

- VOLUNTEERING TRAVEL GUIDE ■ STAMP COLLECTING VOLUNTEERS
- THE VOLUNTOURISM ASSAULT ■ TOP TEN TIPS ■ EXPEDITIONS A-Z
- INTERVIEW: VEGETARIANISM ■ & MUCH MORE



# VOLUNTEERING

## TRAVEL GUIDE & MORE

20  
16  
magazine





# Welcome

to the seventh issue of the annual Biosphere Expeditions Magazine. Voluntourism continues to hit the headlines and in this year's Magazine we explore the breadth of this topic. There have been some very justified criticisms levied against the sector, particularly in the social and humanitarian fields. Inside we argue how volunteering in citizen science, wildlife conservation and research may fall into. And for those thinking about working with Homo sapiens, rather than other animals, there are some tips, guidelines and resources on how to avoid the dark end of voluntourism and enjoy yourself at the same time.

Beyond all that, we showcase our expeditions and their latest developments, introduce the new Costa Rica sea turtle project and share with you news of our alumni, partners and friends. We hope you enjoy the read.



Kathy Gill  
Strategy Adviser

Dr. Matthias Hammer  
Founder & Executive Director





## about us • über uns • à propos



**Artenschutz fördern –  
damit Natur profitiert**

**Natur- und Artenschutzexpeditionen -  
nachhaltiges Reisen und ethischer Voluntourismus**

Machen Sie in Ihrem Urlaub den Unterschied. Nehmen Sie teil an unseren Natur- und Artenschutzexpeditionen an wunderschönen, entlegenen Orten überall auf der Welt. Lernen Sie Neues als Teil eines internationalen Teams, angeleitet und betreut von Wissenschaftlern und Expeditionsleitern. Erleben Sie Naturschutz aktiv und hautnah!

Biosphere Expeditions ist eine gemeinnützige, mehrfach ausgezeichnete Naturschutzorganisation und Mitglied des IUCN und des Umweltprogrammes der UN. Wir sind überzeugt, dass erfolgreicher Naturschutz auf Zusammenarbeit basiert. Engagieren auch Sie sich als Teilnehmer in unseren Natur- und Artenschutzprojekten weltweit. Ob jung oder alt, werden Sie Laienforscher für ein bis zwei Wochen oder auch länger.

Wir arbeiten wissenschaftlich mit Blick auf die lokalen Erfordernisse. Dabei konzentrieren wir uns auf langfristig angelegte Projekte, die klare und vor allem erreichbare Ziele haben. Freiwillige Helfer aus aller Welt arbeiten Hand in Hand mit Feldforschern und den Menschen vor Ort für den Erhalt der Artenvielfalt. Die Schaffung eines Schutzgebietes für Schneeleoparden im Altai ist nur ein Beispiel aus der jüngsten Vergangenheit.

Biosphere Expeditions ist Mitglied des IUCN (International Union for the Conservation of Nature) und des Umweltprogrammes der Vereinten Nationen (UNEP). Zahlreiche nationale und regionale Regierungen setzen unsere Empfehlungen zu Natur- und Artenschutzstrategien um. So haben wir zur Schaffung von Schutzgebieten auf vier Kontinenten beigetragen. Außerdem fördert Biosphere Expeditions die Ausbildung von Fachkräften und schafft damit lokale Kapazitäten. Forschungsergebnisse werden regelmäßig in Fachzeitschriften und anderen Medien weltweit publiziert.



**Promouvoir la conservation  
de la vie sauvage –  
pour la nature, pas le profit**

**Des vacances respectueuses de la faune sauvage –  
un voyage engagé dans le développement durable  
et la préservation**

Faites vos comptes de vacances. Rejoignez nos expéditions de préservation de la faune dans des endroits éloignés et beaux dans le monde entier. Allez dans des lieux où les autres ne vont pas pour apprendre de nouvelle compétence et d'expérience pratique.

Biosphere Expeditions est une organisation à but non lucratif, plusieurs fois primée et membre de l'IUCN et du Programme des Nations Unies pour l'Environnement. Pour nous une conservation réussie de l'environnement est un effort collectif d'individus, donc venez nous rejoindre sur un de nos projets portant sur la faune et l'environnement partout dans le monde. Que vous soyez jeune ou vieux, devenez un citoyen scientifique pour une ou deux semaines, ou plus.

Les bases de notre travail sont la science et les besoins locaux. Nous sommes attachés à des projets de conservation durable avec des buts clairement définis sur des thèmes cruciaux que l'humanité a le pouvoir de changer. Des volontaires du monde entier travaillent main dans la main avec des biologistes et les communautés locales afin d'obtenir des résultats positifs pour la biodiversité – la création d'une zone protégée pour les léopards des neiges dans l'Altai en est l'un des exemples les plus récents.

Biosphere Expeditions est membre de l'IUCN (Union Internationale pour la Conservation de la Nature) et du Conseil d'administration/Forum ministériel mondial sur l'environnement du Programme des Nations Unies pour l'Environnement (PNUE). Nos réalisations comptent également l'adoption par plusieurs gouvernements nationaux ou locaux et par des ONGs de recommandations de plans de conservations et de protection d'espèces ainsi que la création de zones protégées sur quatre continents, des publications (scientifiques et grand public), ou bien le renforcement des capacités, la formation et l'éducation à travers le monde.



**Advancing wildlife conservation –  
for nature, not profit**

**Ethical wildlife holidays -  
where sustainable travel meets hands-on  
conservation**

Make your holiday count. Join our wildlife conservation expeditions in remote and beautiful places around the world. Go places where others don't, learn new skills and experience hands-on conservation in action.

Biosphere Expeditions is an award-winning not-for-profit conservation organisation, and a member of IUCN and the UN's Environment Programme. For us successful conservation is the collective effort of individuals. We invite everyone to join us on our wildlife and wilderness projects all over the world. Whether young or old, become a citizen scientist for one or two weeks, or more.

The foundation of our work is science and local need. We focus on sustainable conservation projects that target clearly defined, critical issues that humankind has the power to change. International volunteers work hand-in-hand with local biologists and communities to drive positive outcomes for biodiversity - the creation of a protected area for snow leopards in the Altai is just one recent example.

Biosphere Expeditions is a member of the IUCN (International Union for the Conservation of Nature) and of the United Nations Environment Programme's (UNEP) Governing Council & Global Ministerial Environment Forum. Achievements include the implementation of our conservation recommendations and species protection plans by numerous national and regional governments and NGOs, the creation of protected areas on four continents, scientific and lay publications, as well as capacity-building, training and education all over the world.





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The backbone of Biosphere Expeditions:

### meet the staff



Biosphere Expeditions employs a global team of wildlife enthusiasts who all contribute to the success of the organisation: expedition leaders, scientists, field-based and administrative staff. Their roles are as diverse as their backgrounds, but they all share a love of the outdoors and wildlife. Here are just two from our team and more can be found at [www.biosphere-expeditions.org/staff](http://www.biosphere-expeditions.org/staff).

DR. ALAN LEE, the South Africa expedition's field scientist, developed his love for nature while deposited in the bushes as a young

child as his father mapped rocks across some of the most remote regions of South Africa. This love for nature continues, despite several close encounters with African wildlife. He was introduced to volunteering early in life when once a month the family would volunteer at local game reserves. He graduated with degrees in Botany and Zoology in 1996, during which time he was co-opted as field assistant by his father for expeditions to Botswana. While working and travelling from London, he obtained a Diploma in Computing in 2001. He then commenced a period of seven years in Peru, first working for a volunteer project investigating impacts of tourism on Amazonian wildlife, and then from 2005 to 2010 he undertook a Ph.D. on the parrots of the Peruvian Amazon. This is when he came across Biosphere Expeditions, first as a consultant and later as the expedition scientist. Moving back home, he is now a post-doctoral research fellow at the University of Cape Town studying endemic birds of the fynbos; and conducts biodiversity monitoring and restoration work at Blue Hill Nature Reserve.



DR. CRAIG TURNER was born in Oxford, England. His interest in wildlife stretches back as long as he can remember and he studied biology, ecology and environmental management at Southampton, Aberdeen and London universities.

Soon after graduating from his first degree, he left the UK for expedition life in Tanzania, focusing on coral reef conservation. Since then he has continued to combine his interest in travel and passion for conservation, working with a wide range of organisations including expedition companies, consultancies and the Zoological Society of London. Craig has worked in the Americas, Africa, Asia and the Pacific. When not working for Biosphere Expeditions as an expedition leader, he runs a small environmental consultancy in Scotland. He is also a published writer and photographer.

#### EDITORIAL

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# CONSERVATION PROJECTS WORLDWIDE



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Whales, dolphins, turtles



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Leatherback turtle




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Coral reefs



**TIEN SHAN (Kyrgyzstan)**  
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Snow leopard



**MALDIVES**  
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Coral reefs & whale sharks



**MALAYSIA**  
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Coral reefs



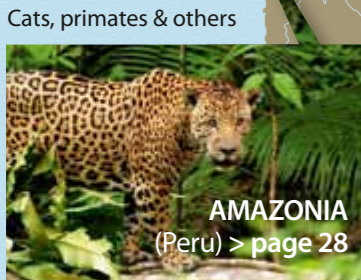
Oryx, wildcat, sandfox & others

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Tiger



Cats, primates & others

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Leopard, caracal & biodiversity



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Marsupials

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The volunteer industry is currently estimated at \$2.8 billion in annual revenue and is expected to grow as more people seek volunteer experiences each year. Much of the volunteering sector concentrates on social and humanitarian work: Teaching, building projects and even work in orphanages, and to a lesser extent on conservation or animal sanctuary work. With such a huge range of options and providers, awareness of the possible unintended negative consequences of this type of volunteering is vital. Below Vicki Brown of Biosphere Expeditions' partner organisation Responsible Travel looks at some of the options and their merits, as well as the history of and motivations behind volunteering.

# VOLUNTEERING travel guide

As the gap between 'holidaying' and 'volunteering' decreases, the scope of volunteer projects is widening, encompassing everything from favela football coaching to diving threatened reefs, via elephant sanctuaries and rural clinics. The message is: Anyone can make a difference, whether you are 16 or 60 and whether you have five days or five months to spare. As placements have become more inclusive, however, with fewer skills and less commitment

required from volunteers, so criticism of voluntourism has grown. With a huge number of organisations now offering "life changing" trips, it is ever more important for volunteers fully to research the projects, to ensure that any experiences are for the better – for the volunteers themselves and for the people and places they aspire to help.

### Why volunteer?

The most obvious answer to this question is: To make a difference. To improve the life of someone or something, somewhere in the world and return home with a bit of a rosy glow. Some people have a particular skill that they would like to share, others have a particular attachment to a certain corner of the globe and would like to give back. But there are as many reasons for volunteering as there are volunteers. Some people are fed up with run-of-the-mill holidays and want something a little more challenging than basking on a beach. Others would like to pick up a new skill – whether that's scuba diving or Spanish – and what better way to hone your talents than by putting it into practice straight away?



*The scope of volunteering today is vast – from favela football coaching to construction work to teaching and animal sanctuaries. But which ones work for both the volunteer as well as the people, places and wildlife they aspire to help?*

You may just fancy doing something completely out of the ordinary for a couple of weeks. You could find yourself living aboard a research ship in the Mediterranean, documenting whale and dolphin sightings. For something a bit grittier, head to a favela or township to coach football, cricket or martial arts – it's a two-way learning experience: As the local kids get to grips with a sport, you will learn about life for the 99%.



Generally, we would discourage would-be volunteers from doing a placement purely to add to their CV. Volunteering should really be about benefitting local people, wildlife and places. However, there are certain skilled vocational placements such as healthcare, teaching and research, where individuals, perhaps part-way through their studies, can gain real-world experience while putting their skills to good use. And of course skilled professionals are always welcome, for example teachers on long summer holidays, or corporate workers on a career break who can share their IT, marketing or startup knowledge with small businesses overseas.

**A brief history of volunteering holidays**

Travelling overseas to help those perceived as worse-off than ourselves has a long – and always contentious – history, which can be traced back to missionary groups heading into the depths of Africa and the Amazon to convert and ‘civilise’ indigenous communities while bringing them western education, sanitation and healthcare.

.....  
*The UK's VSO was one of the trailblazers in skilled volunteering and continues today.*



Volunteer travel did not start out as a holiday, but as a chance to work abroad, often for an extended period of time. Projects were run largely by faith-based organisations or by governmental groups, such as the US Peace Corps, which date back to the 1950s. In the

same decade, the UK's VSO (Voluntary Service Overseas) was founded, in which volunteers were given accommodation in exchange for their time. Both of these programmes to this day involve a serious commitment, with most programmes lasting at least two years and suitable only for skilled applicants. By the 1970s the concept of fee-paying volunteers began to take root as the environmental movement grew and scientists realised that volunteer fees could help cover the cost of research – while unskilled volunteers could contribute much-needed labour.

By the 1990s, the ‘Gap Year’ had emerged, as more and more young people took a year out before or after university, to travel the world before being tied down to full-time jobs. Keen to capitalise on globetrotters able to spend an extended time abroad – and looking to gain work experience while they were at it – travel companies began offering ‘volunteer vacations’ in exotic locations. These seemed to tick a lot of boxes, offering to boost the CVs of inexperienced undergraduates, while offering them a cheap way to stay overseas for longer – and give them the emotional boost of ‘doing good’. While some volunteer placements were of genuine benefit to local communities and wildlife, it is also true that many of these opportunities were created by the travel industry (not NGOs, development professionals or the communities themselves) to fill a niche created by the gap year market. The impacts on the ground are questionable.

Today it is accepted that good intentions do not always equal good results, and while the industry remains unregulated, volunteers – and organisations – are becoming much more clued up about the pitfalls, and have begun asking many more questions, as have the

“Twenty years into the voluntourism ‘experiment’ we are able to see what has worked, and what has not”

media. Twenty years into the voluntourism ‘experiment’, we are able to see what has worked and what has not. Orphanage volunteering, for example, has proven disastrous in many regions, with orphans becoming a commodity and places such as Siem Reap – a town of 100,000 – now having 35 orphanages: An increase which directly matches the number of tourists visiting Cambodia. These institutions are there to cater not for the town's orphans, but for the endless line of fee-paying volunteers.

Other projects, however, have been a resounding success, with volunteers carrying out – and subsidising – essential data collection, restoring habitats, teaching English and, most importantly, funding local jobs as they go. The face of volunteering is changing too. As tuition fees rise and austerity hits the young hardest, the 20-year-old gap year traveller has been largely replaced by an older, more experienced volunteer – keen to share a lifetime of skills, make the most of an early retirement, or enjoy their independence once the chil-



Vicki Brown is a travel writer and photographer who spent several years working with community tourism projects across Latin America and Africa. She is now a

writer and editor for Responsible Travel, creating ethical travel guides to destinations around the world. Her volunteering travel guide was originally published on [www.responsibletravel.com/volunteerguide](http://www.responsibletravel.com/volunteerguide)

dren have left home. As organisations are under greater scrutiny to create genuinely worthwhile placements, so too the volunteers have more to offer. We think this change can only be for the better. ■



.....  
*At the very worst end of volunteering are profit-driven charlatans that commodify people's good intentions, exploiting everyone in the process. Lion ‘sanctuaries’ where young animals are walked by tourists and then passed onto canned hunts when they become adults are one example. Money-spinning ‘orphanages’ exploiting children, who are often anything but orphans, and well-meaning visitors are another.*







## RESPONSIBLE TRAVEL'S LIST OF THE BEST AND WORST OF VOLUNTEERING

### UNDERRATED

**Marine conservation** - Wildlife is not all about fluffy mammals. Marine conservation is on the rise – and with the chance to spend time living on a remote beach, nights patrolling for sea turtles, or hours underwater monitoring corals, these are some of the most diverse and worthwhile placements.

**Taste of volunteering** - Holiday time is precious and committing to two weeks of working might be a bit much. That's where a taste of volunteering comes in. A day or two can be spent on conservation activities or caring for rescued animals – or spend a week of a longer trip helping at a nursery or collecting data for marine research.

**Matching skills** - This is an essential, yet strangely overlooked aspect of having a successful volunteer trip. You would not take over a classroom back home, so why volunteer as a teacher overseas? Using your skills – in healthcare, education, biology – or manual labour will mean you can actually achieve something worthwhile during your stay – which is better for those you are helping and will make you feel much happier, too.

**Family volunteering** - The benefits of volunteering as a family are vast. As well as spending quality time together without an iPhone in sight, your children will gain an extraordinary education from being immersed in a way of life entirely different to their own. And they will learn the value and pleasure of working for a worthwhile cause.



Putting family volunteering and a taste of volunteering together: An aspiring conservationist during a Biosphere Expeditions experience day in Kellerwald National Park, Germany.

### RATED

**Teaching & coaching** - Teaching abroad takes many forms – from helping students practise their English to teaching subjects that match your own skills, from science and art to music and conservation awareness. If you are not a qualified teacher, you can work as a classroom assistant or help out with homework – or run sports coaching sessions or art workshops for kids.

**Wildlife conservation** - Looking after animals in sanctuaries is all very well, but this is really just putting a sticking plaster on a wound. To reduce the need for sanctuaries, habitat and wildlife conservation is essential – and the best thing is that these placements usually require few high-level skills. Some fitness and a willingness to muck in are essential, as you will be planting trees, maintaining trails and fences or monitoring and tracking animals, setting camera traps or collecting important conservation data, whether on land or in or under the sea. For example, many sea turtle species are endangered, so the beach patrols, nest protection, hatchling releases and awareness sessions you can do as a turtle conservation volunteer are all vital to their survival. Plus, you will be living on some beautiful beaches.

**Elephant care** - The world's largest land mammal has had a bit of a rough deal. Used in wars, logging and entertainment, as these have fallen out of favour, many elephants are now rescued or retired in sanctuaries across Southeast Asia. With huge appetites and in need of daily baths, exercise and clean enclosures, there is plenty of worthwhile work for volunteers, who can get up close to these gentle giants.



Of course we could not agree more about rating the crucial contribution citizen scientist volunteers can make to genuine conservation projects. Pictured is an expedition group on the Sumatran tiger expedition, run in collaboration with WWF Indonesia and local Batu Dingding community group.

### OVERRATED

**Orphanage volunteering** - Though this may sound like one of the most worthwhile placements, it is actually often the most harmful. A boom in volunteers – and the fees they pay – has made orphans something of a commodity and there has been a sharp increase in the number of orphanages, many nothing of the sort. Plus, a revolving door of well-meaning volunteers means the vulnerable children are abandoned again, and again, and again.



Volunteering just for the posed shot to embellish your Facebook profile is likely to be disappointing for all concerned.

**Walking with lions** - A photo of yourself feeding a baby lion may wow friends back home – until you realise what might happen to the cub once you have left. Habituated big cats can never be released into the wild and when the cub gets too big to be safely handled, it is not cost-effective to keep. To put it bluntly – there is a good chance it will end up being shot dead on a private hunting reserve on a canned hunt.

**Elephant trekking** - Many so-called elephant sanctuaries are actually glorified circuses, where elephants paint, perform and carry tourists on their backs. Any sanctuary that promotes elephant rides does not have the animals' best interests in mind; they will have been badly abused to persuade them to carry tourists.

**Boosting your CV** - With the exception of longer-term or highly skilled placements, volunteering should never be all about your CV. Roles can be challenging, satisfying, enjoyable – but the key question is not 'what will it do for me?' – but 'what will it do for others?' Projects must exist for communities, not volunteers; any valuable skills you gain will be a bonus – not the focus.

## BIOSPHERE EXPEDITIONS' TOP TEN TIPS

Beat the charlatans with Biosphere Expeditions' Top Ten Tips on choosing a wildlife volunteering experience.

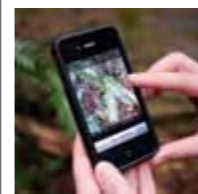
Whilst Responsible Travel has a good overview of the volunteering market as a whole, Biosphere Expeditions' expertise is in wildlife conservation/research volunteering and citizen science. Sadly, these days it is hard to find a worthwhile wildlife volunteering experience that achieves tangible benefits. The market is full of profit-driven, unscrupulous operators, which do little for local wildlife at best and are harmful to it, and local communities, at worst.

In 2011 Biosphere Expeditions assembled a group of experts in volunteering, wildlife conservation and protection, and tourism to discuss what pointers could be given to people who were looking for a genuine wildlife 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.

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

### **i** The rise of the citizen scientist

Citizen science is a relatively new term, but one that is rising in people's awareness very fast. It is also what Biosphere Expeditions does, with a focus on wildlife conservation and research. Citizen science is the term applied to people who do not need (and usually do not have) any training in a scientific area to undertake some basic, but important work within it. This usually involves the sort of data collection that can be done with some basic skills and that needs to be done a lot. It is often not flashy or indeed particularly exciting, but it is something that is often highly absorbing, fascinating to undertake, and critical if we are to learn more about how the living world functions. People can get involved in many ways, from analysing photos whilst sat at their computer screens, to making observations in their gardens, to heading out into the field, at home or abroad, and working alongside scientists on the ground. We at Biosphere Expeditions believe that this movement is an essential part of the future, if we are to make conservation work. The importance of citizen science is only likely to increase as government and other public funding streams are cut and as the neoliberal system seeks to exploit the planet more. It is crucial, therefore, that ethical standards are set now so that voluntourism and citizen science firmly stays in the philanthropic realm it emerged from. Biosphere Expeditions will continue to play its part by showcasing how it can be done.



Rapid advances in technology such as smartphones and the internet have put data collection and sharing at people's fingertips – and opened a Pandora's box of Big Data for scientists and others, for better or for worse.

1. **Reputation, 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 to the local community and make sure that the organisation is properly embedded with locals 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.



## The voluntourism assault:

# STOP MAKING THIS ABOUT YOUR RIGHTEOUSNESS

Bashing voluntourism and the young people that disproportionately engage in it has become a fashion. **Andrew Frankel** of the University of Virginia's Social Foundations of Education Programme offers a thought-provoking alternative view.



.....  
The author in Asia.

If you are interested in or connected to the arenas of international development, travel or service work, you are probably aware of the hackneyed mantras of volunteering abroad and 'making a difference'. Subsequently you may also know the fad of blogging about the evils of voluntourism—the opprobrious title applied by those who know better to shallow and selfish 'service work'.

But post-volunteerist writers only scratch the surface of long-extant questions. They have portrayed an oversimplified version of Good and Evil social engagement and staked out an uncontested moral high ground. Disagreeing with them means outing yourself as unworldly, callow, or - yes, trump card! - imperial.

Most problematic is not that these articles tirelessly present some ribbon-tied, bite-size anecdote: "I used to be young and ignorant and look how I've changed!" It is that they are so ridiculously sanctimonious. They don't see that the High Road they insist on taking leads away from the students they are hoping to reach.

What they usually fail to mention is that the further immersed you get, the less certain your motivation and moral convictions become. And the more doubt and prospect of futility wrack your mind. When I was 18, I could not spell development - never mind know what it was - but if I had not travelled abroad prior to going to college, I never would have made it such a focus of my studies.

Even after studying abroad and graduating, I was clueless.

I went to Asia for the first time and trekked and studied and made local friends and volunteered. And even then I was clueless.

Then I got a graduate degree and taught for a student travel organisation, working and studying across the world. And still I was clueless.

Then I lived in Asia for three years, learned the local language, made good contacts, spent 60 hours a week providing a desired and necessary service. And even then, I was still virtually clueless.

"Then I got a graduate degree... And even then I was clueless."

Anti-voluntourists cut off dialogue with students and short-circuit a learning process - as if the goals and means were perfectly obvious. My personal experience as a student travel leader has made me wary of this rhetoric. A preoccupation

with controlling students' behaviour can manifest in a disdain for critical learning and resentment for students who do not fit set criteria.

New travellers should be allowed to forge their own path - just as we were - and not be written off because they are not yet doctors or engineers with highly applicable skill sets. Are we expecting full-grown Einsteins to emerge from school physics?

In the surfeit of articles deriding voluntourism there is a dearth of better suggestions. It is almost as if everyone wants the cargo-shorts wearing, camera-clickers to stay home - reminiscent of how we denigrate places for being touristy, because other tourists remind us that we

are too. Nothing shatters our pride faster than seeing another dweeb as obtrusive as we are!

But what's the alternative - for these inquisitive young thinkers to stay home because they are not yet qualified? (And if that happens, we will not get them back when they are qualified). Is

the only alternative to being a voluntourist simply not go at all? Would we then not complain that the youth are uncultured and ignorant on global issues?

If you are never a Level 1 Tourist, you never move on to Level 2. How can anyone criticise these kids when we were there not too long ago and - let's face it, world savers - might still be there today.

A realistic alternative to the reflections of the anti-voluntourists is a critical approach that places further resources and responsibility in the hands of our students and engages them deeply with issues and approaches international development humbly, understanding that personal development takes time and you can only meet students where they are. A core principle then should be that everyone comes willing to learn and in an environment of humility and inquiry students are far more open to questioning and improving their own assumptions and habits.

And still we stood in front of the Taj Mahal, making peace signs, striking yoga poses and taking pictures. Who did not their first time there?

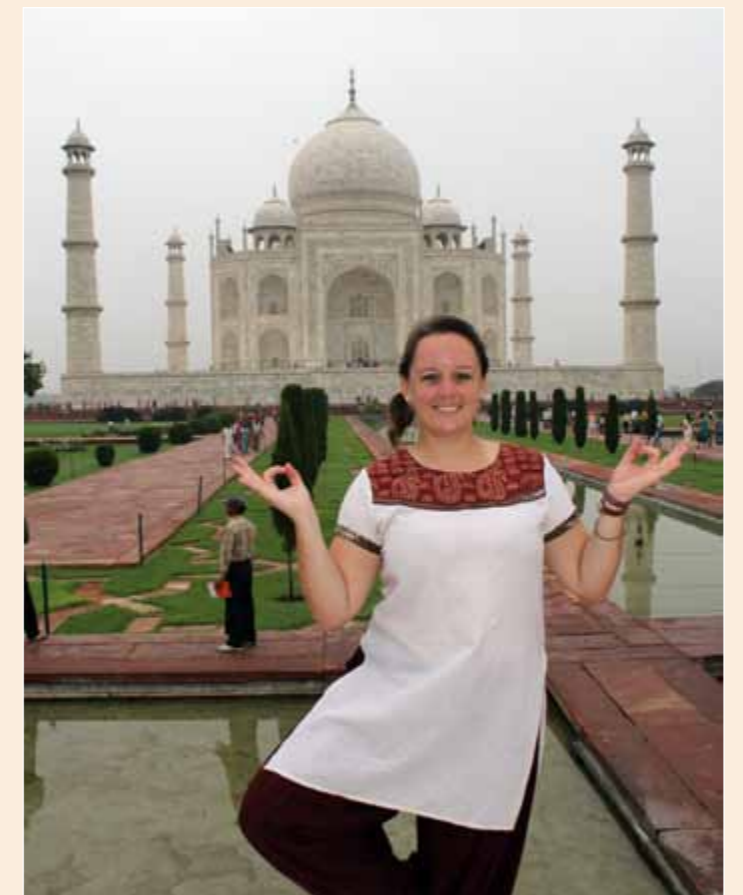
When we as leaders are more concerned with acknowledging faults, than creating a dialogue about why there is dissonance, we miss valuable opportunities for improvement - both for the students and ourselves. Whether you want to reference Plato's Cave or Santideva's description of the Bodhisattva ideal, the point is

the same: Seeing through the illusions is not the vocation of teachers or scholars - returning to the cave, re-seeing the misperceptions and working with others as we collectively retrace and redefine our awareness is the essence of education.

We all need to see more accurately the situations we encounter and our impact on our hosts. From a wider perspective, I agree with many of the observations and rebukes of the anti-voluntourists and would probably take them even further, but I can not understand the usefulness of an opinion that impairs rather than incites students' desire to participate in their own education.

When applying our justifiably strict codes of conduct to working abroad, let's start with ourselves and not those looking to us for leadership. It's important to remember that we were once students and we still are - or at least we should be. ■

"I can not understand the usefulness of an opinion that impairs rather than incites students' desire to participate in their own education."





Our executive director  
Dr. *Matthias Hammer* makes a case  
for volunteers in conservation

Stamp collecting:  
Voluntourism, volunteering, citizen science  
and wildlife conservation & research -

# CAN LAYPEOPLE REALLY BE OF HELP?

TO SERIOUS RESEARCH & CONSERVATION PROJECTS

Given the criticisms levied at volunteering recently, covered in the lead article on page 10, the question of whether laypeople can be of any use in nature conservation is justified. The answer, however, is simple: yes, absolutely - if the project is set up properly! For much of biological data collection consists of simple tasks and with a little training anyone can become a citizen scientist and help to collect much-needed information. Hard data form the core of all scientific arguments, but someone has to collect the information and this is often labour-intensive and, within a well-designed research project, can therefore be perfect for laypeople / citizen scientist involvement.

## Stamp collecting foot soldiers

I call this my stamp collecting argument. What I mean by this is that very often effective conservation is based on a large amount of data points, but that collecting those data points is often both laborious as well as simple. Yet no technology exists to perform the required tasks. We simply cannot ask satellites to scan the Himalayas for snow leopards (although drones may be able to do this in the near future) and there is no technical solution for changing batteries and SD cards in the camera traps now involved in a vast number of surveys. So foot soldiers are needed for this. Foot soldiers who can be trained easily within a day or two (see examples in the info box) and then go out and collect useful data or, for example, cover the often large distances between camera traps in places that are likely to be remote and inaccessible. There is often no alternative to these boots on the ground. Of course these two examples are drawn from Biosphere Expeditions' own projects, but there is more, independent evidence too: Going back as far as the 1960s, a great deal of literature has been produced highlighting the value of data collected by laypeople and the ideas, enthusiasm and hard work that they bring to the conservation world.

"No technology exists to perform the required tasks, so we need boots on the ground."

A study by Dr. Judy Foster-Smith and Dr. Stewart Evans of the University of Newcastle investigated the use of laypeople to collect marine data in Cumbrae, Scotland. In this study the authors say that "much of this type of research is labour-intensive but technically straight-forward and volunteers could make significant contributions to it in the future". And further, and remarkably, that "(data) generated from them (i.e. volunteers) were almost identical to those produced..... by an experienced scientist!"

A similar study in Oxfordshire's Wytham woods by Dr. Chris Newman and Dr. Christina Buesching from Oxford University's Wildlife Conservation Research Unit yielded much the same conclusions: "...the study has found that people from all walks of life, with all levels of previous involvement with field ecology, from novice to expert, have something to offer to conservation... The results collected by the amateur naturalist teams proved very reliable when compared to more complex monitoring techniques used by professional researchers at Wytham."



The Cumrae study went on to highlight the additional benefits of laypeople participation: "It should be noted that there are also educational benefits from the involvement of volunteers in scientific projects... it is a means of both raising people's feelings of responsibility towards the environment and increasing their knowledge of environmental issues. An additional benefit is that volunteers may bring 'new' skills, experience, insights and enthusiasm to projects, and have the potential, therefore, of contributing significantly more to scientific investigations than simply providing a workforce to collect data."

So if citizen science volunteers in conservation are undoubtedly useful, what then are the challenges?

**Taking away jobs**

Local people should do the jobs as salaried positions, rather than rich western volunteers who can afford to be unpaid. This is an argument that is sometimes made against volunteering in general and less often against conservation volunteering in particular. There may be some merit in this, but again preparation and working with local communities is key. Projects that are foisted on local communities without consultation are much more likely to fall foul of this point. Those projects that react to community demand are likely not only to not be taking jobs away, but actually generate jobs. For example by creating the need for labour and supplies to run a project's logistics as is often the case

on our more remote projects, for instance in the Tien Shan mountains of Kyrgyzstan or in the jungles of Sumatra, where without the help of local people and services, we could not run an expedition or its logistics. Moreover, and on conservation stamp collecting projects in particular, there is by and large no demand or funding for the kind of very particular and focused stamp-collecting labour outside narrow project dates, nor are there local people with the relevant training or background knowledge. Of course eventually and ideally, you would like the local community to acquire the relevant skills and take over. This is the reason why Biosphere Expeditions runs a placement programme, offering local people places on its expedition, as well as training and

**SEXY SPECIES!**

support. The kind of community-based monitoring that has emerged in the Maldives from this (see info box on page 22) is exactly what we want to achieve through the placement programme: Local jobs and local caretaking of nature emerging out of projects that are created in consultation with community needs in the first place.

**Sexy species**

This, I believe, is the most valid criticism and the one I personally, as a trained biologist, struggle with most. It has been widely argued that the world has developed a very inefficient way of choosing which animals facing extinction to save, often favouring popular wildlife such as rhinos, koalas and big cats over the less well-known species, including Australia's blobfish, giant Gippsland worm, or the Pacific lamprey. A recent study has shown that around

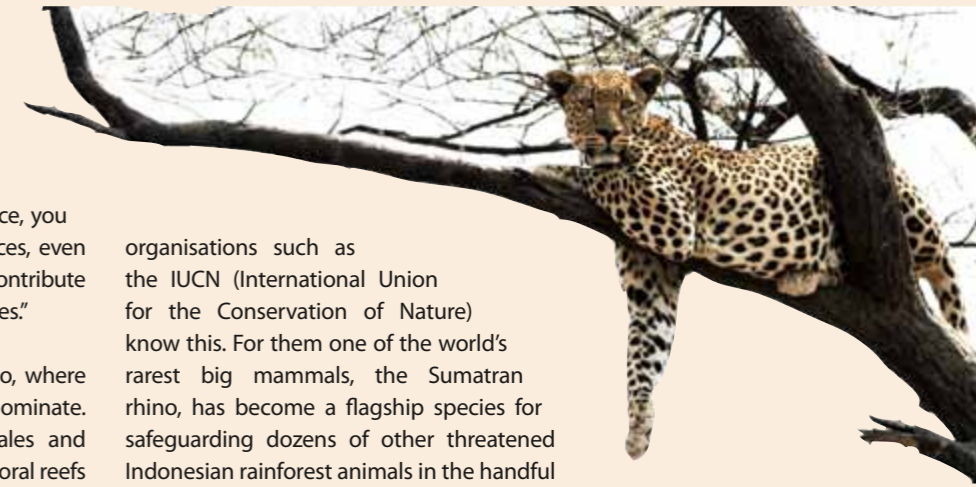
80 mammal species including lions, tigers and pandas are used by international NGOs to raise funds for conservation, but almost no invertebrates are used in this way. The result, in the words of the authors, is that "if you are an obscure animal or plant in a remote place, you have less hope of getting conservation resources, even if you may be more genetically distinct – and contribute more to an ecosystem – than a charismatic species."

This is reflected in our expedition portfolio too, where big, impressive, fluffy, furry and 'cute' species dominate. There are the usual suspects: Big cats, whales and dolphins, quokkas ('cute' small kangaroos) and coral reefs in warm, beautiful and exotic locations. Sexy sells. We tried the more mundane lammergeyer in the Pyrenees, but this did not attract enough people after an initial first-year flurry of loyal Biosphereans. So these days I, with a heavy heart, have to turn down interesting proposals for lack of species sex appeal, because I know that coconut crabs in Tanzania or scorpions in Burundi will simply not stand a chance against snow leopards of the Tien Shan mountains or Sumatran tigers.

And who can blame our committed citizen scientists for wanting to invest their time and money in something

exciting and inspiring? Nobody. And this is the crux of the matter and in fact how much of conservation works – by inspiring and motivating people through flagship species. Conservation

organisations such as the IUCN (International Union for the Conservation of Nature) know this. For them one of the world's rarest big mammals, the Sumatran rhino, has become a flagship species for safeguarding dozens of other threatened Indonesian rainforest animals in the handful of national parks that serve as the planet's final strongholds for these rhinos. When looking a IUCN's Red List of Threatened Species, dozens of other terrestrial vertebrates benefit from efforts in Sumatra. Two of these, the Sumatran elephant and Sumatran tiger, are certainly flagship species in their own right, but the list also includes a host of other significant amphibians, reptiles, birds and mammals. Five Vulnerable species, the king cobra - the world's largest venomous snake – the crestless fireback pheasant, Asian small-clawed and smooth-coated otters and the binturong, inhabit all three national parks in which rangers patrol first and foremost to protect the rhino. Several threatened birds also benefit from the rhino protection programmes in two southern Sumatran national parks: The black partridge, blue-banded kingfisher, short-toed coucal, Storm's stork, Sunda blue flycatcher, Sunda nightjar, Wallace's hawk-eagle, and white-winged wood duck. It's the long list of threatened mammals, however, that truly bolsters the status of the rhinos as flagship species.



**Examples of citizen scientists collecting 'their stamps' with Biosphere Expeditions**

1

Camera traps are ubiquitous tools in wildlife research these days. But for them to be effective you have to know where to put them, for example a wildlife trail, marking spot, water hole, etc. So first of all these kinds of places need to be found, which is one area where the multiple eyes and ears of citizen scientists, rather than a lone researcher scouring the landscape are useful. Once camera traps are set, they need to be checked regularly, batteries need to be changed, as do SD cards and there may be maintenance jobs too. All these skills can be learnt within a training session of a few hours. And once the camera traps have done their job, pictures need to be sifted through and sorted into categories, data entered, etc.



Tools of the trade on the Sumatra tiger expedition, a leopard on the South Africa expedition and setting a camera trap on the Arabia desert species expedition.



Patrolling a turtle beach in Western Australia and collecting turtle eggs on the Costa Rica expedition.



Poaching of sea turtles and their eggs is a very big problem. There are some areas, such as in Costa Rica, where poaching was at 100% before direct conservation action. That means all turtles entering a beach were killed for their meat and/or shells and all eggs they laid were taken for human consumption. All-night beach patrols protecting the turtles and relocating their eggs to safe hatcheries, as well as round-the-clock guarding of those hatcheries have been critical in reducing poaching in many parts of the world and bringing sea turtle species back from the brink of extinction. But a large workforce is needed for the various shifts and tasks, which can all be learnt within a day of training. Volunteers, often working hand in hand with local people, have been vital in this.

2



Among the more prominent taxa, with ranges that overlap those of forest-dwelling rhinos, are fruit bats, spiny and tree rats, flying squirrels, rabbits, civets, pangolins, mouse deer, sambar deer, tapir, Javan banteng, dholes (wild dogs), clouded leopards, Javan leopards, and a host of threatened primates – at least ten species of tarsier, loris, leaf monkey, macaque, gibbon and siamang.

So flagship species fly the flag of conservation, serving as a conservation tool, for the less sexy species as they flutter in the wind, inspiring people and attracting funding, catalysing positive action and protecting whole habitats full of more ‘boring’ species in their wake. This is how I can justify our focus on charismatic animals to myself and the organisation.

**And finally, money, of course**

And there is a final point, mentioned in the last paragraph (and also dealt with in some detail in our 2015 Magazine): funding. With government and other public funding for conservation being slashed across the board, private initiatives are becoming increasingly important, if not vital, in conservation. The funding and labour that citizen scientists provide every year to many projects across the globe enables them to keep chipping away at the block, year after year. This sets volunteer-based funding apart from many other funding sources,



where very often support is limited to a few years at best. Yet generally government decision-making takes many years, not just a few, so efforts ebb away, breaking themselves on the big rocks of slow-moving bureaucracies that often have the economy and growth, but not conservation, on their agendas. This is certainly where volunteers for us have made all the difference. A number of our projects are now close to or over a decade in the running and it is often only through this persistence that they are able to achieve significant outcomes. Long may it continue. ■



**First ever all-Maldivian Reef Check survey**



© Volker Lottmann

After years of investment by Biosphere Expeditions in training Maldivian divers in Reef Check methods, the first ever Maldives survey undertaken by nationals alone took place in November 2014 at Velassaru reef, just to the south of the capital, Male’.

The surveys were organised by Mr Rafil Mohamed of the Divers Association of Maldives and Ms Shaha Hashim from local NGO Gemana. Both of them qualified as a Reef Check Ecodiver Trainers in September 2014 whilst aboard the MV Carpe Diem for the Biosphere Expeditions surveys of North Male’ reefs.

They and the Maldivian organisations they represent are committed to preserving the reefs of the Maldives in the face of population growth, increased demand on reef fish from the tourist and grouper fishery sectors, and climate change threats. The hope is that civil society bottom-up efforts such as these are eventually mirrored by active

government management of the Maldives’ spectacular reefs, including comprehensive controls on fish sizes when exported and caught, reductions in overfishing of local reefs and marine reserve stipulations properly enforced at or near to every tourist island.

Individuals undertaking the survey were all trained by the expedition scientist Dr Solandt, some at the Marine Research Centre in Male’, and others during the course of Biosphere Expeditions research work around the archipelago since 2011.

Dr Solandt said he was ‘delighted that this survey has taken place. The stark truth of the data collected around the Maldives so far is that reefs have very low numbers and sizes of grouper – a very important predatory fish. This is of concern, because local islanders depend on fish and many predator fish species are important to keep in check some of the

animals that damage the reef (such as Crown-of-Thorns starfish and Drupella snails – both of which eat corals).’

Rafil Mohamed adds ‘I would like to thank Dr Solandt and Biosphere Expeditions again for certifying us as Reef Check Ecodivers and trainers. Dr Solandt’s training efforts and the Biosphere Expeditions placement programme for locals have kick-started us into doing this first of what we hope will be many community-based surveys to come. In the absence of the Maldives government doing any meaningful conservation work on the reefs that form the very bedrock of our country and livelihoods, it falls to us as ordinary Maldivians to preserve the reefs, not least because of their beauty, but also because of their importance for our lives and culture. Because without our reefs, there would be no Maldives.’



From left to right: Shaha Hashim, Rafil Mohamed, Dr. Jean-Luc Solandt, Ibrahim Shameel.



Underwater survey work.

**Biosphere Expeditions’ achievements and how citizen scientist volunteers have brought them about**

**Protected area creation**

**Southern Africa:** Data collected by our citizen scientist volunteers in Namibia have helped our local and international partners make arguments that have led to the declaration of the Kavango Zambezi Transfrontier Conservation Area, or KAZA TFCA. The KAZA TFCA is the world’s largest conservation area, spanning five southern African countries; Angola, Botswana, Namibia, Zambia and Zimbabwe, centered around the Caprivi-Chobe-Victoria Falls area. Also in Namibia, fewer lions, leopards and cheetahs have been killed in farmer-predator conflict due to our data collection, awareness-building and educational work.

**Oman:** Data collected by our citizen scientist volunteers as well as our intensive work to influence decision-makers have led to the protection of two marine areas in the Musandam Peninsula of Oman, where all fishing except local handline fishing has been banned by a new ministerial decree.

**Ukraine:** Data collected by our citizen scientist volunteers in the Ukraine have helped our local partners make arguments that have led to the declaration of a national park. This park now protects a unique steppe area jutting into the Black Sea, a stop-off point for many migratory birds, as well as a haven for fauna (e.g. birds & wolves) and flora (it boasts amongst other things Europe’s biggest orchid field).

**Altai Republic:** Data collected by our citizen scientist volunteers in the Altai have helped our local and international partners make arguments that have led to the declaration of a protected area in the Altai Republic, Central Asia. This area now provides a protected habitat for a number of endangered species, including the snow leopard.

**Australia:** When Australia created the world’s largest network of marine reserves in 2012, the Roebuck Commonwealth Marine Reserve, site of our flatback turtle study, was part of the network. Along with our local partners, we were working towards getting flatback turtles listed within the ‘major conservation values’ of the reserve and this is what happened, with the citation being ‘Foraging area adjacent to important nesting sites for flatback turtles’.

**Wildlife and wilderness management & protection**

**Peru Amazon:** Our guidelines for boat behaviour at day licks in the Tambopata Reserve have been incorporated in local management plans. Guidelines are needed because unsustainable forms of farming, logging and tourism are threatening the natural habitat in the Peruvian Amazon.

**Brazilian Atlantic rainforest:** Our recommendations for the management and protection of jaguars have been incorporated into national and state-wide jaguar action plans in Brazil’s Atlantic rainforest.

**Caribbean marine protected area, Honduras:** Our recommendations for the management and protection of the coral reefs of the Cayos Cochinos marine protected area in Honduras have been incorporated into the managing authorities’ action plan.

**Dubai Desert Conservation Reserve, United Arab Emirates:** Our recommendations for the management of Arabian oryx and Gordon’s wildcat have been incorporated into the action plan of the Dubai Desert Conservation Reserve. Based on the data collected by our citizen scientist volunteers, an Arabian wolf reintroduction programme is now underway.

**Spanish Pyrenees:** Together with our partners in Spain, we helped to reverse EU high altitude carcass removal regulation, which was designed to combat the spread of BSE, but was starving high mountain vultures and bears.

**Prevention of wildlife and wilderness destruction**

**Poland:** We played an active role in saving 50 wolves from being declared legitimate hunting targets in the Bieszczady mountains in Poland. This was achieved by providing accurate information on the predator numbers and by influencing the local authorities who reversed their decision to cull wolves.

**Peru Amazon:** Together with our partners in Peru, we were able to halt a dam construction project, which was threatening a biodiversity hotspot in our Madre de Dios study site region in the Peru Amazon region.

3

A bear track is unmistakable - even with no training you would probably know when you see one! A lone local scientist can only cover a small area each day, but a whole expedition team can survey a very large area and thereby provide the scientist with a much better picture of bear movements and numbers. And if for some reason (for example an unclear print on a hard substrate or a small juvenile print) volunteers are not sure whether they are looking at a bear track, they simply take a picture with a digital camera or a phone and ask the scientist at the end of the day. If it was a bear track, it will be entered into the datasheet; if it was not, the scientist will tell the citizen scientist (and the rest of the team) what they have found, helping everyone to build up their tracking knowledge.



.....  
A bear track in the Carpathian mountains of Slovakia, a snow leopard track and recording positional data in the Tien Shan mountains of Kyrgyzstan.



# ROUND-UP

Senior Biosphere Expeditions staff  
**Matthias Hammer** and **Kathy Gill** take stock

**Are we boring? Are we preaching to the converted? Are we talking to the wrong people? These questions have become more pressing recently as it seems to be increasingly difficult to recruit people to our cause of environmentalism and wildlife conservation. But why is this so? Why is it becoming harder to find people willing to give up their holiday time and money to work in wildlife conservation? The answers are proving to be multi-layered.**

## The rise of cynicism

There is a general erosion of belief in voluntourism, about how much good it does and who benefits. When corporate interests realised that volunteering was a big trend in tourism, they were quick to offer their own versions. These days even luxury brands such as the Four Seasons hotel group offer voluntourism opportunities to their guests. But it is not just the big boys who have come to play. Small, local operators have jumped on the gravy train too, including, at the very worst end of the scale, charlatans who run fake orphanages, pointless teaching or building programmes, or petting zoos at the starting end of a production line of lions for canned hunts (see voluntourism article on page 14 for full details). We have been talking about this for some years now, most recently through the voluntourism opinion piece in this Magazine, but also through our Top Ten Tips campaign (see page 15 and [www.biosphere-expeditions.org/toptentips](http://www.biosphere-expeditions.org/toptentips)). But are we banging on about this too much? And perhaps more importantly, are we talking to the right people, using the right language?

## Talking to the Tories

People who come with us are often highly educated, with a strong interest in the environment and nature (obviously) and leaning towards the liberal end of the political spectrum. There is a finite supply of these people and they have a critical mind, open to reason. The voluntourism debate will concern them and the plethora of offers fragments their interest, leaving fewer and fewer to make the substantial commitment required to join a Biosphere Expeditions project.



.....  
*How can we talk to them?*

So maybe we should be talking more to the conservatives (Tories)? There are lots of them after all. In the UK they recently won the general election, they are in power in Germany and now control all but the presidency in the USA. Conservatism is on the rise worldwide and a return to national or even nationalistic governance is in evidence in the EU and elsewhere, as governments turn in on themselves in a response to the evident threat of terrorism, but also other perceived 'foreign' challenges in what is an increasingly interconnected world. So how do we talk to them? And in this question alone, with its use of 'them', lies the problem and answer.

David Fenton, a marketing professional for the environment (yes, this is a real job description), says that "communication is not in the DNA of environmentalists" and that "people working in the nonprofit world sometimes have trouble adopting a marketing mindset. But in the end, the goal is for people to 'buy' our ideas - ideas for a better world." On top of this, we believe there is a deeper issue too. George Lakoff, the eminent linguist and social critic, talks about this. People who come from the humanities and science, as 'us greens' tend to do, have a view that if you present the facts quietly to people in power, they will make rational judgements and people will change. But this is not true. "The people on 'the other side', who go to business school, they understand how the brain and public opinion really works. So they're talking about values and moral narratives and imagery. They're good at it. So it's an out of balance situation" according to Lakoff.

## The origin of miscommunication: strict fathers vs. nurturing parents

Conservatives are largely against abortion, saying that they want to save the lives of unborn fetuses. The US has an extremely high infant-mortality rate, largely due to the lack of adequate prenatal care for low-income mothers. Yet conservatives are not in favour of government programmes providing such prenatal care and have voted to eliminate existing programmes that have succeeded in lowering the infant mortality rate. In the UK, the slashing of public finance under the Conservative 'austerity' programme hits public services mainly used by middle and low income families and those on low incomes hardest, whilst leaving the top earners largely unscathed and with their profits intact. Liberals find this illogical. Liberals also find it illogical that right-to-life advocates are mostly in favour of capital punishment. This seems natural to conservatives. Why? Conservatives are opposed to welfare and to government funds for the needy, but are in favour of government funds going to victims of floods, fires and earthquakes who are in need. Why isn't this contradictory?

But it works the other way too. Liberals support welfare and education proposals to aid children, yet they sanction the murder of children by supporting the practice of abortion. Isn't this contradictory? How can liberals claim to favour the rights of children, when they champion the rights of criminals, such as convicted child molesters? How can liberals claim empathy for victims when they defend the rights of criminals?

Lakoff believes that the differing views and communications centre around two differing worldviews. In his words "At the centre of the conservative worldview is a 'Strict Father Model': This model posits a traditional nuclear family, with the father having primary responsibility for supporting and protecting the family as well as the authority to set overall policy, to set definite rules for the behaviour of children and to enforce these rules. The mother has the day-to-day responsibility for the care of the house, raising the children and upholding the father's authority. Children must respect and obey their parents; by doing so they build character, that is self-discipline and self-reliance. Love and nurturance are, of course, a vital part of family life, but can never outweigh parental authority, which is itself an expression of love and nurturance - tough love. Self-discipline, self-reliance and respect for legitimate authority are the crucial things that children must learn. Once children are mature, they are on their own and must depend on their acquired self-discipline to survive. Their self-reliance gives them authority over their own destinies and parents are not to meddle in their lives.

**"Strict Father Model: Self-discipline, self-reliance, and respect for legitimate authority are the crucial things."**

**"Nurturant Parent Model: Love, empathy and nurturance are primary"**

The liberal worldview centres on a very different ideal of family life, the 'Nurturant Parent Model': Love, empathy and nurturance are primary and children become responsible, self-disciplined and self-reliant through being cared for, respected, and caring for others, both in their family and in their community. Support and protection are part of nurturance and they require strength and courage on the part of parents. The obedience of children comes out of their love and respect for their parents and their community, not out of the fear of punishment. Good communication is crucial. If their authority is to be legitimate, parents must explain why their decisions serve the cause of protection and nurturance. Questioning by children is seen as positive, since children need to learn why their parents do what they do and since children often have good ideas that should be taken seriously. Ultimately, of course, responsible parents have to make the decisions and that must be clear.

The principal goal of nurturance is for children to be fulfilled and happy in their lives. A fulfilling life is assumed to be, in significant part, a nurturant life - one committed to family and community responsibility. What children need to learn most is empathy for others, the capacity for nurturance, and the maintenance of social ties, which cannot be done without the strength, respect, self-discipline and self-reliance that comes through being cared for. Raising a child to be fulfilled also requires helping that child develop his or her potential for achievement and enjoyment. That requires respecting the child's own values and allowing the child to explore the range of ideas and options that

the world offers. When children are respected, nurtured, and communicated with from birth, they gradually enter into a lifetime relationship of mutual respect, communication and caring with their parents."

## Language

From this it is not hard to see why the language of conservatives is different to that of liberals. And language is closely tied to values. The two systems use the same moral principles, but their moral systems are radically opposed. Strict Father morality assigns the highest priorities to values such as moral strength (the self-control and self-discipline to stand up to external and internal evils), respect for and obedience to authority, the setting and following of strict guidelines and behavioural norms, and so on. Moral self-interest says that if everyone is free to pursue their self-interest, the overall self-interests of all will be maximised. In conservatism, the pursuit of self-interest is seen as a way of using self-discipline to achieve self-reliance. Nurturant Parent morality has a very different set of priorities. Moral nurturance requires empathy for others and the helping of those who need help. To help others, one must take care of oneself and nurture social ties. And one must be happy and fulfilled in oneself, or one will have little empathy for others. The moral pursuit of self-interest only makes sense within these priorities.

Language follows suit. Conservatives' values are encapsulated in their language about character, virtue, discipline, toughing it out, getting tough, tough love, strong, self-reliance, individual responsibility, backbone, standards, authority, heritage, competition, hard work, enterprise, property rights, reward, freedom, interference, meddling, punishment, human nature, traditional, common sense, dependency, self-indulgent, elite, quotas, breakdown, corrupt, decay, rot, degenerate, deviant, lifestyle, etc. Liberals, on the other hand, talk in terms of social forces, social responsibility, free expression, human rights, equal rights, concern, care, help, health, safety, nutrition, basic human dignity, oppression, diversity, deprivation, alienation, big corporations, corporate welfare, ecology, ecosystem, biodiversity, pollution, etc.

So how do we talk to each other? How do we talk to the conservatives? David Fenton tells his clients not to use words such as planet and earth, because according to Fenton "one of the problems we have is that too much of the public thinks that environmentalists are people who care about the environment and not about people. So the environment has become a thing apart. I think that's why conservatives don't care for the term. Now in the case of planet - the planet will be fine. We just won't be on it. And so this language and these images (polar bear, planet Earth with a capital, environment, etc.) signal the wrong thing to most people, which is that they're struggling and we don't care. We have to make the environment and climate about them and their lives and the economy and justice and all the things that people do

**"So how do we talk to each other?"**



care about. And in fact that's what it's about, because if we don't solve climate change, there is going to be a lot of suffering, by average people.

**Biosphere Expeditions talking**

We would agree with Fenton, mostly, especially about the planet's capacity to survive without us. But we would not go as far as to avoid altogether the terms we so deeply care about, such as the environment, wildlife and indeed planet Earth with a capital E. But we realise that we need to learn to talk on multiple levels if we do not want to end up just talking amongst ourselves and therefore do nothing but preach to the converted. In a small way SEO (search engine optimisation) is teaching us this already. For over a decade the word 'holiday' was strictly off-limits on expedition - and it still is in a tongue-in-cheek way, of course, but with a large grain of truth. It has been an in-joke for dedicated Biosphereans for many years. But of course those who commit to joining us and our vision do so by and large in their holiday time, so words such as holiday, vacation and others have to appear on our website, if we want to be found by those who are considering just that: spending their time helping the environment on a wildlife conservation holiday. And believe us, this has already resulted in some comments from the Biosphere Expeditions purists out there!

On a very practical level, we have experienced conservative language and values first hand with our corporate partners. Our decade-long relationship with Land Rover was no doubt crucial to our development as an organisation and also to the success of a number of expeditions - and we are very grateful for that - but in the end we never felt there was a meeting of minds. With a few individuals within the large corporation, yes, but the policy as a whole was always about good PR over and above anything else. And when the environment dropped off Land Rover's PR agenda, so did we, to be replaced by James Bond's latest product placement, rugby and sailing, which is of course an accurate reflection of the largely conservative buyers of Land Rover's changing fleet. It was a simple and obvious cost/benefit calculation for the conservative forces



.....  
*Off limits in our communi- cations? We don't think so!*

that dominate corporations and a wake-up call for our hippie liberal minds. Swarovski Optik, Motorola, Buff, mtc and others followed similar trajectories, so we changed our sponsorship policy and today collaborate mainly with other NGOs, as well as research institutions and grant-giving bodies (see infobox below), where there is a genuine meeting of goals, minds and values. Of course we still work with corporations, and some smaller corporate partnerships remain, but our approach and communication has changed radically since we started in 1999.

On another level, one of the most inspiring events one of us (Kathy) attended in 2015 was the "Communicate" conference in Bristol, which is the UK's leading gathering of environmental communicators, bringing together over 150 delegates to develop their skills, share best practice and debate the latest issues in engaging people with the natural world. It precipitated further thinking on the subject for us and a resolve to tackle the issue even more actively. Indeed the 2017 Magazine is likely to pick up this crucial topic as its theme.

**Repetition, repetition, repetition**

Repetition emerged as an important principle. In the words of Fenton again: "That's the other thing about public interest types. Across the board we think because we've said something, know something, or done something, that everybody else knows it. We don't realise the bubble we live in! It's only when you've said something so many times that you're utterly and completely sick of it that someone has even heard it. Marketers understand this. Scientists and people from the humanities less so - they get bored by it. 'We already had this in the (New York) Times! The world knows!' But it takes so much more repetition than that. I mean, as a planet, even the intelligentsia has not fully realised that we are in a planetary emergency and we are running rapidly out of time. I like to say, "What if there was a planetary emergency and nobody noticed?"

Guilty as charged! We have not talked much about climate change, because we thought everyone else was doing it and we did not want to appear boring. Or we've felt guilty about going on about our vegetarian policy or our Top Ten Tips on how to avoid the voluntourism charlatans. No more. Turn to pages 61 and 15 for our stance on vegetarianism and the Top Ten Tips respectively and watch this space for more on climate change and other 'green' issues. Also watch our website for more changes in 2016 and of course our expeditions portfolio for additions. Tanzania and Germany are two countries to look out for, but more would be telling.... ■

Today our biggest partnerships are with like-minded NGOs and grant-giving bodies

But some corporate partnerships remain



# EXPEDITIONS A - Z



# AMAZONIA



Picture © Alfredo Dosantos

## LATEST NEWS

### Citizen scientists spot rare red uakari monkey



For the first time ever since Biosphere Expeditions' work began in the Amazon region, a large group of about 70 individuals of red bald-headed uakari monkeys has been spotted. The arboreal monkey species, classified as Vulnerable on the IUCN Red List, only occurs in seasonally flooded forests of the Amazon river basin of Peru and Brazil.

"Red uakari monkey are easy to identify from the noise they make, but they travel very fast in the tree tops when searching for food. It takes quite some effort to follow them on the ground to get a glimpse", Alfredo Dosantos, the expedition scientist, comments. "Troops of 70, sometimes up to 100 individuals need large amounts of fruit – they never stay for long in one place. We were very lucky", he adds. "But this is not the only relevant result the teams have recorded over two weeks of intensive forest survey."

With a total number of 31 species, including ten different primate species, this year's monitoring has resulted in the highest number of mammalian species recordings so far. Focusing on jaguar and other nocturnal animals, camera traps were set for the duration of the expedition. Animals being photographed during the night were ocelot, armadillo and tapir. The presence of jaguar was confirmed by fresh tracks.

## AT A GLANCE

### AMAZONIA - Peru:

**Amazonian plethora: biodiversity monitoring of jaguars, pumas, primates and other flagship species of the Peruvian Amazon**

This expedition will take you to a remote and beautiful biodiversity hotspot of the upper Amazon rainforest. As part of a small international team, you will experience living and working in the jungle together with local biologists on an important wildlife survey to aid community conservation efforts and the development of sustainable management strategies. Based at a comfortable jungle lodge in a remote part of the forest, you will be working on foot in the jungle and in canoes on natural waterways, recording species, setting camera traps, creating databases, and much more. All this as an integral part of a conservation project that will preserve an intact landscape of forest for further multidisciplinary research projects.

#### Study species:

Jaguar, puma, squirrel monkey, wooley monkey

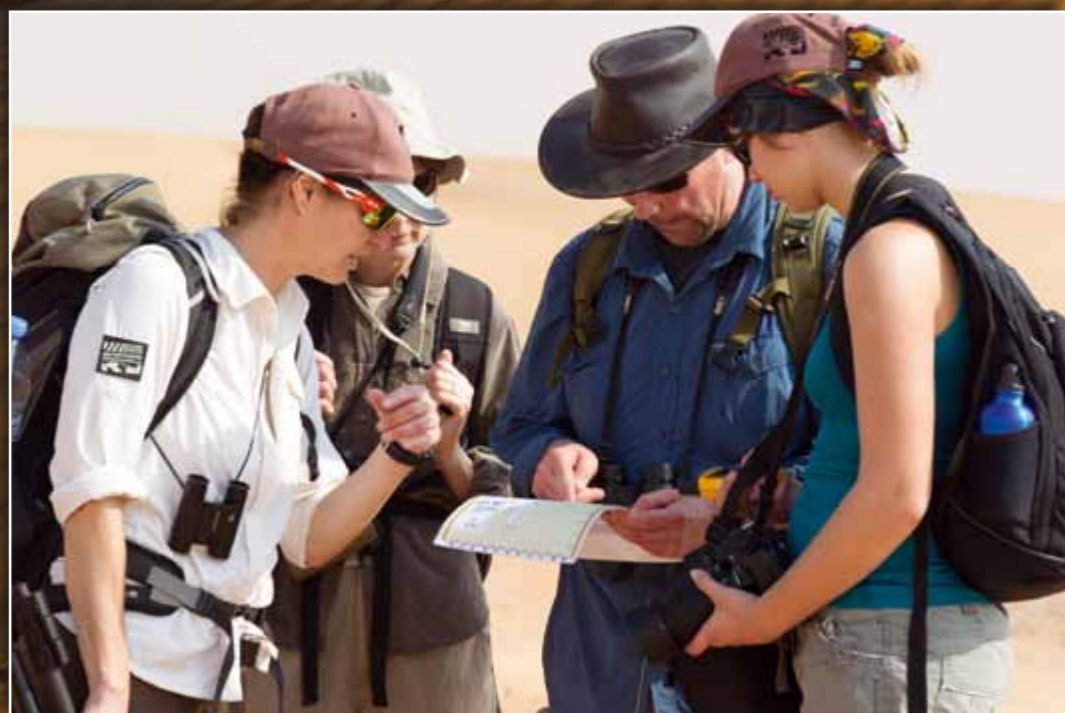


| Expedition contribution | Duration | Dates            | Meeting point    |
|-------------------------|----------|------------------|------------------|
| £1240                   | 7 days   | 4 - 10 Sep 2016  | Puerto Maldonado |
| £1240                   | 7 days   | 11 - 17 Sep 2016 | Puerto Maldonado |

More info [www.biosphere-expeditions.org/amazonia](http://www.biosphere-expeditions.org/amazonia)



# ARABIA



Pictures © Walter Kingma

## LATEST NEWS

### Citizen science helps Arabian wolf in Dubai



Picture © Shankar S.

The Dubai Desert Conservation Reserve (DDCR) is to re-introduce the Arabian wolf into its grounds based on data collected by citizen scientists from Biosphere Expeditions.

Biosphere Expeditions and the DDCR have been working together since 2012 with international volunteers collecting data on flagship desert species. Results gathered by the laypeople citizen scientists are analysed by biologist Stephen Bell and written up into a scientific report. Over the years these reports have helped in the management of the DDCR's oryx population and the protection of the endangered Gordon's wildcat.

The latest 2015 report now makes the ground-breaking proposal to re-introduce Arabian wolf back into the DDCR. According to the report, "there are too many oryx in the reserve and their numbers must be reduced, amongst other things in order to discontinue artificial feeding, which is not in line with the DDCR's goal of non-interference in the reserve. This reduction in numbers will be achieved through natural processes by introducing a top predator (the Arabian wolf) into the reserve as soon as fence upgrades have been completed."

## AT A GLANCE

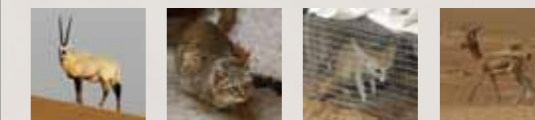
### ARABIA - United Arab Emirates:

Ways of the desert: conserving Arabian oryx, Gordon's wildcat, sand fox & other species in the iconic sandy desert landscape of Arabia

This conservation project will take you to the fascinating and iconic sandy desert landscape of the Arabian Peninsula. Working alongside scientists from the Dubai Desert Conservation Reserve, you will be part of a small international team, monitoring Arabian oryx, Gordon's wildcat, sand fox, mountain and sand gazelles, as well as other flagship species of the desert. From a comfortable oasis field camp you will venture out in the expedition 4WDs and on foot to study antelope behaviour and social structures, camera- and live-trap Gordon's wildcat and sand fox, and monitor them by radio and GPS telemetry. All this to ensure the survival of important flagship desert species in their beleaguered world.

#### Study species:

Arabian oryx, Gordon's wildcat, sand fox, sand and mountain gazelle



| Expedition contribution | Duration | Dates           | Meeting point |
|-------------------------|----------|-----------------|---------------|
| £1240                   | 8 days   | 9 - 16 Jan 2016 | Dubai         |

More info [www.biosphere-expeditions.org/arabia](http://www.biosphere-expeditions.org/arabia)



# AZORES

## LATEST NEWS



Decade of data from citizen science confirms cetacean hotspot

Information on cetacean sightings collected by Biosphere Expeditions' citizen science volunteers in the Azores is confirming the importance of this region for a variety of species, amongst them humpback, sperm and blue whales - the largest species ever to exist on our planet.

Recent data have highlighted the importance of 'site fidelity' (the same individuals returning to the same location again and again) for species such as sperm whales. Indeed some individuals have been recorded multiple times since 2004, when Biosphere Expeditions first collaborated with Whale Watch Azores on this long-term project.

Cetacean specialist Lisa Steiner, the expedition's scientist, says that "the collaboration with Biosphere Expeditions has led to repeat sightings of blue whales in different years, as well as matching humpback whales seen in the Azores to the Cape Verde Islands. We often encounter sperm whales that have been observed more in the early or late part of the year, and such information will help determine if there are 'winter' and 'summer' whales."

But the decade-long data collection has not only revealed patterns of the lives of whales and dolphins around the Azores. Fluke identifications have been matched with individuals recorded further afield, such as in Norway. The project supports initiatives with both the University of the Azores and University of Florida.



## AT A GLANCE

### 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. You will photograph whales and dolphins and record them for local and international monitoring databases as part of a small international team. You will 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.

#### Study species:

Sperm whale, common dolphin, Risso's dolphin, loggerhead turtle



| Expedition contribution | Duration | Dates              | Meeting point       |
|-------------------------|----------|--------------------|---------------------|
| £1390                   | 10 days  | 4 - 13 April 2016  | Horta, Faial Island |
| £1390                   | 10 days  | 15 - 24 April 2016 | Horta, Faial Island |

More info [www.biosphere-expeditions.org/azores](http://www.biosphere-expeditions.org/azores)



# COSTA RICA



## BACKGROUND

The story of LAST "Latin American Sea Turtles", NGO partner of Biosphere Expeditions in Costa Rica



Our work began in early 1986 as the marine programme of Asociación ANAI, a Costa Rican nonprofit organisation, working to protect the leatherback sea turtle nesting population. The main objective of our work was to protect turtle nests from human poachers and beach erosion. Before the project began, the poaching rate was over 95%, but with the presence of night patrols and guarded hatcheries on the beach, this dropped to around 10%. In 2007, we became part of WIDECAST (Wider Caribbean Sea Turtle Network) whose aim is the design and implementation of scientifically sound sea turtle management programmes at local, national and international levels.



Since our beginnings our overall goal has been to improve the conservation status of the nesting sea turtles and their critical habitats in Costa Rica. Assurance for the future of the project lies in the development of new alliances with organisations such as Biosphere Expeditions - that can recruit citizen scientists to run expeditions that depend on community support, thereby generating an income for local people and reducing pressure on the turtles and their critical habitat.

## AT A GLANCE

### COSTA RICA:

**Gentle giants: protecting leatherback sea turtles through direct conservation action on the Caribbean coast of Costa Rica**

This volunteering project will take you to the Central American country best known for its beaches, volcanoes, biodiversity and inspired environmental policies. Working on a remote black sands beach, you will be involved in direct conservation actions to support the critically endangered leatherback sea turtle, the world's largest living turtle. Venturing out from a research station by the beach, you will conduct beach patrols, guard and collect eggs, count and measure hatchlings and adult turtles, and assist with other direct conservation and research activities. All this to help create strategies to ensure the species' survival into the future.

#### Study species:

Leatherback and other sea turtles



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1480                   | 8 days   | 2 - 9 May 2016   | San José      |
| £1480                   | 8 days   | 12 - 19 May 2016 | San José      |

More info [www.biosphere-expeditions.org/costarica](http://www.biosphere-expeditions.org/costarica)



# MALAYSIA

## BACKGROUND

### REEF CHECK diving survey protocol



Reef Check is the name of both the most widely used coral reef monitoring protocol and an international coral reef conservation programme. The Reef Check programme brings together community groups, government departments, academia and other partners to educate the public about the coral reef crisis and rehabilitate damaged reefs worldwide using ecologically sound and economically sustainable solutions.

### The study site

Pulau Tioman is located 40 km off the east coast of peninsular Malaysia. The reefs of Pulau Tioman Marine Park are some of the healthiest and most diverse around peninsular Malaysia and lie just inside the 'coral triangle', an area that has been identified as having the highest diversity of coral species anywhere in the world. The reefs in the coral triangle support 600+ genera of reef-building corals, 3000+ species of fish and contain 75% of all coral species known to science. The coral triangle was identified as a priority area for marine conservation and, during the 2007 United Nations Climate Change conference in Bali, a pledge to protect this marine environment was drawn up between the countries of Malaysia, Indonesia, the Philippines and Papua New Guinea.

## AT A GLANCE

### MALAYSIA:

#### Paradise in peril: studying & protecting reefs of the Pulau Tioman Marine Park, Malaysia

This SCUBA diving expedition will take you to Tioman, the Malaysian island named by Time Magazine as one of the world's most beautiful. Working in a small group of fellow divers and volunteers in Malaysia, and based on a very comfortable and modern liveaboard yacht, you will assist the local researcher to study and protect the local Marine Park's beautiful but fragile coral reefs. Diving two to four times a day, the expedition includes training as a Reef Check EcoDiver; with this qualification you are eligible to apply for PADI or NAUI Reef Check Speciality Course certification after the expedition. Please note that you need to be a fully qualified diver to take part in this expedition (minimum PADI Open Water or equivalent).

#### Study species:

Hard and soft coral, reef fish & invertebrates



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1590                   | 8 days   | 16 - 23 Aug 2016 | Singapore     |

More info [www.biosphere-expeditions.org/malaysia](http://www.biosphere-expeditions.org/malaysia)





# MALDIVES

## LATEST NEWS

### No bleaching and lots of teaching on Biosphere Expeditions' Maldives reef expedition 2015



In the Maldives, luxury liveaboards motoring around the atolls are usually taking their guests to well-known dive sites to experience the underwater beauty that the Maldives is famous for. This September, one of those liveaboards, the MV Carpe Diem, housed a rather different clientele – studious environmentalists embarking on a training course to learn the monitoring techniques necessary to collect reef health data – Reef Check.

From five different countries, 10 participants, two of whom were Maldivian, came together on Biosphere Expeditions' annual research expedition.

"Understanding the factors that are affecting the health of the Maldives' reefs is the ambition of the programme", says Dr Jean-Luc Solandt of the Marine Conservation Society and Reef Check co-ordinator for the Maldives. "It is never a simple story – when we put our heads underwater at each site, we have a basic understanding of what's likely to be affecting the reef, but Reef Check allows us to nail this down further with data on a wide variety of factors."



## AT A GLANCE

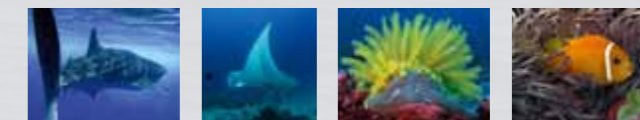
### MALDIVES:

**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 luxurious and modern liveaboard yacht, you will help marine biologists study and protect the Maldives' spectacular 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.

#### Study species:

Whale shark, coral reefs



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1240                   | 8 days   | 9 - 15 July 2016 | Malé          |

More info [www.biosphere-expeditions.org/maldives](http://www.biosphere-expeditions.org/maldives)



# MUSANDAM

## LATEST NEWS

### Beautifully written case for marine protection



Biosphere Expeditions, in its latest expedition report about the coral reefs of the Musandam peninsula in Oman, laments government inaction about marine protection that is designed to help everyone - from local communities and fishermen to foreign tourists to commerce to a nation's reputation. Responding to a press enquiry, Dr. Jean-Luc Solandt, expedition scientist and reef expert of the Marine Conservation Society, wrote a beautiful case for marine protection. Here are some excerpts:

"The biggest concerns - anywhere in the world - and in Musandam too, is the lack of funded and concerted action by governments to help ensure sustainable fishing of the seas.

What we are suggesting for the wonderful Musandam area is relatively small no-take zones to allow fishing to persist at sustainable levels in other areas. Reserves act as natural factories of fish, spilling over their juveniles, and larger fish (they swim outside the reserves) to be caught by fishermen when their densities become larger. They are for fishermen, not against them. The no-take zones spillover system has been shown to work time and time again.

It is up to Oman (as a nation) to progress this sort of management. This can be done, but there needs to be political will - and finance - to run this sort of programme. We can only offer advice. We have no power."

## AT A GLANCE

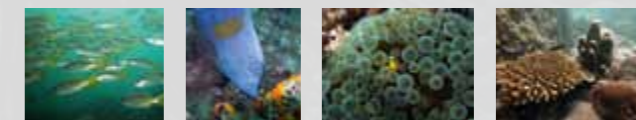
### MUSANDAM - Oman:

**Underwater pioneers: studying & protecting the unique coral reefs of the Musandam peninsula within Oman & United Arab Emirates**

This SCUBA diving expedition will take you to the remote and mountainous Musandam peninsula of Oman. Based on a comfortable and modern live-board yacht, you will study the diverse coral reefs fringing the areas where the spectacular mountains plunge into the Arabian Gulf and the Gulf of Oman. These reefs boast a rich mixture of beautiful corals and a multitude of fish and other animals. This pioneering study to map this unique underwater environment has already led to the creation of two protected areas. But more data on the biological status of the reefs and of population levels of key indicator species are needed for educational purposes and to be able to put forward ideas for more and larger marine protection areas. The expedition includes training as a Reef Check EcoDiver.

#### Study species:

Hard and soft coral, reef fish & invertebrates



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1280                   | 7 days   | 23 - 29 Oct 2016 | Dubai         |

More info [www.biosphere-expeditions.org/musandam](http://www.biosphere-expeditions.org/musandam)





# SLOVAKIA



Picture © Tomas Hulik

## LATEST NEWS

### Large carnivores in Slovakia's Vel'ka Fatra National Park



In 2015 Biosphere Expeditions ran for its fourth year its winter conservation in the Western Carpathian Mountains of Slovakia. The wild mountain valley where the expedition operates continues to support large carnivores, including lynx, wolf and bear. The spruce and beech forests of the Lubochnianska valley also have good populations of red deer, roe deer and wild boar, which are the principal prey species of wolves and lynx.

As the expedition progresses each year in February, a picture develops of the numbers and distribution of large carnivores in the valley. This helps to inform official carnivore population statistics and enables changes between years to be monitored.

Expedition participants come from far and wide, with nine nationalities represented in 2015. Tomas Hulik, the expedition scientist says: "2015 was another great expedition year. Lots of kilometres were covered walking transects in some deep snow conditions. We were able to locate all three resident wolf packs and three resident lynx individuals. In addition we recorded tracks from one bear, which was not hibernating, several golden eagles, otters and one wildcat... great results!"

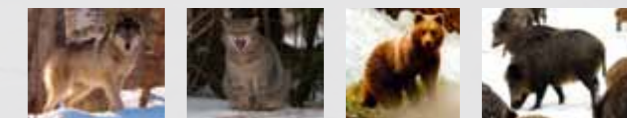
## AT A GLANCE

### SLOVAKIA:

**True white wilderness: tracking lynx, wolf and bear in the Carpathian mountains of Slovakia**

This expedition will take you to a little-known part of the Slovakian Carpathian mountains to monitor lynx, wolf & bear populations and their interrelationship with prey species. Based in a cosy and comfortable mountain chalet, you will be part of a small international team, working with the local scientist and contributing to an important piece of research. You will track large carnivores through snow in the forest and meadow habitats of the mountains and you may be involved in capturing and radio-collaring them. You will also learn how to recognise and record other signs of their presence, such as radio telemetry signals, scats and scent markings, camera trap them, collect samples to study their diet and for genetic analysis, and survey prey species.

**Study species:** Grey wolf, lynx, brown bear, wild boar



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1290                   | 7 days   | 6 - 12 Feb 2016  | Bratislava    |
| £1290                   | 7 days   | 13 - 19 Feb 2016 | Bratislava    |

More info [www.biosphere-expeditions.org/slovakia](http://www.biosphere-expeditions.org/slovakia)



# SOUTH AFRICA



## LATEST NEWS

Against the tide of bogus voluntourism in South Africa: a case study from the Western Cape



South Africa has been gaining a reputation as the home of bogus wildlife voluntourism projects. But there are genuine volunteering alternatives too, set up by locals and satisfying local need for help with wildlife research and conservation.

Dr. Alan Lee, a South African biologist, hosted in 2015 a group of seven volunteers from South Africa, Switzerland, the UK and USA at Blue Hill Nature Reserve to assist him for two weeks in his efforts to research and conserve the unique wildlife of the fynbos. "The volunteers helped me with big cat, and small mammal camera trapping, with analysing thousands of camera trap photos, and conducting a general biodiversity assessment using flush surveys", says Dr. Lee and adds that "much of this work is time and labour intensive and can only be done in groups. With only a couple of days training, I can turn laypeople into valuable research assistants, enabling me to do projects that I could not do by myself or that I simply lack the time for." But it does not stop just there. Dr. Lee aims to publish two peer-reviewed scientific papers as a result of the project, one on temporal patterns of abundance of medium- to large-size mammals from camera trap records, and the other on the Hottentot buttonquail, an endangered bird species endemic to the fynbos. This will add two more useful pieces of the puzzle to what is known about South African wildlife in academic and conservation circles.

## AT A GLANCE

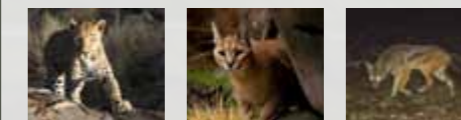
### SOUTH AFRICA:

**Carnivores of the Cape Floral Kingdom: surveying Cape leopards, caracals and other species in the fynbos mountains of South Africa**

This expedition will take you to South Africa's beautiful Cape Floral Kingdom (fynbos), a UNESCO World Heritage Site and the world's only biome contained within one country, to conduct a survey of leopard, caracal and fynbos biodiversity and to experience African fauna (such as buffalo, giraffe, eland, kudu, zebra, etc.). Based in a remote mountainous part of the Western Cape on a comfortable former farmstead with all modern amenities, you will first learn some bush skills and then conduct surveys on foot, mountain bike or car. You will also set camera traps, conduct game counts and you may assist with cat capturing and collaring.

#### Study species:

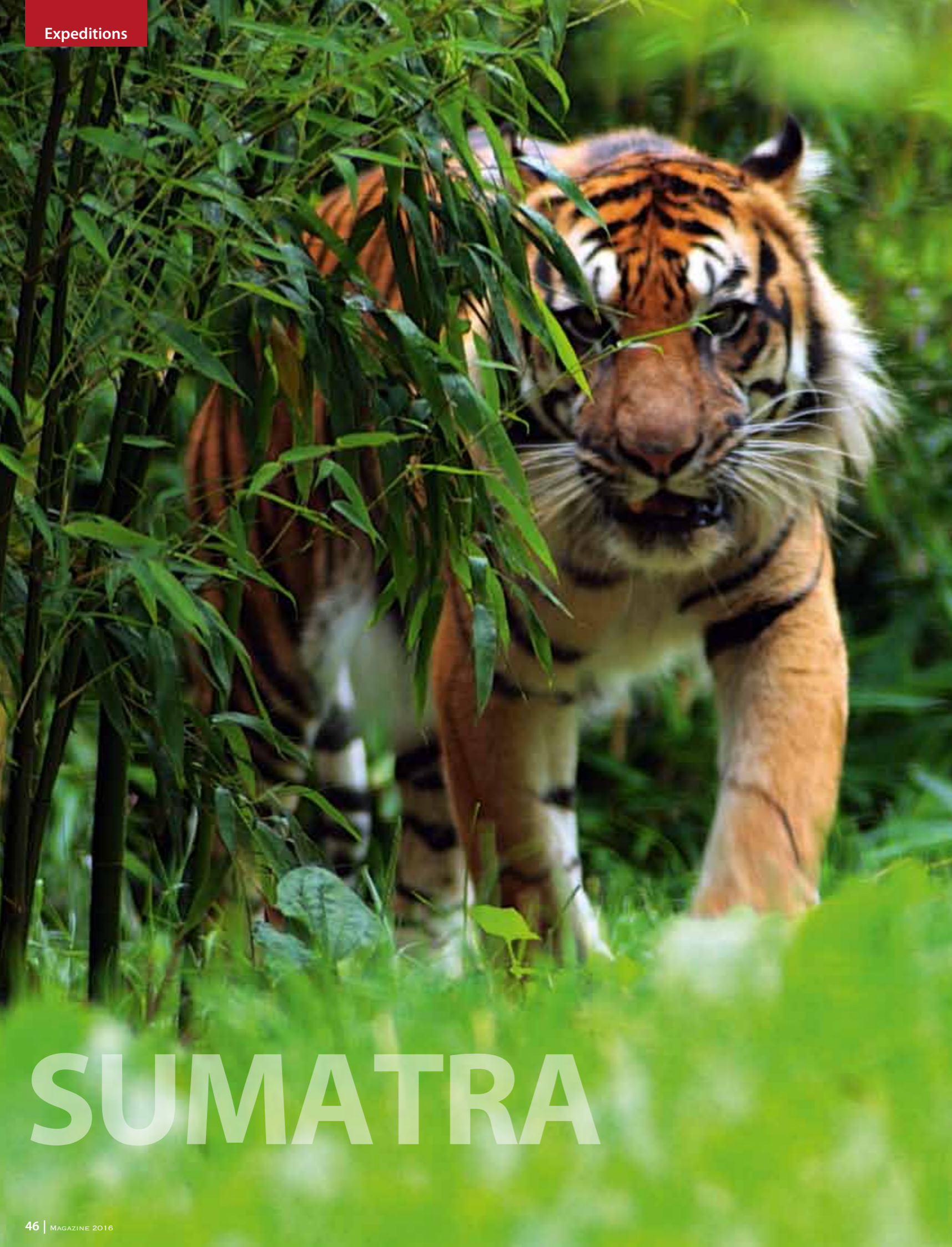
Leopard, caracal, black-backed jackal



| Expedition contribution | Duration | Dates           | Meeting point |
|-------------------------|----------|-----------------|---------------|
| £1840                   | 13 days  | 2 - 14 Oct 2016 | George        |

More info [www.biosphere-expeditions.org/southafrica](http://www.biosphere-expeditions.org/southafrica)





# SUMATRA

## LATEST NEWS

### The Sumatran tiger's fight for survival



The Sumatran tiger's habitat is threatened by illegal plantations and logging, forest fires, poaching, human encroachment and corruption. Listed as Critically Endangered on the IUCN Red List, and with as few as 400 estimated individuals left alive in the wild, it is facing a fight for its very existence.

Biosphere Expeditions in 2015 ran its first year helping in the conservation of the Sumatran tiger in Rimbang Baling Wildlife Sanctuary. For twelve weeks, six separate teams of volunteers from across the globe covered 136 square kilometres to collect data for WWF scientist Febri Anggriawan Widodo, who has been managing a tiger research and monitoring team within WWF Indonesia for the last three years.

In addition to conducting surveys in the wildlife sanctuary, the expedition has also been active in local schools, delivering presentations to students and teachers about the tiger and its habitat, and what changes are needed if both are to survive. Febri adds that "it has been great to see our citizen science volunteers lead sessions and games with the students, expressing their joint passion for the rainforest across all language divides. A large factor in saving the tiger's habitat is local education. With the head teachers backing us and the students themselves all keen for us build to on this aspect of the project, we have had a very positive effect. We look forward to building on this next year."

## AT A GLANCE

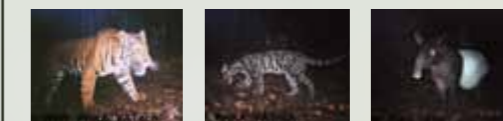
### SUMATRA - Indonesia:

**Forest flagship: researching & conserving critically endangered Sumatran tigers in Rimbang Baling Wildlife Sanctuary, Sumatra, Indonesia**

This tiger conservation project will take you to the Indonesian island of Sumatra to survey critically endangered Sumatran tigers and the largely uncharted and fascinating rainforest setting in which they are struggling to survive. You will be working as part of an international team from a comfortable traditional timber house expedition base inside the forest. You will be covering ground on foot and in boats, looking for tracks, kills, scats and the animals themselves, and setting camera traps. You will also work with local people on capacity-building and creating local incentives for tiger conservation.

#### Study species:

Sumatran tiger, Sunda clouded leopard, tapir



| Expedition contribution | Duration | Dates                | Meeting point |
|-------------------------|----------|----------------------|---------------|
| £1980                   | 13 days  | 17 - 29 Jul 2016     | Pekanbaru     |
| £1980                   | 13 days  | 31 Jul - 12 Aug 2016 | Pekanbaru     |
| £1980                   | 13 days  | 21 Aug - 2 Sep 2016  | Pekanbaru     |

More info [www.biosphere-expeditions.org/sumatra](http://www.biosphere-expeditions.org/sumatra)



# TIEN SHAN

## LATEST NEWS



### Confirming Snow leopard presence and ground-breaking prey modeling

One of the highlights of the 2015 Tien Shan snow leopard expedition is the confirmation of snow leopard presence in the Kyrgyz Alatau range. Three individual instances were recorded over the course of two months.

While this is exciting, especially for volunteer citizen scientists doing the ground work in the field, the project does not focus solely on the search of snow leopard sign, but also collects information on prey species. For example, mammals and birds that can reveal information on the biodiversity and health of the habitat as well as disturbances.

When talking about how the data are used, Dr. Tytar, the expedition's scientist, mentions a new approach called 'ecological niche modelling' or 'species distribution modelling'. This consists of the combination of readily available environmental digital information (for example temperature, moisture, vegetation, etc.) with ground data collected by volunteers. Computer software then combines the two to arrive at some sophisticated forecasting of wildlife distribution. It also identifies new areas that have not been surveyed yet, but that could be promising snow leopard habitat. "With modern computing methods a lot can be done", Dr. Tytar adds, "but the bottleneck turns out to be that there are often very little ground data. So the data collected by our expeditioners in the field adds a fundamental missing piece of information to an existing digital information puzzle, enabling predictive analysis of species distribution even across non-surveyed areas - an exercise which would otherwise not be possible."

## AT A GLANCE

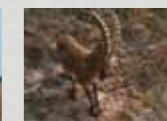
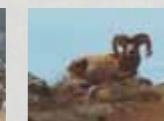
### TIEN SHAN - Kyrgyzstan:

**Mountain ghosts: protecting snow leopards and other animals of the Tien Shan mountains of Kyrgyzstan**

This expedition will take you to the remote and spectacular Tien Shan mountains of Kyrgyzstan to survey snow leopards and their prey animals such as the argali mountain sheep, the Central Asian ibex and marmots. You will be working as part of a small international team from a mobile tented base camp set at various locations, and altitudes of around 2500 m. You will be covering ground in the expedition vehicles and on foot, looking for tracks, kills, scats and the animals themselves, and setting camera traps. True expedition-style base camp conditions, testing but satisfying mountain surveying, off-road driving and the breathtaking high mountains make this a very rewarding expedition.

#### Study species:

Snow leopard, argali, Central Asia ibex



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1940                   | 13 days  | 11 - 23 Jul 2016 | Bishkek       |
| £1940                   | 13 days  | 1 - 13 Aug 2016  | Bishkek       |
| £1940                   | 13 days  | 15 - 27 Aug 2016 | Bishkek       |

More info [www.biosphere-expeditions.org/tianshan](http://www.biosphere-expeditions.org/tianshan)





# AUSTRALIA



## BACKGROUND

### Three threatened native Australian marsupial species



The quokka is a small wallaby in the kangaroo family (Macropodidae) and listed as vulnerable by the IUCN. It is restricted to the south west of Western Australia and two near-shore islands. On the mainland, quokkas are threatened by introduced animals such as foxes, cats and feral pigs, loss of habitat, inappropriate fire regime and climate change.

The Western quoll or chuditch is the largest carnivorous marsupial found in Western Australia and is also listed as vulnerable by the IUCN. Populations of this species declined dramatically after European settlement due to habitat loss and introduction of the European fox. By the time a recovery plan was prepared in 1994, the chuditch was considered to occur in just 5% of its original range. Chuditch are known to be sparsely distributed over large areas and a considerable amount of effort is required at these locations to confirm the presence of the species.

The quenda or Southern brown bandicoot is a small omnivorous marsupial that has a special 'conservation dependent' status in Western Australia. The main threats to its survival are the continued loss of habitat through urban expansion and clearing, and their susceptibility to predation and disturbance by introduced animals such as foxes, cats and pigs.

## AT A GLANCE

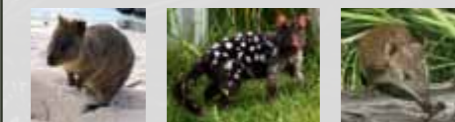
### AUSTRALIA:

**Marsupials galore: protecting quokkas, quolls and quendas in Western Australia's Walpole Wilderness**

This expedition will take you to the beautiful Walpole Wilderness Area biodiversity hotspot in Western Australia to study and protect threatened native Australian marsupials (the quokka, quoll and quenda). Working in the majestic Southern Forests of towering karri, tingle and jarrah trees, you will survey the area for suitable habitat, capture and release the animals, radio tag them, follow their movements and study their habits. You will be part of a small international team, based at comfortable and modern chalets inside the Walpole Wilderness and working with the local scientist on an important native fauna conservation project.

#### Study species:

Quokka, Western quoll or chuditch, quenda or Southern brown bandicoot



| Expedition contribution | Duration | Dates            | Meeting point |
|-------------------------|----------|------------------|---------------|
| £1670                   | 9 days   | 23 - 31 Jan 2016 | Albany        |

More info [www.biosphere-expeditions.org/australia](http://www.biosphere-expeditions.org/australia)



# EXPERIENCE



## EXPERIENCE DAYS in the UK, USA & Australia

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.

|   | UK  | USA    | Australia |
|---|-----|--------|-----------|
| <b>Experience day contribution</b> (per person) | £65 | US\$95 | AUS\$95   |

We will credit AU\$75 | £50 | US\$75 back to you if you subsequently join one of our expeditions.

More info [www.biosphere-expeditions.org/experience](http://www.biosphere-expeditions.org/experience)

### Dates & locations

#### Australia

Melbourne - 16 October 2016\*  
Sydney - 23 October 2016\*

#### UK

New Forest National Park - 19 June 2016\*  
Broads National Park - 26 June 2016\*

#### USA

Minnewaska National Park, NY - 15 May 2016\*  
Lory State Park, CO - 22 May 2016\*  
King's Canyon National Park, CA - 29 May 2016\*

\*Experience days are always on a Sunday from 09:00 to 17:00

# SCHNUPPERN



## SCHNUPPERTAGE in Deutschland

### Termine & Veranstaltungsorte

**Nationalpark Niedersächsisches Wattenmeer**  
24. April 2016\* (Norderney)

**Nationalpark Kellerwald**  
10. Juli 2016\*

**Nationalpark Unteres Odertal**  
17. Juli 2016\*

**Nationalpark Eifel**  
7. August 2016\*

**Nationalpark Berchtesgaden**  
25. September 2016\*

\*Alle Schnuppertage finden jeweils sonntags von 09:00 bis 17:00 Uhr statt

Wo Schnuppertag draufsteht, ist auch Schnuppertag drin: Verbringen Sie einen unterhaltsamen Tag mit uns und schnuppern Sie rein in das Feldforscherleben und Mitforschen bei Biosphere Expeditions. Unsere Schnuppertage finden in einigen der schönsten Nationalparkflecken Deutschlands statt. Als Teil eines kleinen Teams erlernen und probieren Sie Seite an Seite mit einem Naturführer und Ihrem Expeditionsleiter Techniken und Fertigkeiten im Natur- und Artenschutz aus. Dazu gehört der Umgang mit dem GPS, Navigation mit GPS oder Kompass, Arbeit mit Kamerafallen und Radiopeilsendern für Wildtiere, Spurenlesen, Ausfüllen von Datenblättern, etc. Obendrein lernen Sie selbstverständlich auch den Nationalpark kennen; seine Fauna, Flora, Geschichte und Naturschutzaktivitäten. Am Ende Ihres Schnuppertages werden Sie also nicht nur viel über den Nationalpark wissen, sondern auch einen sehr guten Eindruck davon haben, wie es ist, mit uns auf Expedition zu sein

**Schnuppertag Beitrag** einheitlich für alle Veranstaltungsorte: €65 (pro Person)  
Falls Sie sich nach dem Schnuppertag für die Teilnahme an einer Expedition entscheiden, schreiben wir Ihnen €50 davon wieder gut.

Mehr Info [www.biosphere-expeditions.org/schnuppertage](http://www.biosphere-expeditions.org/schnuppertage)



Biosphere Expeditions is an officially accredited member of the following bodies



United Nations Environment Programme's Governing Council  
and Global Ministerial Environment Forum



International Union  
for the Conservation of Nature



Marine Conservation Society



Reef Check

Biosphere Expeditions has won the following

## AWARDS & ACCOLADES

First Choice  
Responsible  
Tourism Awards

### First Choice Responsible Tourism Awards

Winner of the "Best Volunteering Organisation" award  
(international award scheme based in the UK)



### Multiple National Geographic awards

"Best New Trip" or "Tours of a Lifetime" awards  
for several expeditions (international award scheme  
based in the USA)



### Environmental Best Practice Award

Silver award by the Green Organisation  
(international award scheme based in the UK)



### Virgin Holidays Responsible Tourism Awards

Highly commended in the categories "Best for Protection of  
Endangered Species" and "Best Volunteering Organisation"  
(international award scheme based in the UK)



### Travel + Leisure Global Vision Award (for Responsible Tourism)

Winner of the "Conservation Award"  
(international award scheme based in the USA)



### Umwelt-Online-Award (Environment-Online-Award)

German government prize awarded to businesses and  
organisations with an online presence who have displayed  
excellence and best practice for the environment  
(international award scheme based in Germany)



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



### Blue List Award

Best in Sustainable Travel for Azores expedition  
(international award scheme based in the USA)

"Best Holiday for Green-Minded Travellers"  
for experience days; "Top Ten Outdoor Pursuits" for Altai & Azores expeditions;  
"Best Desert Adventure Holiday" for Arabia expedition; "Best Activity and Adventure  
Break" for Musandam expedition; "Best Volunteer Career Break" for Brazil expedition;  
"Best for the Wild at Heart" for Slovakia expedition.



"Best Adventure Outfitter"  
and "Best Save-the-Earth Trip" listings

"Ten Best Wildlife Volunteering  
Holidays" for Oman expedition;



"Ten Best Wildlife Holidays in Europe" for Azores expedition

WALL STREET JOURNAL "Best Volunteer Travel" for Namibia expedition  
"Most satisfying trip of the year" for Altai expedition

"Top Ten Conservation Holiday"  
for Altai expedition



"Life-changing volunteering trip" for Tien Shan expedition

"Unforgettable Travel Adventure (Unvergessliches  
Reiseabenteuer)" for taster days and Honduras expedition



"Top Holiday For Nature" listing in the category  
"Where can I do something for nature during my holidays?"  
(Wo kann man im Urlaub etwas für die Natur tun?)



"Top Responsible Holiday" for Amazonia expedition  
"Twenty of the world's greatest adventures" for Brazil expedition



"Trip of the Year" for Maldives expedition

"30 Great Escapes / Best Adventure Trips  
on the Planet" for Slovakia expedition



# get involved

## The Friends of Biosphere Expeditions

### Who are

the Friends of Biosphere Expeditions?

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 clicks away at [www.biosphere-expeditions.org/friends](http://www.biosphere-expeditions.org/friends).

### Become a member of the Friends

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. Help us to support critical wildlife conservation and research projects across the globe for a membership fee starting from a monthly £ 8 / €10 / US\$15 / AU\$15.

As a Friend of Biosphere Expeditions, benefits for you will 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](http://www.biosphere-expeditions.org/friends).

### What happens to the Friends' funds?

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 headquarters 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 right for recent examples of what the Friends' funds have been spent on.





## Friends activities 2015

In 2015, the Friends continued to concentrate on capacity-building with local people through the Biosphere Expeditions placement programme. This programme (see [www.biosphere-expeditions.org/placements](http://www.biosphere-expeditions.org/placements)) now makes places for local people available on all expeditions and is supported by the Friends and the Rufford Foundation. Three testimonials from recent placement winners are below as well as two more Friends activities.

*"I was so excited when I found out that my placement application had been accepted. As I walked into the meeting point for the expedition, I came to meet a really nice team of people who came from different parts of the world, for the same purpose: To help conserve and experience the marine environment of the Maldives. I was really lucky to be part of the expedition on an amazing boat, with a great crew, including a local marine scientist and an amazing expedition leader. The expedition definitely helped me gain more knowledge on coral reefs and other marine life of the Maldives. This trip has made me realise that there is so much more to learn about coral reefs and their surrounding environment. I will definitely use the knowledge gained on this trip to help conserve the environment in as many ways as possible and including carrying out our own Reef Check surveys at different sites of the Maldives in the future."*



*Mohammed Ryan Thoyyib*

*"My name's Sugiono, Sugi for short. I am a final year student. I am very grateful for being part of Biosphere Expeditions' project to protect Sumatran tigers in my own province of Riau. As a student, it was a superb opportunity to gain a meaningful experience as well as skills of animal identification, analysing wild animal tracks, finding the best spot for camera traps, and much more. Spending six weeks in the Sumatran jungle definitely developed my survival skills. My placement opened my eyes to the 'secret' things happening in Sumatra, which not many people know about. It gives me a reason to fight against the people who don't ever think that other creatures also have a right to live. Thank you so much Biosphere Expeditions. I do believe that what I gained will help me with my future career."*



*Sugiono*

*"Taking part in the Snow leopard expedition in Tien Shan was a precious learning experience for me. Although I've been working for environmental projects in Kyrgyzstan for a few years, I do not often get this kind of chance to observe nature so closely, get close to the habitat of rare animals, look for their tracks and reflect on findings with scientists after each study trek. Two weeks away from usual comfort area, living by the rules of nature also got me thinking that humans are really small compared to powerful processes of nature. My participation in the expedition gave me fresh insights, which will help to continue raising the importance of conserving this beautiful and endangered animal and its fragile habitat."*



The Friends also supported Lisa Steiner travelling to the Society for Marine Mammalogy's biennial conference in San Francisco. Read her piece about this conference on page 58.

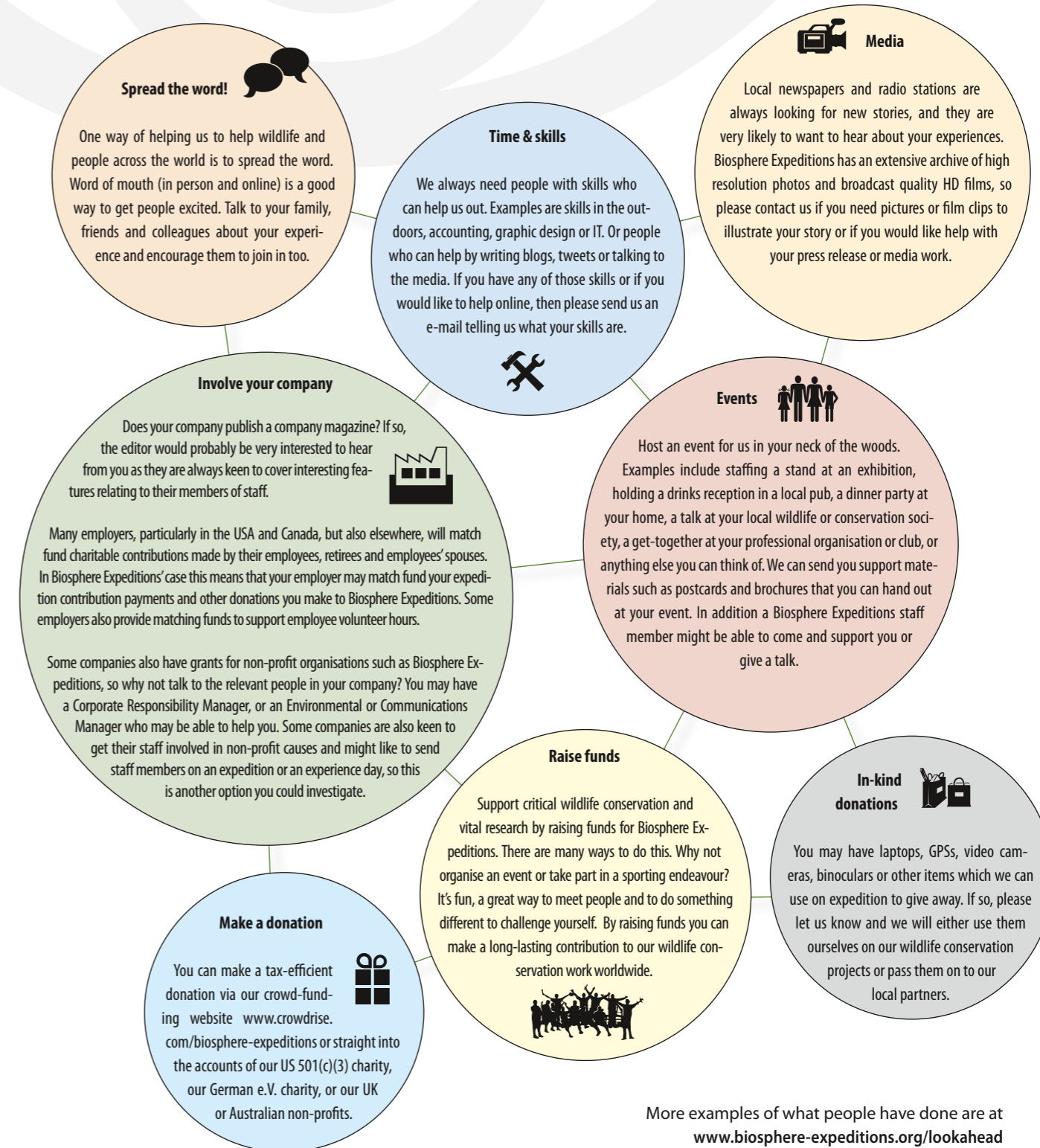
Finally, the Friends supported the purchase of camera traps for the expeditions to Sumatra (conserving tigers), Tien Shan (snow leopards), Amazonia (biodiversity study) and South Africa (leopards).



*Tien Shan team members setting up a camera trap*

## 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. More examples of what people have done are at [www.biosphere-expeditions.org/lookahead](http://www.biosphere-expeditions.org/lookahead).



More examples of what people have done are at [www.biosphere-expeditions.org/lookahead](http://www.biosphere-expeditions.org/lookahead)



NEWS & VIEWS

**Karen Schneider** from Osnabrück, Germany on her LIFE AFTER TWO EXPEDITIONS



After finishing school, I was toying with the idea of studying biology in order to become a behavioural scientist, but my parents and the job market convinced me otherwise. So here I am, 25 years later, and I am still a secondary school teacher. However, my participation in the Altai expedition (2005) and then later in the Caprivi expedition (2008) were major stepping stones that helped me turn my life in a new direction for at least some of the time. I

have since then used many of my holidays plus two sabbatical years to qualify as a guide for hiking, canoeing and cross-country skiing holidays and as a field guide in Southern Africa. Whenever I am 'out there' (be it in Scandinavia or the African bush), I am always awed and inspired by nature - a feeling which I try to impart to those I lead as well. With this profound respect for all things living comes of course the desire to protect our environment, which is why I have also taken part in many conservation projects over the years. During my travels in Africa, I also came across some quite dubious volunteer projects, which is why I appreciate Biosphere Expeditions even more. ■

Expedition leader **Craig Turner** contributes to CONSERVATION BOOK

"No More Endlings" is a book just published, which features 45 adventurous, endearing, scientific and sometimes disheartening tales that arise from working to protect endangered species. Craig has contributed to two chapters: one on the red slender loris of Sri Lanka, the other on the pygmy three-toed sloth of Panama. He worked on both these projects with the Zoological Society of London. ■



**HARD-HITTING expedition reports**

Our expedition reports do not mince their words, for example calling on the Maldives government to show more commitment to protecting coral reefs, which are after all the basis not only for the country's economy, but for its very existence as well. You can see them and other cutting-edge scientific publications on [www.biosphere-expeditions.org/reports](http://www.biosphere-expeditions.org/reports) ■



**Lisa Steiner**, our Azores cetacean specialist and expedition scientist, is OFF TO SAN FRANCISCO

I will be attending the Society for Marine Mammalogy's biennial conference in San Francisco in December 2015. There will be approximately 3,000 marine mammal scientists at the week-long conference. I submitted an abstract months ago entitled

"Long Distance Movements of Female/Immature Sperm Whales around the Atlantic". The abstract was accepted for a poster presentation. The poster will present results of photo-identification matches of sperm whales made between the Azores and the Canary Islands and a match between the Canaries and Madeira, as well as some inter-island movements of sperm whales between the central group of islands and São Miguel of the Eastern Group of the Azores Archipelago. I will have a designated time to be present at the poster to answer questions. Before the conference there is a workshop "Sperm Whale Consortium" for people studying sperm whales around the world, which I will also be attending. This will be a chance to see what research is being done in other areas as well as a chance to network with others studying sperm whales in the Atlantic, who could provide more photographs for matching to different regions. In addition to the poster on which I am the first author, I am listed as an author on two others: one discussing blue whale movements using photo ID and another on the humpback whale sightings in the Azores over the past several years. During the conference there will be hundreds of talks given on a range of topics presenting

current research and I will attend those that are relevant to the work that is done here in the Azores. Baleen whale migration, photo ID, sperm whales and social organisation of cetaceans being a few areas of interest. Of course much of the work I will be presenting is based on the data I glean during the annual Biosphere Expeditions research expedition and I thank all participants over the years (since 2004!) who have supported me.. ■

**Allyson Bailey** WRITES AN E-BOOK about her Namibia expedition experience



A friend of mine once claimed that all women want to go to Tibet when they're forty, to find themselves. Maybe I was never lost or else I was a bit worried about what I might find, because my forties came and went and I never once had the slightest urge to visit Tibet. However, there may be some truth in the idea that women of A Certain Age are on the lookout for new experiences, because at 50 I found myself gearing up to spend two weeks on Biosphere Expeditions' big cat research expedition in Namibia, the youngest of a five-strong all female group. The experience was so educational, fun and exciting that I wanted to share it, and so I have written an e-book entitled "The Okambara Ladies Sewing Circle" (available from [www.lulu.com](http://www.lulu.com)). My hope is that the book will not only paint a picture of our remarkable experience, but perhaps encourage others to get involved in conservation.

Half of the proceeds go directly to Biosphere



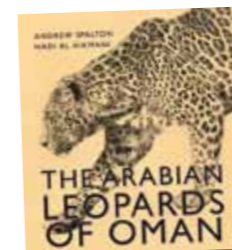
Expeditions. ■

**Dr. Jean-Luc Solandt**, our coral reef specialist, and the **Marine Conservation Society** have been actively trying to promote NEW DESIGNATIONS OF MPAS (marine protected areas) and protect current MPAs better in UK seas in the past year.



We have had success at being considered one of the most influential organisations in Europe (alongside our legal partners ClientEarth) in pressuring authorities to stop damaging fishing in EU MPAs. This culminated in us presenting to EU-wide MPA practitioners in May 2015 in St Malo to over 23 EU member states on the results of our activities. Over 3,000 square km of vulnerable habitats were protected in 2014 from trawling in English seas, whilst Scotland is on the brink of protecting a similar amount of their own inshore vulnerable habitats from trawling and scallop dredging, hopefully by the end of 2015. We have collaborated with scientists to produce a draft paper detailing the conservation story for a UK coral - the pink seafan. This species has been increasingly protected in MPAs and now is seeing actual bans on towed fishing gears in the majority of its range (southwest Britain and Ireland). Our paper is being submitted to the journal 'Marine Policy'. We have been able to establish good links with inshore fisheries regulators to undertake deep-water camera surveys of offshore reefs in UK seas. This exciting development is leading to a better understanding of how the seabed recovers after damaging trawling is banned. In terms of tropical reef work, we have followed the progress of the 2015 El Niño with interest and will be very interested in seeing the results of any bleaching event in the Maldives and Oman this year. ■

ARABIAN LEOPARD BOOK now out



It is with great pleasure that we can announce the publication of a new book on the Arabian leopards of Oman. The book was written by our partners and expedition scientists in Oman, Dr. Andrew Spalton and Hadi Hikmani, quotes expedition research results as well as Biosphere Expeditions as an example of how citizen science and community engagement can work well.

The authors estimate the Arabian leopard population in Dhofar to be 44-58 adults and also write that the species is now locally extinct in Musandam. Conservation recommendations include community engagement, protected areas, compensation & assistance schemes, visitor programmes, research and reintroduction & reinforcement. The book also contains an overview of other mammals of the Dhofar and concludes that "the chance to save the Arabian leopard in the wild remains, but only if conservation is inclusive of the communities of the Jabal. If not, the wild Arabian leopard will simply become, like the Arabian cheetah, a creature of myth and legend alone."

This beautifully written and illustrated book is a highly recommended read for all those interested in this magnificent and critically endangered species. Biosphere Expeditions is proud to have contributed to some of the research results mentioned in the book and to have served as an example of how citizen science and community engagement can achieve positive outcomes for our planet's wildlife.

A. Spalton & H. Hikmani: "Arabian leopards of Oman".

Available via Amazon and other online retailers. ■  
**MALDIVES PLACEMENT RECIPIENTS** going from strength to strength

Mariyam Shidha Afzal is a local Maldivian recipient of our placement programme. After attending the programme Shidha went on to a BSc degree course in Marine Science at the University of Malaysia Sabah (Borneo), where she is now in her final year. Prior to her degree, Shidha worked for the Maldives government's Marine Research Center as a research assistant for three years, carrying out numerous (Reef Check and other) survey dives for the National Coral Reef Monitoring Programme of the Maldives and the Maldives Environment Management Programme. Shidha benefitted from our placement programme over two years in the past and was trained by Jean-Luc Solandt as a Reef Check Trainer. In this capacity she is now training her compatriots and establishing a community-based reef conservation programme. Shidha also became the acting scientist on our 2015 Maldives expedition, thus handing even more control to local people (see page 22).

Amintha Shaha Hashim is another Maldivian placement recipient who has been very active in establishing community-based programmes, organising amongst other things the first-ever all-Maldivian Reef Check survey in November 2014 and training dozens of her compatriot. Shaha is also a founding member of a local environmental NGO and is in the process of applying for a Whitley Fund for Nature award, which is given each year to "outstanding nature conservationists around the developing world".



Shaha (left) and Shidha (right)

Good luck Shaha! ■

Another ETHICAL TRAVEL ACCOLADE for Biosphere Expeditions



Biosphere Expeditions has won another ethical travel accolade, this time in the "Ethical Travel Special" of BBC Wildlife, where its Sumatran tiger project was listed as one of only eight "Top Wildlife Conservation Holidays".

This latest accolade comes hot on the heels of another one, where Biosphere Expeditions was chosen by a panel of experts as one of only a dozen ethical organisations in a voluntourism market "swamped with capitalist ventures masquerading as morally sound institutions". This is according to World Travel Guide, who in February published its list of "12 ethical experiences for 2015" (see next page).

"Needless to say that we are very proud to have received these two latest accolades," says Dr. Matthias Hammer, Biosphere Expeditions' Executive Director, "especially because they are in the context of ethical voluntourism and travel, which is a topic very close to our heart".



"We have been campaigning on this topic for a number of years\* and have published our own TOP TEN TIPS on choosing a wildlife volunteering experience (see page 15). So it is very rewarding to receive these recognitions from recognised experts in the field", concludes Dr. Hammer.



Biosphere Expeditions, WWF Indonesia Riau Program and the Batu Dinding Community Group launched the tiger expedition to Sumatra in 2014. Started in May 2015, the expedition conducts a much-needed survey of critically endangered Sumatra tiger. ■



**Snow leopard presence CONFIRMED**

in Saylyugem National Park

Camera trap pictures show snow leopards are thriving in the Altai Republic's Saylyugem National Park, created five years ago with input from Biosphere Expeditions.

Researchers of Sylyugem National Park in the Altai mountains of Siberia have recently captured multiple images of snow leopards. Aleksei Kuzhlekov, a national park researcher, reports that "four pictures of snow leopard were taken at different times, probably of three or four individuals". Igor Ivanitsky, head of local conservation department, adds that "we were able to place the cameras in the right place by painstakingly working out the movement routes of the cats. Being then so successful with our camera trapping efforts tells us that the park is their main home and hunting ground. Park staff have also found snow leopard tracks and scats (droppings) in several places around the national park, giving further evidence that the big cats are thriving in their newly created refuge".

The Saylyugem National Park was created five years ago to protect wildlife in the region, especially the snow leopard and argali mountain sheep, in an area totaling 118,380 hectares. The creation of the reserve was much needed, because poachers had killed more than ten snow leopards in the area in the 1990s alone, to sell their pelts and body parts, by and large on the Chinese medicine black market.

The snow leopard is in the endangered category on the IUCN Red List of Threatened Species with as few as 4,000 left in the world, of which only 2,500 are likely to be breeding.

Dr. Matthias Hammer, Executive Director of Biosphere Expeditions, is delighted with the news. "We spent ten years working in the Altai, researching snow leopard presence, building local capacity and trying to create economic incentives for local people to keep their snow leopard neighbours alive. When we started, there was no national park, little awareness, research or infrastructure, and rampant poaching. Now we have a national park, national park staff, anti-poaching patrols, several research initiatives, much more awareness and many ways for local people to benefit from the presence of the snow leopard. Poaching continues to be a threat, as is the Altai gas pipeline, but all in all this is a remarkable turnaround and success story, and we are very proud to have played our part in this. We've had many successes through citizen science voluntourism over the years and this is yet another excellent illustration of how citizen science-led conservation expeditions can make a genuine difference".

Biosphere Expeditions continues to work in snow leopard conservation and has shifted its efforts to the Tien Shan mountains of Kyrgyzstan. ■

**Biosphere Expeditions singled out as ETHICAL ORGANISATION**  
in an increasingly unethical voluntourism world

Biosphere Expeditions' (and specifically its Sumatran tiger project) has been chosen by a panel of experts as one of only a dozen ethical organisations in a "market being swamped with capitalist ventures masquerading as morally sound institutions", according to World Travel Guide, who has just published its list of "12 ethical experiences for 2015".

World Travel Guide is amongst a number of organisations critical of the negative impacts that badly run voluntourism projects can have. It recently uncovered that voluntourism can have negative impacts on developing nations, from local job displacement to child abduction.

This follows other reports that lambasted aspects of voluntourism such as bogus conservation projects and exploitative orphanage tourism, but praised Biosphere Expeditions.

"We are delighted with this latest accolade", says Dr. Matthias Hammer, Biosphere Expeditions' Executive Director, "especially because it specifically mentions that there are - sadly - many charlatan operators out there these days. It then sets us well apart from them as a counter-example of ethical and best practice, and how things can and should be done in voluntourism".

"We have been campaigning on this topic for a number of years ourselves\* and have published our own TOP TEN TIPS on choosing a wildlife volunteering experience. So it is very rewarding to receive an accolade in this important context of ethical voluntourism", concludes Dr. Hammer. ■



**Journalist friend Clive Tully updates his QUIRKY TRAVEL BOOK**



Back in the early 90s, Clive Tully produced two editions of "The A to Z Guide for Lightweight Travellers", published in partnership with the boss of renowned travel clothing company Rohan, Paul Howcroft. Over 20 years later, and Clive has followed up with a weightless third edition on Amazon Kindle! The print editions were well received by a broad cross-section of travellers and outdoors buffs, and the book was noted for its tips on travelling light, presented in a quirky encyclopaedia style. The revised and expanded new edition uses dynamic cross-referencing, and retains the daft cartoons which added character to the original books.

See <http://amzn.to/1LmZ6Hb>. ■

**V**EGGIES AND SCIENTISTS ABOVE THE REST –

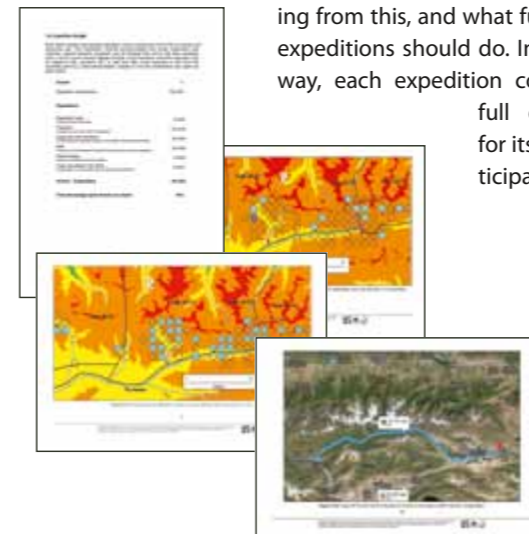
AN INTERVIEW WITH MATTHIAS HAMMER

There are many things that set Biosphere Expeditions apart from those that now crowd into voluntourism. Our scientific expedition reports and vegetarian policy are just two. The reasons for the latter are explained below.

**Scientific expedition reports**

As far as we are aware, Biosphere Expeditions is the only organisation in the world that has a direct and transparent link between the work done by its citizen scientists and an expedition report (have a look at them at [www.biosphere-expeditions.org/reports](http://www.biosphere-expeditions.org/reports)). Each expedition is matched by an expedition report for that year which deals with the two main areas that expedition participants contribute to: funding and data collection. Chapter 1 of each report, written by Biosphere Expeditions, reviews the expedition logistics and publishes an expedition budget, which shows in a clear and transparent way income and expenditure for each expedition and the percentage of income spent on the project. Chapter 2 onwards, written by the expedition scientist, shows who collected what data, how they were analysed, what the conclusions were, as well

as the conservation recommendations and actions flowing from this, and what future expeditions should do. In this way, each expedition comes full circle for its participants.



**Vegetarian policy**

**WHY DOES BIOSPHERE EXPEDITIONS SERVE VEGETARIAN FOOD ONLY ON EXPEDITION?**

The United Nations has identified vegetarianism as one of the major ways to reduce impact on the planet; it has also concluded that a global shift toward a vegetarian or vegan diet is necessary to combat the worst effects of climate change. Also, Biosphere Expeditions is all about animal conservation, research and caring for animals in its widest sense. Because of all this, no animal meat (including fish) that is connected with animal abuse or suffering or obtained using unethical or unsustainable production and harvesting methods is served on our expeditions. And this is true for the vast majority of meat, especially in the countries we work in.

**ISN'T THAT A BIT EXTREME? WHAT ABOUT PERSONAL CHOICE AND FREEDOM?**

We hear this quite a bit. We make lots of choices for people on our expeditions: Where they live, what time they get up, what model of car they drive, the type of equipment they use, the activities they do and how, etc. The food they eat is simply another one. Their choice is to accept our ethics and philosophy and come with us, or not, because they don't agree with our policy or because they don't want to do without meat for a week or two. There are a million ways to spend your holiday, including working in conservation. And as far as I am aware we are the only citizen science organisation with a vegetarian policy, so if people feel they really can't do without meat for a week or two, then of course it's their choice to do something else.





And talking about ethics, there are very obvious animal welfare, sustainability and environmental impact issues around meat production, especially in many of the places we run expeditions to, so apart from the huge environmental impact of meat, this is another reason for our veggie expeditions. According to a United Nations statistic, raising cattle for beef and milk, for example, spews more greenhouse gases into the air than all of the cars currently on the road. The same UN report also found that the livestock industry wreaks havoc on our land and water - taking up vast amounts of scarce resources and polluting the waterways more than any other industry.

And further on ethics, it's tough to think about how your steak or pork chop was made. According to the United States Department of Agriculture, 9 billion cows, chickens, turkeys, ducks, pigs, and sheep are slaughtered for food annually in the USA alone. And these animals often suffer greatly in tiny cages, crates and pens, before enduring cruel slaughter practices. And this is in the USA. I am loathe to think about the meat and fish production processes in many of the countries we work in. The Humane Society of the United States estimates that if every American cut out meat just once a week, about 1.4 billion animals could be spared each year.

**BUT DOESN'T AN ARMY MARCH ON ITS STOMACH?**

[Laughs]. Yes, Napoleon said "c'est la soupe qui fait le soldat". And of course that's true, so we try hard to provide our teams with the best locally produced food we can, just without the meat. After all we are a conservation organisation concerned with animals, so it really makes no sense for us to care and do something about the decline in biodiversity and then contribute to the problem by tucking into a piece of meat or fish in the evening. Research has shown that industrial meat and fish production is also a major cause for the loss of biodiversity. There may be fish that are taken sustainably and obviously the locals are all bound to eat fish & meat, but we want to set an example (even though it may not be understood by many or even most) and err on the side of caution, reducing our impact as much as we can.

**OK, BUT WHAT ABOUT ENERGY FOR PEOPLE OUT COLLECTING DATA ALL DAY?**

It is a myth that a vegetarian diet does not have enough protein or provide enough energy. After all there are many vegetarian or vegan Olympic athletes as living proof. Not only will you get all the protein you need, but you won't suffer from an excess of it.



Ample amounts of protein are present in whole, natural plant-based foods. For example, spinach is 51% protein; mushrooms 35%; beans 26%; oatmeal 16%; whole wheat pasta 15%; corn 12%; and potatoes 11%. Plant proteins are as complete as complete can be. The myth that they're not, or are of a lesser quality than animal proteins, dates back to experiments performed on rats in the early 1900s. The meat, dairy and egg industries have marketed the hell out of this ancient research and even in this day and age the majority of people still think the only way to get complete protein or enough energy is through meat. This is simply nonsense with no basis in scientific fact. Also, the silly focus on protein - modern diets are anything but protein-deficient - distracts attention from the high-fat and saturated content of meat. To meet nutritional requirements, you only need to eat about half a gram of protein for every pound you weigh. Even if you are a vegan and eat no animal products at all, you almost certainly get enough protein from the grains, beans and vegetables that you eat.

In addition, your energy levels will actually be more constant and consistent on a vegetarian diet. Think of high-fiber and nutrient-heavy plant foods as the big logs in the fireplace that burn for hours. Think of low-fiber and nutrient-light foods such as simple carbohydrates as wads of newspaper that go up in a flash. On a vegetarian diet, you are less likely to have the meat-based energy peaks and troughs. And if people are tired on expedition, then I think this is because of the hard, physically and mentally demanding work they are doing, rather than the food we are serving.

**WHAT ABOUT HEALTH REASONS?**

There are lots and lots of studies that have shown the health benefits of a vegetarian diet. A study by the American Heart Association and University of Vermont has shown that your risk of the number one killer of people, i.e. cardio-vascular disease and heart attack, lowers significantly with a vegetarian diet.

There is also clear link between the number two killer - cancer - and meat (see info box). In one study of more than 35,000 women published in the British Journal of Cancer, those who ate the most red and processed meat were found to have the highest risk of breast cancer. Other research has linked meat consumption to colon, prostate, pancreatic and gastric cancers as well. One theory, according to non-profit group The Cancer Project, is that foods with high levels of fat artificially boost the hormones that promote cancer.



And further on health issues, subbing a veggie burger for a hamburger is a no-brainer way to save a lot of calories. But the meat-weight relationship goes beyond calorie maths. A study by Imperial College London found that those who ate about 250 g of red meat, poultry, or processed meat a day (the size of one half-pound steak) gained more weight over five years, than those who ate less meat, even if they consumed the same amount of calories overall.

**BUT ISN'T IT JUST BAD FOR BUSINESS?**

Good one [laughs]! First of all, we are not a profit-driven business. We are a non-profit conservation charity. So it's not about bums on seats and maximising profits. It's about bringing people together to achieve things in

wildlife conservation in a way that is as ethical and low in impact as possible. It's about putting our mouths where our hearts are, about being concerned with conservation and the environment on all possible levels during the expedition. So what we ask people for is their cooperation and understanding for a week or two, which brings us back to choice. Of course people do have a choice whether to come with us on expedition and share in our philosophy and ethics for a week or two. It's clear what we stand for - and if you don't stand for things, you fall down easily. ■



**Processed meats - such as bacon, sausages and ham - cause cancer, according to the World Health Organization (WHO)**

In a report published in October 2015, the WHO said that 50 g of processed meat a day - less than two slices of bacon - increased the chance of developing colorectal cancer by 18%. Meanwhile, the report also said that red meats were "probably carcinogenic". The WHO came to these conclusions on the advice of its International Agency for Research on Cancer, which assesses the best available scientific evidence. It has now placed processed meat in the same category as plutonium, but also alcohol, as those two have conclusively been shown to cause cancer. However, this does not mean they are equally dangerous. A bacon sandwich is not as bad as smoking. Nevertheless, estimates suggest that 34,000 deaths from cancer every year could be down to diets high in processed meat.

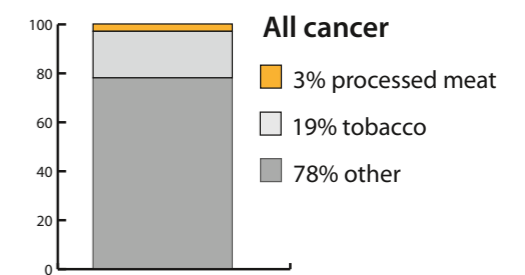
Processed meat has been modified to either extend its shelf life or change the taste. The main processing methods are smoking, curing, or adding salt or preservatives. Processed meat includes bacon, sausages, hot dogs, salami, corned beef, beef jerky and ham as well as canned meat and meat-based sauces. The WHO believes that it is the chemicals involved in the processing, which are the main culprits in increasing the risk of cancer. High temperature cooking, such as on a barbeque, can also create carcinogenic chemicals.

In the UK, around six out of every 100 people get bowel cancer at some point in their lives. If they were all given an extra 50 g of bacon a day for the rest of their lives, then the risk would increase by 18% to around seven in 100 people getting bowel cancer. "So that's one extra case of bowel cancer in all those 100 lifetime bacon-eaters," says Sir David Spiegelhalter, a risk professor from the University of Cambridge. "For an individual, the risk of developing colorectal (bowel) cancer because of their consumption of processed meat remains small, but this risk increases with the amount of meat consumed," added Dr Kurt Straif from the WHO.

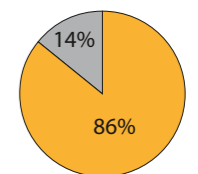


**Red meat risk in context**

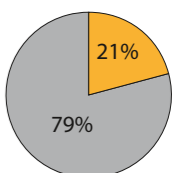
19% of all cancers caused by tobacco compared to 3% of all cancers ascribed to red or processed meat



**Lung cancer:** 86% of lung cancers are caused by tobacco



**Bowel cancer:** 21% of bowel cancers are caused by processed or red meat



Source: Cancer Research UK



## CLIPPINGS 2015

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

 **Land der Berge Magazin**

Six page feature about Slovakia bear, lynx and wolf expedition  
<http://issuu.com/biosphere-expeditions/docs/sk-landderberge15>


 **BBC Wildlife Magazine**

Our Sumatra tiger expedition is honoured in BBC Wildlife Magazine's "Top Wildlife Conservation Holidays" list in the "Ethical Travel Special" of March 2015.  
<http://issuu.com/http://issuu.com/biosphere-expeditions/docs/su-bbcwildlife15>

 **Abenteuer & Reisen Magazin**

Book about large carnivores in Europe with mention of Biosphere Expeditions' work on lynx, wolf & bear in Slovakia  
<http://issuu.com/biosphere-expeditions/docs/sk-siesindwiederda15>


 **Travel & Leisure Asia**

Listing of Australia expedition within larger family travel piece  
[http://issuu.com/biosphere-expeditions/docs/wa-travel\\_leisure15](http://issuu.com/biosphere-expeditions/docs/wa-travel_leisure15)


 **Wildside Magazine**

Five page feature about Sumatra expedition  
<http://issuu.com/biosphere-expeditions/docs/su-wildside15>



## CLIPPINGS 2015


 **Outer Edge Magazine**

Four page feature about Slovakia expedition  
<http://issuu.com/biosphere-expeditions/docs/sk-outeredge15>

 **Tierwelt Magazine**

Two page feature of Sumatra tiger expedition  
<http://issuu.com/biosphere-expeditions/docs/su-tierwelt15>


 **Naturschutz Heute Magazin**

Two page feature of Tien Shan snow leopard expedition  
<http://issuu.com/biosphere-expeditions/docs/ts-naturschutzheute15b>

 **Lonely Planet Traveller Magazin**

Feature article about volunteer travel with three recommended organisations, including Biosphere Expeditions.  
<http://issuu.com/biosphere-expeditions/docs/lonelyplanettraveller15>


 **Get It Magazine**

Two page feature about Tien Shan expedition by expedition participant Sylvia Caravotass  
<http://issuu.com/biosphere-expeditions/docs/ts-getit15>


 **Die Presse**

Full-page spread of Sumatra tiger expedition  
<http://issuu.com/biosphere-expeditions/docs/su-diepresse14>






# MEDIA

## CLIPPINGS 2015

 **Wildside Magazine**

Four page feature about Slovakia expedition  
<http://issuu.com/biosphere-expeditions/docs/sk-wildside15>



 **Hagenbeck Magazin**

Double-page spread about Biosphere Expeditions and its South Africa leopard expedition  
<http://issuu.com/biosphere-expeditions/docs/sa-hagenbeck15>



 **Outdoor UAE Magazine**

Three page feature about Arabia expedition  
<http://issuu.com/biosphere-expeditions/docs/ar-outdooruae15>

 **Wildside Magazine**

Critical article about voluntourism written by Biosphere Expeditions staff.  
<http://issuu.com/biosphere-expeditions/docs/wildside15>



 **Frankfurter Allgemeine Zeitung**

Two page feature of Sumatra tiger expedition  
<http://issuu.com/biosphere-expeditions/docs/su-faz15>





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Biosphere Expeditions is an international non-profit conservation organisation registered in England, Germany, France, Australia and the USA.



Officially accredited member of the United Nations Environment Programme's Governing Council & Global Ministerial Environment Forum.

Officially accredited member of the International Union for the Conservation of Nature.



Cover picture: *Sunset in Costa Rica.* © Biosphere Expeditions