



Citizen-Science Animal-Monitoring Expeditions in the Naryn Reserve

REPUBLIC OF KYRGYZSTAN



Goals and Activities

On this trip, you'll discover a beautiful country that has remained unspoiled in many ways, and carry out a citizen-science mission to monitor wildlife populations in the Naryn National Reserve. During these three weeks, we'll be trekking across the landscapes of Song Kul, Naryn, and Issyk-Kul.

Song Kul Lake

Song Kul is a large lake in the middle of a plateau at three thousand meters in altitude. We'll take the trails by minibus to get there. During the winter a handful of fishermen live there, while in the summer it's populated by shepherds with their yurts and their countless horses, cows, sheep, and yaks.

The **Karatal-Japyryk Reserve** is in the swampy southern part of the lake that's rich with birdlife. It's a significant migratory passage (Anatidae, mud-dwelling birds, etc.).

Our two nights at the reserve officer's house and observation sessions will familiarize us with the wildlife and allow us to survey the birds that will be present during this period.

Naryn National Reserve

The reserve contains spruce forests, glaciers, rivers, alpine pastures, and one thousand square kilometers of no man's land and pristine nature populated with rare, discreet, hard-to-observe, but extremely interesting wildlife. We'll be traveling on horseback when we climb back up the **Naryn Valley** with the wildlife officers, making sure to explore crests on foot.

We'll be spending a dozen days there to monitor animal populations.

Throughout the expedition, surveys of the presence of wildlife, the installation of camera traps, and our observations will enlarge the Naryn reserve's database. Our goal is to create a wildlife map with a geographical information system (GIS).

We will focus more on certain species depending on the season.

In the spring and early summer, we'll track breeding bird couples (Himalayan snowcocks, blue whistling thrushes, small passerines, etc.) and in particular search for the nesting areas and zones of large birds of prey (golden eagles, booted eagles, short-toed snake eagles, bearded vultures, Himalayan vultures, cinereous vultures, etc.).

In September, Caspian red deer (*Cervus canadensis songaricus*) start to bellow, while the fall is a particularly

good time to count mouflons (*Ovis ammon karelini*), Siberian ibexes (*Capra ibex sibirica*), and nocturnal birds of prey (Eurasian eagle-owls, boreal owls, northern hawk-owls).

During all seasons, surveys of the signs of wildlife, the installation of camera traps, and sometimes (if we're lucky...) direct observation allow us to monitor predator populations: Himalayan brown bears (*Ursus arctos isabellinus*), gray wolves (*Canis lupus chanco*), snow leopards (*Uncia uncia*), Eurasian lynxes (*Lynx lynx isabellinus*), and Pallas's cats (*Otocolobus manul*).

Depending on the time of year, we'll also help wildlife officers do their work, especially harvesting hay in July to provide a little extra food for deer in the winter (as well as the officers' horses during their winter exploration).

The exit of the reserve leads to high plateaus with completely different scenery: high-altitude desert mountains interspersed with vast steppes. We'll spend our final day there before crossing it in a 4X4 to reach **Issyk-Kul Lake**.

We'll explore Issyk-Kul Lake (Kyrgyzs' "interior sea"), Kyrgyz culture, and village life while spending time with the wildlife officers and the families we'll be staying with.

Your Mission

We'll be doing naturalist prospecting every day, sometimes half the group at a time.

With the materials at their disposal, participants will help gather as much information as possible during observation periods and prospecting. Camera traps will be placed in suitable areas, with the input of officers and coordinators. These observations will be used to create an annual compilation and add a catalog sample to the geographical information system, allowing us to know more about the reserve's wildlife and have a clear, rich, easily usable database.

If certain people have particular interests or skills, they can contribute to a specific survey (botanical, geological, entomological, ornithological, etc.) during the expedition and share their knowledge with the officers and other members of the expedition.

In addition to monitoring animals, we'll help the officers perform their various tasks.

Typical Expedition Schedule

This schedule may be slightly modified depending on the time of year and the species we'll be studying.

Day 1: Early morning arrival in **Bishkek**, the capital of Kyrgyzstan – Tour of Bishkek – Night at the guesthouse.

Day 2: Minibus ride to Song Kul Lake, located on a plateau at three thousand meters in altitude, while passing through the town of Kochkor – Night in a yurt at the wildlife officer's home in the Karatal-Japyryk State Nature Reserve.

Day 3: Birdwatching – Hike or horseback ride on the Song Kul plateau during the daytime – Night spent in a yurt at the wildlife officer's home.

Day 4: Birdwatching in the early morning – Descent from Song Kul Lake to the city of **Naryn** by minibus – Night at the guesthouse in Naryn.

Day 5: Trip to the bazaar to buy the supplies we'll need for the dozen days we'll be autonomous – Minibus trip to the entrance of the **Naryn reserve** – Meeting with horses, loading up, and beginning of the expedition.

Days 5 to 15: Wandering naturalist expedition in the Naryn reserve – Four to five days of travel on horseback alternated with five to six days of naturalist prospecting on foot. Many days will be mixed (a bit of horseback riding and prospecting). We'll climb eight hundred meters a day during our **transects** (a transect is a virtual line to follow to study a phenomenon and count occurrences; in this case, we'll be conducting a survey on the presence of wildlife). Camping in tents most of the time, and possible bivouacking.

Day 16: Return trip by 4X4 to Issyk-Kul Lake (second-largest high-altitude lake after Titicaca) – Night at the home of a Chong Jargylchak villager (southern shore of Issyk-Kul Lake).

Day 17: Day at the village of Chong Jargylchak to digitize the collected data, perform a first round of sorting, begin the analysis of camera-trap photos, and write a report of the expedition. We'll do all this in between two swims in the lake, of course!

Day 18: Tour of the village and the surrounding area – Swimming in Issyk-Kul Lake – Return to Bishkek by car; buying souvenirs.

Day 19: Departure early in the morning.



Prerequisite

WARNING: Registrants for this trip should be fully aware of the physical and athletic challenge they'll face. We're not trying to discourage you; these challenges may entice you, but you must understand and accept them to join the expedition!

Walking

Nearly every day in the reserve, except the days we'll be traveling on horseback from one camp to another, we'll be going on naturalist prospecting trips on foot called **transects**, usually one half of the group at a time.

The first group that chooses to go prospecting in crests on a particular day should expect **inclines of three to nine hundred meters per day**, or about four to six hours or even more of walking on **steep slopes**.

For the second group prospecting in the heart of the valley, the incline will be lower. Every day, you can alternate between crest/valley and choose one or the other.

In all cases, we'll often be walking **off trails**, on **steep slopes**, and on **uneven terrain**.

Horseback Riding

We'll ride horses to travel from one camp to another, get closer to the daily prospecting zones, and carry logistical equipment. **You don't need to be a rider, but you mustn't be scared of the animals or mounting them.** We'll travel at a walk most of the time, and we'll never go above a gentle trot. The Naryn reserve's horses are small, very docile, know the trails like the back of their hooves, and are very well broken in by the wildlife officers that accompany us. We'll be riding on horseback one to five hours a day. Kyrgyz saddles are very comfortable, but it's best to bring along (waterproof) warm-up pants or jodhpurs to avoid friction.

Camping

We will sometimes lodge at a villager's home (village house or yurt) at the beginning and end of the trip, but most of the time we'll be camping in a tent. Two wood cabins in the heart of the reserve can sometimes be used as base camps, but many zones in the reserve don't have any. Thus you have to be comfortable living in the great outdoors, in a relatively isolated area, and far from daily luxuries, but closer to the heart of the action!

Interest in Naturalism

A background in science or naturalism isn't necessary, but being interested in wildlife and nature is of course a must.



*This scientific expedition also has **social goals**. Each year that we organize an expedition, we either invite Kyrgyz teens so they can discover their mountains and the ecosystems that compose them, or we renovate base camps (insulation, installing solar equipment) to improve the daily lives of Kyrgyz wildlife officers during the coldest periods of the year.*

Some useful information about our expeditions:

Immersion: Our expeditions are totally immersive. We will spend most of our time in an isolated reserve, several hours or days by horseback from human contact. Rescue missions can only be done by helicopter, and take at least one day to arrive. Participants must be aware of this and be ready to accept and not fear the psychological and safety risks this kind of isolation can entail.

Rusticity: Our expeditions have a limited amount of comforts. We'll be sleeping in tents (provided by the NGO) every day, and we'll sometimes be bivouacking under the stars. The highly variable weather high in the mountains will be felt more keenly, especially because of the fatigue caused by our elaborate equipment. Washing up will be done using cold water along a river.

Autonomy: We'll be completely autonomous for at least eleven days thanks to the food carried on horseback, like the rest of our materials. It won't be fine dining (starches and mutton), considering the constraints out on the field, but the food is always satisfying and most of our participants enjoy it. We make our own bread once the bread we brought along with us runs out. Since we'll be in a state reserve, we will not forage, fish, or do any other similar activity.

Fitness level and riding experience: Our expeditions are not athletic hikes or horse-riding vacations. We travel from one camp to another by horseback, while going on foot allows us to study the zones where snow leopards live. This prospecting will be done on uneven terrain, off trails, and with vertical climbs of 500–1,500 meters per day. You should be in shape for the expedition and have experience in off-trail hiking, though you don't need to be an elite athlete! Horses and riding will be an important part of the day-to-day life of our expedition. However, it is clearly not a horseback-riding trip; for safety reasons, for example, galloping is forbidden during the expedition.

Duration: 18 days (20 days with the round-trip plane ride)

Where: Five weeks on-site

Lodging: Full board (hotel, yurts, tents)

Travel: Plane, minibus, jeep, horseback, on foot

Group: Six participants

Monitoring: One sciences educator and three wildlife officers

Information and registration:

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Dates: May to October