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This magazine is a celebration of 20 years of Biosphere Expeditions.

"Life can only be understood backwards; but it must be lived forwards."

Søren Kierkegaard

Kierkegaard was right in many ways, as by looking back over the last twenty years we can see what Biosphere Expeditions is all about. Having started in a small way with only two expeditions, we have - through our participants, staff and partners - contributed hundreds of thousands of days to conservation all over the world, supporting many NGOs and scientists to acquire the data and funding they need to make an impact. You will read in this issue about the difference that this work has made to many places and people.

And what about the planet, the living biosphere, what difference have we made to that? We have spent the last twenty years helping to build the data that improves the chances for wildlife. And we will continue to do this essential work, without the science underpinning our understanding of the world, we cannot, we cannot make rational choices in support of its future. But we need to do more, especially these days, when it is difficult sometimes to be positive about the global environment. So for the next twenty years we are also going to be doing more campaigning – promote about limits to growth and new economic/environmental models that might work better for the long-term health of our planet. We will be talking about vegetarianism and making your flights matter - travelling with a purpose, in fact, living more thoughtfully. And this talking will make a difference as the answers are in our hands, and through discussion and collaboration we can bring about change. Everything that we do now, in this anthropocene, this time of humans, matters. The latest science shows that things need to change now, and Biosphere Expeditions will play its part.



Executive Director







Citizen science | ethical adventures | wildlife conservation



ur planet is in crisis, with nature under attack like never before. We believe everyone has the power to change this. We are mindful of nature and empower people through citizen science and hands-on wildlife conservation. We are a non-profit, visionary, award-winning and ethical conservation organisation. We are a member of the IUCN and the UN's Environment Programme. Working hand-in-hand with local biologists and communities, we champion change and protect nature. And we succeed - the creation of protected areas on four continents is just one example.

Come and join us! Make your holiday time count as a wildlife volunteer and share in our vision of a healthier planet. Whatever your age or background, make your voice heard and spend a week or more on a wildlife conservation expedition with us. Travel with us to remote and beautiful places, learn new skills, meet like-minded people from around the world and experience conservation in action. Together - for nature, not profit - let's act like our world depends on it. Because it does.

Bürgerwissenschaft | nachhaltiges Reisen | ethische Abenteuer | Artenschutz



■ nser Planet steckt in der Krise - noch nie stand die Natur so unter Druck. Wir glauben daran, dass es in der Macht jedes einzelnen liegt, das zu ändern. Wir achten auf die Natur und befähigen Menschen sie zu schützen - durch Bürgerwissenchaft und angewandten Naturschutz. Wir sind eine gemeinnützige, visionäre und nach ethischen Standards handelnde Naturschutzorganisation. Wir sind Mitglied der IUCN und des UN-Umweltprogramms. Wir arbeiten Hand in Hand mit Menschen und Biologen vor Ort in unseren Projektgebieten, setzen uns für einen Wandel ein und schützen unser aller Natur. Und unser Konzept ist erfolgreich – die Einrichtung von Schutzgebieten auf vier Kontinenten ist nur ein Beispiel.

Helfen Sie mit und gestalten Sie Ihre Urlaubszeit besonders wertvoll. Teilen Sie unsere Vision eines intakteren Planeten und verschaffen Sie Ihrer Stimme Gehör als Teilnehmer an unseren Natur- und Artenschutzexpeditionen. Erfahren Sie - für eine Woche oder auch länger - Neues an wunderschönen, entlegenen Orten, erwerben Sie neue Fähigkeiten, treffen Sie Gleichgesinnte aus der ganzen Welt und erleben Sie Natuschutz hautnah. Lassen Sie uns gemeinsam so handeln, als hinge das Wohl des Planeten von uns ab - denn genau das tut es.

Actions participatives | voyage durable | aventure éthique | protection des espèces

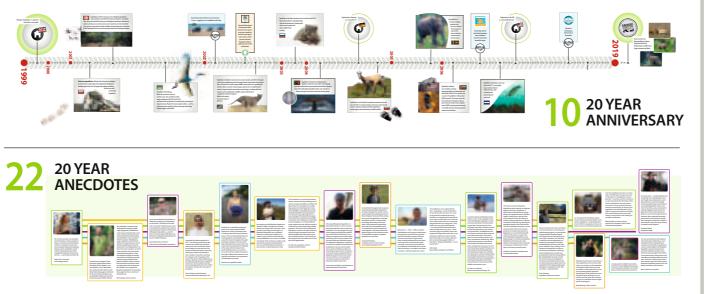


■ otre planète est en crise — jamais encore la nature n'a autant été en danger. Chacun a le pouvoir de changer les choses. Nous en avons conscience, et c'est pour cela que nous donnons les moyens nécessaires aux hommes de la préserver, au travers d'actions participatives et scientifiques, sur le terrain. Nous sommes une organisation à but non lucratif, visionnaire, plusieurs fois récompensée, éthique et durable, qui vise à promouvoir la protecnous avons réussi à accomplir.

Rejoignez-nous et donnez de votre temps. Partagez notre vision d'une planète préservée. Quel que soit votre âge ou vos compétences, faites compter votre voix et participez à une mission pour la préservation de la nature pendant une semaine ou plus. Partez avec nous vers des endroits magnifiques et reculés. Développez vos connaissances et rencontrez des personnes du monde entier, qui ont la même volonté que vous. Participez concrètement à la préservation de la nature. Ensemble, agissons pour le bien de notre planète car notre futur en dépend.







LEAD TOPIC

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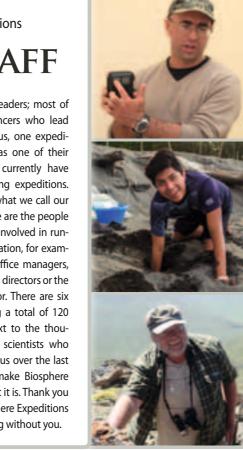


The backbone of Biosphere Expeditions

MEET THE STAFF

Next to our citizen scientists, our staff are the second core element of who we are. But who are they and how many of them are there? Our definition of "staff" is everyone who helps and gets paid, so it includes our helpers in the field, be they cooks, guides, camp managers, whale blow spotters, wolf ambassadors, anti-poaching staff, rangers or elephant handlers. And of course there are our field scientists: linchpins of our wildlife conservation and research efforts, and the brains behind each expedition. Usually we have one scientist per project, but there can be as many as six on some (e.g. Malawi). All in all, this totals about 100 people. In addition, there are

our expedition leaders; most of them are freelancers who lead expeditions for us, one expedition at a time, as one of their many jobs. We currently have 14 people leading expeditions. Finally, there is what we call our "core staff". These are the people most intimately involved in running the organisation, for example as country office managers, strategy advisers, directors or the executive director. There are six of them, making a total of 120 people who, next to the thousands of citizen scientists who have come with us over the last 20 years, help make Biosphere Expeditions what it is. Thank you to you all. Biosphere Expeditions would be nothing without you.







EDITORIAL

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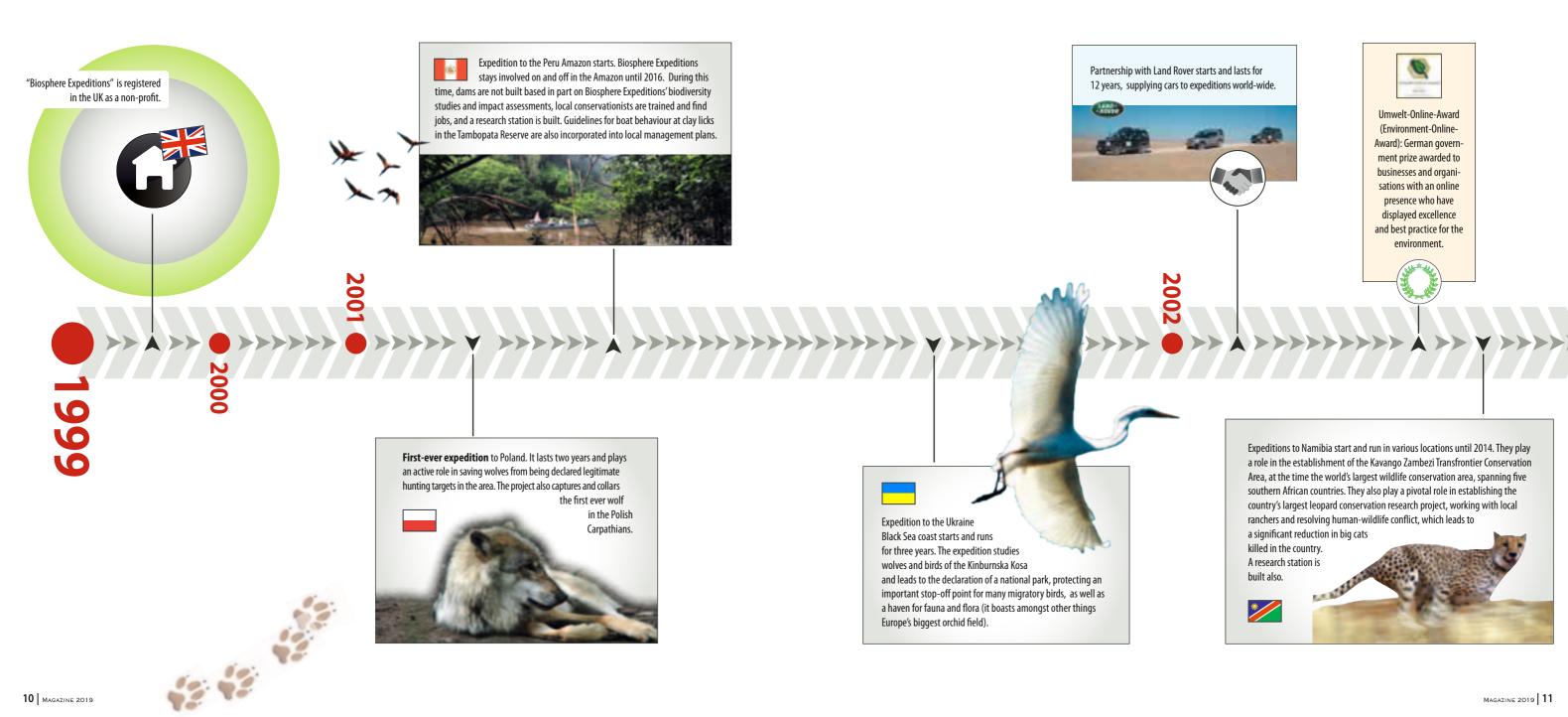
Biosphere Expeditions was founded in 1999 and is a citizen science wildlife conservation non-profit first and foremost. We empower ordinary people to make a positive difference to wildlife conservation and research through our international expeditions, working hands-on with wildlife conservation projects across the globe.

The term 'Biosphere' was coined by Russian scientist Vladimir Vernadsky in 1929 and is defined as 'the part of the Earth's surface and atmosphere occupied by living things'. This encompassing term, we believe, is a fair reflection of our mission. With our citizen science conservation expeditions we hope to make a small but significant difference to our biosphere and at the same time bring enjoyment and fulfilment to our participants. We do not run tours or simple wildlife conservation holidays, but organise real conservation expeditions with genuine conservation aims that produce real results and achievements.

Let's do some travelling, to a period when things were a little different. Imagine the wavy lines as today's scene wobbles away and is replaced by an incomprehensible blur and finally, it's 1999.

ur story begins in the UK, in fact very specifically at the University of Cambridge. In the world of 1999 we called our friends on our phones connected with wires at home and watched presentations that were made on overhead slides. We watched films on VHS cassettes and dialled up the internet (if we had any). The internet was a relatively new invention (1989) and Google had only been launched the year before (it looked useful, but we were not sure quite what for).

Plus people were getting pretty nervous about Y2K or the millennium bug, a computer flaw that was supposed to trigger Armageddon at the turn of the century. We obtained our information from paper newspapers, the TV and magazines. There was mostly decorum in politics and largely decent politicians. And if we wanted to book a flight, we had to ring up or go through a travel agent...



A very brief history of volunteering

The world of holiday volunteering was in its infancy and free from negative baggage, and nobody had ever heard of citizen science. You could take part in wildlife conservation work with a smallish American charity called Earthwatch for a week or two, but almost all other operations to volunteer abroad were longer-term, designed for students on gap years or people willing to spend a year or two living and working overseas. These opportunities came from the likes of the Peace Corps in the US and Operation Drake and Raleigh in the UK.

What was the thinking behind the development of volunteering abroad? Earlier in the twentieth century, people came together after the two world wars to help repair the damage done - to places and people alike. It was a show of solidarity

amongst and with the people of war-torn areas. As time went on, the Peace Corps in America was set up to demonstrate to people around the world the strength and generosity of the American people (and to fight the spread of the influence of communism). Prince Charles in the UK backed Operation Drake and then Operation Raleigh, both taking younger people abroad to lend helping hands wherever they were thought to be needed.

In the 1990s things were changing and in one room in the University of Cambridge, someone had an idea...

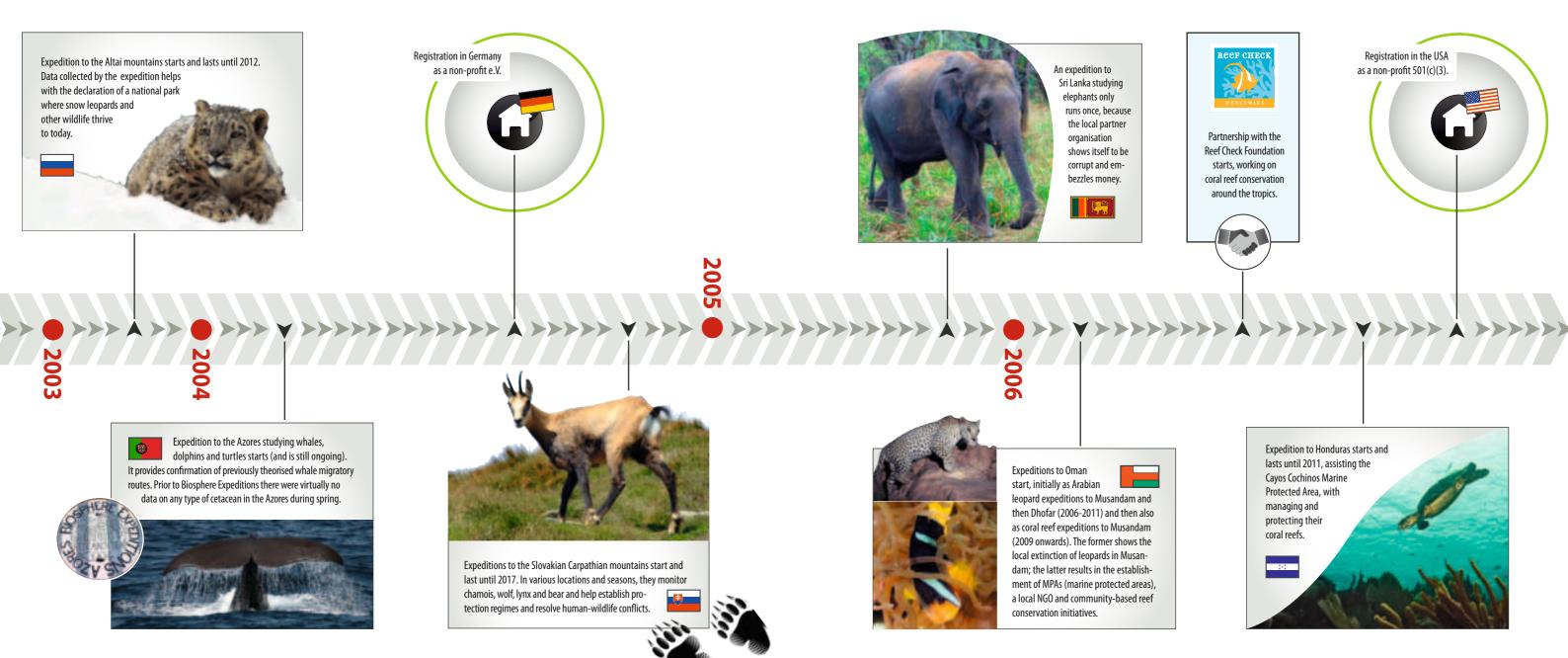
Our creation story and the first expeditions

Biosphere Expeditions started at the turn of the millennium as one of those famous 'in the shower' ideas. Our founder, Matthias Hammer, with a military career behind him, some student expeditions under his belt and disillusioned with the ivory tower mentality of academia, was looking for a way to combine his training as a biologist and military leader, as well as his passion for conservation and the outdoors, with some real-life, hands-on conservation work. Someone suggested 'why don't you take people on expedition with you', an idea that didn't take root until a few days later whilst our founder was in the shower in a particularly contemplative mood - and at that moment the idea of Biosphere Expeditions was born. Actually, he says he pretty much saw it as it is today and that it still gives him goose bumps today to think

about that moment over twenty years ago, his one and only 'eureka' moment.

Matthias was an academic, just finishing his PhD at Cambridge. He brought in Kathy Gill, an economic adviser with a business degree, early whilst setting up Biosphere Expeditions to help with the development of the organisation. It took a year to set up Biosphere Expeditions as a non-profit organisation in the UK and another year to recruit the first ex-

The first expedition ran in 2001 to Poland, studying the wolves of the Carpathian Mountains and finding evidence that supported the establishment of a wolf hunting ban. It also captured and collared the first ever wolf of the Carpathian Mountains, so the pattern of real impact and achievements was set



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right from the start. With people working on projects like this with direct and demonstrable outcomes, demand was high. Many expeditioners, once bitten by the bug, came back for more, so the expedition portfolio quickly increased to include Peru and the Azores (the latter is still running today) and others quickly followed.

Important partners

In 2005 Biosphere Expeditions extended work and support to projects below the sea surface. The Reef Check Foundation, a California-based worldwide charity, became our first major fellow conservation organisation partner. They had recently published their first five-year report 'Global Coral Reef Crisis – Trends and Solutions' at the World Summit of Sustainable

Development in Johannesburg, South Africa. Based on data collected by thousands of Reef Check volunteer divers in over 80 countries and territories, the report was the first scientific documentation of the dramatic worldwide decline in coral reef health. The report concluded that there was virtually no reef in the world that remained untouched by human impacts, such as overfishing, pollution and climate change. We knew that the Reef Check model was strong and, with a global use for the data, this was the kind of survey work that our citizen scientists would want to get involved with. The partnership continues today with projects in the Maldives, Oman and Malaysia, and was to be the start of partnering with other like-minded conservation organisations.

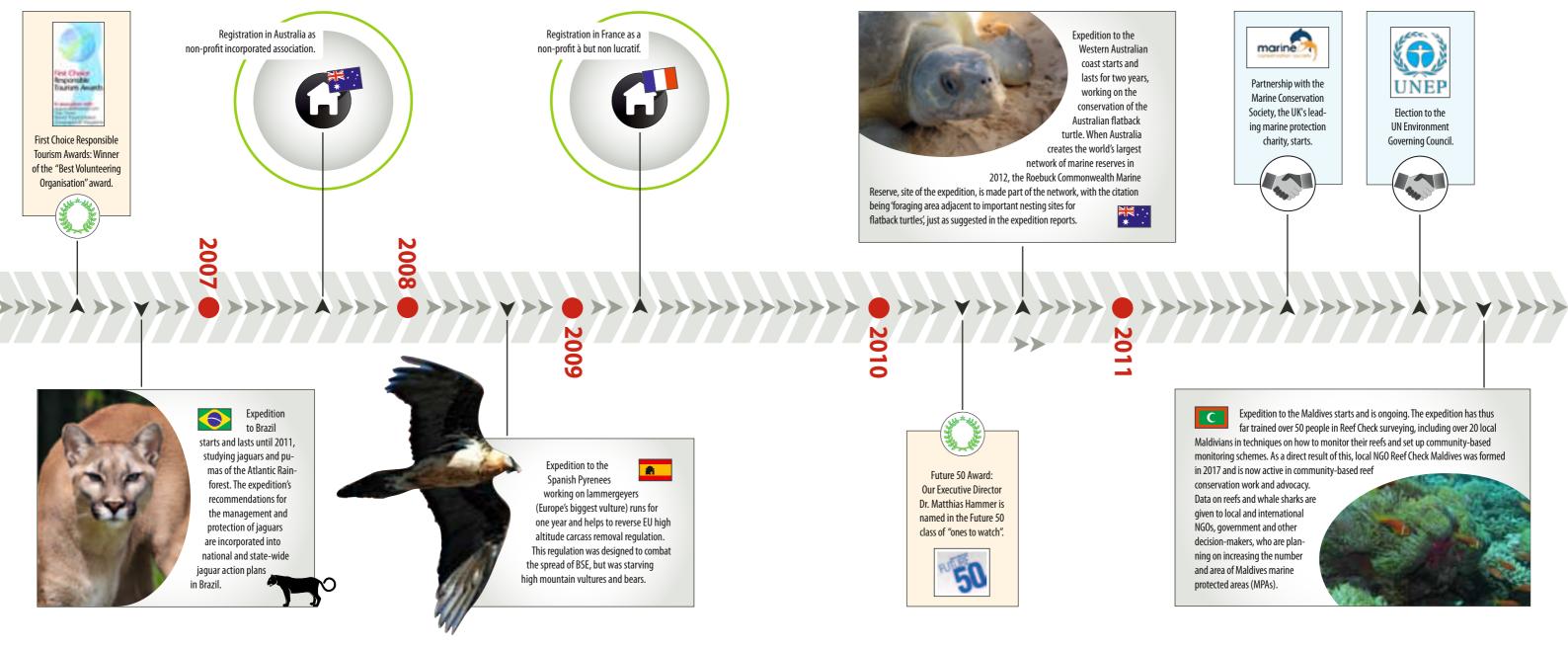
In the wake of our partnership with Reef Check came our next important ally, the Marine Conservation Society (MCS) in 2011.

The MCS is the UK's leading marine charity and one of their key coral experts, Dr. Jean-Luc Solandt, was instrumental in setting up the Maldives expedition and also helped with the reef expedition to Musandam (Oman). Today we work with the MCS on many levels including marine conservation promotion throughout the UK, coral reef surveys and empowering people to become actively engaged in marine conservation.

The NABU (Naturschutzbund = nature conservation alliance) in Germany was next, in 2013. NABU is Germany's biggest conservation organisation, organised along similar lines as the Wildlife Trusts in the UK, with a myriad of projects in Germany, but also some abroad. One of these is a snow leopard project in Kyrgyzstan and when NABU asked Biosphere Expeditions to help with this, another expedition and partnership was born. Nowadays the partnership extends to the wolf pro-

ject in Germany, as well as working on promoting conservation issues in Germany.

A partner of an entirely different nature came early in our history (in 2002) and almost by accident one day on a Royal Geographical Society off-road driving course. A manager from Land Rover, who was sponsoring the course, came over to talk to Matthias and Kathy about a problem that he had. He had a fleet of vehicles that stood idle in Africa for a great part of the year – did we think there was anything that we could do with them? You don't have to ask that sort of question more than once. The Biosphere Expeditions team set about talking to scientists and researchers in Namibia (which is where the vehicles were located) about what use they could make of this resource. One project stood out – a couple of scientists had several big box traps for catching



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large cats – cheetahs were their target species – so that the cats could be radio collared for a major research project. The problem that the researchers had was moving the box traps into different positions, something that would require several 4x4s, and they also lacked enough people to do the vital daily checks on the traps once active in the field (so that captured animals would not dehydrate and die in the traps). This was the sort of project that required not only the Land Rovers, but also teams of citizen scientists to check the traps reliably and undertake other crucial parts of the research work. Namibia became the first African project and the beginning of a relationship with Land Rover that lasted over 12 years and led, at its peak, to Biosphere Expeditions running a fleet of over 30 Land Rovers worldwide in support of a myriad of wildlife conservation endeavours.

Accreditations

In 2011 and 2012 Biosphere Expeditions became an officially accredited member of the United Nations Environment Programme's (UNEP) Governing Council / Global Ministerial Environment Forum and the International Union for the Conservation of Nature (IUCN). These international bodies are crucial to the future of much of the strategic debate around how to save habitats and species, with a lot of analysis and policy work going on between governments at this level. We are proud to be a part of these key decision-making bodies in the global battle to protect the Earth's natural environments.

Most recently, in 2018, Biosphere Expeditions was elected to the European Citizen Science Association (ECSA). ECSA is a nonprofit association with over 200 members set up to encourage the growth of the citizen science movement in Europe and to enhance the participation of the public in scientific processes. Both ECSA and Biosphere Expeditions believe that framing citizen science as an open and inclusive approach is the way forward in today's interconnected world.

Offices, Brexit, websites and lucky 13

Whilst all this was going on with partners, more expeditions were added, the Friends of Biosphere Expeditions (a society of expedition alumni and other supporters) came into being, awards were won, and the media took a great deal of interest in Biosphere Expeditions. The German office opened in 2002, followed by France in 2004, North America in 2006 and Ireland in 2017. On 1 January 2018 the HQ moved from

the UK to Ireland in Biosphere Expeditions' very own Brexit in the wake of the fateful and momentous decision taken by the UK electorate on 23 June 2016.

The move to Ireland was reflected in a completely new website in 2018. By now our expeditions portfolio had grown to lucky 13 and the achievements stretched over four continents.

Expedition to Arabia starts and is ongoing in partnership with the Dubai Desert Conservation Reserve (DDCR). Rare Gordon's wildcats and a very rare and elusive sand fox were captured by the expeditions over the years, prompting the reserve to increase research and conservation efforts for these threatened species. Data gathered by the expeditions also showed that the introduction of an apex predator (such as the Arabian wolf or the Arabian leopard) would be beneficial. The UAE government accepted these arguments and the DDCR is now investigating processes and options to make what will be a major showcase conservation success story for Arabia become reality.



Placement programme for local people starts. Since its inception it has hosted over 100 local people (students, local NGO or government employees or committed individuals) on all expeditions across the world. Outcomes are community-based conservation and education programmes, the creation of local conservation NGOs, career changes and employment in conservation jobs gained.



2013



2012



"Trophée de femmes": Our Namibia scientist was made a laureate of this environmental prize by the Fondation Yves Rocher.





Coral reef expedition to Tioman Island,
Malaysia starts and lasts until 2016.
Biosphere Expeditions provides vital data on coral
reef health and human-induced threats within the
Tioman archipelago (data that were previously
unavailable), and also helped build the foundation for 'Cintai Tioman', a long-term programme
to increase social and ecological resilience on the
island. This programme addresses issues such
as pollution, waste management, illegal fishing,
environmentally-friendly tourism and communitymanaged marine protected areas.









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Key achievements

So what comes out of all these expeditions and activities in the end? Our achievements pages www.biosphere-expeditions. org/achievements give a detailed overview, but here are just a few key examples:

- Protected area creation on four continents, for example in Southern Africa, Oman, Ukraine, the Russian Federation and Australia
- Wildlife and wilderness management and protection success stories in Namibia, Brazil, Honduras, UAE, Spain and Costa Rica
- Prevention of wildlife and wilderness destruction in Peru and Poland
- Over 200,000 hours worked in citizen science wildlife conservation & research

- Over €2.5 million put directly into conservation projects worldwide
- Over €1 million put into local projects and communities as in-kind donations
- Placement programmes set up for local people worldwide
- Through our placement programme for local people and other activities, we have helped build capacity and found local conservation non-governmental organisations (NGOs; for example in Oman and the Maldives)
- We have co-financed field research stations, for example in Namibia and Peru. These research stations are used by research bodies year-round and function as important centres for conservation, providing training and a hub for researchers, as well as employment for the local community.

■ We have provided jobs and job training for hundreds of people, some of whom have gone on to careers in conservation. Here is just one example from Peru: "My name is Aldo Ramirez Mejia. I am 21 years old and from the local community at Lake Sandoval. While I finished my studies in Puerto Maldonado, I worked with the Tambopata Macaw Project studying macaws and claylicks, which is supported by Biosphere Expeditions. Traditionally, my family has fished, farmed and hunted, but thanks to Biosphere Expeditions and its ecotourism and conservation opportunities, I have been able to dedicate my time to my interest with the local wildlife with which I grew up, rather than hunting it. Thank you so much."



Awards galore; expansion of volunteering and the impact of charlatans

Our conservation work across the globe has won lots of awards such as 'Best Volunteering Organisation' (First Choice Responsible Travel Awards), 'Top Conservation Holiday' (BBC Wildlife, UK), 'Best Holiday for Green-Minded Travellers' (Independent on Sunday, UK), 'Best New Trip' (National Geographic Adventure, USA), 'Top Holiday for Nature' (P.M., Germany), 'Environment Award' (from the German government). The list goes on. These awards have been highly significant in a sector that has ballooned recently. The number of organisations coming into the volunteer holiday arena has been remarkable. Some have developed through a real desire to help do important work around the world, and some have developed purely to make money from the good intentions of travellers. We at Biosphere



Travel + Leisure Global Vision Award (for Responsible Tourism): Winner of the "Conservation Award".





Partnership with WWF starts and lasts for the duration of the Sumatra tiger expedition.





Reserve, and makes recommendations for better tiger protection and integrating local people into tiger conservation.

Multi-species South Africa expedition starts and is ongoing today. The 2015 inaugural expedition placed camera traps and analysed over 3500 images captured by such traps, conducted 20 km of surveys and the first ever small mammal trapping survey, studied birds and bats, and discovered new locations and examples of ancient rock art. In 2016 there was the first-ever capture of a Hottentot buttonquail, an endangered bird species endemic to the fynbos area. Since then there have been studies on the impacts of fire on various aspects of fynbos ecology and many other studies on species such as leopards, caracal, etc.

2016



Awards: Winner of the category "Countryside and wildlife".



2017

2014



Expedition studying snow leopards in the Tien Shan mountains of Kyrgyzstan starts and continues in partnership with NABU. The expedition has found evidence of snow leopard in a previously unstudied range, a local capacity-building and educational programme has engaged the local population of herders and created employment and economic incentives for snow leopard conservation.

2015



Reef Check Awards: Our executive director Dr. Matthias Hammer is made a "Hero of the Reef" for services to coral reef conservation worldwide.



Turtle expedition to Costa Rica starts in collaboration with Latin American Sea Turtles (LAST) and is ongoing, helping to reduce poaching of turtle eggs from 100% down to between 30-60% depending on the year, therefore giving Caribbean turtle species a fighting chance to survive.







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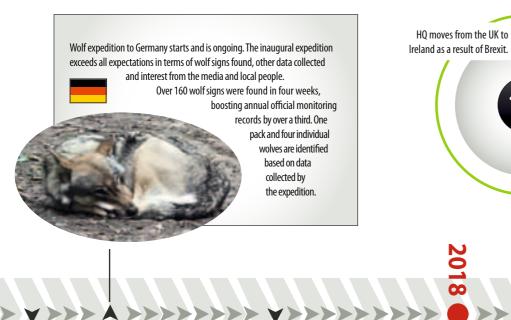
Expeditions have been quite shocked by the number of bad experiences people have had at the hands of businesses who are not trying to do good, but just get rich. These charlatans are not only giving people bad experiences, but they are also removing the chance that these people will do good through their holidays now and also potentially putting them off trying these activities in the future. The general concern about this issue in the industry led a few years ago to attempts by several organisations to create industry standards, codes of conduct, and even quality marks for the volunteer tourism sector. But this is a very diverse area to work in, with many different approaches and different aims. Volunteers go to a multitude of destinations, to help solve problems in so many different ways, from building hospitals, to teaching English, to surveying biodiversity. This huge range of possibilities is dealt with by an equally large range of types of organisations and

ways of running volunteer programmes. Perhaps inevitably, this led to the abandonment of creating 'industry standards' as the task was seen to be impossible. The Biosphere Expeditions response to this was to produce our Top Ten Tips (www. biosphere-expeditions.org/tips), helping potential volunteers to get through the maze of choosing where and how to offer their help by asking the right questions. This has proved a popular approach with considerable media coverage – we hope that this means that we have gone some way to assisting volunteers to help in sound and ethical ways when they go overseas.

Change is upon us - we can be passive or active

In the last few years it has been good to see the environment moving up the agenda, with changing weather systems demonstrating to people how real climate change is. Whilst these weather changes are not good news, we can be hopeful that people around the world are now beginning to understand what the impact could be of doing nothing. Our scientists have been saying each year that the weather is exceptional, breaking normal weather patterns, and now we also hear our participants saying the same thing. We are all, slowly, beginning to feel the problem as it develops – storms and flooding, and hotter, drier summers. It is now more important than ever that we all help to inspire and animate people, support communities, off-set carbon emissions, conserve wildlife and wilderness, and choose goods and services in our daily lives more wisely.

To date Biosphere Expeditions has sent thousands of people into the field and this number continues to grow as the years go by. We are proud to send people from all over the world on expeditions across the globe, making a small but significant contribution to conserving our biosphere. The future is in all of our hands; working with highly committed and motivated expeditioners, scientists and local communities all over the world gives us hope that people can fix the problem that people have created. Together we really can make a difference.



World Travel

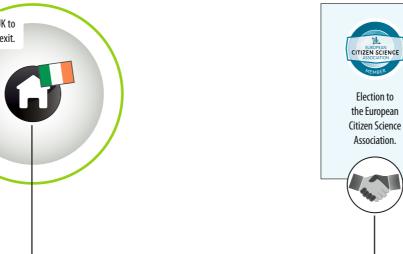
and Tourism Council

Tourism For Tomorrow

Awards: Finalist in

the "Environment"

category.



Election to the European Citizen Science Association.





Thailand elephant expedition starts and is ongoing, with the inaugural expedition completing the first-ever full-day surveys of Asian elephant feeding and association behaviour in natural surroundings.

Malawi biodiversity
expedition starts with
the inaugural expedition,
which amongst many other
things, conducts the first-ever
camera study in Vwaza Marsh
Wildlife Reserve, showing
the presence of never
before recorded species
such as lion, caracal
and serval.

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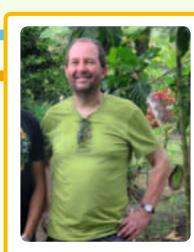
20 YEARS OF ANECDOTES

Biosphere Expeditions is a sum of many parts. It is what it is because of the many people we have met on our 20-year journey. These are partners, scientists, friends, staff and people from around the globe who have joined us in the name of citizen science, and the conservation of wildlife and wilderness. Here are just a few of their stories and memories.



For me, the memories are of people and of hot places. Serious people sitting on verandas, around campfires, on boats, on beaches and in tents – serious people talking and laughing, sharing stories and beliefs, and all of them enjoying their lives while struggling to do good. Passion and humour – a winning formula for life.

Kathy Gill, co-founder and strategy adviser



Greater kudu, springbok, Cape porcupine, lappet-faced vulture (Namibia); Risso's dolphin, common dolphin, Cory's shearwater, blue whale (Azores); hoatzin, pink-footed tarantula, pygmy marmoset, fer-de-lance (Peru); Arabian oryx, sand qazelle, MacQueen's bustard,

Cheesman's gerbil (UAE); Siberian ibex, Menzbier's marmot, large keeled Apollo butterfly, golden eagle (Kyrgyzstan); leatherback turtle, brown-throated three-toed sloth, striped basilisk lizard, bare-throated tiger heron (Costa Rica); leopard tortoise, Cape grysbok, sengi, malachite sunbird (South Africa). Not all spectacular, not all headline-grabbing, but all to be treasured on our fragile planet. I've been fortunate enough to see all of these animals in the wild, thanks to Biosphere Expeditions. I have also had the privilege of working with brilliant, dedicated scientists and met many wonderful local people and fellow citizen scientists from around the world who share my values about the environment and wildlife. I am so grateful to Biosphere Expeditions for providing these opportunities in a safe and satisfying way.

Neil Goodall, citizen scientist



My experience with Biosphere Expeditions started in 2004 in the Peruvian Amazon, where I was doing a PhD on parrots. I had no salary and no big research grant, so Biosphere Expeditions was a godsend: there was a stipend and a legion of assistants, many of whom were older and more qualified than me in terms of wildlife monitoring. Their assistance, insights, help and advice steered me along the path of a successful PhD. More to the point, it was also fun: a shared

adventure. Since 2015 and back in my native South Africa, citizen scientists have been helping me to monitor a range of wildlife on the Blue Hill Nature Reserve. The leopard is one flagship species, but there have been many other highlights from affiliated activities: understanding potential food dynamics of small mammals, capturing the first-ever endangered Hottentot Buttonquail, monitoring bats, honeybush and wildlife in the Karoo. The challenge in South Africa is that nowadays it is extremely difficult to get students who are willing to rough it in the wild to answer biodiversity-related questions. One of the values of Biosphere Expeditions is that we are able to draw on a pool of highly motivated, diverse and talented people that help answer important research questions. I can't thank you all enough for this. Your efforts are critical and much appreciated.

Dr. Alan Lee, expedition scientist Amazonia & South Africa



I came across Biosphere Expeditions in 2004 when joining my first expedition on the Azores. This had such an influence on me that I decided to join many more expeditions afterwards, eventually becoming the President of the Friends of Biosphere Expeditions ...and still have not had enough;) Well done and all the best to Biosphere Expeditions for the next 20/40/100 years!

Sven Strohschein, President of the Friends of Biosphere Expeditions



I attended the Arabia expedition in 2017. I can clearly remember the day I met the saw-scaled viper. My team mates and I were so excited! I remember the baby oryx that was born the day we arrived, passing by it every day, and trying to detect any change to how it looked. I remember searching for scorpions and star gazing in the heart of the desert while celebrating my birthday. After going home, I longed for the warmth of the campfire and that bunch of people gathered in the middle of nowhere, trying to fix a tiny spot on the planet.

Samar Fahmy, local placement on the Arabia desert expedition 2017



Working as an expedition leader has given me so many magical wildlife experiences. Here's an example: there is nothing quite like being on hatchery duty on the Costa Rica leatherback sea turtle expedition, checking the nests every 20 minutes throughout the night, looking for predators and new hatchlings, fully expecting a stray crab or two and instead seeing the frantic bubbling of the sand, which indicates that a clutch of baby turtles is on its way to the surface. All of a sudden the quiet of the night is filled with excitement as we measure and release a new generation of leatherback sea turtles.

Ida Vincent, expedition leader

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Just one of many fabulous memories over many years of attending expeditions is creating a sauna while at base camp on the Altai expedition many moons ago. We made a makeshift sauna by heating up a pile of stones and then borrowing the storage tent. We lifted the tent off the supplies and walked it across to our pile of heated stones; worked like a dream. Next step was to dash to the river and dunk in the nearby pool for the full sauna experience. The water was so cold my breath was stolen from my lungs and I couldn't get out even a squeak! Many congratulations and thank you Biosphere Expeditions. Looking forward to another 20 years.

Georgina Treherne, citizen scientist



sphere Expeditions in 2006 in Cavos Cochinos, Honduras. Our goals of conservation, research and education were overlapping as was the mechanism of 'immersion learning' and science-based management of ecosystems. We were impressed with the care and detail Biosphere Expeditions staff applied to engaging their participants in the projects. Later, when Dr. Matthias Hammer suggested that we plan an expedition to Oman, I thought he was a crazy big-cat ecologist. I had worked in the Arabian Gulf previously and there was not a lot of exciting reef there. So I was pleasantly surprised to see the good condition of the reefs along the Musandam coast featuring high coverage of living coral, lots of species and interesting fish not found in other parts of the world. Ultimately, this became a three-way partnership with Dr. Jean-Luc Solandt of the Marine Conservation Society who lent his scientific expertise to the expeditions in Oman and the Maldives. Matthias and his staff were able to 'sell' active participation in marine conservation to a niche market of dedicated ecologically-minded individuals. Some of the 'profits' have been used to cover the costs of scholarships for members of the local communities, so that they could participate and also become engaged in a longer-term process of marine conservation. The success of this approach is evident in the establishment of locally managed Reef Check organisations, establishment of Marine Protected Areas and improved conservation in both the Maldives and Oman. So in 2016 we celebrated the 10th year of our collaboration and now the 20th anniversary of Biosphere Expeditions. Congratulations! We look forward to expanding to new coral reef areas and continuing to improve coral reef conser-



The Altai expedition was the best thing that happened to me for my career development. I had waited for a long time to get to this part of my country and the expedition gave me the opportunity. Once I saw Chuyskaya Steppe and the great Chikhachova Ridge, I loved them with all my heart, and I became familiar with that place. It set me on a path to start guiding bird-watching tours in that area. I have found the job of my dreams! And has stayed with me as one of many. I have you to thank Biosphere Expeditions

Elena Shnayder, local placement on the Altai snow leopard expedition 2012

for it!



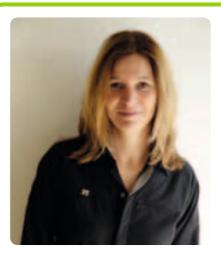
Many moons ago, in fact it was 2002, I remember a cheetah waking up from sedation in my arms. I was grinning like a Cheshire cat when our scientist let me carry the animal into the shade of a tree for recovery. On the way to the tree, he (I think he was a male) opened his eyes and looked at me somewhat puzzled, too drunk from the sedation to do anything. Our scientist told me not to panic and carry on, so I did, placing him carefully in the shade. I remember him staggering to his feet eventually and attempting a drunken, wavy getaway into the bushes. The memory

Matthias Hammer

executive director and founder

Dr. Gregor Hodgson, Reef Check Foundation

vation outcomes.



I started out as an expedition participant on a couple of expeditions in 2007 and began working for Biosphere Expeditions soon after. There are so many unique experiences gained over the decade since. I remember well one of my early projects: the creation of the 10 year anniversary magazine, which started our annual magazine tradition. And also how nervous I was about leading my first expedition in 2008. Since then, I have been privileged to experience many unique and remote places. I have

worked together with and have met all kinds of interesting people from all over the globe and faced challenges of all sorts. I froze in my steps in the Amazon rainforest at the call of a jaquar nearby, was arrested for a day by the Russian border police during a recce mission in the Altai mountains, found our Caprivi base camp surrounded by hundreds of buffalo grazing in the morning mist, celebrated a family event in a yurt in the Tien Shan mountains of Kyrgyzstan and was introduced to the shaman of a small village in the Amazon. There are two things all these stories boil down to: people and nature. That's what the most vivid memories are made of. Leading a random bunch of people and seeing them become a true expedition team within days; making friends with local people despite language and other barriers; enjoying the peace and freedom of an early morning out in the desert, the sounds of the rainforest at night or the breathtaking view from my tent pitched in the high mountains. Congratulations Biosphere Expeditions - to a concept and a mission that never fails to inspire me - and so many others too.

Malika Fettak, Biosphere Expeditions staff member



Standing on one of the ridges of the Alaa-Too range in Kyrgystan's Tien Shan mountains gives you goose bumps. Not only because of the stunning views over the shimmering glaciers, but also because this is snow leopard terrain. Accompanying the scientists doing their field work at altitudes of 3500+ metres not just helps you understand why the snow leopard is one of the most endangered cats in the world; it also hammers home why it is so important to protect these beautiful animals. Carry on with your great work, Biosphere Expeditions! And congratulations for your 20th anniversary.

Fabian von Poser, journalist



I work at a Biosphere Expeditions research station. My job is to run the station so that citizen scientists from Biosphere Expeditions can concentrate on research work that helps to protect the livestock in our communities and to manage predators. This is my first job and I am very grateful as there is little work in our area. I am also very grateful for the work that the citizen scientists are doing. Since their arrival I haven't lost any cattle to lions and hyaenas. My cattle are very important to me and my family. Thank you for your support.

Simon Naha, Biosphere Expeditions staff

I joined the Peru expedition back in 2001 when I was a zoology student at Bristol University. Ever since I can remember, I dreamed of one day visiting the rainforest, so this expedition literally was a dream come true. I remember having to pinch myself as we travelled by boat to our camp on the first day, just to convince myself I really was there! Now, years on from my expedition, I'm working as a researcher and writer for a charity who are at the heart of the $wild {\it life}\ media\ industry, and\ {\it liove}\ every\ minute$ of it. My expedition with Biosphere Expeditions all those years ago really started everything off, giving me both the inspiration and the experience needed to get into the wonderful and exciting world of wildlife conservation.

Liz Shaw (right), citizen scientist



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I wanted take this opportunity to express my gratitude to Biosphere Expeditions for a big contribution to my life. I was recently accepted for a graduate course at Berea College in Kentucky. When writing an essay for the application, I included descriptions of all my social activities on ecology, democracy and human rights. I also mentioned my participation in the Tien Shan expedition and its contribution to the conservation of snow leopards. I was later told that this played a big role in the selection process. So I would like to express my deepest gratitude one more time.

Yryskeldi Emilbekov, local placement on the Tien Shan snow leopard expedition 2017



20 years! 20 years of a vision, of involvement and excitement, of creating and implementing projects, of conservation. Congratulations Biosphere Expeditions! And thank you for involving me since 2004. I started as 'Mr. Telemetry' in Namibia, then led expeditions on tracking snow leopards in the Altai; Arabian leopard in Oman; wolf, bear, lynx in Slovakia. Then, starting in 2017, I became the expedition scientist on the Germany wolf project, realising a long-standing dream, proudly supporting official wolf monitoring efforts. My unforaettable moments include the nocturnal sounds of elephants, encounters with wild animals as well as many enthusiastic people. And most enjoyable of all: meeting people again and again on expeditions when they come back - like old friends!

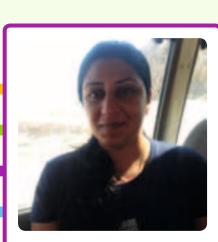
Peter Schuette, expedition leader and scientist



My first trip (sorry, expedition) was in 2003 to the Altai mountains to survey snow leopards. I returned there ten times and also went to the Tien Shan mountains (for snow leopards again), Scotland (cetaceans), Sumatra (tigers), Slovakia (wolves, bears and lynx), Germany (wolves) and the Azores (whales & dolphins). Every one has had something memorable – ranging from being nearly arrested in the Altai Republic for stall-

ing a Land Rover on a motorway, being stopped by an armed Russian army patrol on a mountain pass in the Altai for possibly smuggling sheep, being searched by another patrol for getting too near the Mongolian border, snowshoeing for the first time in snow a metre deep in Slovakia, wading waist-deep up streams in Sumatra, being on deck for hours in force 8 gales off Skye, winching the expedition leader's 4x4 out of Russian marshes, surveying for wolves on the Lueneberg Heath in Saxony with the sound of tank and heavy machine gun fire in the background from a nearby shooting range, to drinking lots of bowls of fermented mare's milk (kumis) in yurts in Kyrgyzstan. I can't say every minute was thoroughly enjoyable (particularly the kumis), but every minute has been worthwhile, for research and for me - truly inspirational. Great stuff Biosphere – keep it up!

Peter Pilbeam, citizen scientist



I first joined Biosphere Expeditions in Musandam (Oman) in 2015 as a local placement and then went to other reef expeditions. This encouraged me to get more involved and help with establishing an NGO (Reef Check Oman) in my country to empower local communities and Omani civil society to protect their own reefs. With the continued support from Biosphere Expeditions I hope that we will soon see Marine Protected Areas established in Oman and the health of our corals and threats to them addressed by our government. Thank you very much for your support Biosphere Expeditions; Reef Check Oman would not exist without it. And congratulations for your 20 year anniversary. I hope there will be many more.

Jenan Anwar Al Asfoor, local placement and head of Reef Check Oman



Way back in – I think – 2006, I travelled with Matthias and a group of adventurers younger than me into Oman to look for signs of the Arabian leopard. We drove up into a mountainous region where these critically endangered animals were rumoured to live, then started to walk. I say walk, it was more of a scramble as we climbed for what felt like hours up the side of this barren, sun-baked, rock strewn mountain.

I still have nightmares where I hear Matthias' voice calling "Not far now – keep going – you're nearly there". To my shame after two hours or so, with my leg muscles screaming for mercy, I lay down on a large flat rock and told the rest to carry on and collect me on the way down. After another hour or so the group staggered back to my resting rock - they hadn't seen any signs of the leopards – I on the other hand had discovered a colony of large ants on my rock - which I assumed, given the altitude, were a rare subspecies of Alpine Mountain Ants. In my subsequent nightmares when I wander back to that trip, I'm sure those damned ants were wearing oxygen bottles on their backs. "Keep going Matthias you're nearly there!"

John Lloyd, sponsorship manager at Land Rover



I started working with Biosphere Expeditions in 2011 as the expedition scientist for the Maldives expedition to start with and extending to the Musandam project later. During this time we've achieved much: Over 100 divers trained as Reef Check EcoDivers, two community-based NGOs, five Maldivians and two Omanis to the level where they can train others themselves. Some have gone on to start exciting careers in science, consultancies and tourism. We've produced many reports, and offered calls for Marine Protected Areas and other management measures, some of which have been heeded. Perhaps most importantly of all, local people enjoy their training and value our collective contributions to a better understanding of reef health and resilience in the face of multifarious threats. Congratulations to Biosphere Expeditions for all they have achieved in coral reef and other wildlife conservation issues.

Dr. Jean-Luc Solandt, Marine Conservation Society, UK



I first found out about Biosphere Expeditions while working on a Masters degree and living in Kyrgyzstan. A friend told me that there was a group doing snow leopard research, and that maybe I could jump in and do some of my research on the side. After two seasons of being a placement, I figured I would ask if they had any openings for expedition leaders. Now I have led the Tien Shan expedition two years in a row and have been hired as an assistant professor at a local university here in Kyrgyzstan as a result of the butterfly research I have done in conjunction with the Biosphere Expeditions snow leopard project. So thank you Biosphere Expeditions for having such a big impact on the opportunities I have had since joining as a placement in 2015. Here's to 20 more successful years!

Amadeus De Kastle, local placement and expedition leader



It was 2006 when I signed up for my Biosphere Expeditions trip. It made me feel ALIVE. So alive in fact that I decided to do a one-year course in Experiential Education and Outdoor Training. Now I organise outdoor summer camps for kids in state care in my native Hungary. It is amazing to see the changes in these children during the time we spend in the forest – how they become more self-confident as they face the challenges provided by nature, and how they become more open as we sit around the evening fire and tell stories under the star-filled sky. I hope I can take many more people – young and adult - to wild places and let them experience their life-changing effects. Just as my first Biosphere Expeditions journey changed my life too.

Laura Balazs, citizen scientist

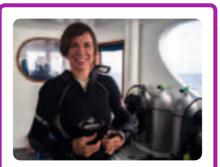
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As I emerged from Windhoek airport one morning in November 2002 to start my first expedition, I could hardly have known that this was going to be one of those moments

in life that would be the start of a significant journey in so many ways. The following 16 years have seen me take part in 14 expeditions encompassing 11 countries and four continents as well as being the first President of the Friends of Biosphere. So many memories crowd in to my mind now, but one stands out particularly. On the very first expedition to the Altai Republic in July 2003 our group discovered a set of fairly fresh snow leopard tracks and I recall staring in awe at them with a feeling of complete exhilaration.

Martyn Roberts, citizen scientist and alumnus President of the Friends of Biosphere Expeditions



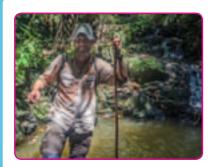
So many stories - I could probably write a book! My most unforgettable memory though was jumping into a warm dark Arabian sea, and accidentally stirring up a glistening soup of bioluminescent phytoplankton. Every movement of my limbs, every somersault of my body triggered a spectacular 3D light show of neon-blue iridescence. Below me were shimmering schools of mackerel, their sculptural formations punctured by swift, predatory needle fish creating pure explosions of light. In that moment I was subsumed, existing in another world. Magical!

Catherine Edsell, expedition leader



Although over the years I have been on many expeditions, the one that really sticks in my mind is my first expedition to Slovakia in 2004. I learnt so many new skills in a short space of time, met some amazing people, explored a beautiful part of the world and I never thought I'd enjoy looking for scat so much! I was even given the nickname 'scat girl' as I seemed to have an eagle eye for spotting poo!

Katie Bunting, citizen scientist



A meeting in the middle of somewhere. Or rather in Puerto Maldonado, gateway to the Amazonian rainforest, at a certain date, a Peter Laufmann, journalist

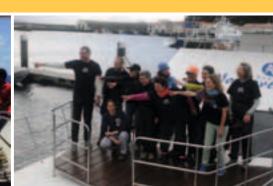
certain time and in a certain hotel. I was excited, because the appointment had a taste of adventure, something like the first meeting between Livingstone and Stanley. It worked and I was on my first project with Biosphere Expeditions, documenting macaws and other rainforest wonders. It was fantastic and persuaded me that theirs was a good concept. Doing serious and important work with enthusiastic volunteers. That was in 2002 and since then I have written many times about various Biosphere Expeditions projects. But I will always remember my first contact.

More memories and stories at www.biosphere-expeditions.org/testimonials www.biosphere-expeditions.org/placements#stories www.biosphere-expeditions.org/achievements-capacity#jobs

EXPEDITIONS A-Z









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AZORES













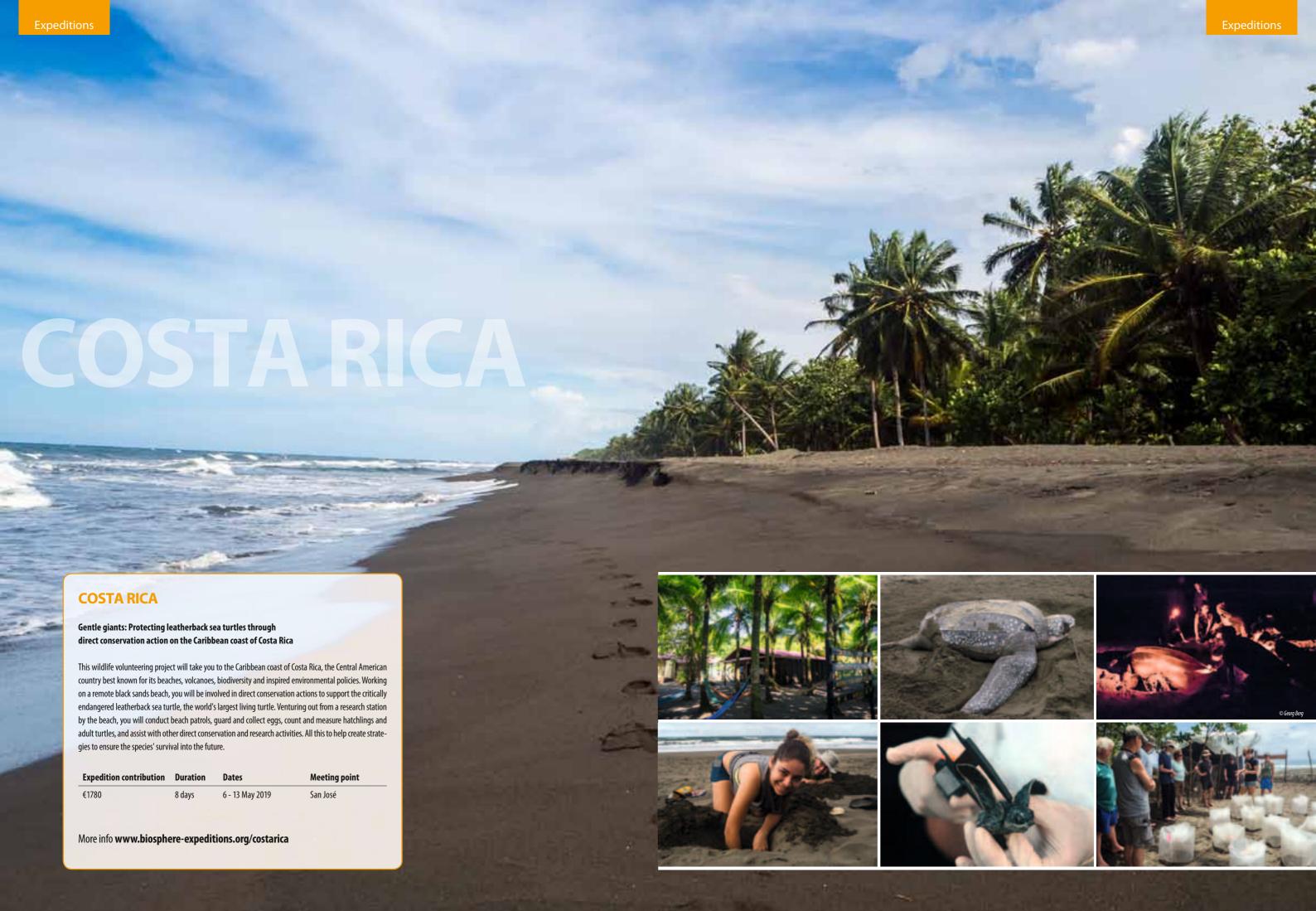
AZORES - Portugal

Fascinating creatures of the deep: Studying whales, dolphins and turtles around the Azores archipelago in the Atlantic Ocean

This expedition will take you to the remote and spectacular Azores Archipelago in the middle of the Atlantic Ocean to study whales, dolphins and loggerhead turtles. As part of a small international team, you will photograph whales and dolphins and record them for local and international monitoring databases . You will also listen to and make recordings of whale and dolphin vocalisations and capture loggerhead turtles in the open ocean for tagging and release. All this in an effort to elucidate the animals' life histories and migration patterns across the oceans and assist with the formulation of effective conservation strategies. The whole team will be working on a modern catamaran research boat during the day and staying in a comfortable and modern guesthouse at night.

Expedition contribution	Duration	Dates	Meeting point
€1790	10 days	29 Mar - 7 Apr 2019	Horta, Faial Island
€1790	10 days	9 - 18 Apr 2019	Horta, Faial Island

More info www.biosphere-expeditions.org/azores





KENYA

Big five and the frontline of conservation:

Defending the Kenyan Maasai Mara from biodiversity loss

This African wildlife conservation project will take you to the world-famous Maasai Mara, one of the natural wonders of the world, where you will monitor and defend its biodiversity. Species to be monitored include the "Big Five" of leopard, lion, elephant, buffalo and rhinoceros, as well as cheetah, wild dog and a host of ungulates such as giraffe, zebra, eland, impala, wildebeest, as well as other flagship African species. You will be working as part of an international team, based at a very comfortable field station with all modern amenities. You will be covering ground in off-road vehicles and on foot, and conducting wildlife monitoring activities such as camera trapping, target species searches, transect and species identification work, as well as data entry. All this in an effort to ascertain population diversity and abundance, and to work with local people on defending this iconic African landscape from encroachment, poaching and destruction.

Expedition contribution	Duration	vates	Meeting point
€ 2580	13 days	3 - 15 Feb 2019	Nairobi
€ 2580	13 days	17 Feb - 1 Mar 2019	Nairobi

More info www.biosphere-expeditions.org/kenya





























MALAWI

From elephants to cats to butterflies: Monitoring biodiversity of Vwaza Marsh Wildlife Reserve, Malawi, Africa

This African wildlife conservation project will take you to the little known, but species-rich and quintes-sentially African Vwaza Marsh Wildlife Reserve in Malawi to monitor four out of the Big Five (elephant, buffalo, leopard and lion), as well as hippo, primates, bats, antelopes, insects and vegetation. You will be working as part of an international team, based at a rustic but comfortable field camp. You will be covering ground in off-road vehicles and on foot, and conducting research activities such as live and camera trapping, target species searches, transect and species identification work, as well as data entry. All this in an effort to help local scientists assess the nature and patterns of biodiversity in Vwaza Marsh Wildlife Reserve and to inform biodiversity monitoring and management in order to protect this relatively untouched part of Africa for future generations.

Expedition contribution	Duration	Dates	Meeting point
€2480	13 days	22 Sep - 4 Oct 2019	Liliongwe
€2480	13 days	6 - 18 Oct 2019	Liliongwe

More info www.biosphere-expeditions.org/malawi

MALDIVES

Little and large: Surveying and safeguarding coral reefs & whale sharks of the Maldives archipelago

This SCUBA diving expedition will take you to the beautiful 26 coral atolls that make up the Republic of Maldives. Based on a very luxurious and modern liveaboard yacht, you will help marine biologists study and protect the Maldives' coral reefs and resident whale shark population. All this because the Maldives government identified a need for further research and monitoring work as far back as 1997. Biosphere Expeditions is addressing this need with your help and will train you as a Reef Check EcoDiver. With this qualification you will then gather important reef and whale shark data and you will also be eligible to apply for PADI or NAUI Reef Check Speciality Course certification after the expedition.

Expedition contribution	Duration	Dates	Meeting point
€2180	7 days	7 - 13 Sep 2019	Malé

More info www.biosphere-expeditions.org/maldives













MALDIVES



ROMANIA

Mystical Transylvania without the vampires:

Monitoring bear, wolf, lynx, bison and beaver in the southern Carpathian mountains of Romania

This expedition will take you to the fabled Transylvanian Alps of the Carpathian Mountains in Romania. There you will conduct important conservation research work on bear, wolf, lynx, bison and beaver, as well as their interrelationships with prey species and the human community. You will track and study these animals on the southern slopes of the Fagaras Mountains, in a 210 square km forest protection zone, which - together with neighbouring Piatra Craiului National Park - forms a hunting-free zone of 360 square km. Bear, wolf and lynx are present in the area already and beaver and bison are being re-introduced. You will be looking for the animals themselves, as well as their tracks, and place and check camera traps. You will also learn how to collect samples of scat and fur for genetic analysis and survey prey species such as deer and wild boar. All this in an effort to determine more realistic estimates of large mammal numbers and to create a new national park, which will be among Europe's biggest, and a world-class wilderness reserve.

Expedition contribution	Duration	Dates	Meeting point
€1840	8 days	1 - 8 Sep 2019	Bucharest
€1840	8 days	10 - 17 Sep 2019	Bucharest

More info www.biosphere-expeditions.org/romania



















Beautiful Brown bears: Studying bears in the quintessentially Scandinavian woodlands of Dalarna Province

This Swedish bear citizen science expedition will take you to the picturesque and quintessentially Scandinavian countryside of Dalarna province in Sweden to help study and protect the local brown bear population. Working in small teams, in flat or gently rolling hill terrain of heath, forests and wetlands, you will find and document bear winter dens and summer day beds when the bears are away (you will be able to tell this from their GPS position or collar signals). Detailed knowledge about dens and denning behaviour is important, because it helps to avoid human-bear conflict and provides important population, reproductive and other ecological information that is critical for successful bear conservation.

Expedition contribution	Duration	Dates	Meeting point
€1970	8 days	16 - 23 Jun 2019	Mora
€1990	8 days	24 Jun - 1 July 2019	Mora

`More info www.biosphere-expeditions.org/sweden





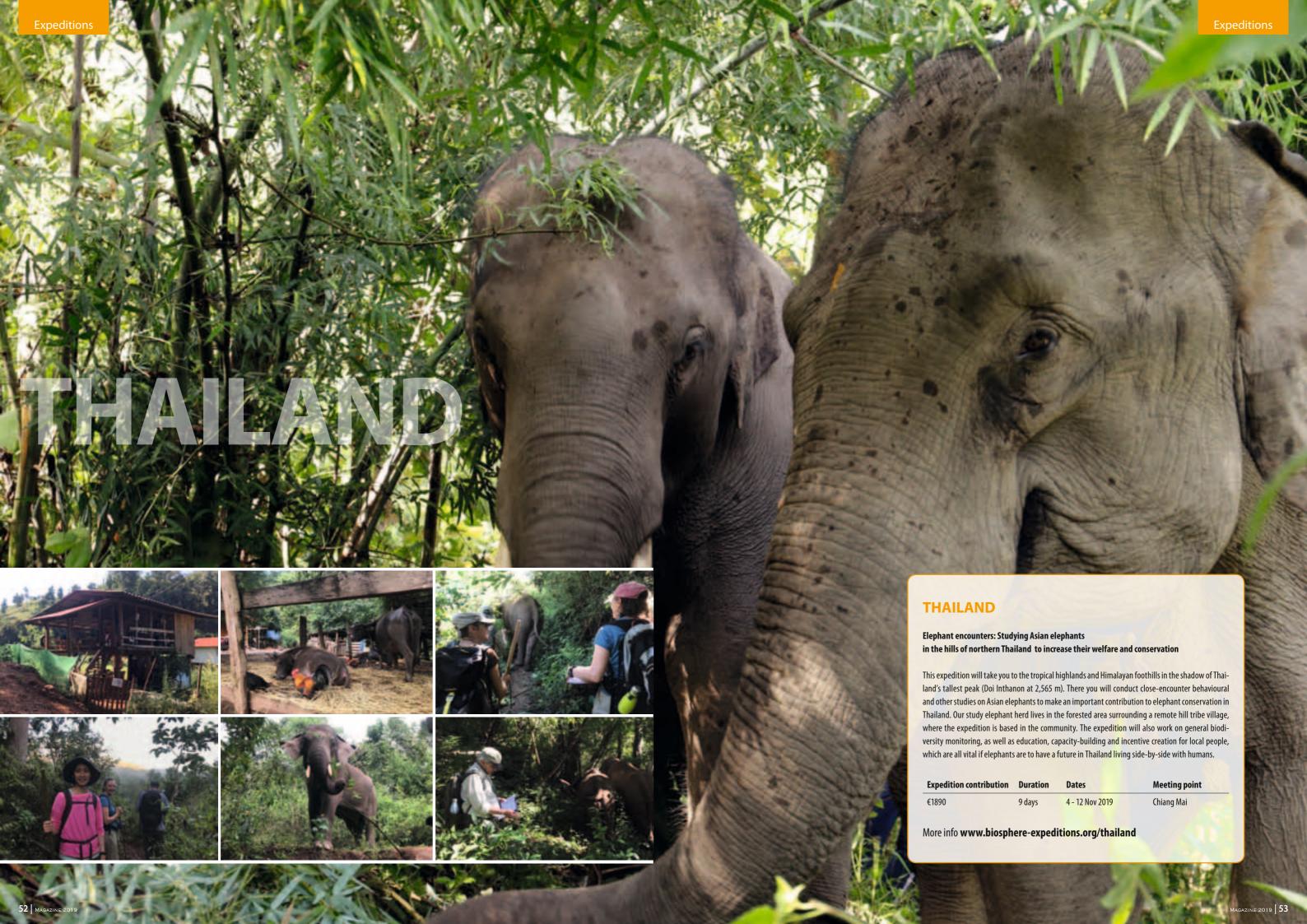


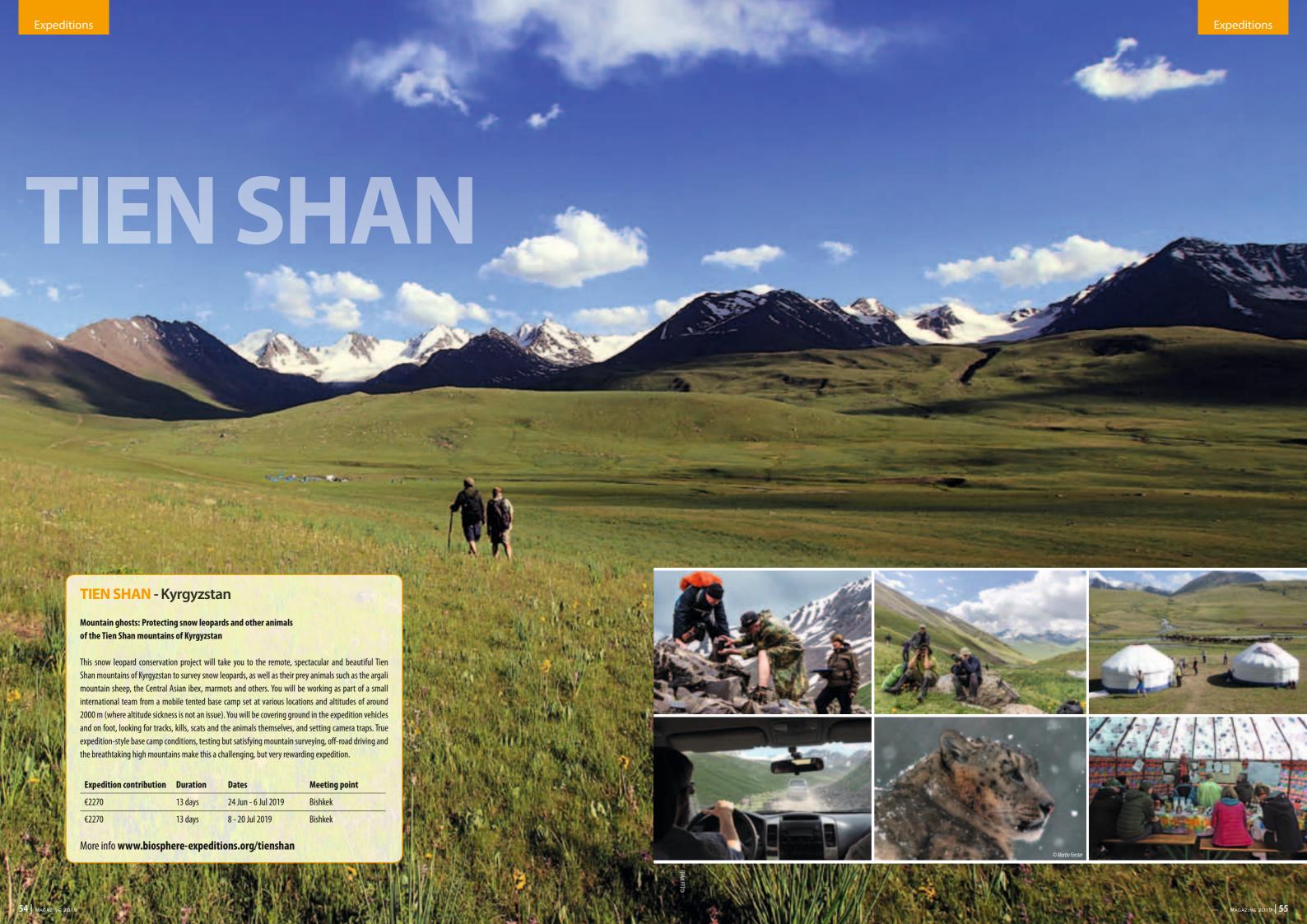












EVENTS

EXPERIENCE DAYS

Experience days are just what they say they are: days that will give you a unique insight into what it's like to be in the field with Biosphere Expeditions assisting scientists with wildlife research and conservation. They are set amongst the beautiful scenery of a national park or protected area, where you will be part of a small team, alongside a park ranger or nature guide, and your expedition leader. You will discover expedition and wildlife research and conservation skills such as working with a map, GPS and compass, collecting important animal data, reading animal tracks and signs, using telemetry equipment and wildlife camera traps. You will also learn about the area you are in, its fauna and flora, history and the conservation work going on inside.

Experience days are always on a Sunday from 09.00 to 17.00. Experience day contribution: €95 per person.

We will credit €95 back to you if you subsequently join one of our expeditions.



OTHER EVENTS

We also have events around the world throughout the year. These include talks, exhibition attendance, get-togethers, etc.

More info

www.biosphere-expeditions.org/events





20 OF A SET OF UNIQUE POLICIES



Over the past 20 years, we have developed some unique policies. For example, as far as we are aware, we are the only volunteer / citizen science organisation that is vegetarian.

Our non-growth policy is pretty unique too, we believe, in the sector or in the commercial world at large.

Here is a list of our key policies.

Ithough these days the terms "volunteering" and "voluntourism" are much used and abused, we at Biosphere Expeditions are committed to running real citizen science wildlife conservation research expeditions to all corners of the Earth. Our projects are not tours, photographic safaris or excursions, but genuine research expeditions and citizen science wildlife conservation projects. We promote sustainable conservation and preservation of the planet's wildlife by forging alliances between scientists and the public.

Our goal is to make, through our work, an active contribution towards a sustainable biosphere. At Biosphere Expeditions we believe in empowering ordinary people by placing them at the centre of scientific study and by actively involving them out in the field, where there is conservation work to be done.

We always work in close conjunction with local people and scientists, and try our best to ensure that the fruits of our expedition work benefit our local helpers, their society and the environment they live in. Adventure, remote locations, different cultures and people are part and parcel of our expeditions, but also the knowledge that you will have played an active role in conserving part of our planet's biosphere.

We exist for those who, through their hands-on work, want to make a difference to the survival of the particular species or habitat under investigation, and to the world at large. We invite everyone to come and join us out in the field, at the forefront of conservation, to work, learn, experience and take responsible guardianship of our biosphere.

To achieve this, Biosphere Expeditions will wherever possible • collaborate with reputable scientists, research institutions and educational establishments (wherever possible from the host nation) who are experts in their field • collaborate with organisations and businesses which operate in an ethical and/or sustainable way • operate in an ethical and sustainable way, minimising negative impacts on local cultures, environments and economies • publish results and recommendations based on collaborative work together with those who helped gather data and draw conclusions.



OVERALL

Biosphere Expeditions believes that, as humans, we have designed an economy that is dependent upon endless growth. We have also designed an economy that generates incremental profits by constantly increasing productivity. Endless growth on a finite planet is an unhealthy and unsustainable mathematical impossibility. Cancer is perhaps the best analogy to endless growth. It grows until it kills the body that hosts it. Therefore Biosphere Expeditions is not committed to growth. We want to do a limited number of projects

and we want to do them well, making a difference to our partners and local communities on the ground as well as the wildlife and habitats that support them. We want to retain full control of our processes and actions, with our left hand knowing what our right hand is doing. If there is growth, we will make sure that it is sustainable and necessary, which means it should be based on local demand and conservation need. Our economic decisions will be based on this maxim.

NON-GROWTH



20 YEARS OF A SET OF UNIQUE POLICIES

VEGETARIAN FOOD

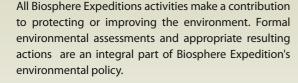


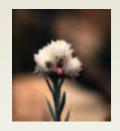
Biosphere Expeditions is all about animal conservation and research on, or caring for, animals in its broadest sense. Because of this, Biosphere Expeditions will offer through its catering no animal meat (including fish) on expedition. In addition, the United Nations (alongside many other studies) has identified vegetarianism as one of the major ways to reduce impact; it has also concluded that

a global shift toward a vegetarian or vegan diet is necessary to combat the worst effects of climate change. In line with all of the above, Biosphere Expeditions will only offer a vegetarian diet wherever possible on expedition.

More background information on this is on www.biosphere-expeditions.org/vegetarian.

ENVIRONMENT& EMISSIONS





Biosphere Expeditions always aims to minimise the effects on the environment of all its activities. Expedition participants are fully briefed on all aspects of this and told how to minimise their personal and the mission's impact on the environment. Where possible, all paper and other recyclable materials are recycled. Water and energy efficiency are always under consideration and where possible efforts are made to minimise energy

usage. In order to reduce environmental impact, all expeditions are vegetarian.

Biosphere Expedition also works with Climate Care, who encourage people to repair the damage they do to the environment every time they fly or use other fossil fuel-burning means of transport. All our expedition team members are encouraged on a voluntary basis to make a donation to Climate Care based on the damage their travel to the expedition base has done. This donation is paid into a fund that invests in projects that reduce emissions, such as renewable energy and energy efficiency. Biosphere Expeditions then covers the carbon debt incurred whilst the expedition is actually in the field.

SOCIAL



Briefings before the start of the mission and leaders during the mission highlight relevant social issues and offer best practice examples to team members.

All missions are developed with local partners and scientists, as well as community representatives where appropriate. This consultation serves to minimise negative impacts on local cultures. This is often devel-

oped through a more complete integration into local communities, by working alongside them to achieve a conservation objective.

Biosphere Expeditions publishes results and recommendations based on collaborative work together with those who helped gather data and draw conclusions.

SPONSOR-SHIP



Biosphere Expeditions actively encourages and seeks out support from companies whose activities have a direct connection to Biosphere Expeditions' research and conservation work through provision of products and/or services that can support this work. This includes manufacturers of outdoor & research equipment, IT, vehicles, or providers of services such as transport, training, education or PR/marketing. Biosphere Expeditions also approaches grant-giving bodies and trusts whose funds are not derived from environmentally destructive activities.

Biosphere Expeditions does not accept support from the following:

• Corporations whose activities, services or products come with a persistent and large-scale negative impact

on the environment. These include oil, gas, logging, mining and other such companies, which Biosphere Expeditions judges to fall into this category.

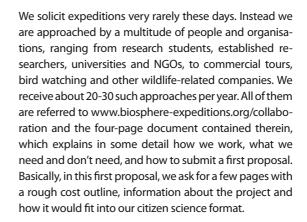
- Corporations whose activities, services or products come with a persistent and large-scale negative impact on human health or welfare. These include tobacco, alcohol, some food production & processing and other such companies, which Biosphere Expeditions judges to fall into this category.
- Corporations who Biosphere Expeditions judges to obtain their revenue by unethical means or who have a record of unethical conduct.

HOW WE CREATE NEW EXPEDITIONS

One question we are often asked is how we create new expeditions.

The answer is not simple or quick, just as the process is not either, so bear with us. But in a nutshell, it's a pretty long and involved process and not many requests become expeditions.

STEP 1 - Approaches



Around 80% of those who approach us never respond to this request for a first proposal. Of course we mostly don't know why, but our educated guess is that for many of them citizen science is not what they can offer or what they are after – this, we think, applies mainly to commercial operations such as bird watching and safari-type companies. An approach of the "we are a bird watching company in x and can offer tours to y to see z – when can you add us to your catalogue?"-type is unlikely to result in the submission of a serious research proposal. However, on one occasion this kind of opener was the start of what would become our Ukraine expedition, which did end up working with migratory birds and wolves, and succeeded in creating a national park (see page 11).

Another group, we believe, is NGOs who host research teams that come with their own researchers, which is not what we need as we want to work with local researchers where there is a clear local need. Such unsuccessful approaches would typically come from NGOs running research stations and trying to sell vacancies.

A final group may be those who simply have not understood the concept of citizen science, or have not thought it through sufficiently in order to be able to create a first proposal.



From bird watching proposal to serious citizen science to national park.
One of the early projects in the Ukraine (see also page 11).

STEP 2 - First proposal

From the many initial approaches, we only receive around four to six first proposals per year on average. Of these, more than half usually fall by the wayside, because either the science does not stack up, or because the study species is not exciting enough, or the location not suitable for citizen scientists, or the proposed expedition is simply too dangerous, or because it's just too expensive.

Projects that are too expensive tend to be proposed by swish lodges or similar types of accommodation with very high prices for board and lodging. This by and large would not give us the contained, non-touristy base camp feel we are after. A luxury lodge in Zanzibar proposing a project on coconut crabs charging over \$200 per day for board and lodging alone is one such example.

This project proposal was also in the category of "not sexy enough". Although it pains us as a conservation organisation to reject projects due to lack of species appeal, we try to be fair to everyone and as such will not require proposers to jump through hoops with little chance of success

in the end. And conservation often works along those lines anyway: exciting flagship species can inspire people, which attracts them and funding. There's a reason why the panda is WWF's logo. This may not sound fair, and we ignore "boring" species at our peril, but



There's a reason why pandas are a popular flagship species... Picture from Wikimedia Commons.

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Background Background

HOW WE CREATE NEW EXPEDITIONS

we know from experience that next to our projects on cats, wolves, bears, elephants, turtles, coral reefs, etc., coconut crabs would simply not stand a chance. Another reason for proposals not going past the first stage are inadequate logistics or dangerous locations. We had a proposal for a very interesting chimpanzee project in the Congo once, but it's just too dangerous to take people there at the moment.

STEP 6 - Second proposal

The one, two or three proposals per year that make it past the first stage then have their work cut out. The instructions on how to write a stage 2 proposal are ten pages alone. In them we ask for exact details on the science and how citizen science can help the project; we require details of the conservation aims and previous successes of the project; an exact budget; information on safety, logistics, partners and permits; local need, benefits and involvement; references; CVs; previous publications; etc. We also start writing an expedition dossier together.

It's undoubtedly quite a task to write a stage 2 proposal and we realise that some applicants may not have done this before. If we sense that they are trying and need help, we support them. If we sense they can't be bothered with the process, then they have essentially de-selected themselves. Some applicants are used to such processes (for example through grant-writing) and can turn around a stage 2 proposal within days or weeks. Others need much more time, which we give them as there is no hurry from our end. In that sense it is up to the applicant on how quickly (or not) they want to progress things.

STEP 4 - Reconnaissance visits

Once the second proposal is finished and has not hit any snags (for example relating to the budget, the science or the usefulness of the project), then we arrange a reconnaissance visit with the applicant. Prior to this visit, everything has happened on paper only. This changes with a reconnaissance visit, when staff travelling there become guinea pigs, taking the travel routes that future participants would take, staying in proposed assembly point hotels and of course sampling base camp, its logistics, as well as experiencing the proposed research tasks. Amongst many other things, we also scrutinise safety aspects, the science behind

> the project, the people involved, the partnerships they have and how realistic the proposed conservation outcomes are.

The vast majority of projects that we visit on-site end up becoming expeditions, because by then it is usually clear that the potential to meet all our requirements is there. In fact, in the last twenty years only one project that had a reconnaissance visit failed to make it onto the expeditions roster (spectacled bears in Bolivia due to logistics issues). But since the process is so long and involved, the ones that eventually make it onto our portfolio really deserve to

STEP 6 - Agreement and adding the expedition to our portfolio

After the reconnaissance visit, or sometimes at the end of it, we sign an agreement with our new partners. Initially, this is always for one year only to give everyone the chance to run one expedition and then re-assess. Afterwards, we sign multi-year agreements. The vast majority of projects last much more than one year (see timeline on pages 10-21). Those that did not either did not have enough species appeal (vultures in Spain), or we disagreed after the first year on how ethical citizen science expeditions should be run (cetaceans in Scotland and elephants in Sri Lanka).

Once the agreement is signed, the expedition goes on our portfolio and we then usually need a year to recruit a team. So the process from first contact to first team in the field usually takes two to four, and sometimes five, years.

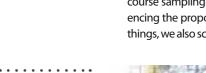


Putting names on dotted lines - signing the agreement for the Honduras coral reef expedition (in 2005).

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The dirty dozen and non-growth

Our natural equilibrium seems to be about a dozen expeditions. Some expeditions finish because the project is finished (e.g. Poland, Ukraine), or the scientists move on (e.g. Namibia), or their popularity wanes (e.g. Spain), or countries become unsafe (e.g. Russia, Honduras). Their place is taken by new expeditions. Since 2010 we have had between ten and thirteen expeditions on our portfolio continuously and since we reject any neoliberal notions of endless growth (see the article on our policies on pages 57-58), this is unlikely to change. And in the end, we would like to make ourselves redundant by building local capacity and putting conservation in the hands of local people, where it belongs. ■





VOLUNTOURISM, CITIZEN SCIENCE

Citizen science

The phrase 'citizen science' is a relatively new one, but it is a term used for an activity that has been going on for decades. The activities to which it refers relate to untrained non-scientists (referred to as citizen scientists) working in support of trained scientists, with the helpers not getting paid. Tasks are by and large simple and require much time - but relatively little technical input. In this way, the scientist can gather a host of vital data with minimal training for the citizen scientist. The citizen scientist, in turn, learns from the scientist, and can offer help and ideas in support of getting the work done. This is pretty much what we have been doing at Biosphere Expeditions for the last 20 years. We just haven't called it citizen science until very recently, when the terms 'volunteering' and 'voluntourism' sadly started acquiring negative connotations through the actions of unscrupulous, profiteering operators.

The rise of organised volunteering

Volunteering is a very old activity with the earliest records dating from ancient times. Some researchers place volunteerism historically within the spheres of religion and class, suggesting that it emerged from the church connections of the aristocracy and manifested as acts of 'altruistic' duty to help relieve poverty or to educate poor children. This was a result of the notion held by some of 'noblesse oblige', a French expression used in English that translates as 'nobility obliges;' the phrase denotes the concept that nobility extends beyond mere entitlements and requires the person who holds such a status to fulfil social responsibilities. This was also reflected in the virtues of chivalry, which included courage, justice, mercy, generosity, faith, nobility and hope. The charities supported by the elite then evolved into the 'Friendly Societies' and the 'Voluntary Anglican Schools' that continue to this day. Others have argued that volunteerism and community spirit took its present form in the New World with assistance from indigenous peoples to new colonists during the struggles of the first North American settlers.

Volunteer tourism is a more recent development. Its first manifestation appears to have come after World War I, when international groups of volunteers started to get together to help repair places that had been badly affected by the war. By 1961, and after another world war, the Peace Corps was founded in the USA, followed by a youth group in the 1970s. Europe was



not far behind, with Operation Drake (initiated in 1978) and Operation Raleigh (1984) coming out of the UK to take people abroad to volunteer on a range of different projects. The first citizen science projects started to emerge around this time as well, with volunteers working alongside scientists to further scientific research.

Citizen science meets volunteering holidays

Citizen science can be done in many ways. People can volunteer at home by sitting at their computer and contributing to projects on websites such as Zooniverse. This website has hundreds of different citizen science projects on its books that people can contribute to without leaving their home – everything from analysing photos of the stars to counting images of animals from camera traps in the Serengeti. If you want a more active citizen science experience, you can go out and about somewhere near your home with your smartphone and use one of the myriad of apps designed to help you recognise and record different species of interest or record environmental variables such as air pollution, etc. The data are simply uploaded to databases where scientists can access them and use them to further their understanding of their area of study. The next step along the citizen science spectrum is to go somewhere specifically to undertake citizen science work.

It was in the 1990s that organisations such as Biosphere Expeditions really began to establish themselves, offering science-based volunteering projects designed specifically around people who wanted to use their holiday time to 'do good', rather than lie on a beach somewhere. As such these activities were organised on a one- or two-week

science behind the project - here on our

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VOLUNTOURISM, CITIZEN SCIENCE?

turn-around basis so that people could volunteer in their usual holiday time. This format proved to be highly successful, bringing much additional resource into conservation and other volunteering areas. But then the problems began. Initially holiday volunteering was offered by and large by charities and non-profit organisations. But as the number of projects and people involved went through an extraordinary expansion phase during the early 2000s. profit-driven operators started to discover holiday volunteering as a source of income. Companies sprang up, sometimes overnight, with hundreds of volunteering projects on their websites. Some projects were great, doing authentic, useful and important work. Others were bad - either badly organised or with questionable outcomes. And some were downright ugly – just set up to make money for the organisers and detrimental and exploitative to the people and causes that they purported to help. Volunteering and voluntourism had started to acquire a questionable reputation with the worst examples such as exploitative and damaging orphanage voluntourism making headlines. Another problem was that people simply did not know how to choose between the opportunities on offer. Anyone can build a fancy website and often it is very hard to tell which were the good guys and which the dodgy dealers and charlatans.

In 2011 Biosphere Expeditions assembled a group of experts in volunteering, wildlife research and conservation, and tourism to discuss what pointers could be given to people who were looking for a genuine wild-life volunteering experience. The pointers needed to be easy to understand and provide practical help to those looking to choose a holiday or gap year experience that was going to be beneficial not only for themselves, but also for the wildlife and communities that they would encounter.

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The Top Ten Tips that emerged have been recognised and covered across the world (see www.biosphere-expeditions.org/ toptentips for details) and are designed to help people make good, informed choices:





- **1. Reputation, reputation:** has the organisation won awards or accolades, who are they associated with, what is their philosophy, do they write & publish their results and what's their safety record.
- **2.** Qualified staff: work should be led by qualified & proven experts, group leaders should be well qualified and all staff should be well briefed on risks and safety issues.
- **3.** Where does your money go: good organisations will always publish clear information that shows how your money is spent.
- **4.** Proper follow-through: a good organisation will, through updates and reports, keep you informed about how the project progresses even after you've left.
- **5.** What will you get out of it: be clear about what you want to get out of the experience training, self-development, an adventure then check whether the organisation is clear in communicating what's on offer for you.
- **6.** Community involvement and benefit: understand a project's relationship with the local community and make sure that the organisation is properly embedded with local efforts and people does the community benefit, have they given consent for work to be carried out, how have they been involved. Is there training for locals, scholarships, capacity-building, education, etc.
- **7.** Your fellow participants: understand the profile of the people that will share your trip by checking the organisation's website and social media sites.
- **8.** In the field: check that the organisation is clear & transparent about what will be happening day to day, the accommodation, food and other logistics, and also what is expected of you.
- **9.** Captive animals: if the experience involves captive animals, be very clear on the purpose of the captive facility, where the animals come from and whether it is part of a reputable programme.
- **10.** Handling animals: steer clear of organisations that encourage handling of captive wild animals for anything other than essential veterinary or neo-natal surrogate care. If wild animals are handled, it should only be for essential research & conservation work and following strict animal welfare guidelines.

We are glad to say that we have had some really strong coverage of this approach and we hope that it will make a difference, helping people to choose the right kind of volunteering holiday.

THE FRIENDS

OF BIOSPHERE EXPEDITIONS

Who are the Friends?

The Friends of Biosphere Expeditions are people who feel passionate about providing support to our critical wildlife conservation and research projects across the globe. By joining the Friends you can play a vital part in making a real difference to the survival of our planet's endangered species. Joining is easy, not expensive and just a click away at www.biosphere-expeditions.org/friends.

Become a member

If you can't take part in a full-blown expedition or project yet, or if you have already been with us and would like to stay involved, or if you would simply like to be part of what we are doing, then why not become a Friend of Biosphere Expeditions today? Help us to support critical wildlife conservation and research projects across the globe for a membership fee* starting from a monthly €10 /£10 /US\$13 / AU\$15.

Membership benefits

Friends membership benefits include expedition and events discounts, the Biosphere Expeditions Magazine, first notification and preference for last-minute expedition places, news and updates on how your membership fee is making a difference to our conservation work in the field and much more. More information and a joining form are at www.biosphere-expeditions. org/friends.

Where does my membership fee go?

Wondering where your money will go? We guarantee that 100% will go into supporting conservation. We can do this because we are a small, flexible organisation with no steel and glass head-quarters to maintain or bureaucratic dinosaurs to feed. Whenever we make a significant expenditure on one of our conservation projects from the Friends' funds, we will let you know in a clear and transparent way. For example, we may spend some of the fund to enable scientists from different projects to present the findings of their Biosphere-supported projects at international conservation conferences, or we may spend some of the fund on printing education materials for local people, or on training up a local conservationist under the guidance of our project scientists, or creating placements on our expeditions for local students and people. Have a look on the next pages for recent examples of what the Friends' funds have been spent on.



Friends activities & successes 2018

All funding support from the Friends in 2018 has gone into supporting local people such as shepherds in Germany and other people world-wide as part of our placement programme.



Holger Benning, a shepherd, herd protection dog breeder and wolf commissioner in Germany, and a showcase of how shepherds can adapt to and benefit from the wolf's return. The Friends of Biosphere Expeditions support him and his work.

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Background

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THE FRIENDS OF BIOSPHERE EXPEDITIONS

Another example – and the biggest success of our work with local people in 2018 – was Oman's two historic first Reef Check Trainers who have taken on a leading role as citizen scientists in the country's reef conservation. In March 2018 these two very first Omani Reef Check Trainers were certified and can now train their compatriots in Reef Check, a methodology for divers to become citizen scientists and assess coral reef health; in Oman and elsewhere. This is the first time in the history of Oman that Omani citizens have taken on a leading role in reef science and conservation. The two trailblazers are Jenan Anwar Alasfoor and Ali Saleh Ibrahim. Both are graduates of the Biosphere Expeditions international placement programme. Alasfoor and Ibrahim initially took part in expeditions to assess the health of Musandam reefs, which Biosphere Expeditions has run for ten years since 2008. They both graduated from the expedition as Reef Check Eco Divers and went on to take a leading role in the first-ever community-based reef survey in Oman in 2017. Jenan Alasfoor also became the head of budding NGO Reef Check Oman in the same year. Alasfoor and Ibrahim then built their survey experience and completed a marine biology distance learning course at the University of Exeter (UK). With this under their belts, they made the historic achievement of being certified as Oman's very first Reef Check Trainers.



Jenan Anwar Alasfoor (right) and Ali Saleh Ibrahim.

Placement programme

The Biosphere Expeditions placement programme (see www.biosphere-expeditions.org/placements) offers free expedition places to nationals or residents of the expedition host country in order to build capacity and careers, train the next generation of conservationists and empower communities and community-based conservation efforts.

The placement programme is kindly supported by the Anglo-Omani Society, Vascutek, as well as a fundraising campaign via GlobalGiving, and supplemented by the Friends.





The Look Ahead network

There are many ways of getting involved with Biosphere Expeditions. Joining an expedition is one; joining our Look Ahead programme is another. We are building an amazing network of people - have a look at how people have helped; we hope it gives you some inspiration. Then see which one is for you and get in touch.

Raise funds

Support critical wildlife conservation and vital research by raising funds for Biosphere Expeditions. There are many ways to do this. Why not organise an event or take part in a sporting endeavour? It's fun, a great way to meet people and to do something different to challenge yourself. By raising funds you can make a long-lasting contribution to our wildlife conservation work worldwide.



Make a

You can make a tax-efficient dona-

tion via our crowd-funding website

www.crowdrise.com/biosphere-expedi-

tions or straight into the accounts of our

US 501(c)(3) charity, our German e.V.

charity, or our UK or Australian

non-profits.

donation

Spread the word!

One way of helping us to help wildlife and people across the world is to spread the word. Word of mouth (in person and online) is a good way to get people excited. Talk to your family, friends and colleagues about your experience and encourage them to join in too.

Time & skills

We always need people with skills who can help us out. Examples are skills in the outdoors, accounting, graphic design or IT. Or people who can help by writing blogs, tweets or talking to the media. If you have any of those skills or if you would like to help online, then please send us an e-mail telling us what your skills are.



Events

Host an event for us in your neck of the woods. Examples include staffing a stand at an exhibition, holding a drinks reception in a local pub, a dinner party at your home, a talk at your local wildlife or conservation society, a get-together at your professional organisation or club, or anything else you can think of. We can send you support materials such as postcards and brochures that you can hand out at your event. In addition a Biosphere Expeditions staff member might be able to come and support you or give a talk.



● Media

Local newspapers and radio stations are always looking for new stories, and they are very likely to want to hear about your experiences. Biosphere Expeditions has an extensive archive of high resolution photos and broadcast quality HD films, so please contact us if you need pictures or film clips to illustrate your story or if you would like help with your press release or media work.



Involve your company

Does your company publish a company magazine? If so, the editor would probably be very interested to hear from you as they are always keen to cover interesting features relating to their members of staff.

Many employers, particularly in the USA and Canada, but also elsewhere, will match fund charitable contributions made by their employees, retirees and employees' spouses. In Biosphere Expeditions' case this means that your employer may match fund your expedition contribution payments and other donations you make to Biosphere Expeditions. Some employers also provide matching funds to support employee volunteer hours.

Some companies also have grants for non-profit organisations such as Biosphere Expeditions, so why not talk to the relevant people in your company? You may have a Corporate Responsibility Manager, or an Environmental or Communications Manager who may be able to help you. Some companies are also keen to get their staff involved in non-profit causes and might like to send staff members on an expedition or an experience day, so this is another option you could investigate.



You may have laptops, GPSs, video cameras, binoculars or other items which we can use on expedition to give away. If so, please let us know and we will either use them ourselves on our wildlife conservation projects or pass them on to our local

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More examples of what people have done in practice are at www.biosphere-expeditions.org/lookahead Contact: info@biosphere-expeditions.org

MEDIA CLIPPINGS 2018

Biosphere Expeditions is in the media a lot. Below is a small selection. A full overview is on ISSUU at http://issuu.com/biosphere-expeditions

