiversity research

Harrison Institute field survey in Dhofar, Oman

02 Building research capacity in the tropics

The Harrison Institute has an international reputation for training, co-supervising, and conducting joint research with a new generation of biodiversity scientists and conservationists in Asia and Africa.

These biodiversity scientists are women and men living and working in the Global South, who are learning to meet the environmental challenges that threaten both humanity and nature.

Some have been trained in the West. Others are conducting their academic studies in local universities in the tropics. All have a range of biodiversity skills.

For most, their MSc research is taxon-based, especially mammals, birds, and amphibians.

Subsequently, they have developed interests in a wide range of topics, including rodents as a threat to food security; bat-borne/rodent-borne zoonotic diseases and their potential impact on human health; and avian malaria.

For externally funded student projects, most have included aspects of community education, community-led conservation, and environmental protection.

Today, they are increasingly combining ecological and/or taxonomic research with social science - understanding conservation in the context of human behaviour. Some have undertaken internships in areas relating to nature tourism/ecotourism and alternative livelihoods.

Wherever possible, the Institute works with, and enables these young scientists to develop further their skills. Through networks and ongoing mentoring, we help reduce their sense of academic and geographical isolation, especially for those living and working in the most challenging environments.

Together, we try to ensure that this new generation can make a life-long contribution to promoting biodiversity conservation and become the in-country 'go-to experts' for national and international decision makers, the media, and other stakeholders.



Dr Khin Moh Moh Tun (University of Mandalay) and Ms Phyu Phyu Thin (Myeik University) taking part in a Harrison Institute internship programme in Myanmar (photo was taken before covid)

Prince of Songkla University biodiversity hub

The training hub is based in the university's dynamic Natural History Museum.

The Harrison Institute supports the Prince of Songkla University biodiversity hub by:

- providing mentoring, training, and academic supervision of masters and PhD students
- assisting current and past students with applying for grants
- providing on-going collaboration with former students in a range of research and conservation projects throughout the Palaeotropics and subtropics
- co-hosting training workshops and prestigious international conferences
- contributing to webinars.

To date, postgraduate students from seven countries have been trained in the biodiversity hub as part of joint Harrison Institute/Prince of Songkla University projects.

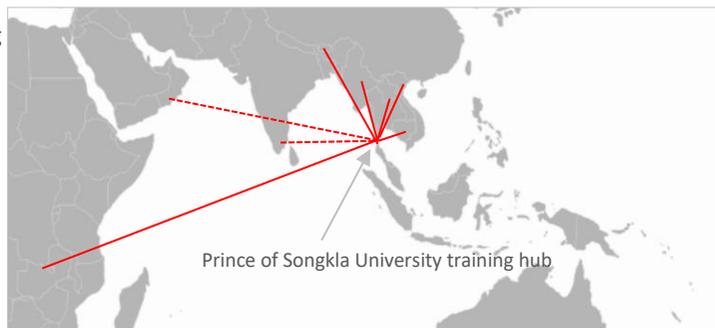
They comprise MSc and PhD students from Bhutan, Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, and Zambia.

Thai staff based in the hub have also mentored students and conservationists in short-term training workshops in India, Myanmar, and Oman.

In recent years, many additional students have been trained in a range of new and exciting programmes run by the Museum together with a range of national and international institutions. For further information about the hub see <https://www.youtube.com/watch?v=PeO1afwSHbQ>

Today, former students trained in the hub work in a range of biodiversity-related programmes including those focused on:

1. biodiversity inventories, taxonomy, and discovery
2. citizen-science and community-led conservation
3. rodents as pests of tropical agriculture
4. bat-borne and rodent-borne viruses, including coronavirus surveys
5. environmental change and its impact on faunal diversity, composition, and abundance
6. mammal, bird, and amphibian conservation
7. ecotourism and alternative livelihoods
8. biodiversity and indigenous knowledge.



As part of joint Harrison Institute/Prince of Songkla University projects, MSc and PhD students from Bhutan, Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, and Zambia have been trained in the hub.



Dr Chutamas Satasook (left), Director of the Prince of Songkla University training hub



Prince of Songkla University campus in Hat Yai, southern Thailand



Dr Paul Bates with Myanmar PhD student, Ms Zin Mar Myo, in the training hub

03 Developing a training hub in Thailand

Since 2005, the Harrison Institute has helped co-develop with the Prince of Songkla University a biodiversity training hub in peninsular Thailand.



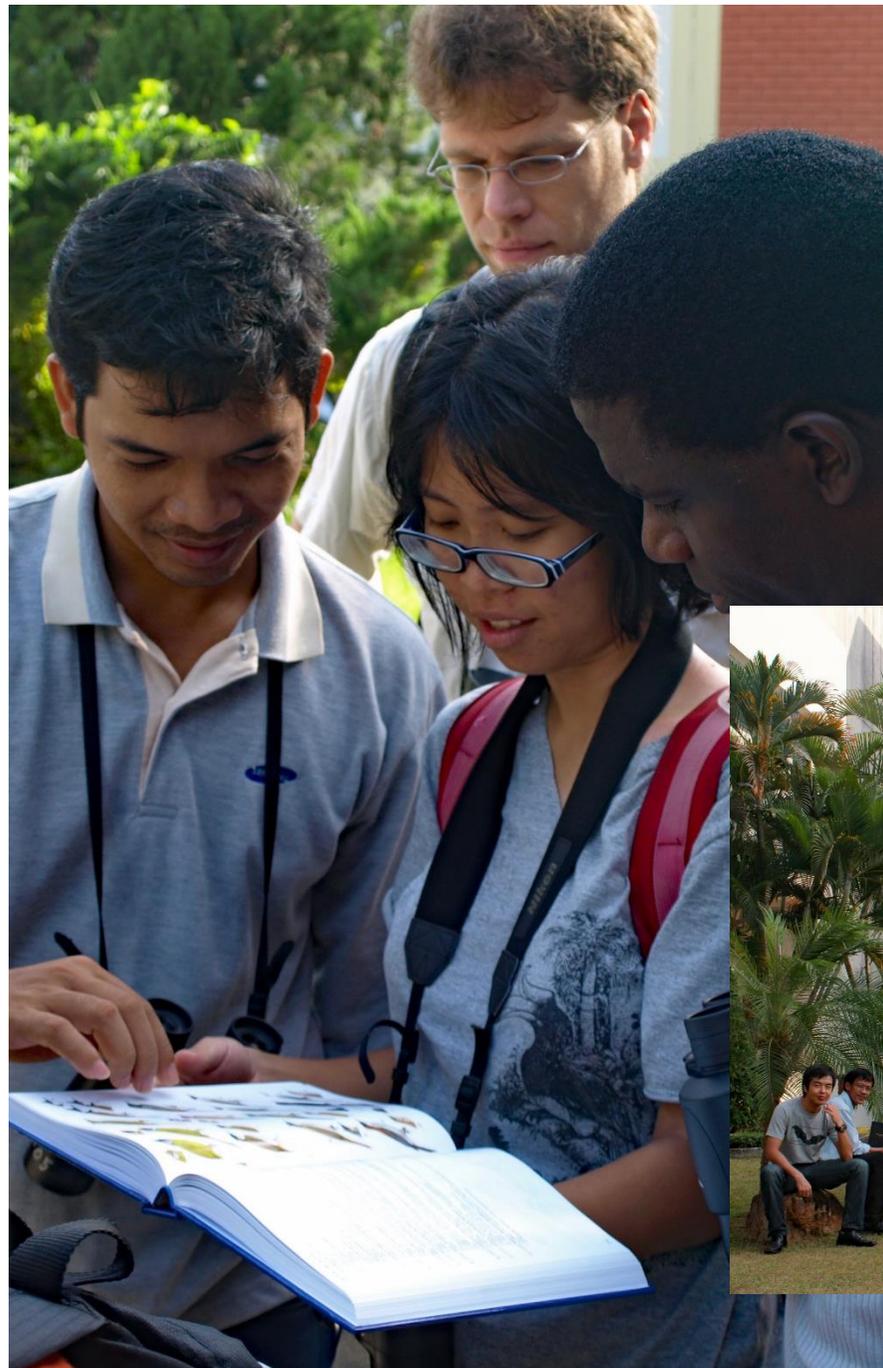
The hub's initial development was supported by two Darwin Initiative grants (2005-2008, 2010-2013). It is situated in the university's natural history museum and trains MSc and PhD students from a variety of Southeast Asian, southern Asian and African countries. With the support of the University's Vice President, Dr Chutamas Satasook, it focuses on ecology, taxonomy, phylogeny, and the conservation of mammals, birds, and amphibians.

Past MSc students, co-supervised by Institute staff, have won scholarships for their PhD studies in the UK, Europe, Japan, and China. Others have won international awards for the quality of their research and conservation work.

Almost all the hub's former students currently have careers in biodiversity science, including in higher education and conservation NGOs. Many are already training the next generation of students in their respective universities in Asia and Africa.



MSc and PhD students from Bhutan, Cambodia, Lao PDR, Thailand, and Zambia – part of the training programme promoted by the Harrison Institute and supported by the Darwin Initiative



A joint Harrison Institute/Ulm University training workshop in bird research at the Prince of Songkla University



Former student: Dr Pipat Soisook

Dr Pipat Soisook was supported and co-supervised by Institute staff for his MSc and PhD within the Prince of Songkla University biodiversity training hub.

Today, Pipat is an international, award-winning researcher and curator of mammals at the Princess Maha Chakri Sirindhorn Natural History Museum, Prince of Songkla University, Thailand. He is a global expert on bat taxonomy. He is also an honorary research fellow of the Institute and has collaborated extensively with the Institute on biodiversity projects in Southeast Asia, southern Asia, and Arabia.

Pipat has published over 30 papers on aspects of tropical biodiversity, including the description of one genus and eight species of bat new to science.

In 2020, he helped develop a sustainable tourism management plan, which incorporates indigenous knowledge, for the cave ecosystem Satun UNESCO Global Geopark.

In 2016-17, in association with the University of Mandalay and University of Natural Resources and Life Sciences, Vienna, he was seconded to a World Heritage UNESCO project in upper Myanmar. He also worked with FFI on a survey of limestone karst bats in eastern Myanmar. In 2017, he undertook a survey and capacity-building programme with the Harrison Institute in southern Oman.

Pipat has helped train numerous students, rangers, and conservation workers in Thailand and elsewhere in Southeast and southern Asia and Arabia. He actively promotes biodiversity conservation in the Palaeotropics.

In 2016, for the quality of his ongoing research and conservation work, he was awarded the prestigious international Spallanzani Award by the North American Society for Bat Research.



Dr Pipat Soisook with Bhutanese student, Ngagyel Tenzin



Dr Pipat Soisook (centre) was lead scientist on a bat survey in southern Oman; this was a joint Harrison Institute/Office for the Conservation of the Environment, Oman project, supported by the Anglo-Omani Society



Dr Pipat Soisook is curator of mammals at the Natural History Museum, Prince of Songkla University, Thailand

Former student: Ms Awatsaya Pimsai

Ms Awatsaya Pimsai undertook her MSc within the Prince of Songkla University training hub, where she was co-supervised by Harrison Institute staff.

For her MSc thesis, Awatsaya studied rodent diversity in the Thai-Malay peninsula. For the quality of this research, she is recognised as a regional expert.

Subsequently, she was seconded to the 'Cambatrat' programme, which is based in Cambodia and is coordinated by the Duke-NUS Medical School, Singapore. It is studying emerging infectious diseases in bats and rodents. As lead rodent scientist of the programme, Awatsaya was responsible not only for the field and laboratory studies but also for training local Cambodian counterparts.

Awatsaya is an honorary research fellow of the Institute and a staff member of the Natural History Museum of the Prince of Songkla University. In addition to her research, she has led capacity-building training workshops in universities in Cambodia, Myanmar, and Thailand. She took part, as a rodent specialist, in a World Heritage UNESCO project in upper Myanmar and for FFI in a limestone karst project in eastern Myanmar.

In 2019, she was awarded 'Outstanding Staff member of Prince of Songkla University'. Recently, she received a JSPS RONPAKU Fellowship for her up-coming PhD degree at Kyoto University, Japan.



Ms Awatsaya Pimsai specialises in rodent research



Conducting research in the Natural History Museum, Prince of Songkla University

Training Myanmar university staff and students

For over 20 years, the Institute has helped train staff and students from Myanmar universities and CSOs.

Through the Institute's projects and programmes, the Institute has:

- built capacity in the biodiversity sciences, with the co-supervision and training of PhD students in a range of Myanmar Universities
- provided literature and equipment for research
- supported international experts to deliver specialist training in the field and laboratory
- supported extensive field-based studies for Myanmar staff and students
- undertaken collaborative biodiversity research, especially on the taxonomy, ecology and behaviour of bats, other small mammals, and birds, including the description of three species of mammal new to science
- collaborated on a series of scientific publications on aspects of Myanmar's biodiversity.



Foreign & Commonwealth Office



Ms Aye Yu San (Magway University) participating in a rodent research workshop - funded by The Rufford Foundation and led by the Harrison Institute



Conservation trainees talking to Myanmar TV as part of outreach and communication training - the project was funded by the Darwin Initiative and CEPF (Critical Ecosystem Partnership Fund)



The Harrison Institute supported Texas Tech University in hosting a SEACBRU bat conservation workshop in the University of Mandalay - the programme was funded by NSF (USA)



A Harrison Institute/University of Mandalay bat research workshop - funded by The Rufford Foundation



A joint Harrison Institute/University of Mandalay rodent research workshop; Ms Awatsaya Pimsai from the Prince of Songkla University, Thailand was the lead trainer.

04 Capacity building in Myanmar

CRITICAL ECOSYSTEM PARTNERSHIP FUND



The Harrison Institute has been a pioneer in building capacity in Myanmar’s Higher Education sector.

In 1999, the Harrison Institute was the first foreign organisation since WW2 to develop a collaborative programme of research and training with a Myanmar university. It was also the first to co-host an international conference in a Myanmar university.

In the beginning, recognising the grievous state of Myanmar’s once proud university system, the Institute sought to give hope, where little hope existed. It focused on providing opportunities for:

- Myanmar university staff and students to gain international exposure and develop biodiversity skills
- Myanmar universities to network and collaborate with regional and international universities.

These programmes were funded by range of sponsors, including the Darwin Initiative, the Foreign and Commonwealth Office, CEPF (Critical Ecosystems Partnership Fund), The Rufford Foundation, and Kent Bat Group.

As projects progressed, opportunities for new studies developed. In this way, from modest beginnings, a diverse range of capacity building and biodiversity research programmes arose, culminating in an EU Erasmus+ project.



Above: Two Myanmar students setting a bat net as part of a Harrison Institute internship (funded by EU Erasmus+). Below: A joint Harrison Institute/MBNS (Myanmar Bird and Nature Society) training workshop for bird guides funded by the Darwin Initiative and CEPF (Critical Ecosystem Partnership Fund).

Role in Erasmus+ project



One Harrison Institute staff member was seconded part-time to the University of Natural Resources and Life Sciences, Vienna as project manager to the MuEuCAP programme.

www.myanmar-edu.org

The project manager's responsibilities included:

- coordinating the day to day running of the project
- assisting the P.I. in developing the scope of the project, responding to challenges, and capitalising on opportunities
- responsibility for much of the administration and report writing
- developing many aspects of the outreach and communication programme, including the website, social media, and YouTube videos
- coordinating and participating in the extensive internship programme
- contributing to training in technical and transferable skills in numerous workshops in Myanmar, Europe, and UK.



GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN



University of Natural Resources
and Life Sciences, Vienna



Top left: Dr Nils Nölke and Dr Jens Wieseahn of the University of Göttingen with staff and students of the University of Mandalay; Top right: Dr Alfonso Marzal Reynolds of the University of Extremadura with staff and students from Myeik University; Bottom left: Ms Luz García-Longoria (second from left) of the University of Extremadura with staff and students from the University of Mandalay; Bottom right: Dr Marcela Suarez-Rubio of the Universität für Bodenkultur with staff from Myeik University.



Dr Lutz Fehrmann of the University of Göttingen leading a training programme in forest monitoring at Myeik University

05 Partnering European universities in Myanmar

Institute staff have been working with European colleagues in Myanmar since 2009.



In 2017, one Institute staff member was part of a successful European team that developed an EU Erasmus+ project to build capacity in biodiversity conservation and environmental protection in Myanmar's Higher Education sector. It was awarded a one-million-euro grant.

The project, called MuEuCAP, included three universities in Europe and three in Myanmar:

- Austria – Universität für Bodenkultur, Vienna
- Germany – Georg-August-Universität Göttingen
- Spain – Universidad de Extremadura, Badajoz
- Myanmar – Universities of Mandalay, Mawlamyine, and Myeik.

Between 2017-2020, the MuEuCAP project:

- developed a Bologna-compliant master's degree curriculum in environmental protection and biodiversity conservation
- trained and equipped Myanmar university staff to deliver the curriculum
- ensured that the hard and soft skills included in the courses were relevant to future employment opportunities
- developed an effective communication and outreach programme, to promote greater gender equity and social diversity amongst students.



The MuEuCAP project was led by Dr Marcela Suarez-Rubio (in red) of the Universität für Bodenkultur, Vienna and was in collaboration with two other European universities



Transporting equipment for a field study of bats and other small mammals in Wadi Arah, Dhofar, Oman



Harrison Institute staff contributed to an IUCN Red List mammal assessment workshop in Sharjah, UAE



Setting a harp trap for a bat survey in Ain Ishaat, Dhofar, Oman; part of a joint field study with the Office for the Conservation of the Environment, Oman; funded by the Anglo-Omani Society



The desert specialist, Hemprich's long-eared bat (*Otonycteris hemprichii*), found in Wadi Arah, Oman



The limestone hills of Ain Ishaat, after the *Khareef* (summer monsoon), Dhofar, Oman

06 Sixty-five years of Arabian mammalogy

The Harrison Institute pioneered the systematic study of Arabian mammals, with 90 papers published since 1955.

The Harrison Institute was one of the first organisations to promote biodiversity research in Arabia.

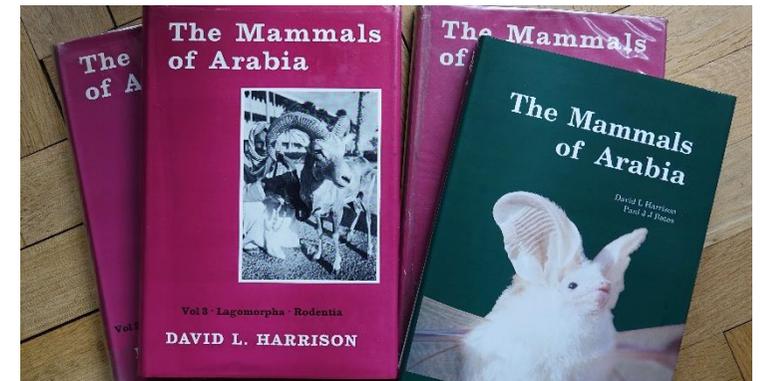
Former Chairman of Trustees, David Harrison, was a world authority on Arabian mammals and his monograph on the subject remains the seminal work. More recently, in 2017, the Institute conducted a small mammal survey in Dhofar, southern Oman, supported by the Anglo-Omani Society.

In 2016, Institute Director, Paul Bates, who was co-author of the second edition of 'The Mammals of Arabia', received an award from the IUCN for the Institute's contribution to the study and conservation of Arabian mammals. To date, this contribution includes:

- publishing the first and second editions of 'The Mammals of Arabia'
- promoting the conservation of the endemic Arabian Tahr (*Arabitragus jayakari*) in Oman
- helping to develop the Oman Natural History Museum in Muscat
- the description of three new species of small mammal from the region
- participating in the IUCN Red List assessment workshop for Arabian mammals
- serving on the scientific committee of WAB-Net (Western Asian Bat Research Network).



The Arabian leopard (*Panthera pardus nimr*), UAE



The Harrison Institute researched and published two editions of The Mammals of Arabia



The Harrison Institute is proud to contribute to WABNet, including participating in its annual workshops, as here in Amman, Jordan



Western Asia – countries of high priority for WABNet field research are in bold green

WABNet research priorities:

1. disease investigations and characterisation
2. bat ecology, including roosting and foraging ecology, hibernation, and migration
3. bat population level studies, including reproduction, population sizes, and variability
4. bat taxonomy, especially species identification and distribution
5. anthropogenic/environmental change and particularly its impact on bat health and conservation threats.



Harrison Institute director, Dr Paul Bates, leading a discussion on Western Asian bat diversity as part of interactive discussions at a WABNet annual workshop

07 Working to reduce the threat of zoonotic diseases

Harrison Institute director, Dr Paul Bates, serves on the Scientific Committee of WABNet, which aims to reduce the threat of zoonotic infectious diseases whilst promoting bat conservation.

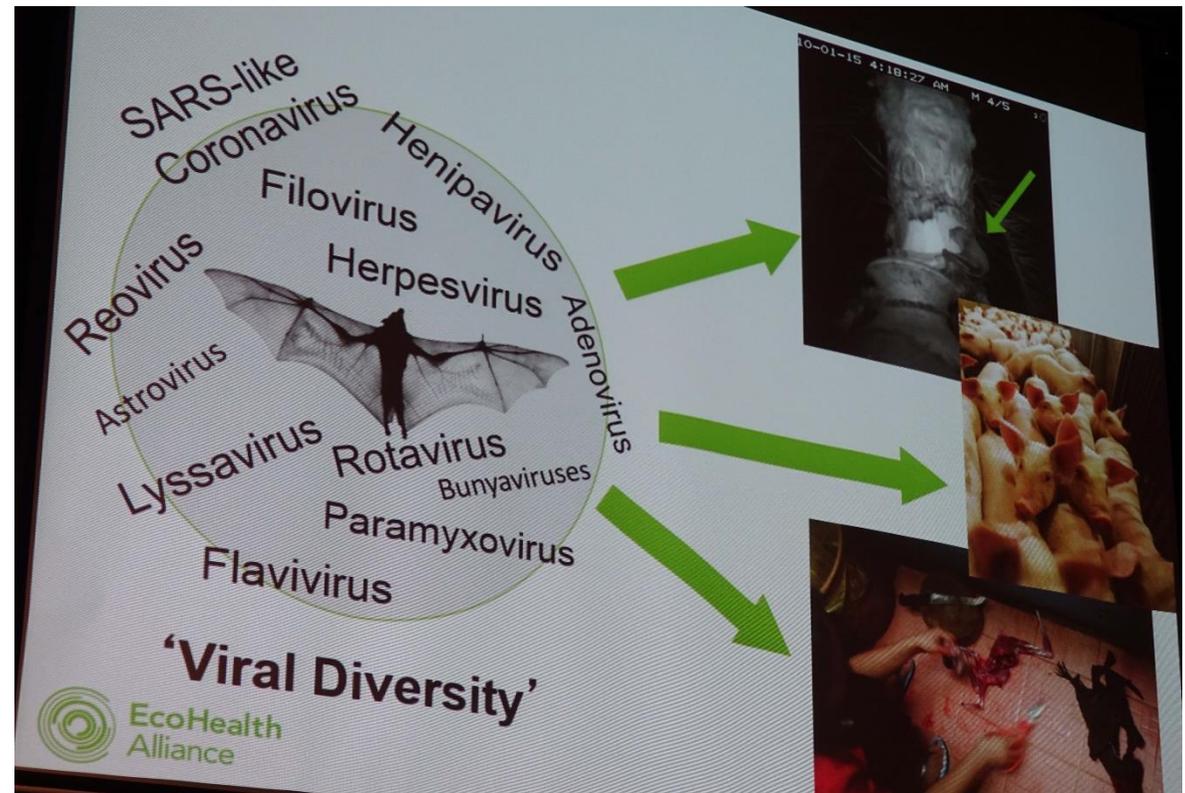
Since 2017, the Institute has provided advice on Western Asian bat diversity to WABNet.

WABNet, which comprises researchers from institutes, universities, and natural history museums within Western Asia and beyond, is coordinated by EcoHealth Alliance, New York.

It is characterising the diversity of coronaviruses (CoVs) found in bats and testing key hypotheses about bat-borne zoonotic virus emergence risk in Western Asia.

The project, which predates the current Covid-19 pandemic, is most relevant to the current crisis. It focuses on a geographical area that extends from Azerbaijan and Pakistan in the east to Turkey in the west and south to include all of the Arabian Peninsula.

www.wabnet.org



WABNet, a project coordinated by EcoHealth Alliance (New York), focuses on viral diversity in bats and the threat of zoonotic diseases



The Harrison Institute recognises the importance of teaching children about biodiversity and its conservation



The Harrison Institute's director conducting field training with students based at the Livingstone Museum, Zambia – funded by GBIF



The Harrison Institute participated in, and co-funded, a training workshop in Nigeria – with students from Cameroon, Liberia, and Nigeria

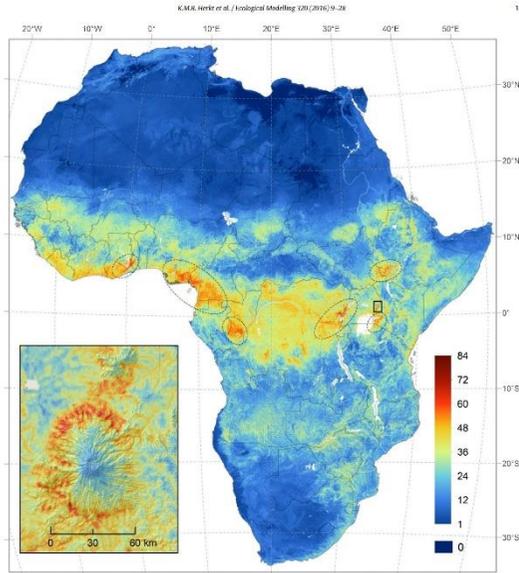
West Africa Mammal Fellowship

Bats | Rodents | Pangolins | Primates
Workshop | Grants | Equipment | Mentorship

PROGRAM BROCHURE

SMALL MAMMAL UNIVERSITY OF BENIN WCS TEXAS TECH UNIVERSITY Harrison Institute Centre for biodiversity research future for nature The Rufford

The Harrison Institute is participating in, and supporting, a long-term training programme for West African field biologists



Predicted species richness of African bats (from Herkt *et al.* 2016)

08 Research and conservation in Africa

For many years, the Harrison Institute has contributed to the study of African biodiversity, with numerous publications on its small mammal fauna, especially bats.



The Harrison Institute participated in the training of Mr Sande Mulwanda in bat studies at Livingstone Museum – funded by GBIF

Today, the emphasis is on supporting local universities and NGOs and building in-country capacity.

The Institute has promoted and co-hosted training workshops and conferences in various African countries, including Ethiopia, Nigeria, Zambia, and South Africa. The latter included early career biodiversity scientists from Burkina Faso, Cameroon, Ethiopia, Ghana, Guinea, Kenya, Namibia, Nigeria, and South Africa.

A founder member of BCA (Bat Conservation Africa), the Institute has an excellent network of researchers and conservationists throughout the continent.

In 2018, it was part of a GBIF-funded project in Zambia, in collaboration with the Livingstone Museum, Copperbelt University, and Departments of National Parks and Wildlife Zambia. The project also included two UK universities (Stirling and Southampton), the University of Porto, and the African NGO, 'Bats without Borders'.

In 2020, the Institute took part in the project "Quantifying the Biodiversity Intactness Index for Africa", which was led by a team from the universities of Eswatini (Swaziland) and Stellenbosch (South Africa).

In 2022, it supported and took part in a West African training workshop in Nigeria.

In the near-term, the Harrison Institute is exploring the possibility of developing training and research hubs in Nigeria/Cameroon and Zambia. The development of such hubs would be in association with former students and Harrison Institute honorary research fellows.



The Harrison Institute is a founder member of Bat Conservation Africa



The Institute has a long-term interest in supporting biodiversity research in Africa - Ms Maggie Mwaale (Curator of Birds) Livingstone Museum with Dr Rachael Cooper-Bohannon of 'Bats without Borders'

Honorary research fellow: Dr Christopher Imakando Imakando

Dr Christopher Imakando Imakando is a Zambian biodiversity scientist based in the School of Natural Resources, Copperbelt University, Kitwe.



Dr Christopher Imakando Imakando was selected and co-sponsored by the Harrison Institute for his MSc study, which was undertaken at the Prince of Songkla training hub in peninsular Thailand.

His thesis on the phylogeography of murid rodents in Tarutao National Park was co-supervised by Harrison Institute staff.

Subsequently, Christopher won a Commonwealth Scholarship and recently completed his PhD at the Agriculture, Health and Environment Department in the University of Greenwich, UK.

His research focused on developing ecologically-based rodent management strategies for smallholder farmers in Zambia, with the aim of assisting these communities reduce the impact of rodents on maize crops and thereby improve their yields and food security.

Through his association with the Harrison Institute and later with the University of Greenwich, Christopher has much international exposure and has contributed to training workshops and conferences in Ethiopia, Germany, Thailand, UK, and Zambia.



Dr Christopher Imakando Imakando conducted research on Zambian rodents as pests of agriculture for his PhD research

Honorary research fellow: Dr Iroro Tanshi

Dr Iroro Tanshi is a multi-award-winning Nigerian biodiversity scientist. She recently completed her PhD at Texas Tech University, is a lecturer at the University of Benin (Nigeria), and an honorary research fellow of the Harrison Institute.

Throughout her career, Dr Iroro Tanshi has won international recognition for research and conservation projects. This includes four highly prestigious awards in the past two years, namely:

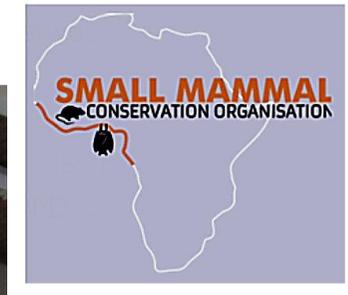
- 2021 - Whitley Fund for Nature Award (UK)
- 2021 – TTU (Texas Tech University) Horn Professors Graduate Achievement Award (USA)
- 2020 – Future for Nature Award (Netherlands)
- 2020 – Conservation Leadership Programme Award (UK).

Iroro specialises in bat research. However, with a first-class degree in environmental science, she also has a broad knowledge of conservation issues facing Nigeria and Africa in general. At a time when scientists from sub-Saharan Africa are underrepresented in the debates about the biodiversity extinction crisis and the impact of climate change, Iroro with her science, her outreach, and her commitment to community-led conservation, embodies the very best in a new generation of young, active, science-trained, African conservationists and researchers.



Dr Iroro Tanshi is currently developing a biodiversity training hub. Hosted by SMACON (a local NGO), the chosen location for the hub is one of Africa's largest remaining near-contiguous protected areas of forest and one of Nigeria's (and West Africa's) last remaining expanses of primary Lower Guinean Forest. This relatively unexplored biodiversity hotspot is an EBA (Endemic Bird Area).

The hub will provide a biological research facility that would serve as a base for biodiversity inventories, ecological studies, and community-led conservation programmes.



Dr Iroro Tanshi (University of Benin), co-founder of SMACON (Small Mammal Conservation Organisation, Nigeria) addressing Bat Conservation Africa delegates at a workshop in Kenya



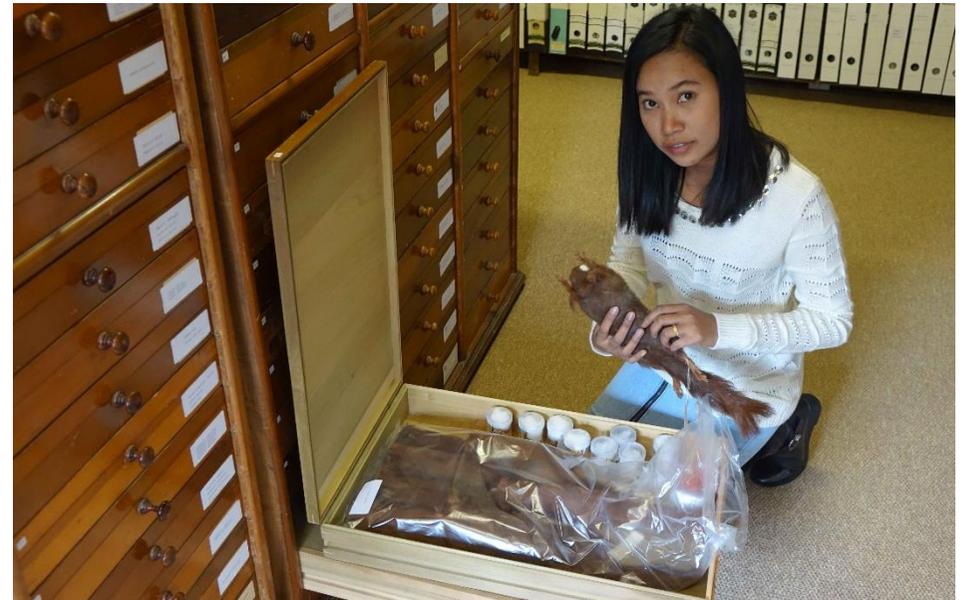
Staff of the Institute of Archaeology (UCL) researching the Harrison Institute's extensive fossil mammal collection



Butterfly expert Victor Hitchings studied the Institute's specialist collection of Oman butterflies



Ms Michelle Feider, a zooarchaeologist from Bournemouth University, comparing fossil specimens from central Anatolia with the Institute's comprehensive collection of recent Arabian small mammals



Ms Awatsaya Pimsai working with the Institute's rodent collection



Dr Parvathy Venugopal's PhD at the University of Bristol was co-supervised by Harrison Institute staff

09 Collaboration with UK universities

The Harrison Institute has long worked in collaboration with UK universities.

A number of current and former Institute staff were trained for their postgraduate degrees through joint supervision from a UK university and the Harrison Institute. The universities include Aberdeen; Royal Holloway, University of London; and the Institute of Zoology, London.

Other collaborations have included joint studies with University of Bristol for Indian bats and the University of Greenwich on aspects of landscape ecology. In palaeontology, the Institute has worked with the University of Oxford, the Institute of Archaeology, and Bournemouth University.

Elsewhere, Institute staff have mentored, co-supervised, and/or examined students studying various aspects of bat diversity, especially those relating to India.



Dr Parvathy Venugopal on a Harrison Institute field trip, UK



For her PhD research, Dr Parvathy Venugopal focused on the taxonomy of Indian bats

Dr Parvathy Venugopal received mentoring and co-supervision from the Harrison Institute during her recent PhD study at Bristol University, which focused on aspects of Indian bat taxonomy and evolutionary history.

She was a Commonwealth Scholar who completed both her BSc and MSc at the Forestry College of Kerala Agricultural University, India.

Currently, Parvathy is working for BCT (Bat Conservation Trust) and is an Honorary Research Fellow of the Harrison Institute.

She is committed to promoting science-based conservation and outreach and communication to explain the importance of biodiversity to a new generation in Europe, Asia and worldwide.

Community-led conservation in Melanesia

thewaterloofoundation*



Harrison Institute honorary research fellow, Dr David Waldien, has recently facilitated two conservation projects, one in Fiji and one in Bougainville.

In Fiji, working through the Harrison Institute, David Waldien and his team focused on the conservation of endangered cave bats.

Funded by National Geographic, the project strengthened and expanded conservation leadership in Fiji, both within the university sector and in local communities. It established a national bat conservation action plan, trained a conservation officer, and increased pride and positive community perceptions towards bats. Field work confirmed the status of roosts of globally threatened bat species.



Ms Semaema Vakaciriwaqa discovered 3 new roosts of the endangered Pacific sheath-tailed bat (*Emballonura semicaudata*) on Ovalau Island, Fiji



One of over 100 community consultations that took place as part of the community-led conservation project in Bougainville

Fiji National Bat Conservation Action Plan

Semaema Vakaciriwaqa
Conservation Officer
semaema@naturefiji.org



The project developed an action plan and trained Ms Semaema Vakaciriwaqa to be the conservation officer promoting the protection of Fiji's endangered bats

In Bougainville, David Waldien with his international and in-country colleagues, developed a conservation management plan for the Mount Balbi and Kunua Plains area. This involved over 100 community consultations, reaching out to nearly 3,000 indigenous people, as well as working with a local organisation, Rotokas Ecotourism.

The aim is to manage sustainably forest habitats, including those characterised as 'community-use areas', 'traditional-use areas', and 'sacred areas'. These forests are home to endemic and/or highly threatened species such as the moustached kingfisher and the greater monkey-faced bat.



Dr David Waldien with local children in Bougainville



Children taking part in a drawing competition as part of a Harrison Institute schools-based environmental education programme in central Myanmar, funded by the UK's Darwin Initiative

10 Community-led conservation

Since 2014, the Harrison Institute, together with its Honorary Research Fellows, has developed three community-led, conservation projects.

The Institute's community projects are located in Myanmar, the Autonomous Region of Bougainville, and Fiji. They have been supported by a range of grant-giving bodies, including the Darwin Initiative, the Waterloo Foundation, and National Geographic.

The Institute's project, 'Destination Ayeyarwady', led by Beatrix Lanzinger in Myanmar has won two prestigious national/international awards, in 2017 and 2019, and was placed third in a global

responsible tourism competition in 2020. The judges in all three competitions highlighted the excellence of its community-based involvement.

In all three projects in Southeast Asia and Melanesia, the emphasis has been on meeting SDGs (Sustainable Development Goals) within the context of biodiversity conservation. These goals include:

1. Goal 5 – gender equality
2. Goal 8 – providing work and economic growth

3. Goal 10 – reducing national economic and social inequalities
4. Goal 15 – protecting life on land by supporting the sustainable use of ecosystems.

Through these projects, the Institute has developed many different areas of expertise, with a theoretical and practical understanding of how to promote community-led biodiversity conservation in parallel with poverty alleviation.



Sustainable development goals





The Dolphin Ecolodge at Destination Ayeyarwady provides accommodation for 12 visitors and was built of recycled materials



Beatrix Lanzinger addressing school children in Hsith village; much emphasis was placed on environmental education in schools



To maximise income from nature tourists/ ecotourists, the villagers at Destination Ayeyarwady were taught a range of complementary skills, such as providing cooking lessons for foreign visitors



The project focuses on sustainability. Destination Ayeyarwady is 'plastic free' and provides bicycles for visitors

Promoting community-led conservation in Myanmar

The Harrison Institute developed ‘Destination Ayeyarwady’ in Myanmar, which promoted nature tourism to support the conservation of the Irrawaddy River dolphin.



www.destination-ayeyarwady.com

Destination Ayeyarwady includes an Ecolodge, with accommodation for up to 12 ecotourists, and an Environmental Learning Centre. It is situated adjacent to the Ayeyarwady River, which is home to a rich variety of wildlife, including the critically endangered Irrawaddy River dolphin (*Orcaella brevirostris*).

Until the military coup (February 2020), it provided a flourishing destination for national and international tourists from 20 countries in Europe, Asia, and Australasia https://www.youtube.com/watch?v=WVJCM-bQK_k.

It also hosted internships for Myanmar and foreign students with an interest in:

- community-led biodiversity conservation
- ecotourism/nature tourism/ cultural tourism
- the impact of alternative livelihoods on traditional rural societies
- developing strategies to deliver schools-based environmental education
- economic/social/cultural aspects of a traditional rural fishing and agricultural community
- sustainable living https://www.youtube.com/watch?v=UR2_8yx9jzl.

In all community-led projects led by Beatrix Lanzinger, Institute staff have sought to develop a range of transferable skills within the communities. They have also ensured that skills-training is delivered in a way that is gender and socially equitable.

Some skills are technical and specific and others more transferable. They include:

- ecotourism and the economic value of wildlife conservation
- concepts of sustainability, plastic free, and the use of eco-friendly materials
- designing a business model based on hosting ecotourists/nature tourists/cultural tourists that will provide income but also protect wildlife and the community
- health and safety
- hospitality, cooking, and hygiene
- the importance of design and presentation
- English language skills and cultural exchange
- book-keeping, money management, and banking
- marketing, social media, communication, and outreach.



The Ayeyarwady River is home to a rich variety of wildlife, including ruddy shelduck and painted storks



Destination Ayeyarwady is a community-led project focused on promoting the conservation of riverine wildlife, especially the critically endangered Irrawaddy River dolphin, and poverty alleviation in local fishing communities

CRITICAL ECOSYSTEM
PARTNERSHIP FUND

Developing the role of Nature Clubs in Bhutan

The Institute is supporting Phuntshothang Middle Secondary School to promote a new generation of environmentally conscious citizens and foster a sense of community responsibility.

www.pmssnatureclub.org



Pupils of Phuntshothang Middle Secondary School participating in waste management project

This schools-based project has been initiated by a former MSc student, Tshering Dendup, who graduated from the Prince of Songkla University biodiversity training hub in Thailand.

It builds on the Royal Society for the Protection of Nature's (RSPN) initiative to promote Nature Clubs and environmental awareness in schools.

For older children, it will include participating in field and lab-based studies linked to the conservation of Bhutan's forests, especially those of special scientific interest lying to the west and south of the school.

For younger children, it will involve a range of inquiry-led, fun activities focusing on aspects of environmental protection and biodiversity conservation. These will take place within the school campus.

The Institute will support the programme through providing:

- assistance with fund-raising, especially grant applications
- specialist training and access to biodiversity expertise
- research collaboration
- strategic planning and international exposure
- support for accessing equipment and literature.

Kingdom of Bhutan

Nature Club

Phuntshothang Middle Secondary School

'Inspiring personal responsibility and the active involvement of children in the conservation of the Kingdom of Bhutan's rich natural environment'

Donate

PMSS ...Building future today

Phuntshothang Middle Secondary School
@phuntshothangmss - School

For further information, please contact:
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Samdrupjongkhar
Kingdom of Bhutan

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The Bhutan project has its own website - www.pmssnatureclub.org



All pupils within Phuntshothang Middle Secondary School are encouraged to participate in activities relating to environmental protection and biodiversity conservation

11 Schools-based conservation in Bhutan

The Institute is currently working with Bhutanese colleagues on a schools-based, science-based forest conservation project.



Bhutan is committed to protecting its forests. However, it has insufficient conservationists to survey, monitor and assess the increasing threats to this globally important biodiversity.

This project seeks to showcase how Bhutan's schools can assist in delivering important conservation data; place local communities at the heart of local conservation; and enthuse a new, environmentally aware generation.

It is led by former MSc student, Mr Tshering Dendup, who is a teacher at Phuntshothang School. In 2022, Tshering received a prestigious 'Conservation Leadership Programme' award for this work. The project is in collaboration with a range of in-country CSOs (Civil Society Organisations) and focuses on Deothang-NSJ IBA (Important Bird Area).

This IBA is situated opposite the school and provides an irreplaceable forest corridor within the Bhutan Biological Conservation Complex. It is home to IUCN vulnerable species, such as the Rufous-necked hornbill and Beautiful nuthatch and is considered of 'outstanding value' for biological diversity and endemism. It is also a water-catchment area for numerous lowland (Duar) Indian farming communities.

The project supports:

- RSPN's (Royal Society for the Protection of Nature) initiative, 'Environment Education for Change', "to inspire personal responsibility and active involvement of people of Bhutan in conservation through education"
- Bhutan Birdlife Society's objective of assessing and monitoring Bhutan's IBAs
- the Department of Forests and Park Services' conservation priorities
- CEPF's (Critical Ecosystem Partnership Fund) priorities for the Bhutan Biological Conservation Complex, including:
 - targeted conservation awareness programmes in schools
 - developing capacity among grassroots civil society organisations to manage, monitor and mitigate threats to biodiversity.



Phuntshothang Middle Secondary School lies adjacent to the forested Deothang-NSJ IBA (Important Bird Area)



Together with the Prince of Songkla University, the Harrison Institute co-hosted the 18th IBRC (International Bat Research Conference) in Thailand; this was attended by some 400 delegates from over 50 countries (<https://www.youtube.com/watch?v=TDhbG0IS17c>)



A student and staff member from the University of Mandalay taking part in a Harrison Institute internship programme in Myanmar



Children from Myitkangyi Village, adjacent to the Ayeyarwady River in central Myanmar, taking part in a Harrison Institute schools education programme, funded by the Darwin Initiative



Clare Mateke (left) of the Livingstone Museum and Dr Rachael Cooper-Bohannon (second from right) of 'Bats without Borders' working with Zambian students on a project funded by GBIF

12 Opportunities for the future

We recognise the moral imperative of democratising education, and understand the vast, untapped potential that in-country scientists, students, and communities represent in terms of solving local, regional, and international environmental challenges.

As the importance of a sustainable environment becomes more and more understood by society and decision makers, the role of environmental science and biodiversity conservation will become increasingly central to the planning process.

However, currently, there is insufficient capacity in terms of trained human resources to meet the challenges, especially in the tropics, where there is the most acute need.

Global Reach and International Focus: The Harrison Institute is already contributing to developing capacity in the biodiversity sciences. Relative to its size, the Institute has a disproportionate global presence and actively participates in training networks that include Southeast Asia, Western Asia/Arabia, and Africa.

Democratising Education: The Institute has an international reputation for its commitment to working with the disadvantaged and those who have traditionally been outside mainstream academia.

For the past 20 years, we have focused on building capacity in the biodiversity sciences, especially taxonomy, ecology, and community conservation, in the poorer countries of Southeast Asia and Africa. In these projects, we provide academic supervision, community training, technical support, outreach, international exposure, and strategic direction.

Meanwhile, lessons about inclusion and outreach learned from such work are applicable not just in the developing world but also have a resonance within the UK.

With many years of practical experience, the Institute is committed to developing projects and strategies that build confidence, develop skills, break down feelings of isolation, and are appropriate to individual needs and capabilities.

Managing complex international projects: With much experience of leading and/or participating in complex multi-party international projects in Asia and Africa, the Institute is well placed to contribute to future interdisciplinary global programmes.



Students from Cameroon, Liberia, and Nigeria and national park rangers taking part in a training workshop in Nigeria. Two Harrison Institute staff assisted with the training and the Institute co-funded the 15 day workshop.

AMERICAN SOCIETY FOR MICROBIOLOGY | mBio | MINIREVIEW | Check for updates

Preserve a Voucher Specimen! The Critical Need for Integrating Natural History Collections in Infectious Disease Studies

Cody W. Thompson,^{1,2} Kendra L. Phelps,³ Marc W. Allard,⁴ Joseph A. Cook,⁵ Jonathan L. Dunnum,⁶ Adam W. Ferguson,⁷ Magnus Gellang,⁸ Faisal Ali Anwarali Khan,⁹ Deborah L. Paul,¹⁰ DeeAnn M. Reeder,¹¹ Nancy B. Simmons,¹² Maarten P. M. Vanhove,¹³ Paul W. Webala,¹⁴ Marcelo Welkner,¹⁵ C. William Kilpatrick¹⁶

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⁴Center of Food Safety and Applied Nutrition, U.S. Food and Drug Administration, College Park, Maryland, USA
⁵Museum of Southwestern Biology, Biology Department, University of New Mexico, Albuquerque, New Mexico, USA
⁶Santiz Family Collections Center, Field Museum of Natural History, Chicago, Illinois, USA



The Harrison Institute has contributed to building capacity and developing a new curriculum in environmental protection and biodiversity conservation in three universities in Myanmar

Strategic direction

To further our focus on the needs of the Global South, the Institute wishes to enhance opportunities for:

1. the training and academic supervision of a new tranche of students and early career scientists from the UK, Asia, and Africa, specialising in collections-based biodiversity research
2. schools-based education in biodiversity conservation and environmental protection, especially in Asia and Africa, and involving an active biodiversity research component by the children
3. collaborative research, especially studies relating to the extinction-crisis, that are ecosystem or taxon-based and located in the tropics/subtropics
4. research which contributes to the integration of natural history collections into the study of infectious zoonotic diseases
5. the study of parasitic diseases that impact on biodiversity, such as avian malaria
6. community-based conservation, relevant to the sciences and social sciences, such as:
 - a. wildlife conservation/human interaction
 - b. the risks and rewards of developing alternative livelihoods in conservation programmes
 - c. the role of ecotourism, nature-tourism, and cultural tourism in environmental protection.

For the universities, NGOs, and museums with which the Institute collaborates, we offer:

1. opportunities to connect to new, diverse, international audiences and to raise international profile through engagement with our regional networks in Asia and Africa
2. opportunities to repatriate biodiversity information and democratise education by working with the disadvantaged and those who have traditionally been outside mainstream academia
3. opportunities for university undergraduates seeking inspirational topics for third year projects – projects that are scientifically relevant and can potentially be published
4. opportunities for MSc and PhD students who are looking to undertake research in the biodiversity sciences and/or the social sciences in the Palaeotropics and subtropics
5. guidance and supervision of university undergraduate and postgraduate students in taxon-based research
6. opportunities for students to carry out exciting, life-changing internships in the UK and abroad.

13 Closing summary

The Harrison Institute is on a long and fascinating journey.

Originating in 1930 as a family passion for bird taxonomy, the Institute has transformed itself from a private zoological museum into a UK charity that impacts and enhances the lives of young biodiversity scientists and conservationists, nationally and internationally.

Today, the Institute is yet again planning its future and is adapting and changing to meet new challenges.

In its 92nd year, the Harrison Institute, is looking forward to playing an expanding and collaborative role in a world that urgently needs good environmental science and targeted biodiversity conservation.

We are committed to *flicking the green switch* and helping society *make peace with nature*.



Bhutanese MSc student, Mr Ngagyel Tenzin, co-supervised by Harrison Institute staff, is congratulated by student colleagues from Cambodia, Nepal and Thailand on the completion of his degree at the Prince of Songkla University, Thailand



Dr James Harrison with Prince Philip on his visit to the Harrison Institute; James Harrison preparing mounted bird specimens

History (1930–1971):

The Institute was founded in 1930 by Dr James Harrison as a family-based zoological museum specialising in the scientific study (especially taxonomy) of birds. It achieved national and international recognition. In addition, it developed an innovative community-based conservation project in the UK.

Scientific Outputs:

The Institute assembled a world-class zoological collection of birds (19,000 specimens from 90 countries, and especially from UK, Western Europe, Bulgaria,

Greece, and North Africa). It published numerous papers and books on bird taxonomy, mostly specialising on the Palearctic region. It also published the monograph *The Mammals of Arabia* (1st ed.), together with numerous papers on Arabian and African small mammals, particularly bats and rodents.

Community-based Outputs:

Dr James Harrison and his elder son, Dr Jeffery, pioneered the concept of wildlife conservation, especially wildfowl, in an urban/industrial landscape with the founding of the Sevenoaks Wildlife Reserve.



Dr James and Jeffery Harrison developed the Sevenoaks Wildlife Reserve, one of the first protected areas for wildlife situated within a former industrial area

14 History of the Harrison Institute

History (1971–2000)

In 1971, the Institute became a UK charity. In 1983, its zoological collections were recognised as being of national and international importance and the Institute became CITES listed.

The Institute developed an international reputation for the study of bird and mammal diversity (including fossil mammals). It also promoted innovative community-based biodiversity conservation in the UK and abroad.

Meanwhile, Jeffery Harrison was a founding signatory (one of two for the UK) of the international Ramsar Convention for the preservation of wetlands (1971).

Scientific Outputs:

In 1991, under the guidance of Dr David Harrison (James's younger son), the Institute published a second edition of his monograph *The Mammals of Arabia*.

In 1997, it also published the monograph *Bats of the Indian Subcontinent*. Both monographs are still the 'go-to' texts of today.

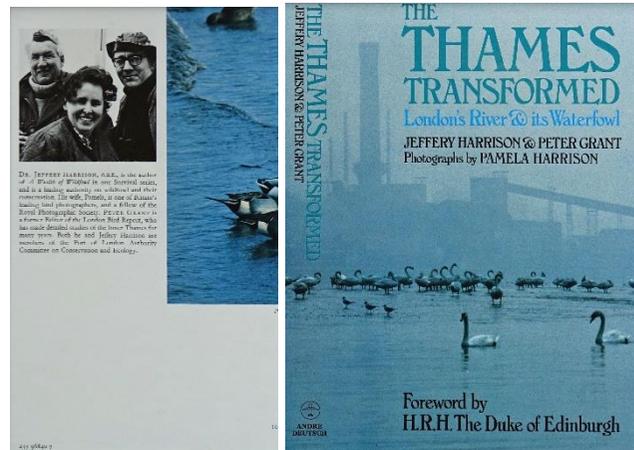
The mammal collection was further developed, with world-class collections from Arabia, and small mammals from Africa and Asia.

The Institute commenced a programme of research of British/European fossil mammals, closely collaborating with Polish scientists from Krakow.

Community-based Outputs:

Jeffery Harrison, who was Chairman of the Wildfowl Conservation Committee of the Nature Conservancy, promoted environmental protection and biodiversity conservation, with the support of Duke of Edinburgh and, together with Pamela Harrison, published *The Thames Transformed* in 1976.

David Harrison was commissioned by the Sultan of Oman to lead the first Fauna and Flora survey of Oman. This was published in 1977, with further surveys published in 1980 and 1988. David also contributed to setting up of the first protected area in Arabia (to conserve the Arabian Tahr in the mountains of Oman) and helped found the Oman Natural History Museum in Muscat.



Dr Jeffery Harrison was a founding signatory of the Ramsar agreement. He passionately promoted the conservation of wetlands and was joint author of the *Thames Transformed* (which was illustrated by his wife, Dr Pamela Harrison).



Dr David Harrison was a global expert on Arabian mammals and African and Asian small mammals. He was also an accomplished palaeontologist and conservationist. He was chairman of trustees of the Harrison Institute (previously the Harrison Zoological Museum) from 1971 to 2015.

History (2000–ongoing)

The Institute further developed its national/international reputation by building capacity in biodiversity research and environmental protection in the Palaeotropics.

Scientific Outputs:

It published numerous scientific papers on small mammals, especially bats from South-east Asia (Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam).

Between 2004 and today, it described 17 mammal species new to science (previously six species had been described from 1956 to 1979). Most were published in collaboration with the Institute's students/former students.

Capacity building and training Outputs:

The UK's Darwin Initiative funded three of the Institute's biodiversity capacity building projects in SE Asia. As part of these projects, Institute staff helped train 25 MSc and PhD students from Bhutan, Cambodia, India, Lao PDR, Myanmar, Sri Lanka, Thailand, UK, Vietnam, and Zambia in aspects of biodiversity research (focusing particularly on bats and rodents but also birds and amphibians).

The Institute co-developed with the Prince of Songkla University a training hub in Thailand for postgraduate students in the biodiversity sciences.

Conservation Outputs:

The Institute provided input on Arabian, southern Asian, and Southeast Asian mammals for IUCN Red Lists. It enhanced the conservation of the Irrawaddy River dolphin in Myanmar.

Community-based biodiversity conservation Outputs:

Through funding by the UK's Darwin Initiative, the Institute developed an award-winning community-led conservation/ecotourism project 'Destination Ayeyarwady' on the Ayeyarwady River, Myanmar.

The Institute's Honorary Research Fellows carried out community-based conservation projects in Fiji and Bougainville (Papua New Guinea).

Environmental Protection Outputs:

One Institute staff member was seconded as project manager to the EU Erasmus+ project (MuEuCAP - 'Supporting the modernisation, accessibility, and internationalisation of environmental protection in Myanmar's higher education sector').

Outreach Outputs:

The Institute developed, promoted, and co-hosted:

- in 2019, the 18th IBRC (International Bat Research Conference) in Thailand with over 400 delegates from more than 50 countries
- in 2012, the first IOCSEA (International Ornithological Congress of Southeast Asia) – now a regular fixture
- in 2007, the first Southeast Asian Bat Conference – now a regular fixture every three years.

Recognition/Achievements:

Harrison Institute Director was awarded an Honorary PhD by Prince of Songkla University, Thailand for '*academic excellence, contribution and dedication to the advancement of higher education in Southeast Asia*'.

Harrison Institute Director won an award from IUCN in recognition of the Institute's contribution to the study of Arabian mammals

'Destination Ayeyarwady' won a series of national, regional and global awards.

Two former students (from Thailand and Vietnam) won global awards (Spallanzani Award in 2016 and 2018) for their on-going scientific research of bats

Four former MSc students from Lao PDR, Thailand, Vietnam, and Zambia won scholarships to study for their PhDs in China, Japan, Europe, Germany, and UK respectively

One former student (Thailand) won a university award for best MSc thesis.

One former MSc student (Thailand) awarded 'Outstanding Staff member of Prince of Songkla University and Outstanding staff member for the Faculty of Science'.

One of the Institute's honorary research fellows from Nigeria, awarded a Whitley Fund for Nature Award (UK, 2021), TTU (Texas Tech University) Horn Professors Graduate Achievement Award (USA, 2021), Future for Nature Award (Netherlands, 2020) and Conservation Leadership Programme Award (UK, 2020).



Type localities of twenty-three species of mammal (rodents and bats) new to science jointly described by Harrison Institute staff with colleagues. Seventeen have been described since 2004.

Harrison Institute scientific publications

Harrison Institute staff, together with colleagues and students have published over 350 scientific papers. Recent publications include:

Oo, S.S.L., T. Tun, K.M. Naing & **P.J.J. Bates**. 2021. A recent sighting of the Stripe-backed Weasel *Mustela strigidorsa* (Mammalia: Carnivora: Mustelidae) in Hkakabo Razi Landscape, Myanmar. Journal of Threatened Taxa, 13(12): 19855-19859. DOI: <https://10.11609/jott.7475.13.12.19855-19859>

Kyaw, M., **P.J.J. Bates**, Marcela Suarez-Rubio, B. Shaung, H. N. Zaw, T. Aung, S.S.L. Oo & S.C. Renner. 2021. White-bellied Heron *Ardea insignis* in Hkakabo Razi Landscape, northern Myanmar. Journal of Threatened Taxa, 13(9): 19370–19372. DOI: <https://10.11609/jot.7222.13.9.19370-19372>

Muriel, J., A. Marzal, S. Magallanes, L. García-Longoria, M. Suarez-Rubio, **P. J. J. Bates**, Htet Htet Lin, Aye Nyein Soe, Khin Swe Oo, Aung Aung Aye, Naw Dolly Wilbur, Ni Ni Win, Yupa Tin Soe, Khaing Khin Linn and S.C. Renner. 2021. Prevalence and diversity of avian haemosporidians may vary with anthropogenic disturbance in tropical habitats in Myanmar. Diversity 2021, 13, 111 (19 pages). <https://doi.org/10.3390/d13030111>

Bates, P.J.J., P. Soisook, S.S.L. Oo, M. Suarez-Rubio, A. Pimsai, A. Dejtardol, and S. Renner. 2021. Intact forests of Hkakabo Razi Landscape are a hotspot of bat diversity in Southeast Asia. Oryx, First View 1: 1-6. DOI: <https://doi.org/10.1017/S0030605320000630>

Renner, S.C. and **P.J.J. Bates**. 2020. Historic changes in species composition for a globally unique bird community. Scientific Reports | (2020) 10:10739 | <https://doi.org/10.1038/s41598-020-67400-z>

Tanshi, I., A. E. Ogbeibu and **P.J.J. Bates**. 2019. Complementary bat (Mammalia: Chiroptera) survey techniques uncover two new country records for Nigeria. JOTT (26 November 2019) 11(14): 14788–14801.

Görföl, T., N. Furey, **P.J.J. Bates**, and G. Csorba. 2018. The identity of '*Falsistrellus*' *affinis* from Myanmar and Cambodia and new records of *Hypsugo dolichodon* from these countries. Acta Chiropterologica, 20(2): 301–309.

Oo, K. S., H. L. Win, **P. J. J. Bates** and **M. J. Pearch**. 2017. The ecology and distribution of Flying Foxes (Chiroptera: Pteropodidae: *Pteropus*) in Tanintharyi Region, Myanmar with a first mainland record of *Pteropus hypomelanus geminorum* from Myeik. Journal of Threatened Taxa, 9(8): 10528–10537.

Oo, S.S.L., D.S. No, L.N. Seng, N. Lwin, **M. Pearch** and **P.J.J. Bates**. 2017. First record of Bourret's Horseshoe Bat *Rhinolophus paradoxolophus* (Mammalia: Chiroptera: Rhinolophidae) from Myanmar with a review of the taxonomy, distribution and ecology of the species. Journal of Threatened Taxa, 9(11): 10892–10898.

Soisook, P., K. Sribuarod, S. Karapan, M. Safoowong, S. Billasoy, V. D. Thong, Y. Chang, L. Gong, A. Lin., A. Sztencel-Jablonka, W. Bogdanowicz, and **P. J. J. Bates**. 2017. The first record of *Ia io* Thomas, 1902 (Mammalia: Chiroptera: Vespertilionidae) from the Sundaic Subregion, with a description of a new subspecies from peninsular Thailand. Zootaxa, 4344(3): 573-588.

Soisook, P. Win Naing Thaw, Myint Kyaw, Sai Sein Lin Oo, **A. Pimsai**, M. Suarez-Rubio, and S. Renner, 2017. A new species of *Murina* (Chiroptera: Vespertilionidae) from sub-Himalayan forests of northern Myanmar. Zootaxa, 4320(1): 159-172.

Kennerley, R. and **M. J. Pearch**. *Apodemus gurkha*. 2016. The I.U.C.N. Red List of Threatened Species.

Soisook, P., S. Karapan, M. Srikrachang, A. Dejtardol, K. Nualcharoen, S. Bumrungsri, S.S.S. Oo, M.M. Aung, **P.J.J. Bates**, M. Harutyunyan, M.M. Buš, and W. Bogdanowicz. 2016. Hill forest dweller: a new cryptic species of *Rhinolophus* in the '*pusillus* Group' (Chiroptera: Rhinolophidae) from Thailand and Lao PDR. Acta Chiropterologica 18(1):117-139.

Sai Sein Lin Oo and **P. J. J. Bates**. 2016. The rediscovery of the Common Water Monitor Lizard *Varanus salvator* (Squamata: Varanidae) in northern Myanmar. Journal of Threatened Taxa, 8(5): 8827–8828.

Ith, S., S. Bumrungsri, **N. M. Thomas**, **P. J. J. Bates**, D.A. Willette, F.A.A. Khan, M. Wonglapsuwan, P. Soisook, I. Maryanto, J. Chun-Chia Huang, and N.M. Furey. 2016. Geographical Variation of *Rhinolophus affinis* (Chiroptera: Rhinolophidae) in the Sundaic Subregion of Southeast Asia, including the Malay Peninsula, Borneo and Sumatra. Acta Chiropterologica, 18(1): 141-161.

15 Sponsors and project partners

Harrison Institute projects have been supported by a variety of grant giving bodies and include a wide range of partners.

Sponsors

Project Partners





The Harrison Institute has been based in Bowerwood House, Sevenoaks since its inception in 1930



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