



GUIDE FOR FIELD WORKERS OR LOGISTICS CO-ORDINATORS INTERESTED IN COLLABORATION

FAQs

1. What are the guiding principles for collaboration?

First of all, a joint expedition stands and falls with genuine scientific research or conservation projects that Biosphere Expeditions can either assist with or that are specifically designed for Biosphere Expeditions' citizen scientists and led by a qualified (and preferably local) scientist/biologist. So, a local scientist/biologist with an existing project that will benefit from citizen science help is ideal. If this is not possible, we can work with a local scientist/biologist on creating such a project or training a local scientist/biologist in how to conduct such projects. Without a local scientist/biologist with an existing project that will benefit from citizen science, it will not be possible to create a joint expedition.

Secondly, we want to be driven by genuine local demand for the conservation project as much as possible. This includes involving local people and services as much as possible, when the expedition is on site (for example the breeding or rutting season if this is of interest to the biologist, or coming in different season across expedition years – e.g. March in year 1, April in year 2, May in year 3 etc.), exactly what the tasks for the citizen scientists are (we do not collect data just for the sake of it, there must be a scientific/conservation reason and plan), where the expedition stays (in or near the study site), how long we come for (only for a week or two if the local scientist/biologist does not have more time, longer if they do) etc.

Thirdly, we do not pretend. There must be a clear scientific/conservation plan and reasoning for the work we do, as well as a desired outcome and goal that the expedition can work towards (for example creating a protected area, gathering data for a scientific publication in a peer-reviewed journal, solving a human/wildlife conflict, gathering data for conservation actions etc.). Each expedition must be written up by the local scientist/biologist in an expedition report that shows what data were gathered, how they have been analysed, the conclusions and conservation actions that arise from the analysis and a resulting plan for the next expedition. Examples of such expedition reports are on <https://www.researchgate.net/lab/Biosphere-Expeditions-Matthias-Hammer> (Biosphere Expeditions writes chapter 1, the local scientist/biologist all subsequent chapters).

Fourthly, the project must be suitable to simple citizen science tasks that we can teach untrained and unskilled people within 1-2 days. Tasks well suited to this are camera trapping, transect work with major species identification, interviews of local people about wildlife with the help of a translator, live trapping activities, surveys using iNaturalist or similar citizen science apps, tracking and scat collection activities. Skills that are also often taught during the training phase of the expedition include 4x4 driving, GPS map reading and other navigation skills.

Lastly, any project must include a “sexy” flagship species that can act as a rallying point for interest and recruitment. Next to the flagship species, other species and surveys are possible as required by the local scientist/biologist. Past expedition examples include (1) a big cat study (lion, leopard, cheetah) in Africa next to a biodiversity survey using iNaturalist, (2) a snow leopard study in the

Tien Shan mountains next to a bird survey by birder citizen scientists or (3) an elephant study in Thailand next to a biodiversity survey using iNaturalist concentrating on insects. Also possible are exciting habitats with a multitude of interesting species. Past expedition examples for this include (1) a sandy desert biodiversity study in Arabia concentrating on oryx and gazelles or (2) a coral reef survey. You can also look at <https://www.biosphere-expeditions.org/availability> for an overview of current expeditions to give you an idea of what works.

Having said all this, we are not a safari company, so actually seeing the flagship animal is not a requirement. For example, on our snow leopard expedition, citizen scientists never see the study animal. The best they can hope for is a camera trap picture or collecting scat, which DNA analysis later confirms as snow leopard. We are very clear about this when we promote the expeditions and in their documentation.

2. What's the process from first contact to first expedition and how long does it take?

We are not in a hurry to create new expeditions and expect the local scientist/biologist to drive the process forward as this is also an indication for us on how important a joint expedition project is to them. Depending on how committed the local scientist/biologist is to this process, it can take anything from one to three years from first contact to first expedition in a multi-stage process as follows:

Initial contact, support materials and talk: During this phase, we expect the local scientist/biologist/contact to read and study all the explanatory materials we send them, including this document. Once the local scientist/biologist is familiar with how we operate and what we need, we can have an online meeting to discuss projects (study animals, habitats, research work and the reasoning behind it).

Short proposals: The local scientist/biologist/contact can then come up with one or several proposals for joint expeditions. These should be a paragraph long and include rough details about study animals, habitats, research work and the reasoning behind it, research goals, expedition base and facilities and a rough idea of costs. These proposals are then assessed in discussion and whittled down to those that will be developed further.

Stage 1 proposal: This is a more formal 2-3 page proposal following separate guidelines by Biosphere Expeditions, which you will be given. If everything still looks good and doable after assessment of the stage 1 proposal, we will move onto...

Stage 2 proposal: This is a full proposal which goes into all details of the joint expedition, following separate guidelines by Biosphere Expeditions, which you will be given. It will include multiple documents on the expedition, its research work, safety, financing etc.

Reconnaissance visit: Once the stage 2 proposal is assessed and deemed realistic and achievable, we will organise a reconnaissance visit with the local scientist/biologist/contact. By that stage, we will have done all the paperwork and legwork and the visit will be about checking and verifying things on the ground and signing a collaboration MOU. 90% of all projects that make it to this stage, will result in a joint expedition, so if you make it this far, the odds are very good.

Expedition online: Once the MOU is signed, the expedition goes online. We then need from 6-12 months to recruit a team and it is essential that we catch the period Dec/Jan/Feb as this is when people think about what to do with their holiday time. So, if we put an expedition planned for July online in November, the chances of recruiting enough people are good.

We are here to assist the local scientist/biologist/contact with drafting all of the proposals mentioned above, but expect them to drive the process forward. Speed of progress will depend by and large on the writing, drafting and submission speed of the local scientist/biologist/contact.

3. How long does an expedition last?

To fit in with usual holiday patterns, expedition groups last between 6 – 12 days, not longer. One expedition can consist of several such 6 – 12 day groups, usually organised back-to-back. Again, we want to be driven as much as possible by what the local scientist/biologist/project needs. A very popular expedition would be five groups of 12 days each year, but we also run smaller expeditions of one group of one week per year, if there is not much demand or if the local scientist/biologist/project does not need more help or does not have more time each year. If there are four or five groups in one expedition year, we try to have a week break in between for staff to visit their families and to re-org/group.

4. How big are the groups?

Again, we want to be driven as much as possible by what the local scientist/biologist/project needs. Groups larger than 12 citizen scientists are difficult to recruit and handle, and groups smaller than seven are usually not economically viable. However, this is an indication only and Biosphere Expeditions is prepared to fit in with the local scientist/biologist/project needs and timings as much as possible.

5. What kind of people come and how are they supervised?

Biosphere Expeditions citizen scientists are usually 40+, cash-rich/time-poor, well-travelled professionals from Western Europe, North American and the Antipodes (more details, see <https://www.biosphere-expeditions.org/faq#participants>). They are by and large capable adults and we treat them as such. This means that, after the 1-2 day training phase, we send them out in small groups without supervision on data collection tasks. For example, we would put two people in a car, tell them where to drive and where to put up camera traps, collect scats, conduct a survey etc. and let them get on with it. Everyone meets back at base in the afternoon/evening and we will have appropriate safety protocols and communication devices in place, but it is not a disaster if people get lost for a while before finding their way back. Biosphere Expeditions is not driven by fear of litigation. An exception to this rule would be due to safety concerns. For example, a group surveying on foot in the African savannah will need an armed ranger with them.

In terms of fitness, the 40+, cash-rich/time-poor, well-travelled professionals from Western Europe, North American and the Antipodes described above will have varying fitness levels, so projects that are suitable for a variety of fitness levels are good. For example, shorter or longer survey routes for biodiversity survey or scat collection transects, or a variety of tasks on one expedition such as putting camera traps into mountains (for the fittest people), to shorter biodiversity surveys in the hills (for medium fit citizen scientists), to stationary marmot surveys on interviews in the valley (for less fit people). Having said this, if the project requires a certain fitness level, then minimum levels can be defined in the expedition documentation (for example, ability to walk 10 km each day in steep, mountainous terrain).

6. What staff does Biosphere Expeditions send or recruit?

The most important staff are the local scientist/biologist and the expedition leader. We always send an expedition leader with each project. Their job is to organise safety, logistics, daily planning, quality assurance (making sure that citizen scientists get to do what we promised in the surroundings we promised), communication with head office, writing a blog about the expedition (see <https://blog.biosphere-expeditions.org/>). It is also their job to support the local scientist/biologist (for example with organising teams, activities and data entry) and keep their back clear to concentrate on the science (for example if citizen scientists are troublesome or don't get on and need to be re-grouped, which happens rarely).

Next to the local scientist/biologist and the expedition leader, we recruit staff (wherever possible local) such as cooks, rangers, guides, porters etc. as needed.

All staff are funded by Biosphere Expeditions. The local scientist/biologist is by and large employed by a university, NGO, government or similar already and in most cases does not receive a salary from Biosphere Expeditions. Instead, they appreciate the data gathering power, project support and logistics organisation we bring to enhance their project. Having said this, there is sometimes scope to pay the local scientist/biologist some compensation for being away full-time on the expedition.

7. What equipment does Biosphere Expeditions bring?

Basically, we bring and fund all equipment needed. This includes (hire) cars, base camp equipment, research equipment such as GPS, camera/live traps, radios, satellite phones etc. Obviously, there are limits to what can be funded, but by and large everything is provided. If a lot of equipment is required, for example a large number of camera traps, then purchase of these can be spread over multiple expedition years.

There is also the option of leaving equipment on site for the local scientist/biologist/project to use throughout the year, provided lost and damaged equipment is replaced and ready for the next expedition rotation.

8. What are the requirements for the expedition base?

Our teams do not need luxuries. What they do need is a maximum of two people per room, no more. Because our citizen scientists are 40+, cash-rich/time-poor, well-travelled professionals from Western Europe, North American and the Antipodes, dormitory accommodation is not acceptable. The base should have space to accommodate up to 12 citizen scientists + 1 expedition leader + 1 expedition scientist + support staff as required in max. two persons per room, ideally in rooms that can be converted from twin beds to double beds for couples.

Also, we only serve vegetarian food (no meat, fish, chicken or anything that requires an animal to be killed for food). We do not cook our own meals as this takes too much time away from research work, so we require a cook. We usually only require two vegetarian meals per day: A large buffet breakfast from which citizen scientist make themselves a lunch pack to take into the field. This maximises our data collection time in the field and relieves pressure on the cook. The second cooked meal is a full vegetarian dinner. Locally-sourced food and dishes are preferred and we are very flexible on meal plans.

Finally, we require base camp exclusivity, because we want to give people a unique, expedition-feel experience. This means we will not share accommodation with “normal” tourists, for example by taking out rooms in a normal hotel or hostel. A research station with other biologists present in low numbers is, however, acceptable.

Other than that, we do not need luxuries and have stayed in anything from a luxurious liveaboard yacht for a diving project, to hiring out a whole guesthouse in the harbour town in which the research vessel for daily whale & dolphin surveys is based, to taking over a research station with no or only a few other biologists present, to a remote base camp where we bring everything (vehicles, tents, yurts etc.) in and take everything back out.

9. Who do you cooperate with and at what level?

We are open to collaborations with individual scientists/biologists, NGOs, universities, government agencies etc. - whatever works in the interest of wildlife research and conservation.

When setting up a project, we much prefer a bottom-up, rather than a top-down approach, because in our experience top-down approaches involving government and larger entities are cumbersome, weighed down by bureaucracy and tend to come to nothing as things are lost in the machinations of large entities. Instead we prefer to fly under the radar initially to get things done and set up an expedition as proof of concept. Once an expedition is set up and working, higher levels can be brought in and asked for support as the project expands.

Example: We set up a wolf monitoring project in Germany with an individual scientist. Initially the government forestry department and hunters were hostile and questioned the purpose of the expedition and how citizen scientist can possibly help with research. After a few years of expeditions, scientific reports and demonstrating proof of concept, the forestry department came round, is now supportive and actually suggests/requests areas for the expedition to survey each year.

10. What does a typical expedition and a day on it look like?

The expedition begins at an assembly point in the host country, usually in the lobby of a locally-run hotel in a city with airport that is close to the expedition study site. We do not get involved in citizen scientists travelling to the assembly point (because we are not a tourism company and also because the ability to organise independent travel is also a filter for recruiting capable people).

From the assembly point, we proceed to the expedition base, either in the expedition vehicles or in specially organised transport such as buses or rarely aircraft, where training starts. Training lasts 1-2 days and includes safety briefings (by the expedition leader), introduction to the project and research tasks (by the expedition scientist), training on equipment and tasks (off-road driving, GPS, data sheets/apps, camera/live trapping, survey protocols etc. – by the expedition leader and scientist).

Once trained, citizen scientists are split into small groups and sent out on their tasks for the day, usually without supervision and with a lunch pack that they made themselves from a large breakfast buffet (see section on expedition base requirements above).

By and large everyone comes back to the expedition base at the end of the day. Results of the day's work are then presented to each other and the scientist so that everyone is kept informed and the scientist can ensure quality data collection. The scientist then plans research activities for the next day (in conjunction with the expedition leader, as needed), presents this to the team who will organise itself into new teams for the next day (or is organised into the teams by the expedition leader, as needed). Then the whole process begins anew.

Some expeditions also have overnight trips away for all or some of the team. These trips are organised by the expedition scientist and leader as required for the research activities.

At the end of the expedition, the scientists presents preliminary results and the expedition leader coordinates packing up and transfer back to the starting point as needed.

11. What language are the expeditions conducted in?

English is the expedition language and all citizen scientists and staff must be fluent in English. Translators for local scientists/biologists are not acceptable.

12. What about safety aspects?

Biosphere Expeditions is not driven by fear of litigation and we treat our citizen scientists like the capable adults they are. For example, they are expected to drive expedition vehicles, conduct research tasks unsupervised and in small groups, stick to the expedition rules and generally behave in an adult way. We are clear in our promotional and other materials about the risks and what is expected of participants.

The expedition leader, in conjunction with the local scientist/biologist and other local staff, will conduct and write up a full risk assessment, which is then shared with the whole team during the training phase of each expedition. A medical and safety umbrella and reasonable safety procedures will be in place and must be adhered to. During the expedition, the expedition leader is in charge of safety and their instructions must be followed.