

- THE EMERGENCY ■ 20 TIPS FOR 20 YEARS
- DO MORE & THE FRIENDS & MORE

ACTIVISM ISSUE



20
20
magazine

ASK NOT WHAT
YOUR PLANET CAN
DO FOR YOU 
ASK WHAT YOU CAN
DO FOR YOUR PLANET

WELCOME



to the eleventh issue of the annual
Biosphere Expeditions Magazine.

I founded Biosphere Expeditions in 1999 and in our first 20 years we were focused on citizen science and wildlife conservation (see our 20 Year Anniversary Magazine last year). We will continue with this focus, but this, we all at Biosphere Expeditions feel, is no longer enough. The undeniable crisis our planet is in demands more action and activism. It demands a radical rethink of how we run our lives, societies and the way we treat our planet.

This issue centres around the emergency we are facing and offers our "20 tips for 20 years" - from the light green of what we should all do as a bare minimum, to the dark green rejection of neoliberalism and the fallacy of endless growth, to joining the revolution that is gathering pace as we speak.

Because sitting on our hands is simply not an option any more. We have a duty to act if we want to be able to look our grandchildren in the eye. On our 20th anniversary, we joined the revolution and we are becoming more activist for the sake of our planet. Join us now!



A stylized, handwritten signature in black ink, which appears to read "Matthias Hammer".

Dr. Matthias Hammer
Executive Director

ABOUT US

ÜBER UNS A PROPOS



Citizen science | ethical adventures | wildlife conservation



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

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

Bürgerwissenschaft | nachhaltiges Reisen | ethische Abenteuer | Artenschutz



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

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

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



Notre planète est en crise - jamais encore la nature n'a autant été en danger. Chacun a le pouvoir de changer les choses. Nous en avons conscience, et c'est pour cela que nous donnons les moyens nécessaires aux hommes de la préserver, au travers d'actions participatives et scientifiques, sur le terrain. Nous sommes une organisation à but non lucratif, visionnaire, plusieurs fois récompensée, éthique et durable, qui vise à promouvoir la protection de la nature. Nous sommes également membres de l'IUCN (Union internationale pour la conservation de la nature) et du programme des Nations Unies pour l'environnement. Nous travaillons main dans la main avec les communautés et les biologistes locaux. Nous incitons au changement et protégeons la nature. Nos efforts sont couronnés de succès : la création d'espaces protégés sur l'ensemble des quatre continents est juste un exemple de tout ce que nous avons réussi à accomplir.

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

DO MORE



Whether you are back from an expedition and want to do more, or interested in lending a hand, there is more you can do for the planet, for yourself and for Biosphere Expeditions. Here's how.

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MALAWI expedition 42

20 TIPS FOR 20 YEARS



Biosphere Expeditions was founded in 1999 and to celebrate its 20th anniversary has created these 20 tips for 20 years.

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The backbone of Biosphere Expeditions

MEET THE STAFF

Biosphere Expeditions employs a global team of wildlife professionals who all contribute to the success of the organisation: expedition leaders, scientists, field-based and administrative staff. Their roles are as diverse as their backgrounds, but they all share a love of the outdoors and wildlife.

Here are just two of our team. More can be found at www.biosphere-expeditions.org/staff.



Robin Johnson is from the UK, studied Ecology and Conservation at Imperial College London and Manchester Metropolitan University, and has worked for BirdLife International and the UN. Among other conservation activities, he has trained park rangers in Guinea; improved methods for counting parrots, to better inform their conservation; and built local capacity for conservation through targeted funding. Robin has worked in several African countries and currently lives in Transylvania (Romania), to have some of the finest nature in Europe, and enviable opportunities for outdoor pursuits, on his doorstep. Robin is a qualified mountain guide and is keen on hiking, climbing, ski touring, mountain biking and birdwatching.

An Bollen was born in Leuven, Belgium, where she studied biology and completed a PhD in tropical ecology. At age 18, An went on a year-long exchange programme with a local family in Ecuador, sparking her passion for travel and exploration. An has worked for over 15 years in biodiversity conservation in the tropics, both in tropical rainforests as well as on coral reefs and often working closely with local communities. She has a soft spot for islands and called both Madagascar and the tiny island of Principe, off the west coast of Africa, home for a while. An has also organised and led research expeditions on several occasions during her career. An is passionate about the underwater world, an amateur photographer and very much an outdoor, nature-loving person.



32 New ARMENIA expedition



40 KENYA expedition



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EDITORIAL

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EXPEDITIONS WORLDWIDE

GERMANY

Wolf



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SWEDEN

Brown bear



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AZORES (Portugal)

Whales, dolphins, turtles



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ARMENIA

Leopard, lynx, bear, wolf



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COSTA RICA

Leatherback turtle



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MALAWI

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Oryx, wildcat, sand fox & others



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Big Five & others



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MALDIVES

Coral reef & whale shark



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SOUTH AFRICA

Leopard, caracal & biodiversity



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THE EMERGENCY

THE SCIENCE IS CLEAR: IT IS UNDERSTOOD THAT WE ARE FACING AN UNPRECEDENTED GLOBAL EMERGENCY. WE ARE IN A LIFE OR DEATH SITUATION OF OUR OWN MAKING. WE MUST ACT NOW.

"We are in a planetary emergency."
Prof. James Hansen, former Director of the NASA Goddard Institute for Space Studies

"Climate change is also a medical emergency. It thus demands an emergency response."
Prof. Hugh Montgomery, director of the University College London Institute for Human Health and Performance, Lancet Commission Co-Chair

"This is an emergency and for emergency situations we need emergency action."
Ban Ki-Moon, former UN Secretary General

Human activity is causing irreparable harm to the life on this world. A mass extinction event is underway. Many current life forms could be annihilated or at least committed to extinction by the end of this century.

The air we breathe, the water we drink, the earth we plant in, the food we eat and the beauty and diversity of nature that nourishes our psychological well-being, all are being corrupted and compromised by the political and economic systems that promote and support our modern, consumer-focussed lifestyles.

We must act while we still can. What we are seeing now is nothing compared to what could come.

Effects on global human society, if the climate and ecological emergency is not addressed in time, may spiral out of control.

- Sea level rise
- Desertification
- Wildfires
- Water shortage
- Crop failure
- Extreme weather
- Millions displaced
- Disease
- Increased risk of wars and conflict

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Source article with links on <https://rebellion.earth/the-truth/the-emergency/>



But our leaders are failing in their duty to act on our behalf. Our current systems of governance are compromised by a focus on profits and economic growth (the neoliberal system we have covered in many previous editions of this Magazine). Politicians can be influenced by lobbies of powerful corporations and the media are hampered by vested interests of corporate advertisers or billionaire owners, undermining our democratic values.

We have run out of the luxury of time to react incrementally. We must radically and immediately begin reducing emissions and improving carbon absorption, drawing it down and locking it up again. Only a peaceful planet-wide mobilisation of the scale of World War II will give us a chance to avoid the worst case scenarios and restore a safe climate.

The task before us is daunting, but big changes have happened before. We can build a better world.

WARNINGS

We've been warned again and again...and again.

1992

In 1992, the Union of Concerned Scientists including the majority of living science Nobel laureates, penned the "World Scientists' Warning to Humanity" calling on humankind to curtail environmental destruction and warning that "a great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided." They showed that humans were on a collision course with the natural world. They proclaimed that fundamental changes were urgently needed to avoid the consequences our present course would bring.

The authors of the 1992 declaration feared that humanity was pushing earth's ecosystems beyond their capacities to support the web of life. They described how we are fast approaching many of the limits of what the biosphere can tolerate without substantial and irreversible harm. They implored that we cut greenhouse gas emissions and phase out fossil fuels, reduce deforestation and reverse the trend of collapsing biodiversity.

2017

In 2017, humanity was given a second notice. Over 15,000 scientists signed a new and even more urgently worded letter, which warned that "to prevent widespread misery and catastrophic biodiversity loss, humanity must practice a more environmentally sustainable alternative to business as usual. This prescription was well articulated by the world's leading scientists 25 years ago, but in most respects, we have not heeded their warning. Soon it will be too late to shift course

away from our failing trajectory, and time is running out. We must recognise, in our day-to-day lives and in our governing institutions, that Earth with all its life is our only home."

2018/2019

At the end of 2018, the UN Secretary General warned us that "humanity and life on earth now face a direct existential threat. The world must act swiftly and robustly to keep global warming under 1.5°C and try to avoid utterly catastrophic impacts to life on earth". Keeping this goal in 2019 became increasingly unlikely, with another 11,000 warning humanity of the catastrophic consequences of failure.

We are on our final notice . We must act now.

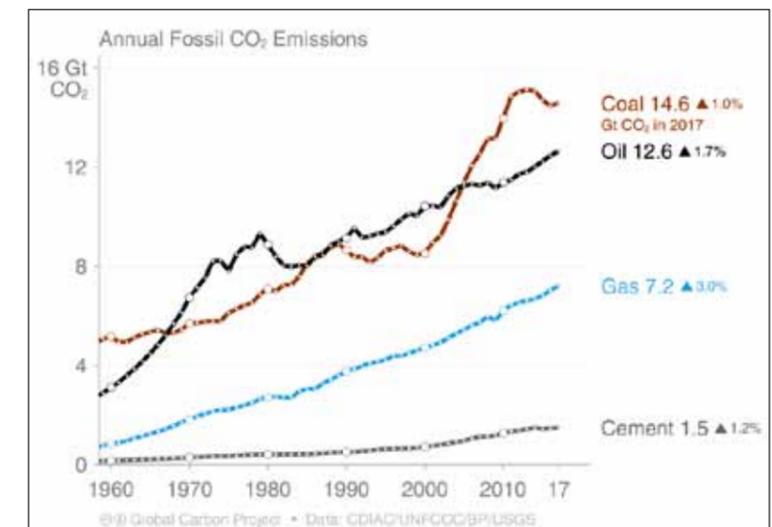
GREENHOUSE GASES

Our carbon emissions are still increasing!

"More than half of all industrial emissions of carbon dioxide since the dawn of the Industrial Revolution will have been released since 1988" – Dr. Peter C. Frumhoff, Director of science and policy at the Union of Concerned Scientists.

Carbon dioxide concentrations are at a record high of 411 parts per million (ppm) (an increase of over 45% on pre-industrial levels). Concentrations are now at the highest levels in at least the last three million years (i.e. since before modern humans had even evolved on this planet).

To stabilise temperatures, net-emissions need to reach zero. The longer we delay, the harder it becomes. Because of years of delay and inaction we have reached a crisis where we will only meet our targets if we take urgent emergency action!



OUR HOUSE IS ON FIRE

Human activities have caused the planet's average surface temperature to rise about 1.1°C since the late 19th century. Most of the warming occurred in the past 35 years.

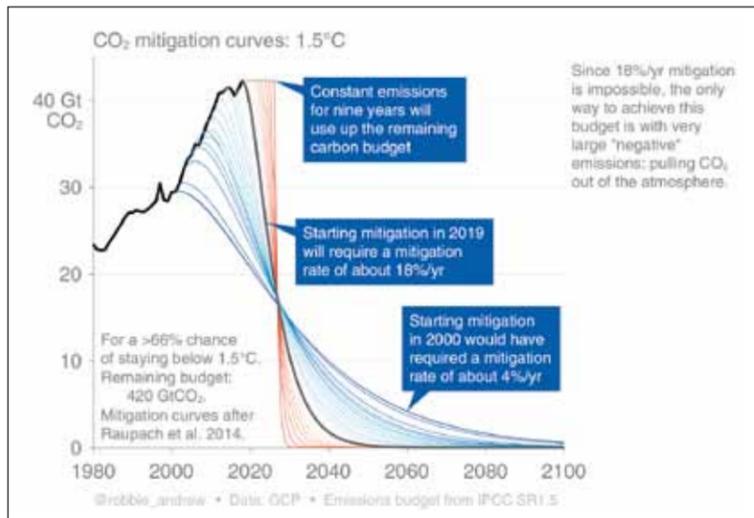
Globally, the past four years have been the hottest on record, and the 20 warmest have occurred in the past 22 years.

As the global temperature rises, we see an increase in extreme weather events such as heat waves and droughts. For example, scientists from the UK Met Office who examined the extreme heat wave, which struck Europe in the summer of 2003 (which is now

known to have killed 70,000 people) concluded that "it is very likely...that human influence has at least doubled the risk of a heat wave exceeding this threshold magnitude." If we carry on burning fossil fuels, such an extreme heat wave will become an average summer for Europe by 2040 and almost all summers will be hotter than that by 2060!

Across the globe, calculations show that record-breaking extreme temperatures become far more probable due to human-induced warming (for example 2010 Syria, 2013 Korea, 2014 California, 2018 UK).

A 2018 study shows how deadly heat waves may limit habitability of one of the world's most populous regions in the world. Concluding that continued burning of fossil fuels would lead to heat extremes that exceeded "the threshold defining what Chinese farmers may tolerate while working outdoors."



AIR POLLUTION

All forms of pollution were responsible in 2015 for an estimated 7 million premature deaths (ambient air pollution 4.2 million deaths, household air pollution 2.8 million deaths). That is 16% of all deaths worldwide. Pollution is thus the world's largest environmental cause of disease and premature death.

The vast majority of these deaths are due to exposure to air pollution, mostly from small particles that can penetrate deep into the lungs (known as PM2.5). Young children, those with preexisting health conditions such

as asthma and seniors are particularly vulnerable. In total, nine out of ten people now breathe polluted air, mostly in low-middle income countries.

It is not just pollution from cars and industry that are causing this health crisis; poor indoor air quality is also deadly. In half the world, this is due to having no access to clean fuels or electricity and so people have to rely on inefficient solid-fuel burning stoves and kerosene lamp technologies.

MASS EXTINCTION

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) report produced in 2019 shows the biodiversity crisis is on a par with the threat posed by climate change. We are part of the natural world and we depend on it to stay alive.

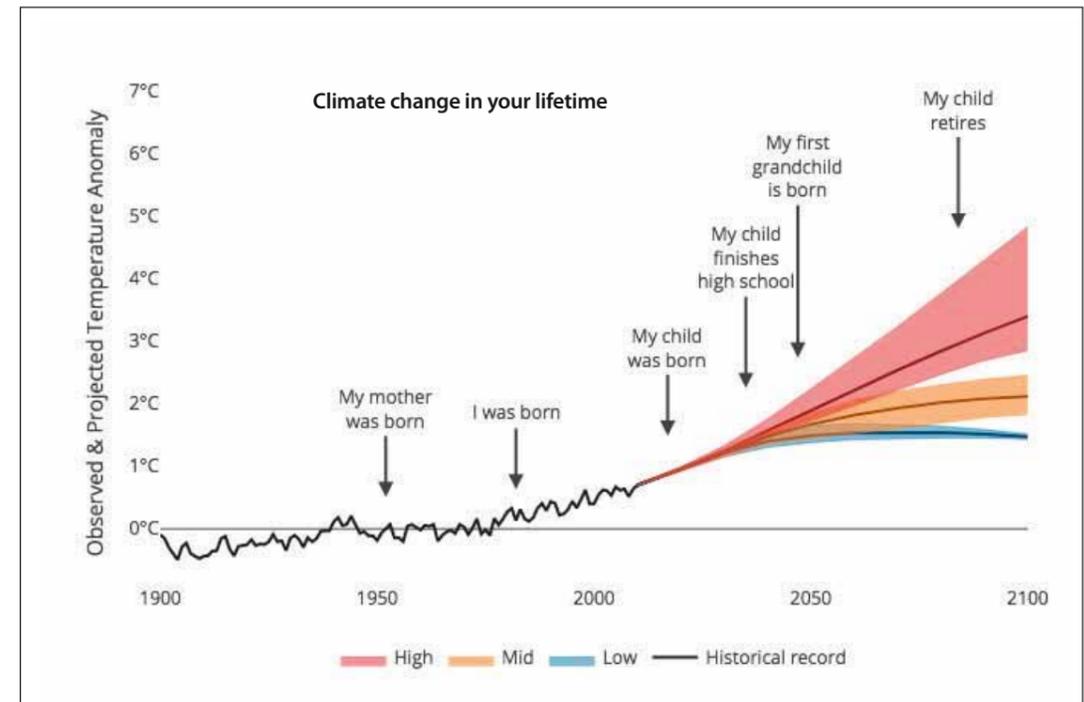
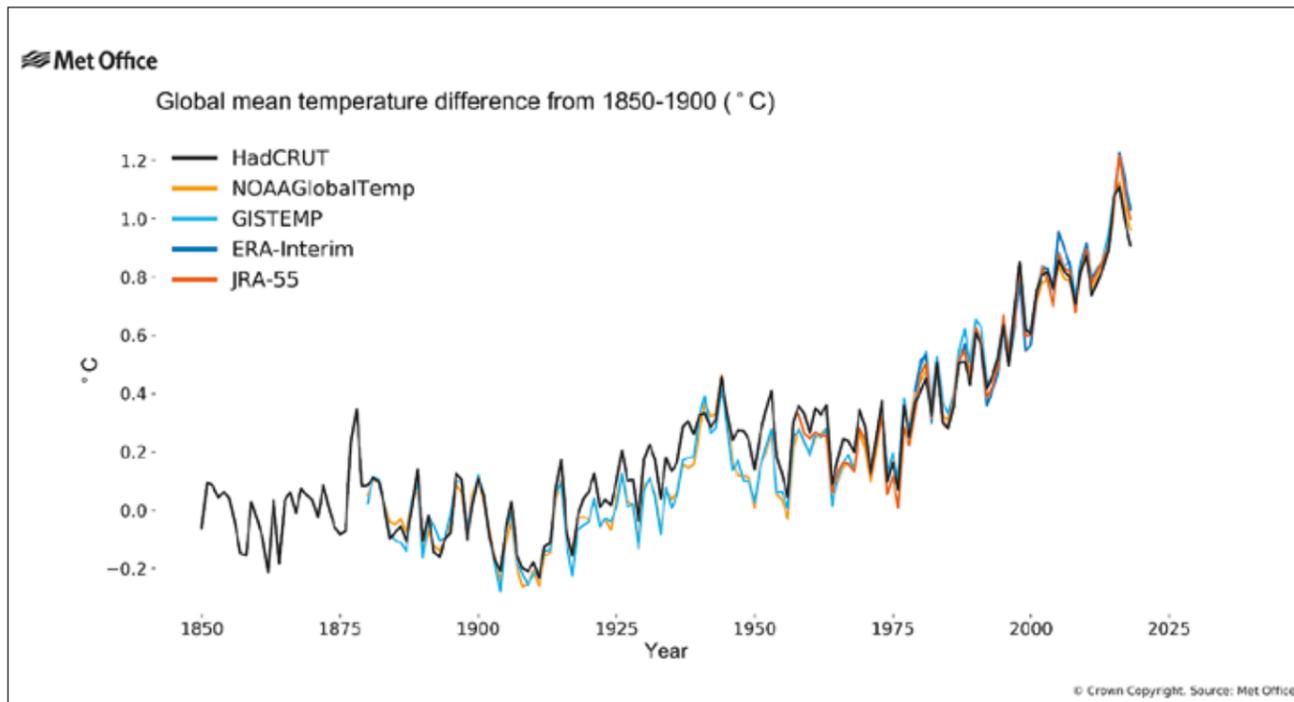
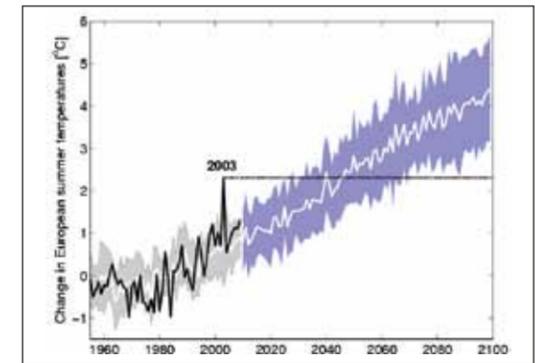
The biological annihilation of wildlife in recent decades means the Sixth Mass Extinction in Earth's history is now well underway.

Looking at the UK, for example, the 2016 State of Nature report found that it was "among the most nature-depleted countries in the world". One in five British mammals are at risk of being lost from the countryside with the populations of hedgehogs and water voles declining by almost 70% in just the past 20 years. Whilst another new report by the British Trust for Ornithology found that more than a quarter of British bird species are threatened, including the puffin, the nightingale and curlew. Across Europe the abundance of farmland birds has fallen by 55% in just the past three decades.

Globally species are going extinct at rates up to 1,000 times the background rates typical of earth's past. The direct causes of biodiversity loss are habitat change, overexploitation, the introduction of invasive alien species, nutrient loading and climate change. The latest Living Planet Index shows an average decline of 60% in the population sizes of thousands of vertebrate species around the world between 1970 and 2014.

More than a quarter of species assessed by the IUCN (around 100,000) are threatened with extinction. That is 40% of all amphibians, 25% of all mammals, 34% of all conifers, 14% of all birds, 33% of reef-building corals, 31% of sharks and rays.

Corals reefs are suffering mass die-offs from heat stress. These events are becoming much more common with back-to-back die-offs on the Great Barrier Reef in Australia in 2016 and 2017. The predictions are that at just 2°C of warming above pre-industrial temperatures, these heat waves will occur on an annual basis and coral reefs will become functionally extinct.



INSECT DIE-OFF

Catastrophic reductions in global insect populations have profound consequences for ecological food chains and human crop pollination.

There is strong evidence that many insect populations are under serious threat and are declining in many places across the globe. Multiple pressures include habitat loss, agro-chemical pollutants, invasive species and climate change.

A 27-year long population monitoring study in Germany revealed a dramatic 76% decline in flying insect biomass. And a new study by Dutch scientists found that butterfly numbers had fallen by over 80% in the last 130 years. With the authors concluding that “industrial agriculture is simply leaving hardly any room for nature.”

“It should be of huge concern to all of us, for insects are at the heart of every food web, they pollinate the large majority of plant species, keep the soil healthy, recycle nutrients, control pests, and much more. Love them or loathe them, we humans cannot survive without insects.” Prof. Dave Goulson, The University of Sussex

FOOD

One of the world’s leading medical journals, The Lancet, carried out a major review, which concluded that climate change posed “the biggest global health threat of the 21st century” because of both the direct impacts of extreme weather events and the indirect disruption to the social and ecological systems that sustain us.

More frequent and severe water extremes, including droughts and floods, impact agricultural production, while rising temperatures translate into increased water demand in agriculture sectors.

“We have already observed impacts of climate change on agriculture. We have assessed the amount of climate change we can adapt to. There’s a lot we can’t adapt to even at 2°C. At 4°C the impacts are very high and we cannot adapt to them” Dr. Rachel Warren, University of East Anglia.

The number of extreme climate-related disasters, including extreme heat, droughts, floods and storms, has doubled since the early 1990s, with an average of 213 of these events occurring every year during the period of 1990–2016. These harm agricultural productivity, contributing to shortfalls in food availability, with knock-on effects causing food price hikes and income losses that reduce people’s access to food.

Today, people across 51 countries and territories are facing crisis levels of acute food insecurity or worse, requiring immediate emergency action.

- 2015: 80 million people
- 2016: 108 million people
- 2017: 124 million people

The risk of extreme weather hitting several major food producing regions of the world at the same time could triple by 2040 (1 in 100 year event to 1 in 30).

A recent study looking at the impact of climate change on food production for the top four maize-exporting countries, which currently account for over 85% of global maize exports, found that “the probability that they have simultaneous production losses greater than 10% in any given year is presently virtually zero, but it increases to 7% under 2°C warming and 86% under 4°C warming”.

If diets continue as they are, feeding a growing population by 2050 will require: 120% more water (resulting in severe freshwater scarcity), 42% more cropland (resulting in loss of natural habitats and therefore species extinctions), loss of 14% more forest (resulting in runaway climate change), 77% more greenhouse gas emissions (also resulting in runaway climate change).

The United Nations (alongside many other studies) has identified vegetarianism as one of the major ways to reduce impact on the planet; it has also concluded that a global shift towards a vegetarian or vegan diet is necessary to combat the worst effects of climate change.

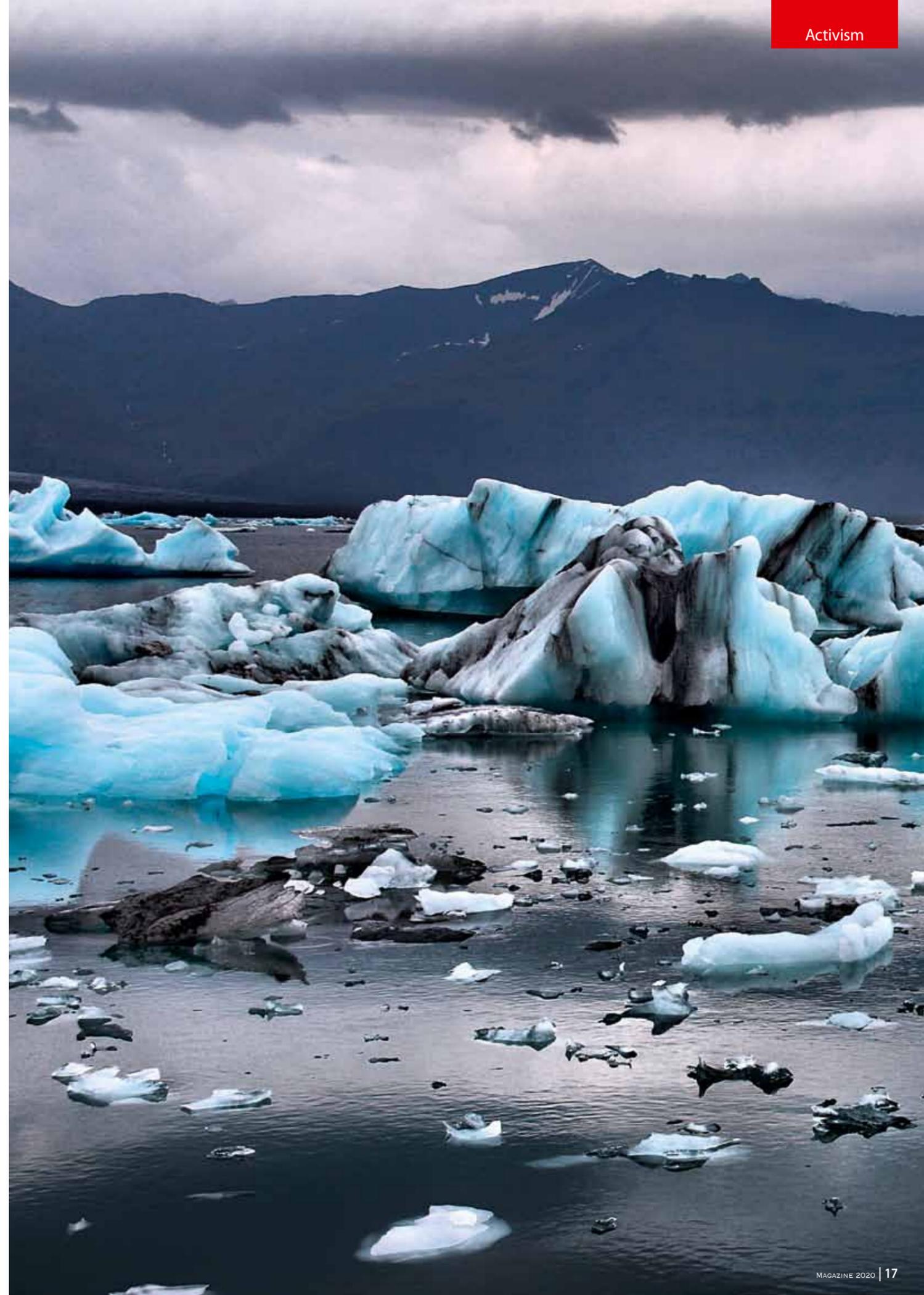
One-third of the edible parts of food produced for human consumption gets lost or wasted globally, which is about 1.3 billion tonnes per year. In terms of greenhouse gas emissions, if food wastage were a country, it would be the third largest emitting country in the world.

WATER

Water withdrawals grew at almost twice the rate of population increase in the twentieth century.

The global water cycle is intensifying due to climate change, with wetter regions generally becoming wetter and drier regions becoming even drier. A 2018 UN report highlights that at present, an estimated 3.6 billion people (nearly half the global population) live in areas that are potentially water-scarce at least one month per year, and this population could increase to some 4.8–5.7 billion by 2050.

Rising temperatures are predicted to melt at least one-third of Himalayan glaciers by the end of the century, even if we limit the temperature rise to 1.5°C. Melting glaciers in both the Andes and the Himalayas threaten the water supplies of hundreds of millions of people living downstream.



A severe drought in Cape Town in 2018 led to severe water restrictions being put in place. The city came to within just days of turning off its water supply – dubbed ‘Day Zero’. Climate scientists have now calculated that climate change has already made a drought of this severity go from a 1 in 300 year event to being a 1 in a 100 year event. At 2°C of warming, a drought of this severity will happen roughly once every 33 years.

RISING SEAS

The global sea level is rising faster in recent decades. Sea level rise is caused primarily by two factors related to global warming: the added water from melting ice sheets and glaciers, as well as the expansion of seawater as it warms. Sea level rises will cause inundation of low lying lands, islands and coastal cities globally.

As sea level rises higher over the next 15 to 30 years, tidal flooding is expected to occur much more often, causing severe disruption to coastal communities, and even rendering some areas unusable — all within the timeframe of a typical home mortgage. 2°C warming would threaten to inundate areas now occupied by 130 million people, whilst an increase to 4°C could lock in enough eventual sea level rise to submerge land currently home to 470 to 760 million people globally.

The land ice sheets in both Antarctica and Greenland have been losing mass since 2002. Both ice sheets have seen an acceleration of ice mass loss since 2009. Antarctica is losing six times more ice mass annually now than 40 years ago.

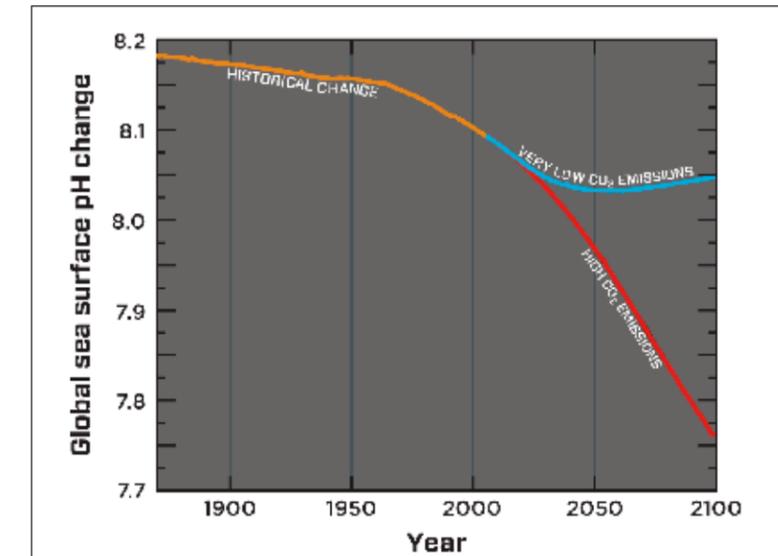
In 2014 a team from NASA found that part of the West Antarctic ice sheet had already begun what they described as an “unstoppable” collapse, locking in at least a metre of sea level rise. If we continue warming, we will trigger the collapse of more sectors of the ice sheets.

“Sea level is rising much faster and Arctic sea ice cover is shrinking more rapidly than we previously expected. Unfortunately, the data now show us that we have underestimated the climate crisis in the past.” Stefan Rahmstorf, Professor of Physics of the Oceans.

OCEAN ACIDIFICATION

The oceans have already become 30% more acidic. As carbon dioxide from the burning of fossil fuels dissolves, it alters the chemistry of sea water. On our current emission trajectory, in 2100, the pH increase of the ocean will see a 150% increase in acidity. This will affect marine life from shellfish to coral reef communities by removing minerals vital for shell growth. The oceanic conditions will be unlike any marine ecosystem of the last 14 million years.

Present ocean acidification is occurring approximately ten times faster than anything experienced during the last 300 million years, jeopardising the ability of ocean systems to adapt.



SEA ICE

Arctic sea ice is now declining at a rate of 12.8 percent per decade.

Summer Arctic sea ice is predicted to disappear almost completely by the middle of this century.

“We may lose the summer ice cover as early as 2030. This is in itself much earlier than projections from nearly all climate model simulations.” Prof. Mark Serreze, Director of the National Snow and Ice Data Centre.

Scientists are now investigating the connections between the very significant changes we have seen in the Arctic and changes to the jet stream resulting in increasingly dramatic impacts on extreme weather events at lower latitudes.

WATER POLLUTION

Nitrate from agriculture is now the most common chemical contaminant in the world’s groundwater aquifers. These pollutants can also dramatically affect aquatic ecosystems. For example, eutrophication caused by the accumulation of nutrients in lakes and coastal waters impacts biodiversity and fisheries. Ocean dead zones with zero oxygen have quadrupled in size since 1950, suffocating the organisms that live in those areas.

SOIL LOSS AND DESERTIFICATION

More than 95% of what we eat comes from soil. It takes about 500 years to form 2.5 cm of top soil under normal agricultural conditions. Soil erosion and degradation have increased dramatically through deforestation for agriculture, overgrazing and the use of agrochemicals.

50% of the planet's topsoil has been lost in the last 150 years, leading to increased pollution, flooding and desertification. Desertification itself currently affects more than 2.7 billion people.

By 2050, land degradation and climate change together are predicted to reduce crop yields by an average of 10% globally and up to 50% in certain regions. Earthworms cannot compensate for the loss of topsoil as they too are being depleted by 80% or more from intensive agricultural fields. Several species of worms are extinct and many others are heading that way.

Current agricultural practices have led our soils to becoming more acidic. pH globally has acidified by an average of 0.26 in 20 years. Meanwhile groundwater irrigation is leading to increased salinity with recent projections warning that 50% of all arable land will become impacted by salinity by 2050.

IN SUMMARY

This is urgent! The published science tends to underestimate the severity of threats and the rapidity with which they might unfold.

We do not have 30 years to turn this around. The longer we wait to take profound and sweeping action, the greater the risk that we trigger feedback loops and reach tipping points, and start down an irreversible pathway towards a 'Hothouse Earth'.

It is clear that we should never have allowed things to get so bad. It is even worse when we realise that over half of all emissions in history have happened in the last 25 years, while our governments have been talking about dealing with the problem and preaching the fallacy of endless growth on a finite planet at the same time. Governments cannot be allowed to continue to kick the ball into the long grass by setting the date for decarbonisation at 2050. We need to start acting now. A 2025 target forces us to do that, whereas 2050 would condemn us to a bleak future.

The faster we act, the better. We are already too late to prevent massive destruction and loss of life. Climate-breakdown-induced droughts, floods, wildfires, typhoons and cyclones will be more frequent and severe.



Our current way of life is killing people and destroying communities right now. The question now is whether we can act in time to limit the damage – and hopefully avoid the horror of the worst-case scenarios. Most evidence suggests we still just about have time. 2050 is a generation too late. That would be unforgivable, and very likely catastrophic.

ACT NOW

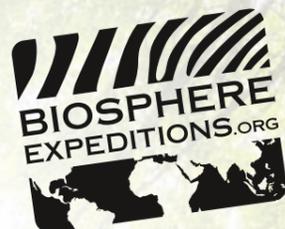
We are unprepared for the dangers our future holds. We face floods, wildfires, extreme weather, crop failure, mass displacement and the breakdown of society. The time for denial is over. It is time to act.

Conventional approaches of voting, lobbying, petitions and protest have failed, because powerful political and economic interests prevent change. What is needed is profound societal and system change. Historical evidence shows that this can be brought about by the involvement of 3.5% of the population – in the UK that is about 2 million people, in Germany 3 million, in the USA 11.5 million.

Go to the dark green section of the 20 tips (next pages) to see what you can do now and then act. The future of humanity and the biosphere depend on it. ■



20 TIPS FOR 20 YEARS



Biosphere Expeditions was founded in 1999 and to celebrate its 20th anniversary has created these 20 tips for 20 years.

In our first 20 years, we were focused on citizen science and wildlife conservation. We will continue with this focus, but this, we feel, is no longer enough. The undeniable crisis our planet is in demands more action and activism. It demands a radical rethink of how we run our lives, societies and the way we treat our planet.

On the following pages are some tips on how - from the light green of what we should all do as a bare minimum, to the dark green rejection of neoliberalism and the fallacy of endless growth, to joining the revolution that is gathering pace as we speak.

Because sitting on our hands is simply not an option any more. We have a duty to act if we want to be able to look our grandchildren in the eyes. On our 20th anniversary, we joined the revolution and we are becoming more activist for the sake of our planet.

Join us now!

The full text with explanations, background, references and links is also on www.biosphere-expeditions.org/20tips

★ CATEGORY 1 - LIGHT GREEN



Food - NO WASTE,
less/no meat
and regional/seasonal

Western societies and their food suppliers in particular waste an astonishing amount of perfectly good food (up to a third!). Try to minimise food waste at home and do not fall prey to “best before” rip-offs, which are aggressively promoted by the food industry to increase sales and profits. Also, reduce your meat intake drastically or go vegetarian for a few days a week (or completely). There’s a host of reasons why – health, climate change, carbon footprint, world hunger, compassion for animals, etc. Or go entirely plant-based (vegan) – with a few precautions, this can be even healthier, more compassionate for animals and better for the planet. Finally, eating regional and seasonal food is healthy, kind to your budget and kinder to the planet through reducing supply chains and carbon footprint. It’s a no-brainer.

What Biosphere Expeditions does: All our expeditions are vegetarian, as are events and other things we organise as an NGO. We buy almost exclusively regional and seasonal food on our expeditions in order to support local economies and reduce our impact. We do the same at our events.

1



USE eco-friendly cleaning products in your house

Many cleaning products contain chemicals that are extremely harmful to the environment and its inhabitants, including humans. **Eco-friendly cleaning products** are an easy alternative and solution.

What Biosphere Expeditions does: We work hard to purchase eco-friendly cleaning products wherever they are available and encourage our partners (e.g. expedition accommodation and assembly points) to do the same.

4



SAVE energy

There are **many ways to do this**; most of them are easy and much of this is about creating new habits that are kinder to the planet (and your budget).

What Biosphere Expeditions does: On our expeditions and administrative locations, we have strict energy saving policies and regimes.

2



SAVE water

Just like saving energy, this is about changing habits and there are hundreds of tips **available online**.

What Biosphere Expeditions does: Just like with energy, our expeditions and administrative locations have water saving policies and regimes.

3



USE eco-friendly hygiene products

The **Campaign for Safe Cosmetics** has created Skin Deep, a searchable online database of cosmetics and personal care products where you can check your sunscreen, shampoo, deodorant, shaving cream and more for toxic ingredients

What Biosphere Expeditions does: We encourage expedition participants (and staff) to bring only eco-friendly/biodegradable personal hygiene products on expedition.

5

★ CATEGORY 1 - LIGHT GREEN



Say **NO** to bottled water

The Independent (a UK broadsheet newspaper) has called bottled water one of the **"biggest scams of the century"**. Just don't do it in regions where tap water is a perfectly safe alternative. Buy a non-plastic refillable container instead.

What Biosphere Expeditions does: Bottled water is a big no-no on expedition. Where local water is not safe to drink, we use large, re-usable containers instead wherever possible.

6



DON'T use disposable tea/coffee cups

The billions of disposable coffee cups thrown away each year are a **waste of resources and harm forests** in particular. Say no to the throwaway culture and switch to *reusable coffee cups* instead.

What Biosphere Expeditions does: We simply don't use throwaway cups.

7



REDUCE the amount you print

The **environmental impact of paper** is significant. At the same time it's **easy to reduce paper use**.

What Biosphere Expeditions does: We have gone largely paper-free in our administration; on expedition we do use more paper (datasheets, field guides, safety information, etc.), but we minimise this and recycle wherever possible.

8



RECYCLE more - check the domestic recycling system that you can use and use it well

Your local area administration will have details on its recycling scheme. Use it and make doubly sure you don't just throw away **toxic household waste** such as batteries, paints, oils, etc., but dispose of them properly.

What Biosphere Expeditions does: Our administration locations are on full recycling schemes; on expedition we use whatever recycling scheme is available locally and take home with us the most toxic waste (batteries etc.) to be disposed of properly there.

9



CREATE biodiverse gardens

Biodiversity is under threat like never before, populations of insects, birds and other species are collapsing at unprecedented rates, a **UN report from May 2019** talks of unprecedented decline with species extinctions increasing. There is no doubt that our planet is now in the midst of its **sixth mass extinction of plants and animals** - the sixth wave of extinction in the past half-billion years. It may all sound like doom and gloom, and it is serious, but there are things you can do in your backyard to stem the tide and **create a garden for native biodiversity**. Leave lawns uncut and allow native plants to populate areas of your garden – weeds are only a matter of definition! Give them and other native plants a home and allow your garden to go wild. Nature conservation really does begin in your backyard!

What Biosphere Expeditions does: We tackle the problem from the other end, by not having centralised office space, which needs buildings that destroy green spaces. Instead we work with existing business centres around the world and run a highly decentralised operation with people working from home (or in the field) for the overwhelming majority of their time. We encourage staff and partners to create as many green spaces as possible and educate them about biodiversity gardening.

10

VISIT protected natural areas and join organisations that look after them



The more that protected areas are used, the bigger the incentive for governments and individuals to work to keep them intact. And joining organisations that care for wilderness, will give them money, motivation and a voice to talk to government – a membership organisation with one million (the **Royal Society for the Protection of Birds** in the UK is one example) will be listened to by politicians who want to stay in power. The more people we have supporting nature conservation organisations, the better.

What Biosphere Expeditions does: We work with nature conservation organisations around the world and we **help to create protected areas and empower local people and organisations to care for them**.

11

VOLUNTEER to support local people and organisations that look after the environment



Whether it is a local litter pick or helping the local school with a bit of wildlife gardening, your help will be much appreciated. And if you can't do the more physical tasks, try offering to help with tasks that you have skills in, such as talking to people at local shows or writing articles or distributing leaflets.

What Biosphere Expeditions does: We are one of those organisations, but there are **many, many more organisations** out there that need, deserve and will appreciate your support too.

12

★★ CATEGORY 2 - GREEN

This category is a darker shade of green. It requires more of an effort, but not much more. It is really what we should all do. It is where changing unsustainable habits of a lifetime starts and where we can turn the tide, because many small actions can add up to a movement. Take these as your first steps towards what comes next: being dark green (see points 18-20). Because really, that's where we all need to be if our planet is to make it through its current crisis.

SUPPORT conservation as an armchair citizen scientist



Help out with conservation work without leaving your own home. The **Zooniverse website** is a great place to start. Zooniverse is the world's largest and most popular platform for citizen science, people-powered research. The research is made possible by volunteers — by now over a million people around the world who come together to assist professional researchers with **great success**. Their goal is to enable research that would not be possible, or practical, otherwise, and they have many different types of research that you can help with. Many projects have produced unique **scientific results**, ranging from individual discoveries to classifications that rely on input from thousands of volunteers. Click on the 'Nature' projects to get a sample of the wildlife research that you can get involved with.

What Biosphere Expedition does: Citizen science is also what we are all about, but ours is on the more active, hands-on side of the spectrum (although we have some **home-based projects** too). The whole spectrum is important and armchair citizen science, **when done well**, is just as valid as expeditions in remote and challenging locations.

13

★★ CATEGORY 2 - GREEN

SUPPORT wildlife surveys via citizen science apps



There is a host of citizen science apps to make records of things that you see in nature when you are out and about. A lot of conservation organisations now produce their own apps to help monitor a variety of species. The apps usually walk you through the survey process and how to identify different types of animals, so you can learn as you go. Some good examples from the UK are **Mammal Tracker** and **Bee Count**, but there are many available. And of course apps extend well beyond nature monitoring. For example, **citizen activism through air quality monitoring apps** has helped tackle air pollution across Europe. So there is much for you to get involved in!

What Biosphere Expeditions does: See point 13 above.

14

Be more ACTIVE in local nature conservation



Volunteer at your local nature park or reserve and help support organisations that look after our wild places. Many organisations will train volunteers to undertake physical work such as scrub removal or tree planting, as well as organising surveys of different species, so go along to your local nature organisations and see if you can take part in some invasive plant removal or a butterfly survey, or help count frogs, birds or a myriad of other species.

What Biosphere Expeditions does: Just that, only in more remote and challenging places abroad.

15

MAKE your holiday count



Combining conservation with your holiday is a growing trend. Combining some time away from work or domestic chores with a great outdoors experience is good for our mental health as well as the environment. NGOs such as **Blue Ventures**, **Operation Wallacea** and Biosphere Expeditions organise trips to many places around the world in support of scientists working in remote and challenging places so that you can work alongside them and help them out in the field. Remember not to fly, if at all possible, or, if you have to, make your flight really count!

What Biosphere Expeditions does: Combining citizen science, wildlife conservation and a different kind of holiday is the bread and butter of what we do. There are also many other organisations offering these kinds of experiences. But be aware that there are lots of charlatans amongst them, so check out our **Top Ten Tips** on how to choose an experience that's great for you and for the planet.

16

LEARN more about the crisis our planet is in so that you can instigate change and become an advocate for nature



Just search the internet for **"sixth extinction"** or **"climate change"** or **"planetary crisis"**. Much is being written about this at the moment – and for good reason. It's good that the world is waking up to what is happening and you can be amongst those spreading the word, often in informal ways. So arm yourself with facts about the current state of nature and the most effective ways that people can help.

What Biosphere Expeditions does: We are part of this process and on our 20th anniversary have added activism, such as this campaign, to what we do for nature. In our first 20 years we were focused on citizen science and wildlife conservation. This is no longer enough, because the **undeniable crisis our planet is in** demands more action and activism. It demands a radical rethink of how we run our lives, societies and the way we treat our planet.

17

★★★ CATEGORY 3 - DARK GREEN

The sixth extinction, climate breakdown and general crisis our planet is going through are serious, threatening nature and our lives as we know them today. So we must be serious too and this category demands commitment. And indeed, we need nothing short of a revolution if we are to come out of this intact as the human stewards of our planet. It may seem like a long shot now, but remember that things always seem unchangeable right up to the moment when a revolution starts and society flips from one state to the next. With this dark green category, you are putting yourself on the right side of history and you will have an answer when the next generation asks you what you did to prevent our planet from sliding into disaster.

ASSESS your carbon footprint and act



Human demands on the earth are now well beyond unsustainable. It is estimated that by 2030 (and this is not far away) the world will need 30 percent more water, 40 percent more energy and 50 percent more food if it continues on its current trajectory. This is disastrous and things will need to change, especially in our western world of high impact and consumerism. Focusing on your personal carbon footprint is a good place to start. Use one of the many calculators (e.g. **WWF, Carbon Footprint, C2ES, Earth Day**) and, most importantly, act on their recommendations on how to reduce your footprint. Walk and cycle more, use public transport, become vegetarian or vegan, only use aeroplanes when you have to (and when you do, make your flights count), take offset action, etc. Be mindful of your actions and research what you personally can do to reduce your footprint.

What Biosphere Expeditions does: We have strict procedures to minimise our carbon footprint and offset what is left with **Climate Care**. We encourage our staff, expeditioners and partners to do the same. We make them aware of the concept of carbon footprint too and take action ourselves. Our **expeditions are now all vegetarian** too.

18

REJECT the destructive and disastrous ideologies of neoliberalism and continuous growth



You might not even know what **neoliberalism** is, but it is the elephant in the room. Financial meltdown, environmental disaster and even the rise of Donald Trump – **neoliberalism has played its part in them all**. This **ideology has failed us and the planet** and has given rise to **destructive corporate power**. It is the **largest Ponzi scheme in Earth's history** and **no longer fit for purpose**. It is connected to the irrational and irresponsible idea that we can have endless growth on a finite planet – in fact it needs this impossible fantasy to keep it alive. Reject it! Reject it in favour of **doughnut economics**, whereby social and ecological factors are equally respected. At the moment, one (social progress such as better health, jobs, and education) is built on the sacrifice of the other (ecological systems). With **doughnut economics** the two can thrive together. Elect politicians who support doughnut economics, buy from firms who build the concept into their business strategies and support campaigns that promote human welfare within planetary limits. Arm yourself with facts and be an activist in educating people about destructive neoliberalism and its healthier alternatives.

What Biosphere Expeditions does: We reject neoliberalism in our **economic policy** and act accordingly. We reject continuous growth and in the end we want to make ourselves redundant by empowering local people and communities. We educate those around us through campaigns like this.

19

★ ★ ★ CATEGORY 3 - DARK GREEN

JOIN THE REVOLUTION!



It has been argued that *only rebellion will prevent ecological collapse*, and we tend to agree. So get politically active! Tell your politicians and leaders what you think and ask them to do more of the things you care about. Join revolutionary organisations based on peaceful resistance and civil disobedience (such as *Eradicating Ecocide*, *Client Earth* and *Fridays for Future*), because *facts about our ecological crisis are incontrovertible* and sitting on our hands is simply no longer good enough. We need *3.5% of the population to reshape society* and we have a *duty to act to save our planet from sliding into destruction, if we want to be able to look our grandchildren in the eye!* Be on the right side of this revolution and join us now!

What Biosphere Expeditions does: On our 20th anniversary, we joined the revolution and we are taking action, because our planet needs all the help it can get. Join us now!

20

See www.biosphere-expeditions.org/20tips for the 20 tips with links to background information and action ideas ■



EXPEDITIONS A-Z



ARABIA

ARABIA - United Arab Emirates

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

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

Expedition contribution	Duration	Dates	Meeting point
€ 1480	8 days	18 - 25 Jan 2020	Dubai

More info www.biosphere-expeditions.org/arabia



ARMENIA



ARMENIA

in cooperation with 

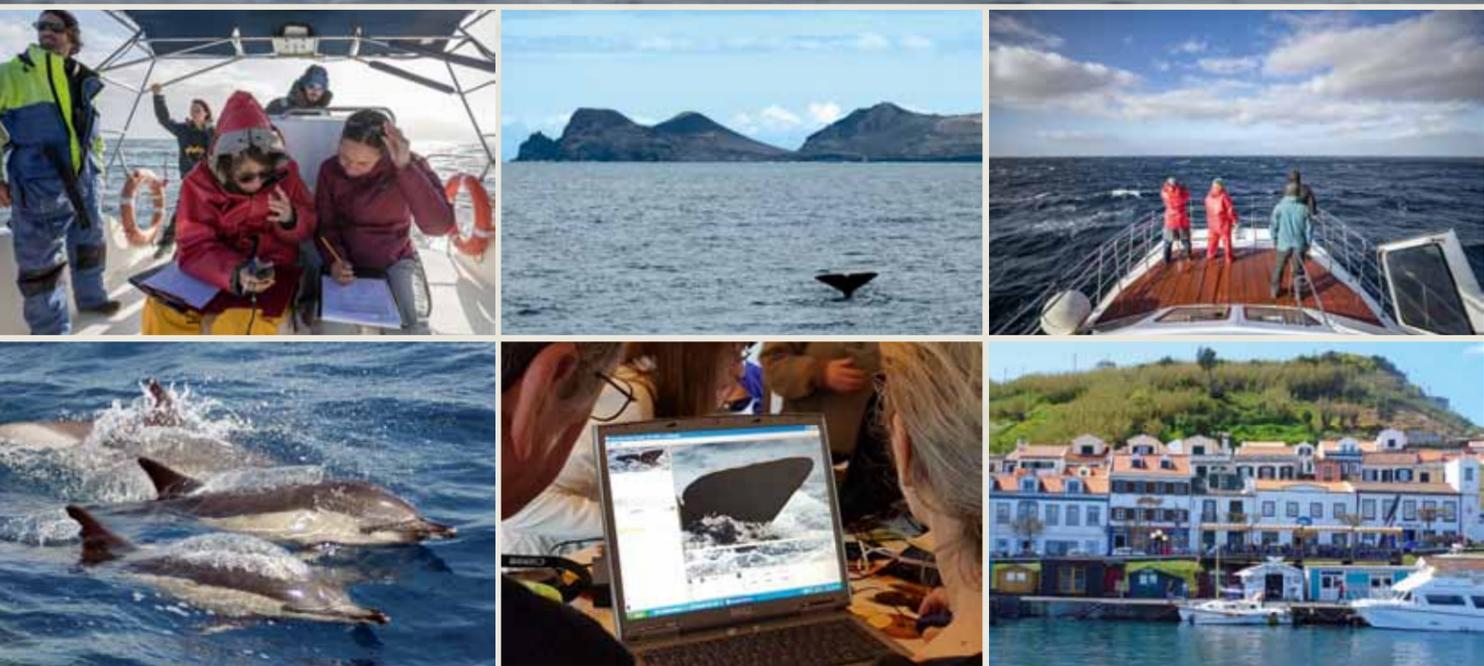
Surveying biodiversity: Leopard, lynx, bear, wolf and other species of the Khustup mountains in the Zangezur biosphere complex

This mountain biodiversity survey will take you to the remote, spectacular and beautiful Khustup Mountains in the Zangezur Biodiversity Complex of Armenia. There you will record leopards, lynx, bears, wolves, ibex, birds and other indicators of biodiversity in an effort to assist local NGOs and authorities in their work of wilderness and wildlife protection. You will be working as part of a small international team from a tent base camp at 1,980 m (where altitude sickness is not an issue). You will be covering ground in the expedition vehicles and on foot, looking for tracks, kills, scats and the animals themselves, and setting camera traps. A true expedition-style base camp, off-road driving and the breathtaking high mountains make this a challenging, but very rewarding expedition.

Expedition contribution	Duration	Dates	Meeting point
€2340	13 days	10 - 22 May 2020	Yerevan
€2340	13 days	24 May - 5 Jun 2020	Yerevan

More info www.biosphere-expeditions.org/armenia

AZORES



AZORES - Portugal

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

This whale, dolphin and turtle conservation expedition will take you to the remote and spectacular Azores Archipelago in the middle of the Atlantic Ocean to study whales, dolphins and loggerhead turtles. You will photograph sperm, blue, fin, Sei, humpback and minke whales, as well as bottlenose and Risso's dolphins you come across and record them for local and international monitoring databases. You will also listen to whale and dolphin vocalisations. If sea conditions allow, you may also capture loggerhead turtles in the open ocean using nets and then measure, tag and release them as part of an international tagging programme. All this in an effort to elucidate the animals' life histories and migration patterns across the oceans and assist with the formulation of effective conservation and management strategies. You will spend the day on a modern catamaran research vessel out at sea and your evenings and nights at an historic and comfortable guesthouse in the town of Horta on Faial Island.

Expedition contribution	Duration	Dates	Meeting point
€1790	10 days	1 - 10 Apr 2020	Horta, Faial Island
€1790	10 days	12 - 21 Apr 2020	Horta, Faial Island

More info www.biosphere-expeditions.org/azores

COSTA RICA

COSTA RICA

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

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

Expedition contribution	Duration	Dates	Meeting point
€1790	8 days	4 - 11 May 2020	San José

More info www.biosphere-expeditions.org/costarica



© Georg Berg

GERMANY

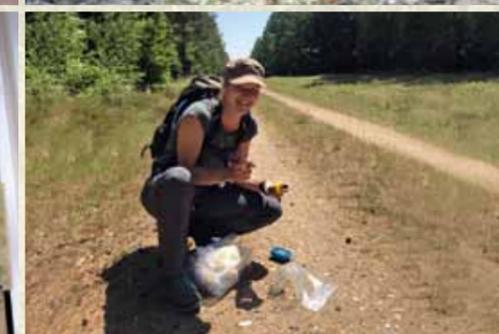
GERMANY

Love / hate relationships: Monitoring the return of the wolf to the German state of Lower Saxony

This wolf volunteering expedition will take you to the beautiful lowlands of Lower Saxony, a federal state in northern Germany, to help monitor and protect the returning wolf population. Working in small teams mainly around the famously picturesque Lüneburger Heide (Lüneburg Heath), you will record signs of wolf presence such as tracks and kills, as well as survey prey species such as deer and wild boar. You will also camera-trap the animals and collect samples to study wolf diet and for genetic analysis. The expedition base is a historic and remote manor house hotel with all modern amenities, right on the edge of the Lüneburg Heath.

Expedition contribution	Duration	Dates	Meeting point
€1890	7 days	18 - 24 Jul 2020	Bremen
€1890	7 days	25 - 31 Jul 2020	Bremen

More info www.biosphere-expeditions.org/germany



KENYA



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KENYA

Beyond the big five: Defending the Kenyan Maasai Mara from biodiversity loss

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

Expedition contribution	Duration	Dates	Meeting point
€ 2880	13 days	2 - 14 Feb 2020	Nairobi
€ 2880	13 days	16 - 28 Feb 2020	Nairobi

More info www.biosphere-expeditions.org/kenya



© Chris Taylor

MALAWI



MALAWI

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

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

Expedition contribution	Duration	Dates	Meeting point
€2480	13 days	20 Sep - 2 Oct 2020	Lilongwe
€2480	13 days	4 - 16 Oct 2020	Lilongwe

More info www.biosphere-expeditions.org/malawi

MALDIVES

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

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

Expedition contribution	Duration	Dates	Meeting point
€2480	7 days	15 - 21 Aug 2020	Malé

More info www.biosphere-expeditions.org/maldives



MALDIVES



SOUTH AFRICA



SOUTH AFRICA

Carnivores of the Cape Floral Kingdom: Surveying Cape leopards and biodiversity in the fynbos mountains of South Africa

This expedition will take you to South Africa's beautiful Cape Floral Kingdom (fynbos), a UNESCO World Heritage Site and the world's only biome contained within one country, to conduct a survey of leopard and fynbos biodiversity and to experience African fauna (such as buffalo, giraffe, eland, kudu, zebra, etc.). Based in a remote mountainous part of the Western Cape on a comfortable former farmstead with all modern amenities, you will first learn some bush skills and then conduct surveys on foot, mountain bike or car. You will also set camera traps, conduct game counts and you may assist with cat capturing and collaring, and other studies that may be ongoing at the research site at the time, such as bird, tortoise or flower monitoring. All this in an effort to mitigate human-wildlife conflict and create a sustainable future for all.

Expedition contribution	Duration	Dates	Meeting point
€2260	13 days	6 - 18 Dec 2020	George

More info www.biosphere-expeditions.org/southafrica

SWEDEN

SWEDEN

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

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

Expedition contribution	Duration	Dates	Meeting point
€1890	8 days	15 - 22 Jun 2020	Mora

More info www.biosphere-expeditions.org/sweden





THAILAND

Elephant encounters: Studying Asian elephants in the hills of northern Thailand to increase their welfare and conservation

This expedition will take you to the tropical highlands and Himalayan foothills in the shadow of Thailand's tallest peak (Doi Inthanon at 2,565 m). There you will conduct close-encounter behavioural and other studies on Asian elephants to make an important contribution to elephant conservation in Thailand. Our study elephant herd lives in the forested area surrounding a remote hill tribe village, where the expedition is based in the community. The expedition will also work on general biodiversity monitoring, as well as education, capacity-building and incentive creation for local people, which are all vital if elephants are to have a future in Thailand living side-by-side with humans.

Expedition contribution	Duration	Dates	Meeting point
€1980	9 days	2 - 10 Nov 2020	Chiang Mai

More info www.biosphere-expeditions.org/thailand

THAILAND



TIEN SHAN



TIEN SHAN - Kyrgyzstan

in cooperation with 

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

This snow leopard conservation project will take you to the remote, spectacular and beautiful Tien Shan mountains of Kyrgyzstan to survey snow leopards, as well as their prey animals such as the argali mountain sheep, the Central Asian ibex, marmots and others. You will be working as part of a small international team from a mobile tented base camp set at various locations and altitudes of around 2000 m (where altitude sickness is not an issue). You will be covering ground in the expedition vehicles and on foot, looking for tracks, kills, scats and the animals themselves, and setting camera traps. True expedition-style base camp conditions, testing but satisfying mountain surveying, off-road driving and the breathtaking high mountains make this a challenging, but very rewarding expedition.

Expedition contribution	Duration	Dates	Meeting point
€2470	13 days	22 Jun - 4 Jul 2020	Bishkek
€2470	13 days	6 - 18 Jul 2020	Bishkek

More info www.biosphere-expeditions.org/tianshan

BE (RADICALLY) GREEN

www.biosphere-expeditions.org/20tips

CAMPAIGNS



DO MORE FOR THE PLANET!

www.biosphere-expeditions.org/domore

BEAT THE VOLUNTEER CHARLATANS

www.biosphere-expeditions.org/10tips

EVENTS

www.biosphere-expeditions.org/events

DO MORE



Whether you are back from an expedition and want to do more, or interested in lending a hand, there is more you can do for the planet, for yourself and for Biosphere Expeditions. Here's how.

The full text with explanations, background, references and links is also on www.biosphere-expeditions.org/domore

BE (radically) GREEN



1 The *undeniable crisis our planet is in* demands more action and activism. It demands a radical rethink of how we run our lives, societies and the way we treat our planet.

Our 20 tips on how to be (radically) green go from the light green of what we should all do as a bare minimum, to the dark green rejection of neoliberalism and the fallacy of endless growth, to joining the revolution that is gathering pace as we speak. Turn to page 22 or to www.biosphere-expeditions.org/20tips to see our tips in detail.



SPREAD THE WORD

www.biosphere-expeditions.org/domore#words

2 Help us to help wildlife and people across the world by spreading the word. Word of mouth is by far the best way to get people excited. Talk to your family, friends, and colleagues about your experience and encourage them to join in too.

Social media

Share your experience, comments, pictures, videos on your social media and ours. This really does help to spread the word about us and our conservation work.

Testimonials

Independent reviews are very important for us, not just for those thinking about joining an expedition, but also for our staff, scientists and partners who draw great motivation and encouragement from them. So we would be very grateful if you could write a review on our [Facebook review page](#) and/or on [GreatNonProfits](#).

Hold events & talks

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

Work with your local media

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

Blogs

Are you a blogger? If so, why not create a blog about Biosphere Expeditions and/or your expedition experience and link it through to us. This will also help to get the word out there. If you do create a blog, make sure you let us know about it, so we can link back to you.

Picture & video sharing sites

Videos and pictures work really well in getting people's attention. If you are putting your expedition pictures or videos on a sharing site such as Instagram or YouTube, then please also make sure you link through to us or tag your pictures to Biosphere Expeditions as this will also help to spread the word.

Video diaries

We would like to build up a library of expedition team members personal video diaries. There are no limits to your creativity other than we ask that your final cut is no longer than 6 minutes.



CONTRIBUTE YOUR TIME & SKILLS

www.biosphere-expeditions.org/domore#skills



3 We always need people with skills who can help us out. Examples are skills in the outdoors, accounting, graphic design, IT, social media, research, etc.

JOIN THE FRIENDS OF BIOSPHERE EXPEDITIONS

www.biosphere-expeditions.org/friends

4 The Friends of Biosphere Expeditions are people who feel passionate about providing continuous support to our critical wildlife conservation and research projects across the globe. By joining the Friends you can play a vital part in making a real difference to the survival of our planet's endangered species.

If you can't take part in a full-blown expedition 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 become a Friend of Biosphere Expeditions today!

Help us to support critical wildlife conservation and research projects across the globe from a monthly membership fee starting at €10 | £10 | US\$12 | AU\$15. Depending on your country of residence, your membership fee may be tax-deductible (for example membership fees to our US 501(c)(3) charity, or our German e.V. charity, where we can issue tax-deductible receipts.

To join the Friends, just send us an e-mail. We will then sort out the rest together.

Membership benefits

Friends membership benefits include expedition and events discounts, the Biosphere Expeditions Magazine, first notification and preference for last-minute expedition places, news and updates on how your membership fee is making a difference to our conservation work in the field and much more.

Where does my membership fee go?

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

Friends activities & successes 2019

Support from the Friends in 2019 has gone to three wolf ambassadors in Germany, seven local placements*, a laptop for our expedition scientist in Thailand and support for our Azores scientist to visit an international cetacean conference.



Kenny Kenner, a German wolf ambassador



Leonard Kinanta, a local placement in Kenya



Lisa Steiner at the international marine mammal conference in Barcelona

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



DONATE

www.biosphere-expeditions.org/domore#donate

5 Our work on the ground of course continues after you have left. And this work can always do with more support, so you can make a tax-efficient* and project-specific donation via our **crowd-funding website** or straight into the accounts of our US 501(c)(3) charity, our German e.V. charity, or our UK or Australian non-profits.

*Depending on your country of residence, your membership fee or donation may be tax-deductible (for example membership fees or donations to our US 501(c)(3) charity, or our German e.V. charity, where we can issue tax-deductible receipts or German "Spendenbescheinigungen"). We also have a page on **employer match-giving and personal taxation**, which you may want to check.

In-kind donations

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



RAISE FUNDS

www.biosphere-expeditions.org/match-giving#fundraising

Involve your company

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

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

Some companies also have grants for non-profit organisations such as Biosphere Expeditions, so why not talk to relevant people in your company? You may have a Corporate Responsibility Manager, or an Environmental Manager or a Communications or Sustainability Manager who may be able to help you.

Direct fundraising

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



JOIN AN ETHICAL CITIZEN SCIENCE PROJECT

Locally

7 Volunteer at your local nature park or reserve and help support organisations that look after our wild places. Many organisations will train volunteers to undertake physical work such as scrub removal or tree planting, as well as organising surveys of different species, so go along to your local nature organisations and see if you can take part in some invasive plant removal or a butterfly survey, or help count frogs, birds or a myriad of other species.

Abroad

Combining conservation with your holiday is a growing trend. Combining some time away from work or domestic chores with a great outdoors experience is good for our mental health as well as the environment. NGOs such as *Blue Ventures*, *Operation Wallacea* and Biosphere Expeditions organise trips to many places around the world in support of scientists working in remote and challenging places so that you can work alongside them and help them out in the field. Remember not to fly, if at all possible, or, if you have to, make your flight really count!



And whatever you do, make sure you do not join a charlatan project! Read our **Top Ten Tips** on how to avoid those.



USE OUR AFFILIATES NETWORK

www.biosphere-expeditions.org/affiliates



8 You can also support Biosphere Expeditions through the affiliates network. Whatever the affiliate and our arrangement with them, commissions and perks gained from you using their services will always be ploughed back into our research and conservation work and to benefit our local partners wherever possible. ■



MEDIA CLIPPINGS 2019

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

 **Get Lost Magazine**

Five page feature about Costa Rica sea turtle expedition
<https://issuu.com/biosphere-expeditions/docs/cr-getlost19>



 **Stuttgarter Zeitung**

One page feature about Tien Shan snow leopard expedition
<https://issuu.com/biosphere-expeditions/docs/ts-stuttgarterzeitung19>



 **Action Asia**

Twelve page article about African adventures with a mention for Malawi African biodiversity expedition
<https://issuu.com/biosphere-expeditions/docs/mw-actionasia19>



 **Saga Magazine**

Two page feature Arabian desert expedition
<https://issuu.com/biosphere-expeditions/docs/ar-sagamagazine19>



 **Tauchen**

Four page feature about Musandam coral reef expedition and community-based conservation efforts
https://issuu.com/biosphere-expeditions/docs/2019_03_tauchen_reise_oman



 **The Biologist**

Four page feature about Costa Rica sea turtle expedition
<https://issuu.com/biosphere-expeditions/docs/cr-biologist19>



MEDIA CLIPPINGS 2019



 **Cameracraft**

Six page feature about Kenya Maasai Mara expedition
<https://issuu.com/biosphere-expeditions/docs/ky-cameracraft19/share>

 **Global Traveler**

Biosphere Expeditions is mentioned in a larger voluntourism piece
<https://issuu.com/biosphere-expeditions/docs/globaltraveler19>



 **Bradt Malawi**

Several mentions in Bradt guide Malawi
<https://issuu.com/biosphere-expeditions/docs/mw-bradt19>



 **Terra Mater**

Six page feature of Tien Shan snow leopard expedition
<https://issuu.com/biosphere-expeditions/docs/ts-terramater18>



 **Cosmopolitan**

Short mention of our Thailand elephant expedition
<https://issuu.com/biosphere-expeditions/docs/th-cosmopolitan19>



 **Junge Welt**

Half page feature about Tien Shan snow leopard expedition
<https://issuu.com/biosphere-expeditions/docs/ts-junewelt18>



 **National Geographic Traveller UK**

Short mention of Kenya Big Five and African biodiversity expedition
<https://issuu.com/biosphere-expeditions/docs/ky-ngtraveller19>



MEDIA CLIPPINGS 2019

 **Mindfood**

Two page feature of Costa Rica turtle expedition
<https://issuu.com/biosphere-expeditions/docs/cr-mindfood19>



 **North East Lifestyle**

Two page feature of Germany wolf expedition
<https://issuu.com/biosphere-expeditions/docs/de-northeastlifestyle19>



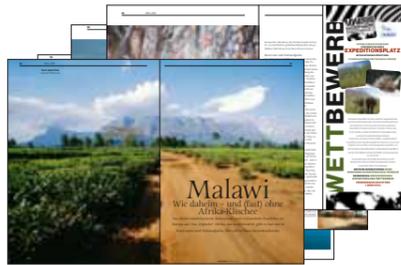
 **Augsburger Allgemeine Zeitung**

Full-page feature about Germany wolf expedition
<https://issuu.com/biosphere-expeditions/docs/de-augsburgerallgemeine19>



 **Universum**

Feature about Malawi biodiversity expedition
<https://issuu.com/biosphere-expeditions/docs/mw-universum18>



 **Terra Magazin**

Twelve page feature about Tien Shan snow leopard expedition
<https://issuu.com/biosphere-expeditions/docs/ts-terra19>



 **Oryx**

Seven page feature about Sweden expedition
<https://issuu.com/biosphere-expeditions/docs/sw-oryx19>



 **852 (Honkong airlines inflight magazine)**

Eight page feature of Maldives coral reef expedition
<https://issuu.com/biosphere-expeditions/docs/mv-852hongkongairlines19>



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www.biosphere-expeditions.org



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

Officially accredited member of



- UN Environment Programme
- International Union for the Conservation of Nature
- European Citizen Science Association

