

BIG CAT ISSUE

■ COVER STORY: FADING FELIDS ■ PERU: ICONS OF
THE AMAZON ■ SLOVAKIA: RETURNING LYNX TO THE WILD
■ & MUCH MORE

20
13
magazine



BIENVENUE WILLKOMMEN WELCOME

CONSERVATION INSPIRANTE

Biosphere Expeditions est une organisation sans but lucratif travaillant pour la conservation de l'environnement, qui a reçu de nombreux prix et qui propose des expéditions volontaires de terrain, une aventure ouverte à tous qui a du sens!

Biosphere Expeditions s'adresse à tous les publics, à tous ceux qui souhaitent apporter soutien et protection à la biosphère dans laquelle nous vivons. Biosphere Expeditions leur offre une façon de concrétiser leur enthousiasme et d'en faire bon usage en allant travailler sur des projets de conservation. Et tout cela pour le montant financier et le temps qu'ils auraient consacrés à des vacances classiques. Vous pouvez nous rejoindre, que ce soit pour un week-end ou pour plusieurs semaines et les deux tiers au moins de votre contribution à l'expédition iront directement au projet de conservation de la vie sauvage auquel vous participez, le finançant ainsi à long terme et de façon durable.

Expérimentez la conservation en action

Participez à un projet de conservation avec Biosphere Expeditions dans un lieu magnifique et passionnant sur notre planète, expérimentez la conservation en action et travaillez aux côtés de scientifiques sur le terrain pour sauvegarder notre biosphère, les animaux et les lieux qui la composent.

Sûr, amusant et ouvert à tous

Nos trois thèmes clés sont sécurité, science et satisfaction, parce que notre credo est que vous êtes le plus efficace lorsque vous êtes en sécurité, bien entouré, bien reposé et prenant du plaisir à ce que vous faites. Nos expéditions sont ouvertes à tous, aucune connaissance particulière n'est requise (en biologie ou autre), tout ce qui vous sera nécessaire est enseigné sur place. De plus, il n'y a pas de limite d'âge. Les participants viennent de tous horizons, de toutes classes d'âge, à la recherche d'une aventure ayant du sens. Les équipes sont réduites et ont leur propre chef d'expédition qui est présent en permanence.

FASZINATION NATURSCHUTZ

Biosphere Expeditions ist eine mehrfach ausgezeichnete, gemeinnützige Naturschutzorganisation, die es Laien ermöglicht, an echten Forschungsexpeditionen teilzunehmen.

Biosphere Expeditions ist für alle, die aktiv zum Schutz einzigartiger Natur und gefährdeter Tierarten auf unserem Planeten beitragen möchten. Mit einer Expeditionsteilnahme bieten wir allen die Chance, Zeit und Geld in einen Urlaub mit Sinn zu investieren und tatkräftig mit anzupacken. Von einem Schnuppertag bis hin zu einer oder mehreren Wochen auf Expedition – die Teilnahmemöglichkeiten sind vielfältig. Dabei garantieren wir, dass mindestens 2/3 Ihres Expeditionsbeitrags direkt in das jeweilige Naturschutzprojekt fließen, zur Sicherung einer nachhaltigen und langfristigen Finanzierung.

Naturschutz hautnah erleben

Entdecken Sie mit Biosphere Expeditions schöne, entlegene und einzigartige Flecken dieser Erde; arbeiten Sie zusammen im Feld mit Wissenschaftlern und helfen Sie dabei, Lebensräume, Fauna & Flora zu bewahren.

Etwas für Alle, Sicherheit & Spass inklusive

Wir legen grossen Wert darauf, dass alle auf Expedition sich sicher und wohl fühlen. Deshalb steht jedem unserer kleinen Forschungsteams ein Expeditionsleiter von Biosphere Expeditions zur Seite. Was Sie für die Feldarbeit wissen müssen, lernen Sie vor Ort - Vorkenntnisse oder spezielle Fähigkeiten sind nicht erforderlich. Unsere Teilnehmer kommen aus der ganzen Welt – eine bunte Mischung quer durch alle Bevölkerungsschichten und jeden Alters, verbunden durch den Wunsch, ein Abenteuer mit Sinn zu erleben.

INSPIRING CONSERVATION

Biosphere Expeditions is a multi-award-winning not-for-profit wildlife conservation organisation offering hands-on volunteer expeditions, an adventure with a purpose for everyone.

Biosphere Expeditions is for people from all walks of life who want to help support and conserve the biosphere that we all live in. Biosphere Expeditions gives people a way to harness their enthusiasm and put it to good effect by coming to work on conservation projects simply using the money and time that they would have spent going on an ordinary holiday. You can join for anything from a taster day to one or several weeks on expedition and at least two-thirds of your expedition contribution will go directly into the wildlife conservation project, funding it long-term and sustainably.

Experience conservation in action

Come with Biosphere Expeditions on a conservation project to beautiful and interesting parts of the world, experience conservation in action, and work alongside field scientists to safeguard our biosphere's wild animals and places.

Safe, fun and open to all

Our three key themes are safety, science and satisfaction, because our core belief is that you will work best when you are safe, well looked after, well rested and having fun. Our projects are open to all, there are no special skills (biological or otherwise) required to join as all necessary skills will be taught on the expedition, and there are no age limits whatsoever. Participants are people from all walks of life, of all ages, looking for an adventure with a purpose. Teams are small and there is a dedicated expedition leader with the expedition at all times.

ABOUT US

WELCOME

to our fourth annual magazine. Our lead topic this year is big cats. Around the world, most big cats are endangered from human activities. Roughly 80 percent of the 40 wild cat species are shrinking and sixteen of them are considered vulnerable, endangered, or critically endangered. Despite the intense and growing threats to big cats, conservation programmes are helping to bring them back. Biosphere Expeditions is at the forefront of such efforts and in this magazine you can read about our work with snow leopards in the high mountains of the Altai, jaguars and pumas in the Peru Amazon, lynxes in Slovakia's Carpathian mountains, and Gordon's wildcats in the desert of the United Arab Emirates. But Biosphere Expeditions is not just about big cats – also in here is an overview of our other projects and expeditions, as well as lots more. Just have a look inside and enjoy another edition of our annual Biosphere Expeditions magazine, once again beautifully crafted by Malika Fettak.



Dr. Matthias Hammer
Founder & Executive Director



Kathy Gill
Strategy Director



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 is just one of our team and more can be found at www.biosphere-expeditions.org/staff.

Alisa Clickenger was born in the United States and educated at Bennington College in Vermont.

Her love of nature was ingrained at an early age with a wildlife-rehabilitator mother and an outdoorsy father. She spent her teens working and living in her family's Bed & Breakfast, seeing the world through other people's eyes. After many successful years in the corporate world, she fell in love with the path

less travelled. She now lives a life of travel and adventure, and writes about it for several magazines.

An experienced overlander on two and four wheels, in 2009 Alisa's love of nature and foreign cultures brought her on a seven month solo journey through Central and South America seeking wildlife and wild places. In 2012 she walked across Spain on the Camino de Santiago, crossed the United States on two wheels, and danced on three continents. An experienced tour guide in the adventure travel field, at Biosphere Expeditions Alisa realises a dream - that of combining her love of people with her love of wildlife and conservation. ■



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EXPEDITIONS & PROJECTS

WORLDWIDE



TASTER/SAMPLER DAYS / SCHNUPPERTAGE

UK

New Forest National Park (June 2013)
 Broads National Park (June 2013)
www.biosphere-expeditions.org/tasters-uk

AUSTRALIA

Melbourne (October 2013)
 Sydney (October 2013)
www.biosphere-expeditions.org/tasters-australia

USA

Minnewaska State Park, NY (May 2013)
 Lory State Park, CO (May 2013)
 King's Canyon & Sequoia National Parks, CA (June 2013)
www.biosphere-expeditions.org/samplerdays

DEUTSCHLAND

Nationalpark Niedersächsisches Wattenmeer (Mai 2013)
 Nationalpark Unteres Odertal (Juli 2013)
 Nationalpark Kellerwald (Juli 2013)
 Nationalpark Eifel (August 2013)
 Nationalpark Berchtesgaden (September 2013)
www.biosphere-expeditions.org/schnuppertage

1-WEEK PROJECTS

AZORES (April 2013)

Fascinating creatures of the deep: studying whales, dolphins and turtles around the Azores archipelago in the Atlantic Ocean | www.biosphere-expeditions.org/azores

EMIRATES (January 2013)

Ways of the desert: conserving Arabian oryx, Gordon's wildcat and other species of the Dubai Desert Conservation Reserve, UAE | www.biosphere-expeditions.org/emirates

HONDURAS (May-June 2012)

Diving in a Caribbean paradise: safeguarding the coral reefs of Cayos Cochinos, Honduras | www.biosphere-expeditions.org/honduras

MALDIVES (June-July 2013)

Little & large: surveying and safeguarding coral reefs and whale sharks of the Maldives archipelago | www.biosphere-expeditions.org/maldives

MUSANDAM (October 2013)

Underwater pioneers: studying and protecting the unique coral reefs of the Musandam peninsula within Oman & UAE | www.biosphere-expeditions.org/musandam

PERU (August 2013)

Amazonian plethora: biodiversity monitoring of jaguars, pumas, primates and other flagship species of the Peruvian Amazon | www.biosphere-expeditions.org/peru

SLOVAKIA (February 2013)

True white wilderness: winter lynx, wolf and wildcat tracking in the Carpathian mountains of Slovakia | www.biosphere-expeditions.org/slovakia

WESTERN AUSTRALIA (February 2013)

Marsupials galore: protecting quokkas, quolls and quendas in Western Australia's Walpole Wilderness | www.biosphere-expeditions.org/western-australia

2-WEEK EXPEDITIONS

ALTAI (June-July 2012)

Mountain ghosts: snow leopards and other animals in the mountains of the Altai Republic, Central Asia | www.biosphere-expeditions.org/altai

MALAYSIA (March-April 2012)

Paradise in peril: studying and protecting reefs, sharks, dolphins and turtles of the Pulau Tioman Marine Park, Malaysia | www.biosphere-expeditions.org/malaysia

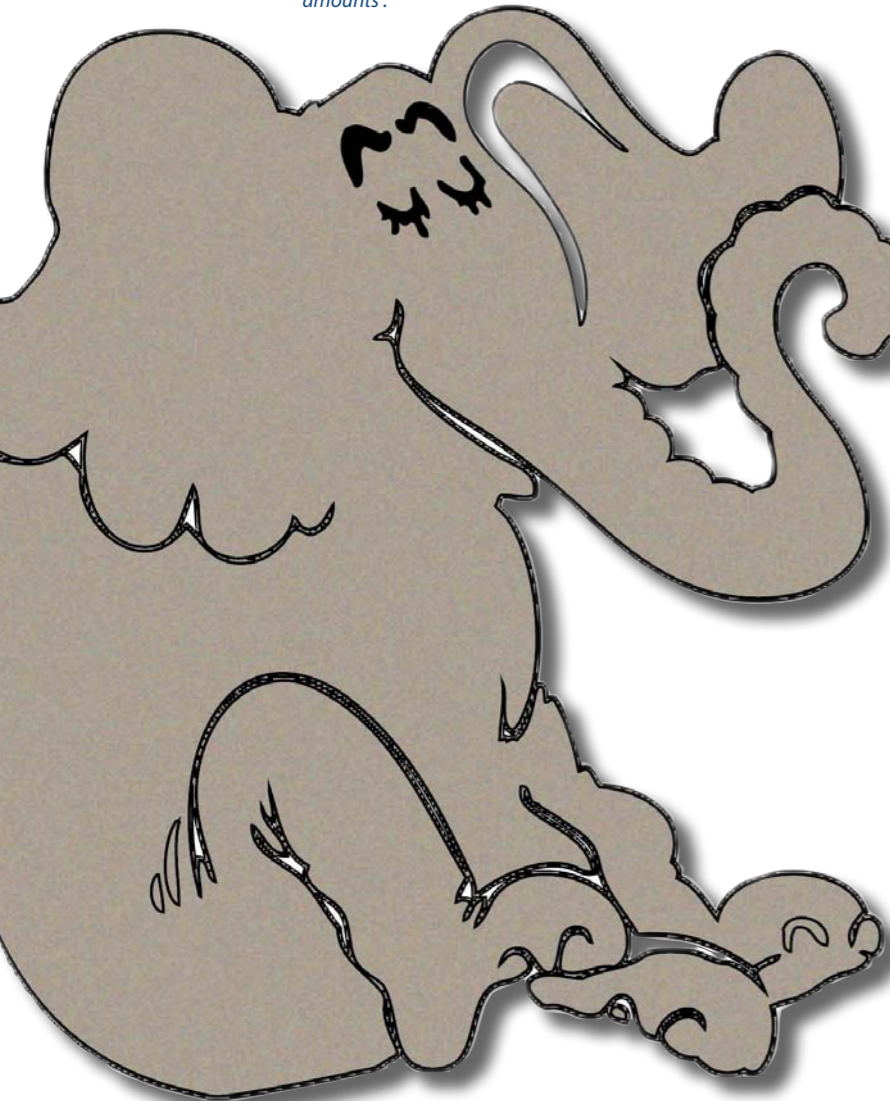
NAMIBIA (July-November 2012)

A game of cats & elephants: safeguarding big cats, elephants and other species of the African savannah, Namibia | www.biosphere-expeditions.org/namibia



MAKING NOISES - WORKING TOGETHER

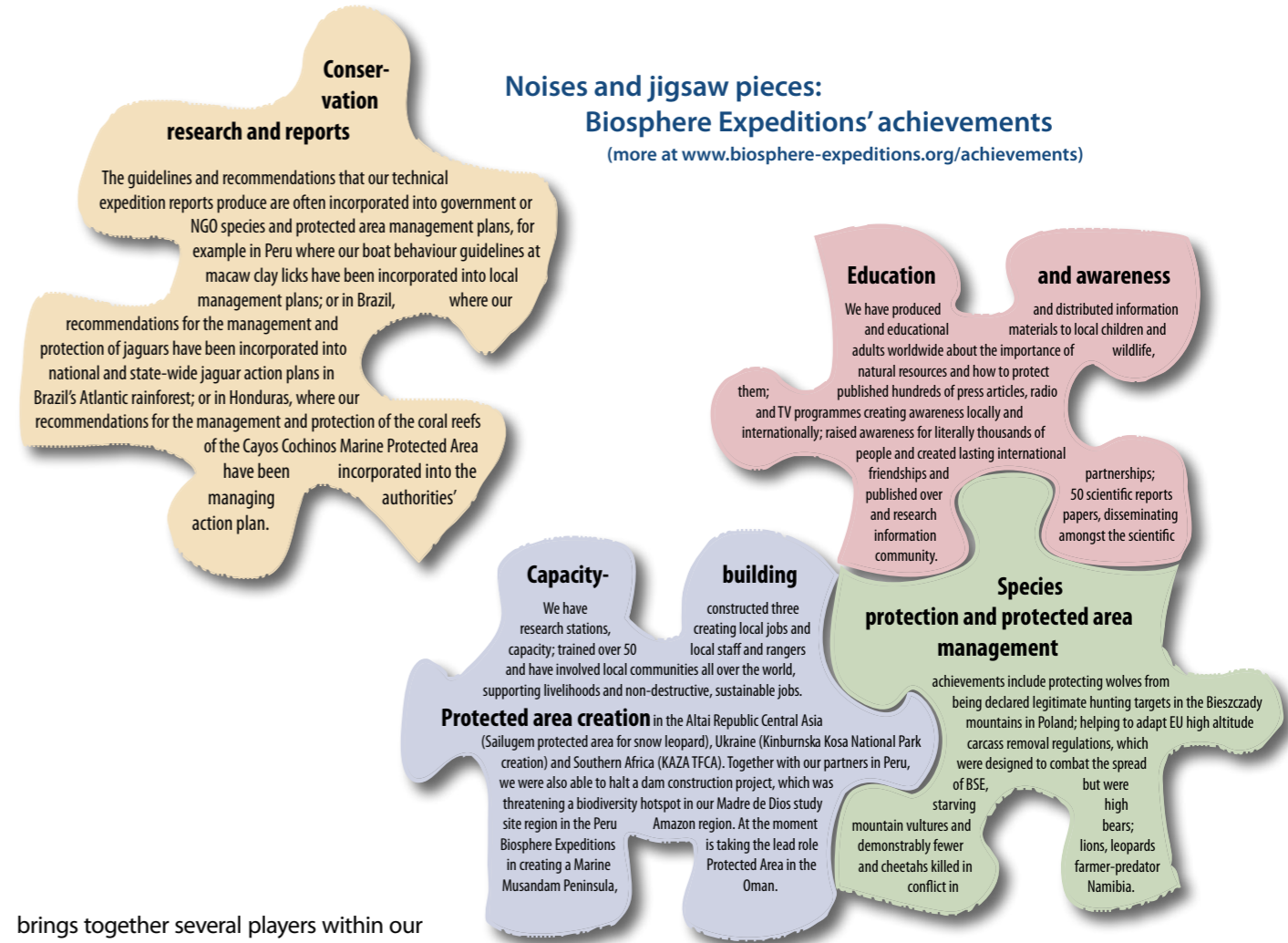
And Horton says: "We've got to make noises in greater amounts".



By strategy director *Kathy Gill*

Given the economic problems that many developed nations have been facing over recent years, it is unsurprising that funding for conservation has been on the decline in many areas. In some ways this has meant a progressive focusing on what we are trying to achieve with conservation funds - an increased rigour in the approach to practical and sustainable conservation - but it has also meant the obvious reduction in resources, which can only be mourned in these complex times.

For organisations such as Biosphere Expeditions this means that our hard cash funding and practical effort have become even more crucial. We are a small player in the conservation field, but one can't help feeling that, like many things in the current economic climate, it will be the little guys who create the most meaningful and longest-lasting outcomes. Working with other like-minded organisations and individuals with credentials similar to our own and strong ethics, we can increase the productivity of everyone's effort. There is an article starting on page 36 in the magazine where you can learn about the Environmental Volunteering Abroad (EVA) Alliance that we have founded, something that



Noises and jigsaw pieces: Biosphere Expeditions' achievements (more at www.biosphere-expeditions.org/achievements)

brings together several players within our area of conservation and helps us to increase the strength of our voice. We are also very pleased that, following our election to the United Nations Environment Programme's (UNEP's) Governing Council and the International Union for the Conservation of Nature (IUCN), we are developing activities with these networks of highly regarded international organisations who work on many aspects of conservation around the world. Our network of scientists continues to grow too, with more people working with us on big cats than ever before. This developing area seemed like a fitting one to focus the magazine on this year and I hope you will enjoy the articles that look at cats around the world.

In the last year we have introduced a new lead scientist in Namibia working on leopards (as well as other species), the Emirates expedition continues with its look at Gordon's wildcat, we study lynx in Slovakia and we are very pleased to collaborate with WWF on snow leopard conservation in the Altai. As well as all this, though, just a reminder that we remain an organisation with only one foot on dry land; the other is firmly pushed into the sand at the bottom of the sea, with nearly half of our activities focused on the marine world.

When people come to work on expeditions and projects with us they understand the importance of team work and the importance of each individual's contribution, however small, to the success of that team. By working together, whether as an individual in a project team, or as one conservation organisation within a network of many, our results add up to something truly important. So even as 'small' players, we all have an important contribution to make - something that we must not forget today when the economic imperative seems to have become the overwhelming focus. We must work to look up from our personal and financial issues and continue to contribute to the conservation of the diversity of life on our planet. There is something important about everyone doing something, however small. And so I leave you to enjoy this Magazine with a quote from the great Dr Seuss (from 'Horton Hears a Who!'): "We've got to make noises in greater amounts! So, open your mouth, lad! For every voice counts!" ■

2-WEEK EXPEDITIONS

- **ALTAI** (snow leopard)
- **MALAYSIA** (coral reef)
- **NAMIBIA** (leopard, cheetah & elephant)

Our 2-week expeditions are true wildlife research and conservation expeditions, which last 12–14 days and go to remote and beautiful locations all across the planet to work on fascinating flagship species.

2-week expeditions start from
£1470 | €1830 | US\$2330 | AU\$2230

More at
www.biosphere-expeditions.org/expeditions

*Pictures from top to bottom, left to right:
high altitude observation point in the Altai
elephant in Namibia · live-aboard expedition base
in Malaysia · base camp with yurt in the Altai
a sedated leopard in Namibia · turtle in Malaysia*



Altai National Geographic Traveler (USA) - "Tours of a Lifetime" | BBC Wildlife (UK) - "Top Ten Conservation Holidays" | Independent on Sunday (UK) - "Top Ten Outdoor Pursuits" | Merian (Germany) - "100 unforgettable travel adventures" **Malaysia** Endless Vacation Guide (USA) - "Best Trip that Offers a way Back" | Travel with a Mate (UK) - "Best Volunteer Dive" **Namibia** Wall Street Journal (USA) - "Best Volunteer Travel" | Business Insider magazine (USA) - "Best Volunteer Vacations" | Yves Rocher Foundation (France) - the expedition scientist was made a laureate of the environmental prize "Trophée de femmes"

AWARDS & ACCOLADES

COVER STORY

NO GAME OF CAT AND MOUSE: FADING FELIDS

A status update on wild cats and Biosphere Expeditions' efforts in big cat conservation
by Dr. Matthias Hammer

There's a reason why most people love cats. They represent grace, power and sensibilities that have fascinated, challenged and inspired humans since the dawn of time. Some ancestral pull somehow compels us to respect them and have as a companion in our homes a small, yet still fiercely independent, version: the domesticated cat. And yet cats the world over are under threat. According to a recent IUCN (International Union for the Conservation of Nature) report, 80% are experiencing population declines. Panthera, a very active cat conservation NGO, reports that within the 36 cat species – over 20 of which are lesser known small cats – 16 are currently categorised as Threatened (which includes rankings of Vulnerable, Endangered or Critically Endangered). The reason for the decline is almost always human impact (see next page). These threats are real and they are here now.

But there are also real and workable solutions and these are given in the fact boxes below, alongside details of what Biosphere Expeditions is doing and has done. In a nutshell, what is required is a global commitment, for everyone to get involved on all sorts of levels, from government to NGOs to scientists to communities to individual volunteers. It is our generation that has the best opportunity to save these disappearing wild cats and to lay the foundations for the next generation to reverse the trend. I think of us as the ambulance service that comes ahead of the doctors and hospitals to stabilise a sick patient before the carers of the next generation can do their healing and nursing back to health.

Felidae is the biological family of the cats; a member of this family is called a felid. The most familiar felid is the domestic cat, which first became associated with humans about 10,000 years ago, but the family includes all other wild cats, including the big cats. Extant felids belong to one of two subfamilies: *Pantherinae* (which includes the tiger, the lion, the jaguar, and the leopard) and *Felinae* (which includes the puma, the cheetah, the lynxes, the ocelot and the domestic cat).

Characteristics: Felids are obligate carnivores, requiring a diet of meat and organs to survive. Aside from the lion, wild felids are generally solitary; feral domestic cats do, however, form feral cat colonies. Cheetahs are also known to live and hunt in groups. Felids are generally secretive animals, are often nocturnal, and live in relatively inaccessible habitats. Around three-quarters of cat species live in forested terrain and they are generally agile climbers. However, felids may be found in almost any environment, with some species being native to mountainous terrain or deserts.



© Malika Fattak

Snow leopard cubs

REASONS WHY BIG CATS ARE ENDANGERED

Conflict with humans: Conflict with humans and their wider activities is the root cause for the big cat crisis we are facing today. In many places, big cats prey on livestock as an easy source of food, causing problems with ranchers. Often ranchers will hunt the cats to protect their livestock, which in many places is the only source of income for people. Snow leopards, lions, cheetahs, jaguars and many other cats all face this threat.

Loss of habitat: Deforestation is a major issue for tigers in India and jaguars in Latin America. Agricultural expansion is also a major problem including the proliferation of palm oil plantations in Indonesia. Research has shown that snow leopards require very large areas to meet their basic needs; there are very few protected areas large enough to support even a single breeding pair.

Wildlife trade: Many species of cats including tigers, snow leopards, leopards and others are killed for parts of their bodies for use in traditional medicine. In addition lions, snow leopards, leopards, tigers and others are hunted for their coats (known as pelts). Recent research has shown that up to 1,200 tiger parts have been confiscated over a ten year period - more than 100 animals per year!

Global warming: As the climate changes, big cats will need to adjust to changes in their habitat. Snow leopards are especially vulnerable to global warming as increasing temperatures melt snow at higher altitudes, which means a shrinking prey base. Lions are affected by disease outbreaks, which are exacerbated by droughts that will be increasingly common with global warming. Coastal erosion due

to rising ocean levels is reducing tiger habitat in India's Sundarbans mangrove forest.

Private ownership: According to Wikipedia an estimated 15,000 captive big cats live in the USA alone, most of them outside of accredited zoos. Big cats are also kept as "pets" in many other parts of the world, most notably in the Middle East.

Loss of prey: As human populations grow, hunting of the main prey of cats increases. Big cats require a large amount of food to survive and as their prey declines, they need to go farther to hunt or start hunting domestic livestock, which will bring them into conflict with humans.

Biosphere Expeditions' snow leopard conservation work

Biosphere Expeditions has been working in snow leopard conservation in the Altai Republic for a decade (the first expedition ran in 2003). Our biggest achievement during that time was the declaration of a protected area for snow leopard. Of course we were only a small cog in the big wheel of research and lobbying work and the area that was eventually declared is much smaller than we would have liked, but it's a start. The work of not making it a paper park (these are protected areas that exist on paper, but are not enforced and therefore meaningless on the ground) has only just begun. The Altai is at a crossroad, just as Montana was perhaps a hundred years ago when it transformed from a cattle-based to a tourism-based economy, or the Alps when they transformed from an isolated, poverty-stricken rural backwater to a prosperous tourism-based economy. With our low-impact, high local involvement conservation expeditions we are at the spearhead of what could be a very positive transformation for local wildlife and people. This transformation will take time,

Snow leopard



Scientific name:
Uncia uncia

Status:
There are about 3,500 - 7,000 snow leopards still left in the wild. Exact numbers are unknown as this species is very elusive and hard to survey. Today it ranges across 12 countries from Siberia to the Tibetan Plateau.

IUCN Status:
Endangered, population trend: decreasing

Threats

- Subsistence pastoralism and retribution killings.
- Poaching for "sport", pelts and the traditional medicine market.
- Loss of prey base due to poaching and poorly managed trophy hunting.
- Armed conflict in snow leopard range countries such as Afghanistan, Pakistan and India.

What can be done

Training and education for pastoralists, for example to build predator-proof corrals.

Creating economic incentives for local people through ecotourism and home-stays, offsetting economic losses, creating alternative incomes (for example through handicraft programmes or ecotourism services).

Improved hunting management through locally managed hunting where the majority of the income goes into local villages.

Establishment of national action plans (Russia, Pakistan, Mongolia, Nepal, India and Tajikistan have formulated them already), creating large protected areas (as for example in the Altai) and enforcing them.

Threats

Throughout their range, jaguars are threatened by habitat loss through deforestation and agricultural expansion, road construction and other forms of development and human encroachment.

Over-hunting of natural prey species forces jaguars to prey on domestic animals, which fuels animosity and retaliatory killing.

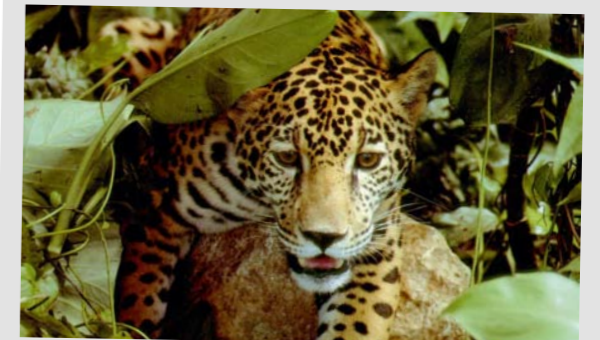
Despite protection by law in many range countries, hunting continues by people who perceive jaguars as a threat to their lives and livelihoods.

What can be done

Improve management and increase security patrols and law enforcement in protected areas where jaguars are found in order to buffer the species from the surrounding threats of human development.

Implement rancher outreach and mitigation programmes that not only reduce the killing of livestock by jaguars (for example through improved herding and guarding) and subsequent retaliatory killing, but also increases livestock productivity.

Jaguar



Scientific name:
Panthera onca

Status:
The jaguar is the largest and most iconic cat living in the Americas. Jaguars can use a wide variety of habitats, but need large wilderness areas to survive. Therefore, as with snow leopards, many protected areas are not large enough to sustain viable populations. Jaguars formerly lived throughout most of Latin America and into Northern Mexico and the South-Western United States. Today they survive in 60% of their historic range.

IUCN Status:
Near Threatened, population trend: decreasing

one or two generations perhaps, but if we can help our local partners to avoid the mistakes we have made in Europe or North America, then we will be on the right track. And one must also not underestimate the power our mere presence has on shaping people's opinions on the value of wildlife and a nature-based economy. "What pays, stays" is what conservationists often say and Biosphere Expeditions is a very good example of how things can work for everyone, which will not be lost on local people.

Together with our partners in the Altai, we are also working on many other fronts to create economic incentives for local people. We already host local students on the expedition as part of a placement programme and are also involved in establishing education programmes to other stakeholders. We are also working on creating economic incentives through research, whereby locals are taught how to use camera traps and are rewarded in hard cash for each animal they can prove to exist

in their area. This provides important data for research and a very strong "what pays, stays" incentive for local stakeholders to look after the animals in their area.

Biosphere Expeditions' jaguar conservation work

Biosphere Expeditions has worked in the Peru Amazon since 2001, first predominantly on macaws and primates and since 2010 also on jaguars, pumas and other cats. Our current project in the Tamshiyacu Tahuayo Community Regional Conservation Area works with the local community to monitor primates, cats and other flagship species as key indicators of the health of the forest. Data gathered by the project contributes towards effective wildlife management (and protection through patrols) in the most biodiverse part of the western Amazon. It also forms the basis of a sustained conservation programme of species that have been removed from an important part of their original distribution areas, such as the jaguar.

From 2006 to 2011, Biosphere Expeditions ran a research project on jaguars and pumas in Brazil's Atlantic Rainforest. The recommendations produced by this work for the management and protection of jaguars were incorporated into national and state-wide jaguar action plans. Sadly, this expedition has come off our portfolio as there was not enough interest in it to make it sustainable.

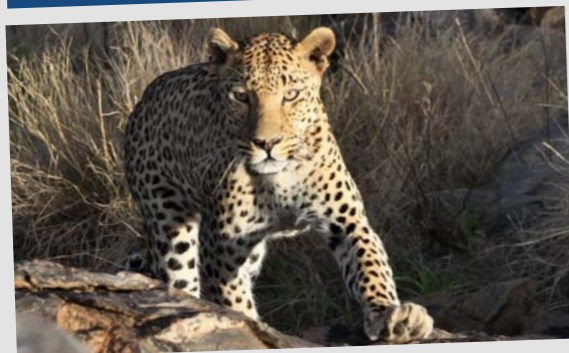
Biosphere Expeditions' cheetah and leopard conservation work

Biosphere Expeditions started to get involved in cheetah and leopard conservation in Namibia in 2002. Since then demonstrably fewer cheetahs and leopards have been killed by ranchers as a result of the research and educational activities of Biosphere Expeditions and its partners on the ground. In Namibia, ranchers are often blamed, and they do kill big cats to protect livestock, but they do so because they lack strategies to avoid conflict in the first place. The ranchers in Namibia

hold the key to big cat conservation and Biosphere Expeditions, as a partner in a concerted effort by a number of NGOs, has built a research and education programme that works closely with the ranchers. The programme develops concrete, detailed and pragmatic solutions to mitigate rancher/cat conflict, which is the number one reason for the decline in big cats in Namibia (and the rest of Africa for that matter). The research questions we ask during our expeditions are driven by the questions the stakeholder community wants to have answered (for example "if I stock my farm with low value game such as springbok, will the cats prey on those and leave my high value sable antelopes alone?"). The education element of the programme is about getting our science-based answers and strategies out there into the countryside to help ranchers manage their game effectively whilst at the same time avoiding conflict with big cats. This is the win-win situation that we believe holds the key to a sustainable future of big cats in Namibia and in fact the whole world. ■

Credits: "Reasons why big cats are endangered" adapted from seethewild.org. Cat fact cards: Content adapted from "The fading call of the wild", a status update of wild cats & canids from International Fund for Animal Welfare, Panthera, the IUCN/SSC Canid & Cat Specialist Groups and the Wildlife Conservation Society. "Felidae" from Wikipedia.

Leopard



Scientific name:
Panthera pardus

Status:
The leopard is the most versatile of the big cats and occupies all habitats from the Congo rainforest to true deserts. Even with their remarkable adaptability, leopards have vanished from almost 40% of their historic range in Africa and from over 50% of their historic range in Asia.

IUCN Status:
Near Threatened, population trend: decreasing

Threats

As for cheetahs, conflict with humans is the biggest threat to leopards, especially in Africa and the Indian subcontinent. Leopards are remarkably adaptable and can live in close proximity with people, which exposes them to retaliatory killing by livestock owners, as well as making them a ready target for poaching.

Poaching for pelts, status symbols and the traditional medicine trade is rife throughout the leopard's range. In a single province of South Africa, one poacher was caught with the pelts of over 150 leopards!

Badly managed hunting is also known adversely to affect the species.

What can be done

Improve husbandry of domestic livestock to reduce retaliatory killing. For example, making sure that livestock is well guarded – by dogs or humans – or brought into corrals at night dramatically reduces losses to leopards, as does increasing the natural prey base.

Improve hunting regulations so that trophy hunting does not contribute to population decline.

Threats

Cheetah-human conflict is the single most important threat. Although cheetahs are the least dangerous of all the big cats – there is no record of a wild cheetah ever killing a human – and they create fewer problems with livestock owners than do many other large carnivores, they are intensely persecuted for the perceived or for the relatively minor real problems they create.

What can be done

Helping local communities through education and support programmes to increase and maintain a natural prey base. Cheetahs selectively prey upon wild herbivores before turning to livestock.

Livestock guarding dogs dramatically reduce the loss of small livestock – goats and sheep – to cheetahs.

Cheetah



Scientific name:
Acinonyx jubatus

Status:
Cheetahs occur at low densities throughout their range and are nowhere abundant. A rough estimate is fewer than 10,000 left in the wild over the entire range, which used to include all of Africa and Asia from the Arabian Peninsula to eastern India, but is now only a fraction of this with isolated populations in southern, eastern and central Africa, as well as Iran.

IUCN Status:
Vulnerable, population trend: decreasing

1-WEEK PROJECTS

· AZORES	(whales & dolphins)
· EMIRATES	(Arabian oryx & Gordon's wildcat)
· HONDURAS	(coral reef)
· MALDIVES	(coral reef & whale shark)
· MUSANDAM	(coral reef)
· PERU	(cats & primates)
· SLOVAKIA	(wolf & lynx)
· WESTERN AUSTRALIA	(marsupials)

Just like our 2-week expeditions, our 1-week projects are true wildlife research and conservation expeditions, but they last 7–9 days and offer you opportunities to explore fascinating parts of the world, not quite as remote as the 2-week expeditions. You will have an adventure of a lifetime and get truly hands-on, working in wildlife conservation out in the field with local scientists and people.

1-week projects start from
 £980 | €1220 | US\$1550 | AU\$1490

More at
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*Pictures from top to bottom, left to right:
 young lynx in Slovakia · coral reef survey dive in Honduras ·
 Amazon rainforest expedition base in Peru · mountain and
 sea landscape in Musandam · sperm whale fluke in the Azores ·
 whale shark in the Maldives · shading a captured wildcat
 in the Emirates · quokka in Western Australia*



Azores Independent on Sunday (UK) - "Top Ten Outdoor Pursuits" | The Guardian (UK) - "Best Ten Wildlife Holidays in Europe" | Islands magazine (USA) - "Best in Sustainable Travel" **Slovakia** National Geographic Adventure (USA) - "Best New Trips" | Get Lost! magazine (Australia) - "Best Adventure Trip for the Planet" **Musandam** The Independent (UK) - "Best Activity and Adventure Breaks" | Travel + Leisure (USA) - "Best Save-the-Earth Trip" **Honduras** Merian (Germany) - "100 unforgettable travel adventures" **Maldives** Outside magazine (USA) - "Trip of the year" | Divernet magazine (UK) - "Unforgettable Diving Holiday" | Travel with a Mate (UK) - "Best Volunteer Dive" **Peru** responsibletravel.com (UK) - "Top Responsible Holiday"

AWARDS & ACCOLADES





© Alfredo Dosantos

Icons of the Amazon: red uakari monkeys. Picture taken at the Tamshiyacu Tahuayo River Reserve.

PERU

ICONS OF THE AMAZON

A brief history of Biosphere Expeditions in the Peruvian Amazon
by *Dr. Alan Lee*

The biological boundary of the Amazon rainforest encompasses roughly 5.5 million square kilometers – an area five times larger than the whole of Peru. It is regarded as the most important tropical rainforest due to its biological extent, the diversity of species it holds and the ecological services it provides, in terms of natural resources and its role in rainfall generation across South America. Yet, to date, close to 20% – an area the size of Peru – has been lost. Even if you are not interested that at any one Amazon site you can observe over 1000 species of butterfly, over 500 species of birds, or over 250 species of mammals, you should be worried that this great green carbon dioxide sponge is probably reaching its capacity to soak up all that humankind is releasing into the atmosphere. Modelling exercises have shown that the loss of tropical rainforests will have far greater consequences for climate change than the loss of equivalent areas of temperate rainforest. Research has also shown that while humans have been pumping out carbon dioxide, the Amazon forests have been getting ‘heavier’ – soaking up some of what we have been producing. This sponge affect will not last much longer as the forest will most likely reach a new equilibrium, and of course even more forest is lost year on year. The impacts of climate change are going to have extreme consequences for the integrity of these forests. There

have been two major droughts over the last decade, and with droughts and slash and burn agriculture, comes fire – one of the single most destructive events the rainforest habitat can experience after open-cast mining. Since much of the moisture in the Amazon is generated from the transpiration of its forests, the ability to regenerate and recover from droughts is diminishing. The consequences for global climate change are serious.

Threats to Peruvian forests

The ‘Icons of the Peruvian Amazon’ expedition took place in well-protected forest along the Las Piedras River, in the department of Madre de Dios (MDD). This is close to both the Brazilian and Bolivian borders. Until recently, the area was considered to be one of the best protected areas of the entire Amazon. This was mostly due to the lack of roads and other infrastructure in the area. However, in 2010 a paved road was completed through the department – the last part of the Inter-oceanic Highway; which one can now drive from the metropolises of São Paulo and Rio de Janeiro on the Atlantic Ocean, to Lima on the Pacific.

Modelling patterns of deforestation from the Brazilian Amazon predict that up to 50 km on either side of paved roads are subject to deforestation.

Pictures from left to right:
Squirrel monkey · Dusky titi monkey
· Parrots · Leafcutter ant.
All taken at the Tamshiyacu
Tahuayo River Reserve,.

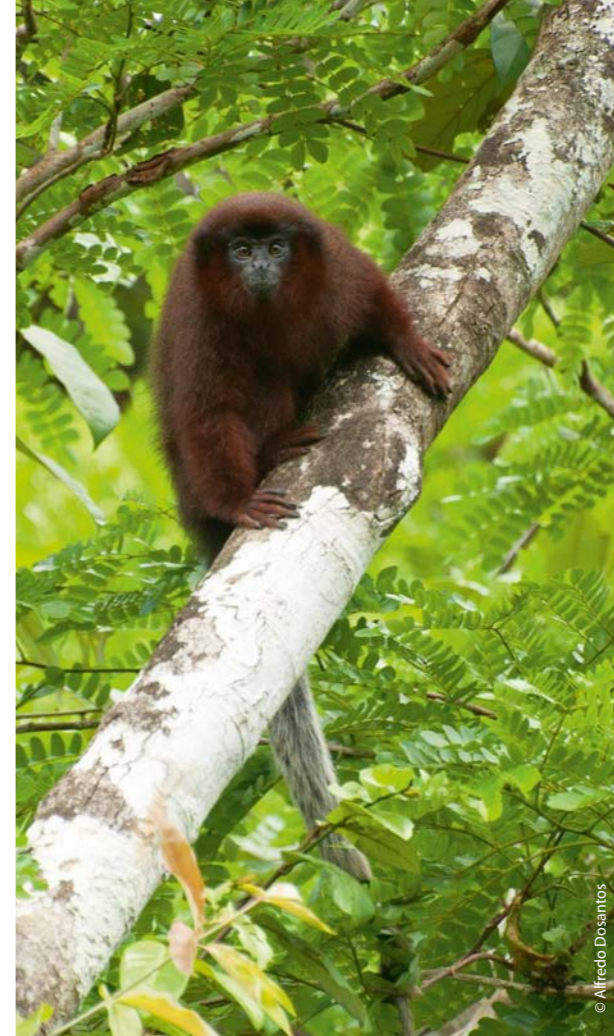
10 EASY THINGS TO DO TO HELP CONSERVE THE RAINFORESTS

1. **Meat? Try the vegetables instead** – 80% of rainforest destruction is due to cattle and other meat-producing industries.
2. **Consume sustainable forest resources** – such as Brazil nuts
3. **Don't buy tropical hardwood** - ever
4. **Learn more** – visit websites such as mongabay.com
5. **Don't buy gold from the Amazon**
6. **Buy local** – reduce, reuse, recycle
7. **Show the children** – eyes that don't see create a heart that doesn't feel, is a local Peruvian saying
8. **Don't encourage the exotic pet trade**
9. **Join a conservation organisation**
10. **Join Biosphere Expeditions & visit the rainforest!**

exacerbated by a gold-rush to the area. An estimated 300 people are arriving per day into the department's capital of Puerto Maldonado, ironically also known as the "Biodiversity capital of Peru". This is due to the current high price of gold, which can be relatively easily extracted from Amazon soils. Unfortunately the extraction process – either via bulldozers, dredgers or high-pressure hoses – results in the near total destruction of any associated fauna & flora, as well as mercury poisoning directly into the river systems. This kind of full-scale destruction causes great damage not only to habitat and wildlife, but the people and communities of the region. Mining cannot occur without this kind of impact, which is far more complete than forest destruction from illegal wood-cutting. However, even where forests remain seemingly intact, keystone trees that take over 1000 years to grow and are impor-



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The natural patterns of colonisation and resulting slash and burn agriculture would be bad enough as is, but in MDD problems are

tant food and nesting resources, have often been removed – meaning we will have fewer eagles, monkeys and macaws in years to come.

Woodcutting activities, whether legal or otherwise, are now occurring within close proximity to our study site at Las Piedras, due to the easy access people now have from secondary roads built from the newly paved highway. Once an area has been opened up by loggers, colonisation quickly occurs, with resulting hunting and wide-scale habitat destruction. Biosphere Expeditions has shown that the mammal populations in the protected concession areas associated with the study site have recovered well from hunting associated with logging that occurred in the area in the 1990s. The area boasts nine species of monkey (most of which can be observed fairly easily) as well as several jaguar.

A history of Biosphere Expeditions in Peru

Dr. Matthias Hammer, Biosphere Expeditions' executive director, led one of the first ever Biosphere Expeditions projects to Peru in 2001, during the organisation's early years. During this expedition, which involved a rapid assessment programme of a claylick (a site where macaws and/or mammals go regularly to consume soil) and wildlife around

the El Gato claylick on the Tambopata River, Matthias met JJ Duran and his partner Emma Hume. This adventurous couple was setting up a new research station on the Las Piedras River in an unexplored area of the department. Expeditions were sent to Piedras in 2002 and with the high density of monkey and other wildlife species encountered, it quickly became apparent that this site was biologically important and in need of further studies. Since a faunal inventory did not exist for the area, subsequent expeditions concentrated not only on monkeys and macaws, but on different faunal groups such as snakes, frogs, fish and caiman. It soon became clear that the cluster of concessions managed by JJ and Emma was a hotspot for large cats due to the near pristine integrity of the environment. In 2009, Dr. Marcelo Mazzolli from one of Biosphere Expeditions' projects in Brazil joined the team in order to direct future cat studies. During this time camera-trap photos were obtained of two male jaguars using the area. Widespread presence of jaguar, puma and their main prey items, including white-lipped peccaries, have been consistently recorded during expeditions. The approximately 10,000 hectare study area is now owned by 'The Heart of the Healer Foundation' based in the USA, which aims to use Biosphere Expeditions' trail-blazing studies and work to develop further research and ecotourism in the area. It is likely that the area

will become a rainforest island in the middle of two international roads – so like most of the Amazon, the area's integrity is under threat.

Tambopata Macaw Project

Alan Lee joined his first Biosphere Expeditions project as a guide and assistant scientist to Emma Hume in 2005. He had been working on a project monitoring the impact of tourism on wildlife for two years and had been accepted as a Ph.D. student under the Tambopata Macaw Project to investigate parrots and their use of claylicks. The Tambopata Macaw Project was established in 1989 as part of an informal research project to protect the largest macaw claylick on the Tambopata River. The area only gained formal protected status in 2000 and Dr. Donald Brightsmith took over research in this year, with the principal aim of studying claylicks and macaw nesting ecology. It has been suggested that as little as 5-10% of the macaw population can breed each year, due to scarcity of natural nesting resources – deep cavities in very large trees. As such, much work has concentrated on creating suitable artificial nests and understanding factors that influence chick survival. Intensive monitoring is still conducted on what is recognised as the world's largest macaw claylick in terms of species richness and number



© Alfredo Dosantos

Left picture: tree frog.
Below: A sign marks the border of the study area -
Dr. Paul Beaver, founder of Amazonia Expeditions.
Right picture: Expedition team members
walking a grid transect in the Amazon rainforest.



of individuals visiting the claylick. The project has produced numerous publications on various aspects of macaw ecology and claylick use.

As a student having chosen the route of a self-funded, part-time Ph.D., the support of Biosphere Expeditions was invaluable for helping Alan through the five year period it took to complete his studies. Not only could large amounts of data be collected relatively quickly with the teams of expedition members, but the research budget covered numerous aspects of the field work, as well as allowing him to include another claylick into the array of claylicks under observation. Important findings from the Ph.D. included: mapping the distribution of claylicks across South America; understanding spatial and temporal patterns of claylick use by parrots for several claylicks across MDD; determining density estimates for the community of parrots that use the claylicks; understanding dietary niche separation among the parrot community and how this related to claylick use; and how tourism impacts claylick use by macaws. Findings from this study have been used to create macaw claylick management plans. As well as important scientific findings, Biosphere Expeditions has also been an important tool for the training of Peruvian guides and biologists. ■

By Dr. Paul Beaver

Amazonia Expeditions was created by fortuitous chance and circumstance. After getting my doctorate at the University of Chicago in 1976 I wanted only to be a university professor. But at the age of 30 I failed to get tenure at the University of Washington while also failing in my marriage and personal life. At that time I was miserable and full of self-pity. A good friend from the Chicago Zoological Society offered me a job working in the western Amazon forest. At that point I

AMAZONIA EXPEDITIONS – A NEW PARTNER AND BASE IN THE AMAZON

would have gladly gone to the moon to escape my troubled life. Next thing I know I'm living with local people in the heart of the jungle. Now here were people who had to struggle every day to survive in one of the world's harshest environments. And yet they did so with grace, dignity and a sense of humour. They taught me courage and that the attainment of happiness is merely a choice one makes.

Never wanting to forget the lessons of the jungle, I started the western Amazon's first adventure

camping company in 1981. Buying some tents and machetes did not require much capital investment. I wasn't that skilled at my work, but having no competition in that particular niche allowed my funky business to thrive. After ten years of doing adventurous jungle camping trips I met a very feisty local woman who was to become my wife. Dolly had this crazy notion that jungle tourism could be a more elegant undertaking than my simple technique of getting people lost and hungry in the forest and proclaiming that we had had a wonderful time.





Pictures from left to right:
Biologist & expedition scientist Alfredo Dosantos Santillán setting up a camera trap · view from the the Amazon Research Centre.
Below: The Tamshiyacu Tahuayo Conservation Reserve (green) right next to the Amazon river.



Assisted by Dolly's huge, tightly-knit family, we built the first lodge on the Tahuayo River, in a region known for its great biodiversity. Dolly put together a great staff and forged alliances with the native people, government agencies and politicians. This alliance helped to create a provisional reserve in 1991, which was then formalised and expanded in 2007 to the 450,000 hectare (1.1 million acre) Area de Conservacion Regional Comunal Tamshiyacu Tahuayo. Final recognition of the reserve was approved by Peru's national government in 2010.

In the meantime Dolly expanded her work in the Tahuayo River basin, building and constantly improving a clinic for the region's 5000 indigenous people, as well as creating educational opportunities for the children and economic opportunities for the locals. The men in particular were diverted from hunting to find opportunities assisting in conservation projects.

All of the projects were funded by tourism. As the annual number of tourists continued to grow, we built a second lodge in a more remote location in 2006. Wanting to create a facility that would support research and conservation, we hired Dr. Michael Pereira as the director of the newly chris-

tened Amazon Research Center (ARC) in 2007. Dr. Pereira forged alliances with Yale University, Columbia College, the Chicago Botanic Society and Missouri Botanical Society. He brought in the Chicago Field Museum to do a biological inventory and attracted other scientists to work at the site. Studies confirmed that the region is unequalled in lowland Amazon for the diversity of species of mammals, primates and trees. Most importantly, Pereira managed the creation of a massive 100 km grid of transect trails to provide the best existing facility to study wildlife populations in the Amazon.

Today the ARC is managed by Peruvian biologist Alfredo Dosantos, assisting in pioneering work on a nocturnal mammal study, utilising motion-activated night vision camera technology. Dr. Michael Pereira continues as head research advisor to the centre. In 2012 the ARC welcomed Biosphere Expeditions, who supplied the most intensive manpower to date to work the transect grid. The data gathered from such intensive use of the grid has added great knowledge to population dynamics of key species, which is crucial in the development of strategies for conservation management in precious neotropical rainforest ecosystems. ■

Peru is located on the Pacific coast of South America and is the third largest country on the continent. Two-thirds of Peruvian territory is located within the Amazon basin. The expedition base camp is within the Loreto Department, which boasts the second largest protected area, the Pacaya Samiria National Reserve (over two million hectares) and also the first Community Regional Conservation Area of the country, the Tamshiyacu Tahuayo Community Regional Conservation Area (TTCRCA) of 421,000 hectares.



Biologists refer to the Tamshiyacu Tahuayo area as the "green paradise" of the Amazon forest. Located south of Iquitos, just off of the main Amazon river, the reserve encompasses areas around the Tamshiyacu and Tahuayo rivers eastward towards the border with Brazil. The reserve is currently adding a million acres of undisturbed forest onto its boundary, which will then include land all the way to the border with Brazil.

In terms of biological diversity, the research area is amongst the richest in the world and the TTCRCA harbours many species that exist nowhere else.

Peru info

The reserve's mammal diversity has been shown to be the greatest of any region in the Amazon and the number of primate species is the highest of any protected area or reserve in the world. The area also harbours 240 species of fishes that inhabit rivers and lakes, 550 species of birds, such as the harpy eagle and razor-billed curassow. 87 non-flying mammal species have been recorded, amongst them the Amazon manatee, pink river dolphin, giant river otter and jaguar. At least 14 species of primates have been recorded, including an important population of the red uakari monkey. It is also an area of great plant diversity.



The expedition's local biologist is Alfredo Dosantos Santillán. Born in Iquitos, Peru, Alfredo graduated in Biological Sciences at the National University of the Peruvian Amazon at Iquitos. Alfredo has worked for several conservation projects and has played a role in the creation of three protected areas. He has also acted as a consultant for WWF at the Yurua River Project and for The Wildlife Conservation Society at the Pacaya Samiria National Reserve monitoring wildlife species and at the Yavari River Project monitoring primate populations. He works actively for the preservation of the Amazon forest and the cultural patrimony of different ethnic groups in many different locations in the Peruvian Amazon.

TASTER DAYS / SAMPLER DAYS

- NEW FOREST NATIONAL PARK
· BROADS NATIONAL PARK **UK**
- COLORADO
· NEW YORK STATE
· CALIFORNIA **USA**
- MELBOURNE
· SYDNEY **AUSTRALIA**

Taster days are held in the UK, USA & Australia and they 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 national parks or protected areas, where you will be part of a small team, alongside a 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 that is going on.

Taster days are a standard £65 | US\$95 | AU\$95 per person. We will credit £50 | US\$75 | AU\$75 back to you if you subsequently join one of our expeditions or projects.

More at
www.biosphere-expeditions.org/tasters



Left picture: taster day equipment (Nationalpark Eifel)
Above: trying out telemetry (New Forest National Park)
Below: introductory talk at the taster day base (Nationalpark Berchtesgaden)



SCHNUPPERTAGE

- NATIONALPARK
NIEDERSÄCHSISCHES WATTENMEER
- NATIONALPARK UNTERES ODERTAL
- NATIONALPARK KELLERWALD
- NATIONALPARK EIFEL
- NATIONALPARK BERCHTESGADEN

W o 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, wie z.B. Spurenlesen, Navigation, Datenaufnahme, Arbeit mit Kamerafallen und Radiopfeilsendern für Wildtiere. 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.

Alle Schnuppertage kosten einheitlich €65 pro Person. Falls Sie sich nach dem Schnuppertag für die Teilnahme an einer Expedition oder einem Projekt entscheiden, schreiben wir Ihnen €50 davon wieder gut.

Mehr unter
www.biosphere-expeditions.org/schnuppertage

SLOVAKIA

RETURNING LYNX TO THE WILD: A PERSONAL EXPERIENCE

By *Tomas Hulik*, scientist of the Biosphere Expeditions Slovakia project

Our story begins in the summer of 2007, where together with Miloš Majda, a park ranger and friend, I had just finished a documentary film about the High Tatras. Suddenly we received a call from some foresters: "We found two small lynx. Somebody set fire to the grass and some old tree branches. In a minute the whole forest was on fire. After that we heard strange noises from an old tree and there we found them without their mother". They waited there for a few hours, but it wasn't enough time. The foresters took the two young lynx home and they ended up in a zoo. One of them died and the other could not be released back into the wild because it had never been taught hunting and survival skills. So Miloš and I decided that we had to find another two young lynx from a European zoo and return those two to nature instead, to restore some sort of balance.

In May 2008 two young lynx were born in Ostrava zoo (in the Czech Republic). The director of the zoo accepted our proposal to try to release them back into the wild. He commented that it would be a great contribution to Slovakian nature, because all lynx captured in Slovakia for reintroduction into European forests make a quarantine stop at Ostrava zoo. The project would be a great chance to work on practices for releasing endangered species from zoos into the wild. On 13 June 2008 we went to Ostrava to collect two lynx, one male one female. We spent one week with them there and named them Liza and Muro. Our adventure into the unknown had begun.

For the first few days after their arrival in Slovakia, the lynx were in quarantine. Then Miloš moved



Big picture on the left: lynx Muro, one of two lynx released into the wild. Right picture: Tomas Hulik, film maker, wildlife photographer and scientist on the Slovakia lynx & wolf project.

Slovakia info

The Western Carpathian mountains cover much of northern Slovakia and spread into the Czech Republic with Moravia to the east and southern Poland to the north. They are home to many rare and endemic species of flora and fauna, as well as being a notable staging post for a very large number of migrating birds.



The expedition's study area is the Velká Fatra National Park. The Bradt Travel Guide has this to say about the park: "The gorgeous Velká Fatra National Park is a vast 403 square kilometre area of unspoilt, undiscovered natural beauty, and you can walk all day in peace and solitude, feeling like the first explorer to set foot in a beautiful, flower-filled mountain meadow. Most of the area is covered by beech and fir forests, in some places by spruce and pines. The area around Harmanec is the richest yew tree region in Europe."



The national park and its buffer zone comprise most of the Velká Fatra range, which is part of the Outer Western Carpathians. The National Park was declared on 1 April 2002 as an upgrade of the Protected Landscape

Area of the same name established in 1972 to protect a mountain range with a high percentage of well-preserved Carpathian forests. Ridge-top cattle pastures date back to the 15th century, to the times of the so-called Walachian colonisation. The Velká Fatra National Park is also an important reservoir of fresh water thanks to high rainfalls and low evaporation in the area. The core of the range is built of granite, which reaches the surface only in places. More common are various slates, creating gentle ridges and summits of the so-called Hôlna Fatra and limestone and dolomite rocks, creating a rough and picturesque terrain of the so-called Bralná Fatra. There are also many karst features, namely caves. Various rocks and therefore various soils, diverse type of terrain with gentle upland meadows and pastures, sharp cliffs and deep valleys provide for extremely rich flora and fauna. All species of big central European carnivores live abundantly there: brown bear, gray wolf and Eurasian lynx. The UNESCO World Heritage village of Vlkolínec with well-preserved log cabins lies nearby.

Tomas Hulik is a wildlife film maker, photographer and environmentalist. He graduated from the Faculty of Natural Sciences at the University of Komenský, Environmental Department in Bratislava. He has participated in scientific and photographic expeditions to the Far East of Russia, to the island of Sakhalin, as well as to Borneo and Malaysia. Next to his work as a biologist, he also works in environments such as a television, either as a cameraman or as a producer. His films "Hulik and the beavers", "High Tatras – wilderness frozen in time" and "Miloš and the lynxes" were distributed worldwide. His last project



"Miloš and the lynxes" has brought him back to science, working in lynx and other big predator conservation and trying to establish the size of lynx and wolf territories, as well as the ecology of these carnivores, in the Velká Fatra and Mala Fatra National Parks.

them into his apartment. After two months of living together, or I should say, the lynx destroying everything they found in the apartment, we felt it was the right time to move them into the heart of the wilderness of Velká Fatra National Park. We were 12 km away from any village, with no mobile or internet reception (or shower). Our shower was the mountain stream...which in winter was really invigorating!

Our experience in raising and releasing the lynx had progressed to the second stage. We now had to teach the lynx how to survive in the wild: where to find food, what to eat, where to hide, etc. From the cottage in the national park, we walked with them separately each day on small outings. It was much safer to take them out separately, because if one lynx disappeared into the woods, the second one would cry until the sibling found its way home.

The first snow, first play, then many kilometers walking on outings. Summer finally arrived, hooray. Then, one day in June 2008, the lynx were playing in front of the cottage. Our helper dog Lilica was cautiously playing with them. Suddenly they ran into the woods and disappeared into the shadows of the spruce trees, never to be seen again. We heard from a forester once that they were spotted in the woods. On 2 August 2008 Muro was photographed by a camera trap on the bridge across the river close to the cottage. It was a small victory for us. It meant that they must know how to hunt and survive. Then for a long time... nothing. Winter had arrived, but there was no snow, so we could not track them. Eventually there was snow, but sadly, no sign of the lynx siblings. Then, in the beginning of 2010, things improved. In the first week of January we found footprints of a young lynx close to the cottage. The only question was whose foot-

print was it – Muro's or Liza's? Two weeks later we had another photo from the camera trap. When we compared that photo with the 20,000 photos from our archive, we were able to confirm that it was definitely Muro. This photo is proof that the experiment was a success. At least one lynx survived. In the winter of 2010/2011 we found lots of footprints of young lynxes. One footprint had smaller ones nearby. Is it Liza with her own young ones?

With the help of Biosphere Expeditions volunteers, we are answering this and other questions about lynx populations. We will attempt to track Liza and Muro in order to collect biological samples for DNA analysis. Our focus will not only be estimating the numbers of lynx, but also those of wolves and wildcats. I am looking forward to meeting you in the heart of Europe, Slovakia and the National Park Velká Fatra in this fantastic winter wilderness. ■

Velká Fatra National Park winter wonderland



WELCOME THE NEW PRESIDENT

FRIENDS



Sven at Victoria Falls in Zambia

Hello, my name is Sven Stroschein and I am the new President of the Friends of Biosphere Expeditions. I'm 50 years old and live in Hamburg where I work as a shipbroker.

I came across Biosphere Expeditions in 2004 when I read an article in a travel magazine called GEO Saison. The article was about Biosphere Expeditions' Namibia big cat expedition and also mentioned the Azores whale & dolphin project. As a fan of cetaceans, I decided to go to the Azores and promptly caught the Biosphere Expeditions bug! Subsequent symptoms of my affliction included a repeat expedition to the Azores, working on Arabian leopard in Oman and more big cats in Namibia. And I have to say that indulging my habit and being part of the Biosphere Expeditions family is something that I en-

joy a lot. To assist scientists in the field either studying the life of sperm whales whilst coming across blue whales, fin whales and all the other great marine mammals around the Azores, or searching for the Arabian leopard in Oman, or looking after leopards and other big cats in Namibia in order to protect their habitat is something very special. When you see animals in their natural habitat without wire or glass separating "us" from "them", you can start to understand the problems that arise between humans and wildlife.

But it does not stop there, and this is what has made Biosphere Expeditions so special to me. I can help mitigate those conflicts and meet amazingly dedicated people on the ground trying to do the same. For me, apart from working with local people and biologists, there was also the international element of people from all over the world coming together to help, learn and exchange views and opinions, which made

my expedition experience unique every time. So I was thrilled when Biosphere Expeditions asked me if I would like to lead some of their German taster days. I gladly accepted and had a great time getting trained in some of Germany's most beautiful national parks, before taking up the baton by myself.

I decided to become a member of the Friends of Biosphere Expeditions because I felt it important to carry the message to as many people as possible and to inspire them to open their eyes to a sustainable future for all – human and non-human animals on this planet. And since for me there seems to be no cure for the Biosphere Expeditions bug, being appointed the new President of the Friends, stepping into the shoes of Martyn Roberts, is a great honour that I eagerly accepted and hope I will be able to do justice to. ■

Become a member of the Friends of Biosphere Expeditions

If you can't take part in a full-blown expedition or project yet, or if you have already been with us and would like to stay involved, or if you would simply like to be part of what we are doing, then why not become a Friend of Biosphere Expeditions today. Help us to support critical wildlife conservation and research projects across the globe for a membership fee starting from a monthly £6 | €7.50 | US\$10 | AU\$12.50.

As a Friend of Biosphere Expeditions your benefits will include expedition and event 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 at www.biosphere-expeditions.org/friends

Supporting conservation: update on Friends activities

Azores: Four students took part in our whale & dolphin project as part of a Friends placement programme.

Namibia: The Friends purchased a high-tech GPS collar, which was fitted to a female leopard during the 2012 field season and is now providing important movement and activity pattern data to the scientist on a daily basis.

Altai: Ten camera traps were bought by the Friends for our snow leopard research project. When the expedition is not in the field, the camera traps are used by our local partners WWF Russia and Arkhar NGO.



A camera trap in situ in the Altai

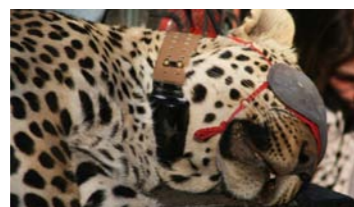
Altai: Vascutek France, a corporate member of the Friends, continues to support a placement programme for local students to attend our snow leopard expedition. Three students attended in 2012.



"The Altai expedition was the best thing that happened to me for my career development. I had waited for a long time to get to this part of the Altai and the expedition gave me the opportunity. Once I saw Chuyskaya Steppe and the great Chikhachova Ridge, I loved them with all my heart, and I became familiar with that place. Next week I will return there, making some bird observation. And from next summer onwards, I start guiding bird-watching tours in that area with Rubythroat Birding Tours. I have found the job of my dreams! And I have to thank you, Biosphere Expeditions, for it!" Elena Shnyder (on 14 November 2012)



Below: Students with the Azores expedition team - GPS-collared leopard in Namibia.



RAISING STANDARDS

WITH BLUE VENTURES, EARTHWATCH, OPERATION RALEIGH AND THE CONSERVATION VOLUNTEERS

By strategy director *Kathy Gill*

The volunteer travel arena has developed dramatically over the last ten years or so. Biosphere Expeditions was set up in 1999 and in those days we were a bit of a pioneer. There was a small group of people who were running expedition-type volunteer ventures. If you traced the roots of these organisations in the UK, you would largely come back to Operation Drake (1978), a forerunner of Operation Raleigh and also the Royal Geographical Society (RGS). Operation Drake took young people on adventurous expeditions, exploring parts of the planet that they would not otherwise have been able to go to. They studied things and produced reports and gave young participants a great experience and rounded understanding of the places they visited.

The organisations that spawned from these beginnings were set up with a similar ethos and approach to “doing business”. To personify them, you could say that they were middle-aged gentlemen, with good intentions and a strong desire to give people a learning, character-building experience, and plenty of knowledge of looking after people in wild areas. Biosphere Expeditions was a



Early podium discussions on raising standards in volunteering

second-generation organisation, arriving as some of the forerunners were maturing, and with very much the same values. More recently many new volunteer expedition companies have been set up and they largely fall into two clear categories. One lot are the commercial operators who are setting up projects to make money. They have seen that volunteering holidays are a growth area in tourism and they want to operate in that marketplace and take some of the spoils. The other type of organisation is more about supporting the projects on the ground by sending volunteers to them;

they do not set up or run volunteer placements, they send people to locally-based activities, organisations and operators; you could call them niche travel agencies. Both have their merits. With both new types the important link is with the projects on the ground – if the operators have good connections with interesting and well-organised groups who are doing well-founded work, then these holiday experiences can be both meaningful in terms of the work that is undertaken and in the experience that the volunteer has. Unfortunately it is not that easy for an organisation that is brokering hundreds of projects to check all of them. Some, I am sure, try to assess things, others don't seem to care – they will happily advertise anything for a fee and quality checks are either cursory or non-existent.

CONCERN OVER FAKE “VOLUNTEER” EXPERIENCES

Talking to a colleague from the British Trust for Conservation Volunteers (as was, they are now called The Conservation Volunteers, TCV) at the

World Travel Market last year, we found that we had a mutual concern over the appearance of some of these new organisations that arrived out of nowhere with hundreds of experiences on offer. Our concern was over quality and standards within these organisations. The feedback that we had had about them ranged from a feeling that what they were doing was not very worthwhile, all the way to major concerns that they were downright dangerous and only profit-driven. We both talked about standards in the ‘industry’, or lack of them, and what we felt was required to sort things out. This initial conversation has led us, 12 months on, to the development of an Alliance, but more of that in a minute.

The issue that we had was that it was very difficult for us to look at all the new organisations and know who was doing a good job. We were both involved in the sector, spent a lot of time looking at issues within and felt we understood stuff – but we still found it hard to identify who of the new names in the sector were offering authentic and rewarding experiences. And if we didn't know, how could people who were looking in from the outside?

EVA Alliance

Promoting quality in Environmental Volunteering Abroad

The Alliance was established in 2012 by five of the most prominent UK organisations who take people abroad to carry out conservation activities. All are charities or ‘not-for-profits’, unlike many organisations offering volunteering experiences today. All are well-established and well-respected award-winning organisations who share the common goal of raising standards across the industry.

Alliance members learn from each other and share best practice. The Alliance spreads that knowledge and the latest research and developments, providing advice to the public on what to look out for when choosing a volunteering experience.

EVA Alliance members are

Biosphere Expeditions | Blue Ventures | Earthwatch | Operation Raleigh | The Conservation Volunteers

The EVA Alliance website should go live by January 2013. See www.eva-alliance.org.

GLOBAL AWARDS HAT TRICK FOR BIOSPHERE EXPEDITIONS

As this 2013 Magazine goes to print, Biosphere Expeditions has enjoyed a very successful end to the year by securing a hat trick of competitive awards in October and November 2012.

First was a 'Global Vision Award' for conservation from top US magazine Travel & Leisure. These awards recognise the world's standard bearers when it comes to responsible tourism. In particular it singled out Biosphere Expedition's new project in Western Australia studying threatened marsupials.



Second was a Silver award for 'Environmental Best Practice' as part of the Green Apple Awards, which were presented at a special ceremony in the Houses of Parliament in London. These awards were launched in 1994 and give global recognition to organisations that raise standards on environmental issues across all sectors.



Thirdly, Biosphere Expeditions was the only organisation to be Highly Commended in the 'Best Volunteering Organisation' category at the Responsible Tourism Awards sponsored by Virgin Holidays. These annual awards, presented at the World Travel Market in London, feature organisations from around the globe.



A QUESTION OF STANDARDS

The conversation at this point inevitably came back to the question of 'standards'. If there could just be a standard that tested all the important aspects of volunteering holidays, then that would be the perfect way for everyone to know who was doing things well. Great! But what would that standard look like? Our first thought was to begin the process of devising one...this was towards the end of 2011. I think that at events, exhibitions, lectures, and dinners on several continents around the globe the exact same conversation was happening with a number of different people. This was an issue for our whole sector and many of us wanted to do something to solve it. So out came the solutions that had been developed...over the next few months a wonderful array of new kite marks and standards, or consultations on new kite marks and standards, started to appear. Many, many hours of work had gone into this by many different groups and the resultant solutions were wonderfully varied. If you are interested you can look up things such as 'Fairtrade Volunteering' (an

organisation simply says that it will adhere to a set of principles and they can use that badge) to the Tourism Concern 'Gap Year and International Volunteering Standard' (consulted on and then abandoned) to a very comprehensive set of guidelines produced in the United States by The International Ecotourism Society called 'International Volunteering Guidelines for Commercial Tour Operators'. My colleague and I reassessed. The work had been done. Many responses had been drawn up to address the problem. Interestingly and disappointingly, though, none of them did the job that we knew needed doing. None of them gave a clear way for 'the woman on the street' to know who was offering good volunteering experiences and who fell short. It was a much more complex issue than any of us had thought. The problem? There were a couple. The sector is hugely diverse and therefore it is very difficult to set out a list of 'right things to do' - difficult to have a standard if you can't agree on that list to start with. But even more difficult - it was just too costly to go and audit each volunteer destination, it couldn't be done with projects all over the world, so you were left with asking people how they operate, effectively

Other awards and accolades Biosphere Expeditions has won over the last few years

Responsibletravel.com
Best for Protection of Endangered Species
 Highly commended
 (International award scheme based in the UK)

Association for Conservation
Conservation Award
 Award by the European Outdoor Group for conservation projects involving direct citizen action
 (European award scheme based in Switzerland)

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)

BBC Wildlife
Top Ten Conservation Holidays
 Listing for Altai expedition (UK magazine)

National Geographic Traveler
Tours of a Lifetime Award for Altai expedition
 (International award scheme based in the USA)

Merian
Unforgettable travel adventures
 Listing as one of "100 unforgettable travel adventures" (100 unvergessliche Reiseabenteuer) for our taster weekends and our Honduras expedition
 (German travel book publisher)

P.M. Magazin
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?)
 (German magazine)

More awards & accolades at
www.biosphere-expeditions.org/awards

a self-assessment, and a lengthy and still costly one at that. And who would pay - if the industry paid, then it was no-longer a fully independent process - the people being assessed were paying for the assessors? And it couldn't be a system that the majority of applicants would fail at initially, because then they simply wouldn't go through the process? Without compulsion it is hard to get a difficult standard agreed that would really push people to improve. Greater minds than mine had applied themselves to all this and no obvious solution presented itself. We now had a great set of guidelines for the industry, but still no way for the potential volunteer to know who were the good, the bad and the downright ugly - anyone could say that they followed the guidelines and who was to know better.

FIVE LEADERS OF THE PACK - ATTITUDE IS EVERYTHING

At this point we are nearly 12 months down the line from my original conversation with my TCV colleague and we felt like we were no further on.

How could people know that they were in good hands and doing something worthwhile? Our final response was to go back to where we started historically, to look around the patch and ask who has the same values and who works in the same way - who are the well-meaning organisations? Who do we know is doing it right? In a lot of ways the question is decided if you know an organisation's ethos, its approach and attitude, what its management believe in, and you couple that with sound procedures on project development and volunteer management. Then you've pretty much got what makes a good volunteering organisation. Attitude is everything.

Working from the UK we focused only on UK organisations for our start. We had a few very simple criteria. We would look for organisations who



Kathy Gill receiving the Responsible Tourism Award in London



TOP TEN TIPS
Choosing a wildlife volunteering experience
 This is what you should look out for

- 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 local efforts and people – does the community benefit, have they given consent for work to be carried out, how have they been involved. Is there training for locals, scholarships, capacity-building, education, etc.
- 7. Your fellow participants:** understand the profile of the people that will share your trip by checking the organisation's website and social media sites.
- 8. In the field:** check that the organisation is clear & transparent about what will be happening day to day, the accommodation, food and other logistics, and also what is expected of you.
- 9. Captive animals:** if the experience involves captive animals, be very clear on the purpose of the captive facility, where the animals come from and whether it is part of a reputable programme.
- 10. Handling animals:** steer clear of organisations that encourage handling of captive wild animals for anything other than essential veterinary or neo-natal surrogate care. If wild animals are handled, it should only be for essential research & conservation work and following strict animal welfare guidelines.



More details at www.biosphere-expeditions.org/toptentips

worked on environmental volunteering, no teaching, building or orphanage support, only where organisations worked on environmental issues. We wanted organisations that took people abroad to volunteer, we wanted to focus on the unique set of challenges that this presented rather than the challenges of working 'at home'. We wanted organisations who managed the volunteers in the field themselves, not those who 'only' broker volunteer placements, but those organisation who actually do the work on the ground themselves – again, these gave a unique set of issues for an organisation. After a lot of research we found only a handful of set-ups that fulfilled these criteria completely and we approached them all. Of the seven organisations, one was in the process of being sold, so could not join in, and one has some complex capacity issues, which means that they are unable to join (but they are supportive), and the rest agreed that coming together was a good idea. They agreed that we should be looking at how we operate and trying to support each other to drive up our own standards, to work together openly and help improve our own and each other's systems. We also agreed that

we needed to help people understand more about how to select a volunteering experience, giving people some simple guidelines on what to look for and the sorts of questions to ask.

This builds on our Top Ten Tips issued in 2011 (see above). The Environmental Volunteering Abroad Alliance (EVA Alliance) was born (see info box). Not the standard or the set of guidelines that we had originally envisaged, but a group of organisations committed to driving up standards of environmental volunteering experiences. People determined to make things better: in the industry, in their own organisations and on the ground. We will work together on some of the main issues that we face, both in the field on issues such as safety and in central operational areas such as insurance or staff development. And we will talk about the industry and look for ways to help improve things for everyone. ■

THANK YOU • DANKE • MERCI

The conservation work described in this magazine would not be possible without the help of our expedition participants, the Friends of Biosphere Expeditions, private donors, local partners, grant-giving bodies and corporate sponsors. Thank you to all of you.



LOOK AHEAD



LOOK AHEAD and spread the word!

We created the "Look Ahead" campaign early in 2010 to harness the great potential we saw in people offering their help after they had come across Biosphere Expeditions or had been on expedition with us. "What else can I do" was a question often asked and Look Ahead was our response. After a couple of years, the results have surprised even us. We are building an amazing network of people as we speak. Here is a story of how one person has become involved - we hope it gives you some inspiration. Then come and join our Look Ahead network.

More at www.biosphere-expeditions.org/lookahead



Left & below: Andreas with his two children & hunting down insects with his camera. Big picture & bottom: a couple of Andreas' insect shots.

ANDREAS'

My name is Andreas Bornstein and I am 39 years old. I was lucky to grow up in a little village in the foothills of the Bavarian Alps, where I spent most of my childhood outdoors. Ever since I can remember, I have been fascinated with the natural world and its diversity. I was especially intrigued by all the little creepy-crawlies inhabiting the "alien empire" of insects. Natural history programmes were always my favourite. However, "family tradition" meant that I was required to get a "decent education" and a "proper job", so making my passion my profession was out of the question.

So today I am a tax advisor and a partner in a tax company in Munich. My wife and I just love travelling (in fact we even met

ALIEN EMPIRE

on a plane), especially camping in the most remote and unspoiled areas we can find. I also rediscovered my love for bugs a few years ago and combined it with my interest in photography, hunting down every invertebrate I can possibly find with my camera with ever increasing enthusiasm.

Early this year my wife and I took our two children (three and five) on a three-month 4WD camping tour through Australia, taking our time and pictures and trying to stir a passion for nature in our children too.

Upon returning from that trip, I decided I was going to try to find a way to put my bread-and-butter job as tax advisor to good use in the field that I really feel passionate about. Of course nature itself doesn't really need a tax advisor, so when by chance I saw on the Biosphere Expeditions website, that they were looking for a volunteer to help them with the books

and tax for their German non-profit arm, I immediately put my hand up.

So now - at least that's the way I see it - I can use my business skills to support an organisation that helps scientists discover more about some of the most iconic animals and habitats on the planet. And after meeting their founder and executive director Matthias (Dr. Hammer) in person on a taster day in my Alpine backyard, I am now planning to join him and his team on an expedition to get a first-hand impression of what it's really like to be one of those field biologists I watched on TV all those years ago. ■

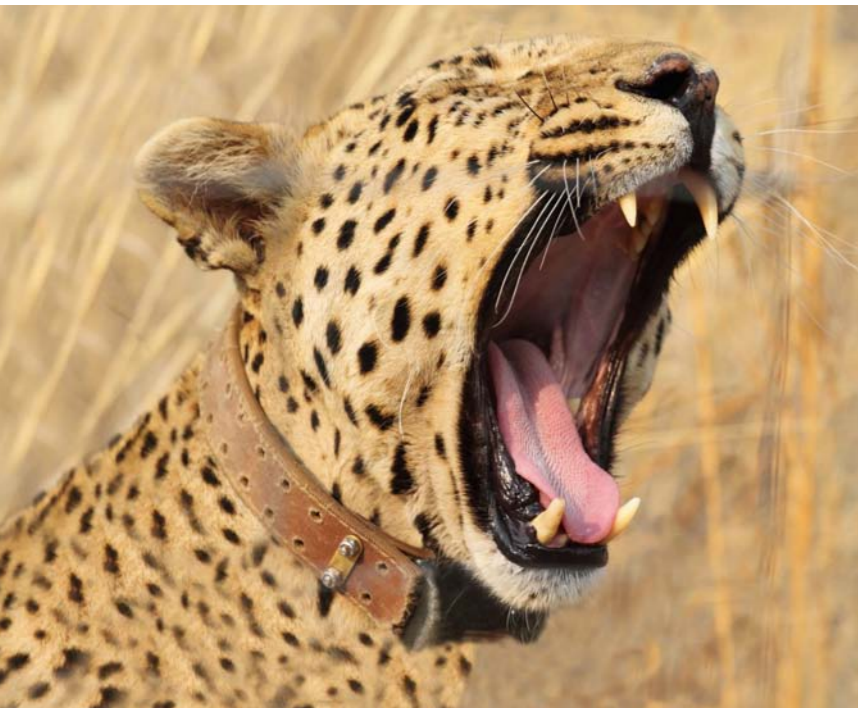




Frequently Asked Questions

Before people join one of our expeditions, they naturally have many questions. Here are some of the more common ones with our answers.

More FAQs, including video FAQs at www.biosphere-expeditions.org/faq



Radio-collared leopard, Namibia

What is Biosphere Expeditions?

see also: www.youtube.com/watch?v=qRMYxVdykeA

Biosphere Expeditions is an award-winning wildlife conservation organisation that involves people in hands-on conservation work all around the planet and gives them a real insight into how conservation works in the field. Biosphere Expeditions is also a not-for-profit organisation and we guarantee that at least two-thirds of your expedition contribution will go into the project, funding it long-term and sustainably.

We only have about a dozen projects in our portfolio, and these we do well and know intimately. We are thus not a brokering agency. Instead we are involved long-term, taking charge and sending our staff with you on the project, making sure you get the quality experience we stand for and that you, local people and the wildlife benefit, and that there are results in terms of research and conservation, local involvement and capacity building – for example through the creation of protected areas or jobs and scholarships for local people. We also guarantee to write up our finances, our results and our achievements in annual expedition reports so that the expedition comes full circle for our expedition participants and we are fully transparent for everyone else.

Our three key themes are safety, science, satisfaction, because our core belief is that you will work best when you are safe, well looked after, well rested and having fun. Our projects are open to all, there are no special skills (biological or otherwise) required to join as all necessary skills will be taught on the expedition, and there are no age limits whatsoever.

And don't fall prey to the common misconception that these kinds of volunteer expeditions are just for students and teenagers who want to rough it. In fact our participants are people from all walks of life, of all ages, looking for an adventure with a purpose. Most of them are highly educated, well-travelled professionals starting in their mid-30s and from all over the world.

Finally, we have a wide variety of projects from rustic to high comfort level, so there should be something for everyone. So it's not about roughing it, but about making a difference within a well-organised project and a quality experience with real outcomes at the end.

How does Biosphere Expeditions select its projects?

see also: www.youtube.com/watch?v=kFKNXhdtXNs

In a sense they select themselves. We receive about 50 approaches a year from scientists, NGOs or companies. All of them are sent instructions on how to put in a 2-page proposal, fitting their project into our format. 90% don't reply. Of the five that do, a few fall by the wayside more or less straight away, because they are too expensive, lack the scientific skills or credibility or take place in dangerous, unstable locations.

The one or two who make it past stage 1, go onto stage 2, which entails a very detailed proposal –

much like putting in a grant proposal, the instructions for which are 18 pages alone. We ask for samples of previous research work, CVs, how volunteers can be used effectively, proposed outcomes, community involvement, a detailed draft budget, health & safety information and many other details. If a project still looks feasible after all that, then we go and look at things on the ground during reconnaissance visits, becoming guinea pigs ourselves. If the research, safety, logistics (such as board & lodging), community involvement, possible outcomes are all ok, then we enter into a formal agreement with our partners and put the expedition online.

As you can see, it's a very involved process designed to ensure that we can achieve maximum benefit for our participants, local wildlife and people and that our expeditions have a genuine impact and generate real conservation outcomes. We then stay intimately involved with the project in the long-term, sending our staff on it each year and supporting our partners on the ground.

Is Biosphere Expeditions a brokering agency?

see also: www.youtube.com/watch?v=Bld81ov5_cl

We know that with the proliferation in volunteering opportunities it's hard these days to tell quality, involved experiences from mere brokers. Biosphere Expeditions only does a handful of projects – about a dozen or so – and these we do well, know intimately and are heavily involved in. And that means that we take responsibility, working very closely with the expedition scientists, the local community & stakeholders. For example, next to our core research & conservation work, on many expeditions we have scholarship and educational programmes for local people or other community engagement and capacity-building activities.

We also send an expedition leader with every expedition. His or her function is to ensure the smooth running of logistics and that our core values of safety, science, satisfaction (in that order) are adhered to. He or she is also there for quality control, making sure you are properly integrated into the research & conservation work, that you get to do what we say you get to do and that you know your role within the bigger picture and understand the contribution you are making. We also make sure the expedition comes full circle for our participants by publishing a report after each expedition, which details exactly where your money went (and how we put at least 2/3 of it to-

wards the project) and what your contribution in terms of labour achieved in conservation.

There are very few organisations who send their own staff on the projects, let alone write up detailed reports – we do and that is one thing that really sets us apart from the many brokering agencies that are out there.

Can't locals do the work instead? How do they benefit?

see also: www.youtube.com/watch?v=foZBQ5FhOq8

Of course often they COULD, but often they lack equipment, skills, funding or the logistical framework to be able to run a conservation project. So Biosphere Expeditions comes and sets one up, but whilst doing so we also think of the future and capacity-building. We create educational & training programmes, scholarships and placements on our expeditions, thereby training up locals, building capacity and training the next generation of conservationists, wildlife guides, educators, etc. Local governments, NGOs & decision-makers also benefit from our work, because we make management recommendations, propose protected areas, species action plans, etc. Local people and communities benefit from job creation and training programmes. Poachers can become conservationists, because we offer alternative employment. Finally, we build capacity by putting facilities in place – for example research stations.

How likely are you to see animals?

see also: www.youtube.com/watch?v=pP2flkV9HE

First – Biosphere Expeditions is not a safari company, so with us you won't find the animals by spotting where the air-conditioned tour buses congregate. The likelihood of seeing animals varies from project to project.

In Africa, for example you are very likely to see many prey antelope and other species. In Western Australia, you will get very close and personal with turtles, measuring & tagging them, counting the eggs they lay. On the diving expeditions you will be right in the thick of it, floating weightlessly surrounded by reef life. If there is live trapping involved and we catch a cheetah or a leopard for example, people will have a unique experience with a truly wild animal. But you are unlikely to stumble across a snow leopard or a jaguar or a wolf or a bear in the wilderness. If it does happen, and it has, then you should consider yourself very lucky indeed.

What's this "conservation princess" stuff?

see also: www.youtube.com/watch?v=tKl8XSPWbMA

It just means that to join one of our expeditions you don't have to be a teenager wanting to rough it in the jungle. Our work is all about research and conservation, and we realise, of course, that well looked after and well fed people who have had a good night's sleep make for much better research assistants in the morning. So we try to make this happen wherever we can and our portfolio is so varied that there should be something for everyone, including for those who want to be "conservation princesses", or princes for that matter!

For example in Western Australia, a top-end resort has asked us to conduct turtle research on its stunning beach location. So we do this for them and the kickback is that we stay in a very swish resort for the expedition. Or on the Maldives, where we have a very luxurious liveaboard, which serves as our home and research base for our coral reef and whale shark expedition there. Or a bit further down the flagpole, on our Azores whale & dolphin project where we stay in a very cosy & comfortable manor house at night – and on a comfortable twin hull catamaran research vessel during the day when we are out at sea conducting our research work.

So there should be something there for everyone from conservation princess to hardcore conservation adventurer.

Is it for me?

First of all, if you are not sure, then simply join one of our taster days, which are for those who would like to dip into expedition life at home first, before committing to the real thing. Taster days 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. Or come to one of our events to speak with us in person.

The people who then commit to join us in the field are those who care enough to become actively involved, those who want to come home and tell their friends not just what they saw, but also what they have done about it. Our experiences are real scientific research expeditions, not package holidays, and the way they are run reflects this. You will be living, breathing and sleeping on expedition air, working and sharing in our vision. And if you go to your bed tired out after a day's work, then that will only make the experience more enriching,

the memories stronger, and the sense of fulfilment more real. So if you are looking for an adventure with a conscience and a sense of purpose, unlike any tourist or ecotourist will ever have, then Biosphere Expeditions is for you.

Am I too old/young/unfit?

Not in a million years! We are all about being inclusive, so you are never too old or too young, or not fit enough. Have a look at the experiences we offer and pick one that you think is realistically achievable for you. If you are in any doubt, contact us for more details on what it's going to be like and for advice on whether it will be right for you. Oh, and just to put your mind at rest, our oldest expedition team member so far is 87.

Do I need special skills and/or fitness?

There are no special skills (biological or otherwise) at all required to join our expeditions and there are no age limits whatsoever. If you are disabled, please contact us to find out about the suitability of the experience of your choice. If you are healthy and enjoy the outdoors, your fitness level will be sufficient in most cases.

What's the accommodation and level of comfort like?

On our projects and expeditions across the world, the accommodation we use is always locally owned and varies between very comfortable African guest farms, to Amazon lodge research centres, to full blown expedition base tent camps. Whatever the accommodation, we never run 'hardcore' survival courses or anything of that sort. We feel strongly that our team members need to be well fed and comfortable in order to be motivated and efficient research assistants!

Will I be safe?

Yes. Although we are not in the business of controlling nature and expect you to take some responsibilities, safety is our top priority. Our three key watchwords are 'safety, science, satisfaction', in that order. We always have emergency procedures and backup systems in place and each new proposal we receive is put through a stringent safety test before it is added to our portfolio. Biosphere Ex-

peditions has an excellent safety record and it may also come as a surprise to you that statistically expedition life is no more dangerous than normal life at home and certainly far less dangerous than doing DIY! Achieving the expedition's research aims is important, but it cannot be considered successful unless it is also conducted responsibly, safely, harmoniously, and with regard for the environment.

Where does my money go?

The contribution you pay towards your 1-week project or 2-week expedition will go towards advance planning (reconnaissance, team recruitment and logistical support), direct field costs (such as your transport, board and lodging, paying the local scientists and helpers such as cooks and porters, and paying your expedition leader), post-expedition work (the expedition report, scientific publications and other means of making the results known to science and the public), towards supporting the research project itself (which without your help could not be long-term and sustainable), and towards administrative and communication backup.

On average at least two-thirds of your contribution will benefit the project directly and locally, the rest will go towards administrative back-up, as well as researching and setting up new expeditions. Within six to twelve months after your expedition you will receive an expedition report with full details on how your expedition contribution was spent on running the expedition and supporting its research work. The expedition report will also show you the fruits of your labour by detailing scientific findings, conclusions and resulting actions. You can see examples of expedition reports at www.biosphere-expeditions.org/reports.

How much does it cost and when do I pay?

Contributions vary between expeditions, projects and taster days, so please check the ones you are interested in by looking at our website. To reserve your place on an expedition or project, you need to send us a £300 deposit. To take part in a taster day a contribution of £65/€65/AU\$95 is due to reserve your place. It's as easy as that and the quickest way of doing it is online via www.biosphere-expeditions.org/join. For expedition and projects, the balance of your contribution will be due four weeks before the expedition or project starts.

What happens to the research data I collect and the conservation work I do?

We pride ourselves in our scientific output. Within six to twelve months of the end of your 2-week expedition or 1-week project, you will receive a report with full details on all conservation work done, the data collected, how this information was used and what the results were. This report will be made available to the public, the scientific community and relevant decision-makers in an effort to let the objects of your study and as many people as possible benefit from the work you have done. Where applicable, results will also be published in scientific journals. The report will also contain a detailed budget on how exactly your contribution was spent. So within a year at most, everything will come full circle for you and you will be able to see how your support on the two main levels of data collection and funding has made a difference.

How do I join a team and how do I pay?

Select an experience and a date, check availability on www.biosphere-expeditions.org/availability, then send us your deposit (£300 for a 2-week expedition or 1-week project) or full payment (£65 | US\$95 | AU\$95 for a taster day) to reserve your place. It's as easy as that and the quickest way of doing it is online via www.biosphere-expeditions.org/join. For 2-week expeditions or 1-week projects the full balance will be due four weeks before your experience starts (or immediately if it does within four weeks).

If you have any other questions, please do not hesitate to contact us and we will be happy to help!

Sunset in Musandam



Cover picture:
snow leopard
© Peter Pilbeam

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