Unfavourable picture cropings, grainy quality, blurred motifs – camera trap pictures will hardly win a photo competition. Nonetheless, these pictures are very valuable for nature conservation and tell exciting stories. “A camera trap is a fountain of surprise. If you see in the pictures that you missed a lynx by only a few minutes, this certainly quickens your pulse,” says Mareike Brix, lynx and bear expert with EuroNatur.

Why do we need camera traps for nature conservation?
A camera trap is like an artificial eye documenting what’s going on in nature and causing only negligible disturbance. Among other things, this method is suitable for gathering knowledge about large mammals that are shy, live in remote areas or have vast territories – such as bears, lynxes, wolves or monk seals. Camera traps help answer questions such as: Are there lynxes in a particular area and how many are there? In the case of lynxes, the photos can even be used to distinguish individual animals, because their fur pattern is as unique as the fingerprint of a human being. If you have lots of experience, this is also possible with brown bears. For example, our project partner Alfonso Hartasánchez in the Cantabrian Mountains, Spain, now can tell nearly all the bears individually from specific scars or even the way they walk. In addition, camera traps can show prey abundance or poachers haunting the area. This helps us develop targeted protection measures and check their efficacy.

What is the art in making camera trap pictures?
The greatest skills are needed for placing the devices in the right spots. To be able to do so, you must know the roaming areas and territories of bears, lynxes and wolves well. The camera traps must be at a suitable distance to the ground and inclined at the right angle. Camera traps placed along forest tracks often yield plenty of pictures – for a simple reason: bears and wolves in particular like to use these paths to save energy. But these are also the places where there is a danger that the camera traps might be stolen, and in some cases there are strict regulations on where wildlife cameras may be set up in the public space. An ideal place for a camera trap is, for example, the only path that leads through a gorge. In order to find such strategically favourable and yet hidden places, the local knowledge and cooperation of hunters are invaluable for us.

Text and interviews: Katharina Grund; Translation: Clemens Purtscher
"Despite being strictly protected by law, every year many wolves in Poland die in snares maliciously set by poachers – usually in the most impenetrable parts of the forests. However, sometimes wolves are found in snares alive. In February 2015, an adult male wolf was found in snares in the Drawska Forest – a vast forest in north-western Poland, near the border with Germany. Local naturalists freed him from the trap and equipped the wolf with a telemetry collar, thanks to which Wilk was able to follow the rescued wolf in order to learn more about his fate. In summer 2015, during tracking the places indicated by the collar, we saw, apart from the tracks of adult wolves, also the tracks of smaller animals on one of the sandy roads. We installed a camera there. After a few days of recording, it turned out that this place was a playground of four beautiful wolf puppies. The wolf rescued from the snare trap had become a father! Thanks to the camera trap we could see that wolves released from snares can lead a happy life and raise their offspring. It was one of the most joyful days of our work for the protection of wolves returning to western Poland."

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**Camera trap rather than snare trap**

"The first week of March turned out to be the coldest week of the year, with temperatures falling to minus 20°C and covering all the Albanian mountain tops with snow. Right after that, the weather changed drastically and we faced an unexpected increase of temperatures. For PPNEA’s monitoring team this was great news since we did not need to hike for hours in deep snow for checking our camera-traps, which were set in Munella Mountain. Since 2008, PPNEA has been using camera traps to study one of the rarest cats in the world, the Balkan lynx. In general, the camera is set about 1 m above ground level.

On that day our group was divided in two teams. Together with my colleague Ilir Shyti, I hiked the southern part of the Munella Mountain to check a camera trap which we had set in a beech tree a couple of days before the warm front. But the snow had melted so fast that we ended up walking on an "unknown" trail, even though according to the GPS we were going in the right direction and were very close to the marked tree. We started searching and ended up scanning every single tree in that area for more than 40 minutes. But we couldn’t find any trace and felt discouraged. Exhausted, we looked up the high beech tree in front of us, and there it was – the camera trap, 3 meters high up in the tree! We started laughing at ourselves for not imagining that the weather would change so quickly and 'transform' the trail in such a short time. Later on, I climbed the tree, checked the camera and set it in the right position again."
The lone man deep in the forest

“As we wanted to catch bears and equip them with radio collars, we placed camera traps deep in the forest at some places suggested by hunters and foresters. We wanted to know how many individual bears pass by regularly in this area. In order to make these places somewhat ‘palatable’ to the bears, we scattered some apples there. We were pretty amazed when one day photographs from a really remote place deep in the forest didn’t show a bear, but a quite gaunt man with a long beard, long hair and ragged cloths collecting the apples into a bundle. Apparently he hadn’t noticed the camera trap. Although we spread apples again later, this encounter did not recur and we never found out who this poor man was.”

Carpathian Wildlife Society (CWS), Slovakia

Camera traps helped us achieve a lot ...

for bears:
We were able to convict a number of poachers in the bear habitats of the Cantabrian Mountains.

for lynxes:
Camera traps helped a great deal in gaining knowledge about the conservation status of the Balkan lynx. Now the Balkan lynx is recognized by the International Union for Conservation of Nature (IUCN) as a distinct subspecies of the Eurasian lynx, and strictly protected.

for wolves:
We now know how many wolf packs there are in the border area of Poland and the Czech Republic and where they live. This allows for directed awareness training to guard against conflicts between man and wolf and to better protect the wolves.

for monk seals:
We found out that the archipelago of Corfu is a key area for the spread of the Mediterranean monk seal in the Adriatic Sea. So we can prepare conservationists in Albania, Montenegro and Croatia in time for the arrival of the seals.

Camera trap pictures:
A hungry brown bear eyeballs a camera trap in the Cantabrian Mountains; Golden eagle having a feast (the carcass of a sheep); stately brown bear in Northern Albania; in February 2019 a camera trap photographed this Balkan lynx in Kosovo.
“Since 1985 I’ve been living in a small village in the Somiedo Nature Park, one of the protected areas in the Cantabrian Mountains that are home to brown bears. I’m responsible for monitoring and watching over the bear population in order to learn more about the bears and be better able to protect them. Since 2000, I’ve been using camera traps. This allowed me to identify and learn to know every individual bear in the valley. Likewise, the bears came to know me. I regularly check the camera traps and spend a lot of time in the woods. Therefore the bears are used to my scent and they are not afraid of me.

I remember a special evening when I went out to check a camera trap. In the depths of the forest I came across a bear I know well: a dominant male. The bear was everything but startled, looked at me and performed the typical behaviour of raising on his hind legs, rubbing his back against a tree and marking his territory. Maybe the bear thought of me as a rival, but probably he considered me to be just another forest creature. When he finished rubbing against the bark of the tree, the bear looked at me again. I had not moved at all. Then, as if saying good-bye to a colleague, the bear turned around and calmly walked into the woods. I simply continued to check the camera traps.”

Eye in eye with the bear

Into the puddle! This waterhole in Slovakia offers welcome refreshment to the young bear.

Perfectly staged by chance: Wolf in the evening light of North Macedonia
The Mediterranean monk seal (Monachus monachus) is considered the rarest seal species on Earth, estimated at fewer than 700 individuals. One of the main difficulties in protecting this rare species is the fact that we know so little about it. Although known since antiquity (the Mediterranean monk seal was first described by Aristotle), it has for long managed to evade modern-day research, because it hides in remote, inaccessible marine caves. However, the recent development of sophisticated camera traps has enabled researchers to shed light on unknown aspects of the Mediterranean monk seal’s life.

MOm has been using and improving camera trap methodologies for more than 30 years. One of the seminal moments in our research was the first time we managed to couple camera traps (actually, a video system) with a solar panel and a satellite dish. This autonomous monitoring system not only sends images to the web, but is also remote controlled! This enabled us to record for the first time in research history the birth of a monk seal pup in the Mediterranean Sea. I vividly remember staying awake and excited until two in the morning together with my colleagues to control from Athens the camera that recorded unique images at the island of Kimolos, several hundred kilometres away. With an extensive coastline and more than 100 pupping caves in the country, camera traps are now an indispensable tool in the study of Mediterranean monk seals in Greece.

Simulcast from the seal cave

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It was early June, and I had the deadline for the technical report to EuroNatur closing in, so I needed to compile the data. And I had one last camera trap to gather the data from. I also got my new trail running shoes that day, so I felt light and decided to run up the hill to test my shoes. I assume at this point he/she already saw me but unknowingly I passed quickly and went to check the camera trap. When I went down the hill again, it suddenly appeared in front of me. I completely froze and my entire bodily sensation was intensified. There was a giant head below me: a brown bear.

When I got back home and shared this story with my parents, they really didn’t like the idea of me continuing to work in the field. But in retrospect I think I was perfectly safe. If the bear had wanted to attack me, it had the opportunity to do so when I was going uphill. Anyway, I will continue to work with camera traps because they are a new tool for researching Kosovo’s nature. There are still many conceptual and technical problems and the solutions will produce new knowledge. So I want to be part of this history. And there is nothing better I can do. Also, I can’t wait to see them being increasingly employed as an efficient tool for nature conservation."

“In 2007 we received our first set of camera-traps. The model still used analogue cameras and a film with a total capacity of 36 pictures. First we had to carefully install the film, then make few test photos to see that the system is running. That meant that we would have around 30 photos left, a capacity incomparable to the present 32 GB SD card that allows us to record thousands of photos and even videos. And after changing the film, we had to develop the used film to see what was on the pictures. A daunting procedure... Nonetheless, we were happy to have this piece of technology at our disposal.

We first set the camera traps in Mavrovo National Park, the most important stronghold of the Balkan lynx. In late November of 2007 we invited our colleagues from the MES office to join us in the field to replace the films. We were only 7 colleagues back then. Back in Skopje we had the films developed in a studio close to our office. The studio was slow and it took them weeks for the procedure. We got the films back not until the 31st of December 2007. In the office, the colleagues were preparing for a New Year’s Eve celebration. A lot of guests were invited as well. We came back from the studio with the developed films and saw that we got our first Balkan lynx photos ever! The New Year’s Eve party was awesome."

“Adrenaline rush for the good cause

“All by himself with a camera trap: Bardh Sanaja, Environmentally Responsible Action Group (ERA), Kosovo

Sensational news for the New Year’s Eve party

Caught by a camera trap: Dime Melovski, Macedonian Ecological Society (MES), North Macedonia

Camera trap snapshots for nature conservation

photo: ERA

photo MES

2 /2019