



INTO THE BIOSPHERE

Biosphere Expeditions pride themselves on being able to offer adventurous holiday makers the opportunity to train in the use of Land Rovers off-road and contribute valuable man-power. Words and Pictures by John Henderson. Archive shots by Biosphere Expeditions

YOU HAVE a choice: you can go on a safari holiday and sit in the back of a vehicle driven by someone else and just look at the wildlife, or you can share driving the Land Rover yourself and help get co-volunteers to remote places to work on conservation projects.

If you are in the latter category, Land Rover's Sustainability Programme Partner, Biosphere Expeditions can make good use of your holiday time. Like fellow partner Earthwatch, which we featured last month, Biosphere helps bring scientists around the world together with volunteers who can provide vital manpower for conservation research projects.

But where Earthwatch vehicles are only driven by trained staff members, Biosphere offers volunteers the chance to drive, after local assessment and training, at their two most popular destinations, Namibia, in southern Africa, and the Republic of Altai on the northern shoulder of the Himalayas. In both places volunteers are helping scientists study big cats, but the similarity ends there.

Biosphere strategy director and co-founder Kathy Gill says the off-road driving in Namibia, the most popular location, is fairly easy and mostly on unmade tracks as they study leopards, cheetahs and caracals on private farmland, helping the animals and man to co-exist. Altai is totally different: for a start, Biosphere guarantees you will not see the snow leopards you are studying because they are so rare and elusive with each animal having a mountainous 100sq km

range. Volunteers look for signs of the animals and help study the suitability of habitat for them.

But Kathy enthuses: "The scenery is fabulous, like the Scottish Highlands on steroids, and the off-road driving is incredible. I went there this year and we went up to the 3,000 metre level. It's a two day drive from where we meet the volunteers and the first day is tarmac, the second is part tarmac and then you are in the wilds. It's incredibly remote."

She says the terrain is mostly 'hard grassland' intersected by rivers of various sizes. The rivers are fed by snow melt, so they change all the time, even during a day.

"They're low in the morning but high when you come back in the afternoon when the sun has been on the snow in the mountains," Kathy said. "If you cross one that's near the vehicle's limits in the morning, you'll be camping on the other side when you come back."

Kathy is obviously a Land Rover

“Two of the riskiest things on expeditions are getting into a vehicle and crossing rivers, and you're doing both at once”

and off-roading fan, but her life now must be very different from that envisaged when she gained her business degree.

Biosphere was the brainchild of German-born biologist Dr Matthais Hammer who became disillusioned with academia while studying for his PhD at Cambridge, then someone suggested he should charge people to go on expeditions with him and Biosphere began doing that in 1999. At first they used his academic contacts to find expeditions, but now they get 100 scientists a year approaching them.

Kathy joined him →

This page:
Defenders on the snow leopard expedition, Altai mountains, central Asia.

to make sure it could function as a business, albeit non-profit. She admits that at first she stayed home pushing paper while Matthais "went to exotic places", but then she trained as an off-road driver and a dive-team leader, as well as gaining expedition leadership skills under experienced Biosphere people.

natural born enthusiast

One wonders how many of her university colleagues can now say of their working life: "In Altai we had a lovely hill climb. It was about 45 degrees and I took it in low second, but halfway up it got steeper and I thought 'I hope that was a wise decision'. But when I got to the top my colleague driving the vehicle in front said, 'You did that in second!'. He'd chosen first and I was gaining on him towards the top."

Kathy is proud of having been properly trained to drive off-road by Land Rover Experience at Eastnor and in Wales. "They're marvellously experienced guys and, particularly

with things like winches, they've done it all," she said. "If you're doing anything with equipment you have to know what you're doing, especially with a vehicle. In addition, we're telling other people what to do.

"On the positive side, a vehicle is your lifeline if you're in the middle of nowhere, but it's also dangerous.

"You have to have the knowledge to say to people, 'what we're doing now is quite dangerous'. Two of the riskiest things on expeditions are getting into a vehicle and crossing rivers and you're doing both at once. Winches are vital to getting →





“I’ve had off-road instructors boring me going on about axle articulation but in the field you realise how important it is”

you out, but they’re also potentially dangerous.”

But she says most people do not think of a vehicle as a potential danger, and adds: “We also teach people how to use a machete to clear a path. People go ‘oh, big knife, really scary’ but they think a car is just a car, but it’s probably more dangerous than the machete.”

That is why even if you have an off-road driving qualification, you won’t just get behind a wheel on a Biosphere expedition. “You have to go through our course and show us you can do it,” she said. “It’s up to the leader to tick them off as sensible, not loony, but people with more experience will get more driving.”

adult capabilities

“We run expeditions for adults, so if someone can do something, they are left to get on with it because it frees us to do other things.”

Kathy says it’s amazing what a variety of skills volunteers bring. “It’s great when you get a computer whizz or someone good at processing figures,” she said. “You get a broken piece of equipment and someone says ‘I can fix that’.”

Many continue to offer Biosphere the use of their skills at home by joining support groups.

Volunteers also get training in how to use specialist research equipment, like tracking devices

Top:

Tracking a leopard in Namibia.

Above:

Discovery in the Altai mountains.

and remote cameras, and in how to gather the data scientists need. Those without off-road driving experience get introduced to it gently, building their skills and confidence on easier terrain.

Kathy says there are times when you have to firmly warn people they’re not doing it right and, at times, even insist they stop and hand over the vehicle. For example, on rock driving you often have to be guided over difficult bits by someone outside and Kathy believes some people do not have the temperament to give up a driver’s total control of a car by accepting that guidance. She says they have found it helps to get a new driver to walk a dry, boulder strewn riverbed, giving a commentary to an experienced person on the route they would follow. That also helps them see why you always walk a wet river crossing, because on a dry bed you can see what you need to avoid underwater.

pushed to the limit

Kathy stresses that in Altai, more than anywhere else, the Land Rovers are pushed to their full potential.

“I’ve had off-road instructors who’ve bored me going on about wheel articulation but in the field you realise how important it is,” she said. “We take them up steep

hills to get to the bottom of bigger mountains. The point of the vehicles is to get teams to the places where they can start a walking survey.”

In addition, all the expeditions on which Biosphere uses Land Rovers are tent-based, so they are carrying equipment as well as people to remote areas.

In some habitats, survey work may be done from the vehicles because you can see more from their height. A driver might be crawling along at 5mph with a couple of people sitting on the wings looking for tracks ahead of the vehicle while others in the back do prey animal counts.

Kathy says Land Rover’s support is vital. It supplies three Discoverys and a Defender for use in Europe, which are changed annually. These, including the vehicle Kathy is pictured with, are used for taster weekends, where volunteers are shown fieldwork, and to drive to Slovakia where they work on wolf and lynx tracking in the Tatra mountains.

They have a fleet of four Defenders in Namibia, which remain there all year round being used by the scientists when no Biosphere teams are there.

They also use Defenders borrowed from NSC in Brazil to study jaguars and pumas and Oman for work on Arabian leopards. The two Defender 110s used in Altai

this year were loaned by Land Rover Russia.

Vehicles are usually fitted with winches, but have few other modifications beyond things like removing mudflaps and side steps, both of which are damaged by Altai’s rocks. Non-Land Rover projects include coral reef protection in Honduras and Oman (for which you need a PADI diving certificate), whales, dolphins and turtles in the Azores and monitoring flatback turtles on Western Australia’s beaches. On all expeditions, volunteers arrange and pay for their own flights, on top of the fee charged by Biosphere, which covers training, accommodation and food in the field.

highly relevant work

The scientists leading the expeditions are from the host countries and projects are vetted by Biosphere before they get involved. The scientists must be connected to a national park, NGO or university.

“We make sure the work doesn’t just sit on a shelf,” Kathy emphasised. “It is used to alter and refine national parks and goes to governments to change policies.”

For example, the work volunteers have helped with has resulted in setting up protected areas in Altai and Ukraine, establishing boating

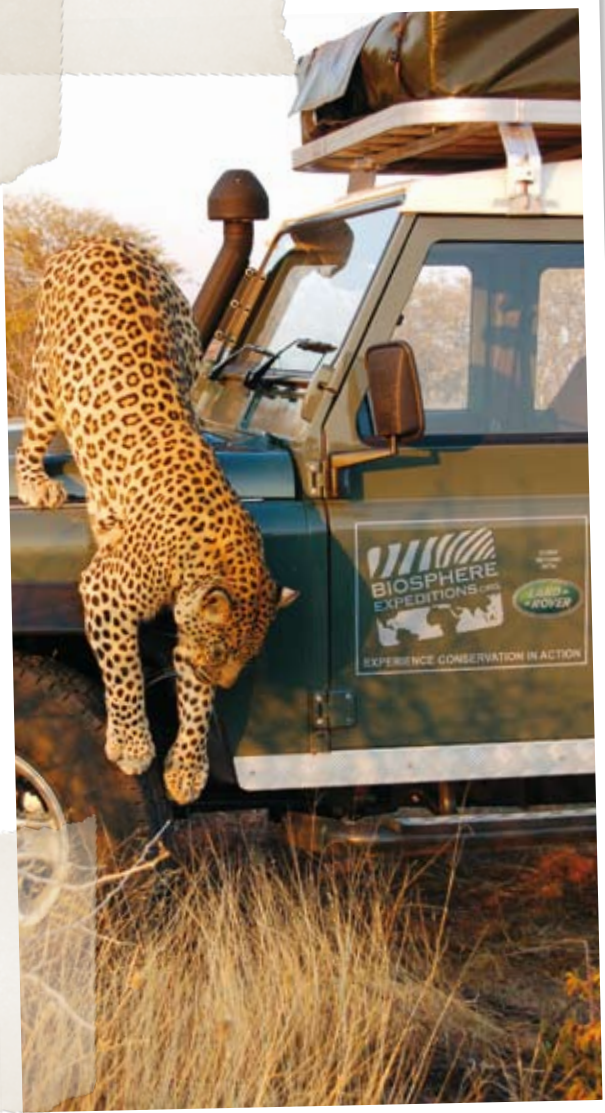


This page:
Land Rovers are used by Biosphere Expeditions’ research teams across the globe.





“ Data collected by volunteers against that from trained scientists revealed greater accuracy from the volunteers ”



guidelines in the Amazon basin, establishing a national jaguar action plan in Brazil and reversing an EU regulation on carcass removal at high altitude which was starving vultures and bears in Spain.

Kathy stresses that the work volunteers do is crucial to scientist's projects. "They can't get the work done without the manpower," she said. "If you go along with a party of 12 people, you've suddenly got 12 pairs of eyes going off, seeing things."

"They're doing things people can be trained to do very quickly. They just have to know the differences between species and if they have any doubts they have digital cameras and GPS so they can record it for someone to check later."

Kathy says the work of a research scientist is not like living in an animal documentary, seeing ten species in ten minutes. A lot of it is detailed work collecting data from a predefined area by walking, driving or diving along a transect, recording what you see there. It is a requisite of all conservation work that you must know what is there to conserve it or to show whether a

site needs protection and, if so, what its boundaries should be. Getting that sort of data means covering a large area.

Providing those people is what Biosphere does. Kathy explained: "The principal is that we're harnessing people's desire to do something for the environment."

"We have the ability to change things and Biosphere offers one way to make a difference. But you don't have to become a scientist and take three months off, you can be an ordinary person and take a holiday doing something positive."

A study comparing data collected by volunteers against that from trained scientists revealed greater accuracy from the volunteers. At Biosphere that wasn't a surprise and Kathy says: "Because they're volunteers they're more motivated and concerned about getting it right."

"The people who come, come for a huge variety of reasons, from being very passionate about the species we're studying, or the environment, to just wanting to do something different on holiday."

Driving a Land Rover through leopard country certainly sounds different.

LRM

SAVING THE WORLD

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 Biosphere Expeditions: www.biosphere-expeditions.org
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