

TROPICAL BIOLOGY ASSOCIATION



Annual Review 2018

TROPICAL BIOLOGY ASSOCIATION Investing in people for conservation



Without the Tropical Biology Association there would be far fewer skilled, passionate people working in conservation in their own countries. Our training has launched the careers of 2,000 conservation champions across the world: half of them from 39 countries in Africa and SE Asia.

The TBA's training works because it is practical and relevant: each course is designed around the specific needs of the participants so they learn skills they can immediately apply afterwards.

Every year we design and run **tailor-made practical courses** that are taught by international experts together with specialists from the host country in Africa or SE Asia.

A lasting legacy of TBA, is that alumni across Africa have set up 'TBA Alumni Groups' multiplying TBA's impact by helping to train the next generation of conservation biologists in their own countries.

"We put people at the heart of conservation, giving them the skills and support they need to be effective on the ground."

TBA'S 2018 at a Glance

TBA Specialist Training Courses

Master classes



NEW Sustainability training

TBA Field Courses

Borneo

Kenya

The Power of Partnership

19th Student Conference on Conservation Science (SCCS)

Citizen Science in Africa: Collaborative project

PRISM toolkit

TBA's Cascade Effect

Measuring impact

A handful of highlights









A message from Rosie

2018 has been a busy year for TBA, with the expansion and growth of our specialist training courses both in terms of the countries we partnered in and the topics we taught. Our specialist courses work because they are tailor-made to meet the capacity needs of those attending. We particularly focus on professional skills that are rarely taught at university, yet are integral to a successful conservationist's work.

We launched a new course in sustainability for corporates in 2018 which we will now roll out to other companies in the coming years.

The field courses held in Kenya and Borneo were also a great success with 46 aspiring conservation scientists gaining the skills and practical experience they need to start their careers in conservation.

The real test of our impact is the difference that TBA alumni are making in conservation on the ground. Over 90% of our field course alumni are in touch with us and the feedback they give us is that their conservation careers started because of their TBA field course. We are proud that our training is producing conservation leaders in places where conservation needs them most.

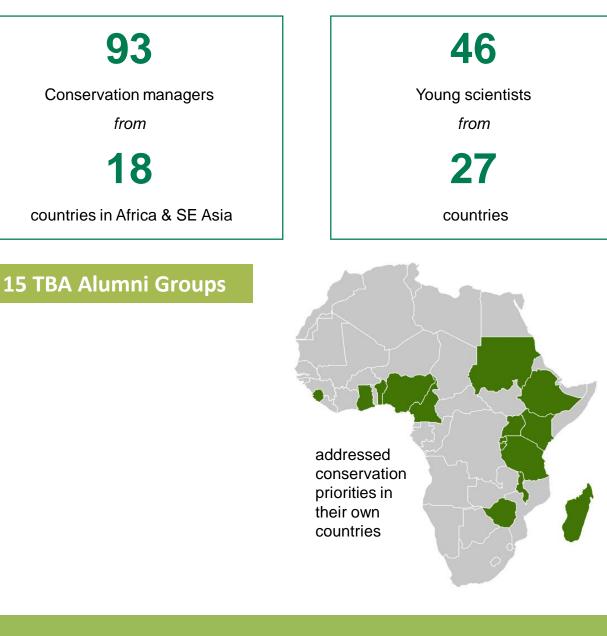


Dr Rosie Trevelyan Director, TBA Cambridge

2018 in numbers



International field courses launched careers of



OUR GLOBAL NETWORK GREW TO **2277** PEOPLE IN **84** COUNTRIES

TBA SPECIALIST TRAINING COURSES

SHORT COURSES MEASURING IMPACT CLOSING SKILLS GAPS

We run tailor-made courses for conservation and research organisations in Africa and South East Asia specifically designed to address the skills their staff need to tackle priority issues.

Relevant skills are learned and applied by individuals and organisations leading to more effective conservation on the ground.

All our specialist courses are taught by experts from both the host region and other parts of the world.

In 2018, we had participants from **18** countries taking part in a number of short courses to build the capacity of conservation managers and increase the impact of tropical conservation.



UNDERSTANDING AND EVALUATING ECOSYSTEM SERVICES

Malaysian Borneo: Kinabatangan Trained 17 conservation managers Partners: SEARRP; Kopel community initiative Funded by: Hasanah

Why this matters

There is a growing recognition that the ecosystem service approach is vital for conservation. Managers who know how to evaluate ecosystem services at their sites are then better equipped to counter potential threats to those services.

The need for training

National and local decision-makers need to be able to understand the impact of management decisions in order to make informed choices.

Our response

Conservation managers across Malaysia working in a variety of fields from eco-tourism to water conservation were shown how measuring and evaluating ecosystem services can increase the impact of their work.

TBA Director Rosie Trevelyan led the training, with Anne-Sophie Pellier from BirdLife International, using the updated toolkit TESSA (the Toolkit for Ecosystem Services for Site-based Assessments), which evaluates ecosystem services and the threats they may face on a site-based scale.

Version 2 of TESSA now includes an additional three ecosystem services – the benefits of natural pollination, coastal protection and cultural services – on top of the five other services that the toolkit covers – water services, climate regulation, harvested wild goods and cultural goods, and nature-based recreation.



ECOSYSTEM SERVICES FOR POVERTY ALLEVIATION

Partners: Ecosystem Services for Poverty Alleviation Research Programme (ESPA)

Funded by: UK Department for International Development (DFID), Natural Environment Research Council (NERC) and Economic and Social Research Council (ESRC).

Professional Development Courses Kenya: Kenyatta University Trained 20 university lecturers Malawi: Zomba Trained 15 university lecturers



Why this matters

There is a growing body of literature on how ecosystem services contribute to livelihoods and human wellbeing, and it is important that the ideas and contributions of African researchers are integrated into this fast moving field.

The need for training

University lecturers also need this up to date knowledge so they can teach the next generation of researchers and future decision makers the importance of managing ecosystem services for people and biodiversity. The TBA was invited by ESPA to design a training course that could share the outputs of ESPA's 9 year research programme.

Professional development courses for University lecturers

These courses were the first of their kind. Aimed entirely at lecturers, they were run in partnership with universities in Malawi and Kenya. TBA staff and researchers from the ESPA programme gave interactive talks, practicals and case studies The course was extremely well-received, with many in attendance telling us their university curriculums don't currently include ecosystem services.

"We are going to be ambassadors for teaching ecosystem services and their links to human wellbeing."

Professor Hellen I. Ipara, Eldoret University Kenya

"The course has empowered our teaching staff with new knowledge and new thinking about environmental services. It is clear this group of participants has the potential to influence ecosystem service training in this country."

James Kung'u, Dean of Environmental Sciences, Kenyatta University, Kenya

MANGROVE RESTORATION and CONSERVATION

Kenya: Gazi Bay, Msambweni

Trained 18 conservation managers

Partners: Kenya Marine and Fisheries Research Institute (KMFRI) and Mikoko Pamjoa

Funded by: WWF Russell E. Train



Why this matters

Mangroves are vital ecosystems, sometimes called 'blue forests' because around 60-70% of tropical coastlines are fringed with these habitats. They deliver wide-ranging benefits including providing fisheries for local communities, stabilising coast lines and mitigating climate change.

Mangrove deforestation rates are currently the highest of all tropical forests due to clearance for agriculture, over-harvesting, over-fishing, pollution, rising sea levels and changes in salinity.

The need for training

The TBA was invited by the **WWF Russell E. Train Education for Nature Program** to design and deliver a course for their grantees for mangrove restoration. Understanding mangrove ecology as well as how to engage local communities in restoration are key knowledge areas for managers who wish to restore mangrove habitats.

Our response

TBA designed a tailor-made course for African conservation professionals who are restoring mangroves. We ran the 5-day course in collaboration with KMFRI and Mikoko Pamoja', a community initiative which is 'the first mangrove carbon crediting facility in the world'. Training topics included:



- Mangrove ecology and key threats
- Designing a restoration programme and selecting indicators
- How mangroves store and offset carbon.

"We really need the capacity back home to do this. Before we just did restoration and we never had a clear strategy yet this planning process you have shown us is fundamental to the success of our restoration projects."

Jean Hude Ekindi Moudingo, Cameroon

"On this workshop, all my questions were answered and gave me so many new ideas. One thing I will take home is how to apply the Theory of Change, where you can really envisage what impact you want to have."

Patience Juma, Kenya

BUILDING PUBLICATION and COMMUNICATION SKILLS

United Kingdom, Cambridge: Trinity College Trained 12 conservation scientists Partners: Trinity College Cambridge Funded by: Isaac Newton Trust; Trinity College

"I have really learnt a lot, especially on the scientific writing process... With this course I feel more confident... It is like a huge veil is lifted and I can see the light."

Bridget Ogolowa, Nigerian ornithologist



Why this matters

When conservation scientists publish their research, they widen access to useful information which can influence future research and policy decisions. It improves career opportunities, as published work is seen as good quality and reliable. Publication also increases the authors' chances of attracting funding and collaborators.

The need for training

Publication rates of scientists from African countries are low compared to the amount of research they do because many don't have the skills or support to get their research outputs into print. Hurdles include lack of expertise in writing and structuring a paper as well as presenting results, and lack of knowledge to identify relevant journals.

Our response

Applications to attend our training was extremely competitive, with around 300 aspiring young African conservation scientists applying for this course. The selection was based on those assessed as likely to benefit the most.

The programme was delivered by Dr Paul Craze, editor of the journal *Trends in Ecology and Evolution* along with TBA Director, Dr Rosie Trevelyan and TBA course coordinator, Dr Kevin Wallace. Two TBA alumni, Dr Ricardo Rocha and Dr Sarah Luke, shared their experience and knowledge on publishing their papers.

PARTNERSHIP FUND

CRITICAL ECOSYSTEM

TBA MASTER CLASSES

In **2018**, three master classes funded by the **Critical Ecosystem Partnership Fund** were held in the biodiversity hotspots of:

- o Madagascar and Indian Ocean Islands
- Eastern Afromontane region in Rwanda and Kenya.

Why this matters

The most successful conservation projects are those which have been well designed at the outset, and where managers have the skills to measure and communicate their projects' impacts.

Donors such as **CEPF** can add value to their grants by ensuring their current or potential grantees gain training at the design phase of their projects. This ensures the projects ultimately achieve real impacts on the ground, and subsequently increase the impact of the funder.

The Master Classes

Conservation managers from NGO's in the two hotspots learnt how to design impact-led projects using the theory of change approach. As a result, they were able to revise their projects and develop measurable indicators of success. They also gained new skills and ideas for communicating their conservation impacts to different audiences.

The two Eastern Afromontane Master Classes were run in partnership with BirdLife International (CEPF's Regional Implementation Team) and were held specifically for NGO's who had applied to CEPF for a grant. All participants received approval of their funding applications.

The MADIO Master Class was designed for small NGO's in the MADIO hotspot who are often overlooked by funders and have little access to the training they specifically need. They have already improved their project designs, and many have received new funding.

Master class in designing impactbased conservation projects.

15 Conservation managers

Funded by: CEPF

Partners: Birdlife International (CEPF Regional Implementation Team)





NEW PIONEERING TRAINING COURSE CORPORATE SUSTAINABILITY TRAINING:

TBA introduced a **NEW** course in 2018, designed specifically for corporate managers in Malaysia, to give them a realworld understanding of sustainability in the social, corporate and environmental context.



Borneo, Malaysia, Imbak Canyon, SabahTrained 14 management traineesPartners: S.E. Asia Rainforest Research Partnership (SEARRP)

Funded by: Sime Darby Foundation

Why this matters

Businesses have an important role to play in ensuring their operations have a positive impact on the environment and society at large.

The need for training

This requires an awareness and understanding of sustainability at all levels of business, not just the top management. Managers need to know how to embed sustainability into their work and across the company.

Our response

The TBA designed an innovative course to give business managers a real-world understanding of sustainability: what it means, why it matters and how businesses can play a role in achieving this. The course was held in the exceptional surroundings of a tropical forest to help inspire creative thinking and new ideas. The course used a variety of teaching methods such as experiential learning, practical exercises and discussions led by experts in the field.

Specific course topics

- o Understanding climate change for businesses
- o The role of forests in environmental sustainability
- o Ecological services provided by forests and their links to wellbeing
- Sustainability from an environmental and social perspective and how businesses can deliver on international goals
- o Understanding and engaging stakeholders

"Being in this natural setting really brought the teaching of ecosystem services to life."

Wan Fatin Atira binti Wan Mohd Shukri (Sime Darby Berhad Motors)

"I now have a different perspective. This course made it easy for me to understand about the environment – and I will no longer take it for granted."

Samuel Lim Chuin Chen (Sime Darby Plantation)

"I can really see how important sustainability is to the world of business, and the course made me think about how we can be more sustainable."

Amalina Muhammed (Sime Darby Property)

TBA FIELD COURSES

MULTI-CULTURAL EXPERIENTIAL LEARNING LAUNCHING CAREERS

Our one-month field training courses in 2018 helped launch the careers of 46 young conservation scientists, half of whom come from countries in South East Asia and Africa. Creating a multi-cultural mix and equal gender representation is a deliberate feature of all our field courses.

The courses combined academic rigour with field-based learning to give graduates practical skills and knowledge that they can use after the course. Teachers came from Kenya, Malaysia, Netherlands, Switzerland, UK, and USA, offering an unrivalled breadth and depth of experience in each course.



Course topics were rich and varied. Students learnt about the local fauna and flora at each site followed by field exercises that collected data different aspects of ecology and conservation – both terrestrial and aquatic. During the last half of each course students collaboratively design and deliver their own research projects – not only building valuable research and analytical skills but also building the confidence that young research scientists need to follow their careers after the course.

Impact of field courses

"The TBA field course provides a holistic learning experience, in theory and practical education. I can now see myself contributing to my country's conservation effort."

Amanda Shia Kang Ping, Malaysia

"The TBA course is such a diverse and inclusive learning environment, we grew together to become an amazing team which strives to make the world a better place."

Jennifer Lisa Insupp, Austria

TROPICAL BIOLOGY ASSOCIATION

Graduate Arvid Lindh took part in the TBA's month-long field course at Danum Valley in 2017. Less than 6 months after the course, Arvid's application for a PhD-position in tropical forest ecology at the Swedish University of Agricultural Sciences was accepted.

"I can't think of anywhere else where I could have acquired such a broad skill-set in such a short time."

To read Arvid's full blog follow the link: https://tbaalumniblog.wordpress.com/



"What I believe set my application apart was that I could in confidence declare that I had experience with all the different skills the position required, and almost all of this was because of the TBA course"

"I'm certain that this position would have been out of my reach were it not for TBA... I'm only getting started in my career, but I hope to one day be able to repay my dept by going full circle and teach on the course"

From field course to published papers

TBA field courses generate new research because all students design and undertake their own projects which may lead to published papers following the course. This is usually the first opportunity our alumni will have had to publish their results.

Papers published in 2018:



Two TBA students and two teachers wrote about a paper on the differences in traits of two colour morphs of an African treefrog species.

'Behavioural and Morphological Divergence of Sympatric Morphotypes of Leptopelis flavomaculatus (Anura, Arthroleptidae) in North-eastern Tanzania'



A paper was written by three TBA students and one teacher on the effect of liana growth on trees in an East African primary forest.

Liana abundance and relationships to sapling and tree hosts in an East African

primary forest' Two TBA alumni and two teachers wrote a paper on the modes of inter- and

intrasexual communication of Spotted Reed frogs.



'Multimodal Signal Testing Reveals Gestural Tapping Behaviour in Spotted Reed Frogs'



A paper was written as a worldwide collaboration, including three TBA students, analysing the diversity of a little-studied plant family 'Apocynaceae'.

'The diversity and evolution of pollination systems in large plant clades: Apocynaceae as a case study'

THE POWER OF PARTNERSHIP

Bringing people together to learn and to share experiences is central to TBA's philosophy for capacity building.

That's why we are pro-active partners in designing and delivering events and new resources that can catalyse professional collaboration, spread good practice and ideas, and strengthen conservation networks.

The TBA is a founder partner of the Cambridge Conservation Initiative (CCI).

We co-founded and co-organise the annual Student Conference in Conservation Science, held in Cambridge.

Citizen Science in Africa 2018-2020

The TBA is leading a collaborative project, selected to receive one of the 2018 grants from the CCI Collaborative Fund, alongside the **British Trust for Ornithology (BTO)**, the **University of Cambridge Museum of Zoology**; the **National Museums of Kenya**, and the **Kenya Bird Map Committee**.

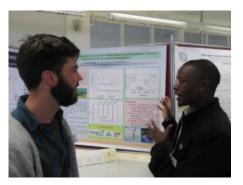
The project aims to train African citizen scientist leaders so that they can use biodiversity and monitoring data to guide management and policy in Africa. For example, the Kenya Bird Map committee will gain skills they need to produce maps of Kenya's declining bird species.

Student Conference on Conservation Science (SCCS)

The Student Conference on Conservation Science, coorganised by the TBA is the only international conference series aimed specifically at students. It gives them a platform to present their work, make contacts and gain new ideas.

200 students from **54** countries came for the three-day event in March, 2018. TBA alumni gave talks and presented posters on a wide variety of conservation issues such as bird monitoring by Solohery Rasamison and amphibian conservation by Marta Sampaio. "This grant enables us to respond to a real demand for capacity in using citizen science data, so we know it will have impact."

Dr Rosie Trevelyan



PRISM toolkit (Practical Impact Assessment Methods)

TBA is a co-author of a new toolkit called **PRISM** that provides guidance and methods for evaluating the outcomes and impacts of conservation projects. TBA led on the Capacity Development chapter.

In 2018, TBA jointly ran a training course on PRISM to give new users a chance to learn step by step guidance on project evaluation and teaching others.

TBA'S CASCADE EFFECT MEASURING IMPACT

We can measure the impact of our capacity building because our alumni tell us what they are doing, and they share their achievements with us.

Check out the last three pages of this review to see:

1 YEAR IMPACT

5 YEAR IMPACT

10 YEAR IMPACT

Our alumni apply their new skills following our courses, and they multiply the impact of our training by transferring these skills to others in their organisations.

ALUMNI IN ACTION

of our African alumni network are still in touch with us ten years after their TBA training. Our training inspires strong loyalty throughout our alumni network, and a commitment to ongoing professional development which we are delighted to support.

Academic institution 63%
Government institution 16%
Non-governmental organization 11%
International organization 5%
Private institution 5%
Other 1%

In 2018, the global TBA alumni network has now risen to

2277 members



Alumni Group News

The **Nigerian TBA Alumni Group** (NTBA just completed their 6th Conference for Nigerian conservation students. As well as stimulating talks, the conference awarded a prize to the best student essay submitted.

Dr Emmanuel Olusegan Akindele is the new President and country coordinator of NTBA and he told us

"We consider it a great honour and service to the TBA and our nation"

A HANDFUL OF HIGHLIGHTS

AWARDS



TBA Director, **Rosie Trevelyan**, and TBA alumni **Chabi Djagoun** and **Emma Sayer** all received British Ecological Society (BES) awards.

These awards recognises the benefits their work has made to the scientific community and society in general.

Dr Rosie Trevelyan is the 2018 Equality and Diversity Champion

Dr Chabi Djagoun is the first recipient of the Marsh Award for Ecologists in Africa

Dr Emma Sayer won the British Ecological Society Award

ALUMNI NEWS

Saving & discovering species

David Kwarteng from Ghana recently told us that he and fellow TBA alumnus Caleb Ofori have secured 847 acres of community lands as a legally designated reserve. This is good news for the Togo Slippery Frog and other precious animal and plant species that need this habitat to survive in the long term.

Suzanne Kamga from Cameroon discovered 2 new species of African palms while looking at their socio-economic importance to people in Cameroon and Gabon.

Fanuel Kawaka launched a project that is integrating local communities and schools in protecting endemic wild orchids in the Mau Forest of Kenya. Fanuel began this project with fellow-TBA alumni from Kenya in 2013.

New jobs for conservation

George Eshiamwata is now Deputy Director (Natural Sciences) in Kenya's National Commission for UNESCO.

Volanirina Ramahery was elected as Madagascar's representative of WIOMSA's Women in Marine Science committee.

Rio Heriniaina was recently appointed as Monitoring and Evaluation Coordinator of a Malagasy conservation and development NGO called Fanamby.

"I am proud to be part of the TBA network and I am applying the skills I learnt from TBA in my new job"

The IMPACT of TBA training in conservation **1** year on... Restoring forests



"The capacity building that we benefitted from during the TBA forest restoration course allowed us to carry out our restoration activities at a larger scale" Adolphe Lehavana

Adolphe Lehavana, Madagascar - TBA Restoring Forests Specialist Course 2017 Current role:

Protected Area Manager, Missouri Botanical Garden (MBG), Madagascar

Within just one year, Adolphe says TBA training led directly to

• a new grant (from GEF/UNDP) for the conservation of 20 endangered endemic plant species

• 14 endemic species successfully planted out in the Pointe à Larrée Reserve, currently managed by Missouri Botanical Garden

a new 5-year plan for Pointe à Larrée to restore
 20 ha by planting 50,000 trees in gaps within
 natural forest.



The 5-year plan includes connecting fragments of forest; increasing the cultural and social value of target species; and reducing the risk of extinction for target species.

"As a manager of this protected area, I am responsible for project planning, working with stakeholders and monitoring impacts. I have a great opportunity to apply all principles of restoration that I have learnt from the TBA course, including designing the plan, setting the indicators, choosing stakeholders, and defining outputs and outcomes."

The **IMPACT** of TBA training in conservation **5** years on...

Bird research and conservation in Zambia



"Besides academic progress, TBA gave me the right boots to handle research using the ecosystem-based approach; it helped me to find myself and grow my passion."

Chaona Phiri, Zambia - TBA International Field Course 2015 (Amani)

Current role:

Chief Research Officer, Birdwatch Zambia

Chaona is boosting our understanding of birds. Since her TBA training, she has

• completed her Masters in Biodiversity Wildlife and Ecosystem Health at the University of Edinburgh

• successfully managed 12 projects using birds as indicators of biodiversity and environmental health

• worked on research projects for the Birdlife partner in Zambia

• won awards from the National Geographic Society and the British BirdFair.



The TBA field course gave Chaona a solid foundation for future research. For her Masters, she assessed the factors which influence distribution of the Zambian Barbet (*Lybius chaplini*).

"The TBA course prepared me for this type of survey as I got to learn field survey techniques and statistical analysis which I used in my research. By the time I completed my Masters, I was already working on several bird species including piloting an initiative with farm owners to improve the conservation status of Vultures in Zambia.

I am now just getting started with my PhD which is focused on an endemic parrot in Zambia."

The **IMPACT** of TBA training in conservation **10** years on...



"The TBA course was a remarkable turning point in my career. Socialising and sharing experiences with other young professionals from different countries deepened my views and knowledge on biodiversity conservation, which later enabled me to make the right decisions in my career."

Mbunya Francis Nkemnyi attended the TBA International Field Course, in Kibale in 2008 Current role: Executive Director, Resource Centre for Environment and Sustainable Development, Cameroon

Francis has real conservation impact:

- He set up and runs the Resource Centre for Environment and Sustainable
 Development (RCESD), which promotes environmental protection and the UN's Sustainable Development Goals in Cameroon.
- His leadership of many projects is improving local community engagement in forest management and the conservation of the critically endangered Cross River gorilla.
- His research shows how traditional institutions moderate access to natural resources and how stakeholder practices influence sustainable forest management. This is helping to shape more effective participatory forest management.





"TBA mentorship has enabled me to obtain a scholarship to study and complete my Masters and PhD degree. Since attending the TBA course, I am most proud of starting and running RCESD, completing my PhD in Development Studies, and winning a UN grant for my conservation work."

Thanks to...

o All who have funded our training programmes



- o TBA's dedicated and inspiring specialist teachers and trainers
- The partner organisations with whom we collaborate to tackle the complex issues of biodiversity conservation. Our partnerships are based on shared recognition that there is an urgent need for training and research in tropical biology.
- Our members: universities, departments and institutes who support our training programmes. In return, their students have priority access to our courses, contributing to the crucial international mix that is a hallmark of our training:

University of Northampton, Department of Environmental & Geographical Sciences University of Zurich, Department of Evolutionary Biology & Environmental Studies University of Gothenburg, Department of Biological & Environmental Sciences University of Groningen, Centre for Ecological and Evolutionary Studies Anglia Ruskin University, Department of Animal & Evolutionary Biology University of Koblenz-Landau, Institute of Integrated Natural Sciences University of New England, School of Environmental & Rural Science University of Salford, School of Environment and Life Sciences Yale University, Department of Ecology & Evolutionary Biology University of Vienna, Center for Organismal Systems Biology Jagiellonian University, Institute of Environmental Sciences University of Lausanne, Department of Ecology & Evolution University of Edinburgh, Institute of Evolutionary Biology University of Cambridge, Department of Plant Sciences University of Lisbon, Centre for Environmental Biology University of Aberdeen, School of Biological Sciences National University of Ireland, Applied Ecology Unit University of Leeds, Faculty of Biological Sciences

Leiden University, Institute of Biology biology Lund University, Department of Biology Lund University, Department of Biology University of Bern, Department of Biology University of Innsbruck, Faculty of Biology Swiss Tropical and Public Health Institute University of Oxford, Department of Zoology Paris-Lodron University, Institute of Zoology University of Fribourg, Department of Biology University of Edinburgh, School of Geosciences University of Nottingham, School of Life Sciences Zoological Society of London, Institute of Zoology





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