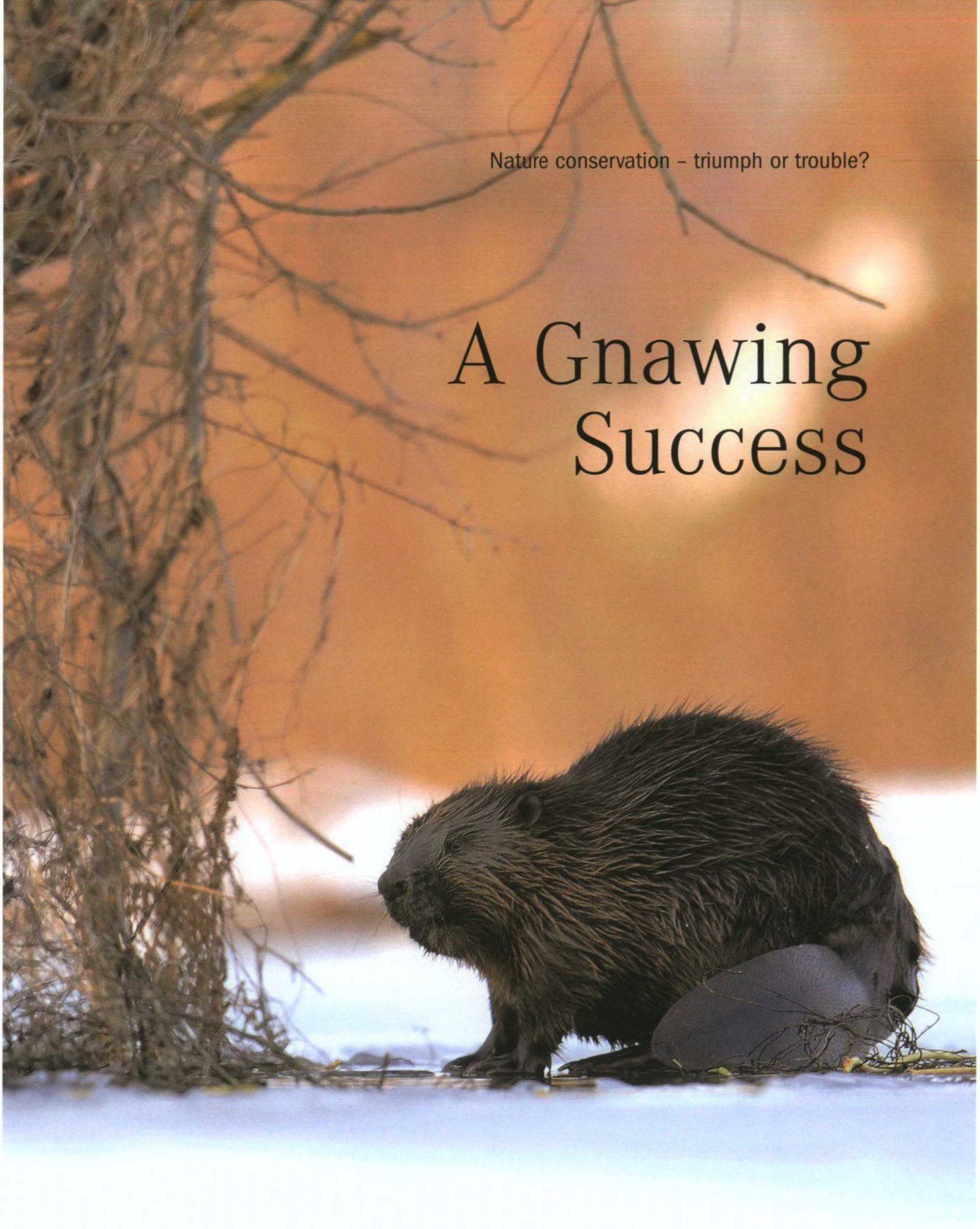
Nature conservation – triumph or trouble?

A Gnawing Success



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We discuss good ideas that sometimes turn out to be problematic in practice with Prof. Henryk Okarma (who studies the biology and ecology of large carnivores and ungulates, predator-prey interactions, invasive alien species, wildlife biology, and nature conservation)

Academia: In recent years, Poland has seen the populations of many previously endangered species rebound. Beavers are a good example.

Henryk Okarma: *Yes, they are a classic example. In the wake of WWII, there were only small populations left in the north-eastern part of the country. The credit for the beaver's reintroduction, its current success as a species in our country, goes to Prof. Wirgiliusz Żurowski from the PAS Research Station in Popielno, and also the Polish Hunting Association. Some people find it hard to admit today, but it was hunters who found it important to revitalize this species and spent considerable*

funding on it. In 1974, Prof. Żurowski presented a "Program of Active Conservation for the European Beaver."

Where did the animals come from? From that single population left near the Czarna Hańcza River?

The beavers came from the farm in Popielno, from ones captured in the Suwałki region where the population was already more numerous as a result of reintroduction from Russia, and from natural migration from Lithuania and Belarus. The reintroduction program called for the point-by-point release (every 100 km) of several pairs of beavers along the Vistula River axis. From these "deployment spots" the animals were expected to spread to unpopulated segments of the river. This plan was followed up by the Agricultural Academy in Poznań, which introduced the animals into the Oder River tributary basin.

Now they can be encountered even in Warsaw.

If the river flows through a city, beavers are definitely there, be it Bydgoszcz, Warsaw, or Kraków. Today we can say that beavers represent the biggest "gnawing success" of Polish nature conservation. Initially it seemed that we were witnessing a textbook case of successful renaturalization, and indeed the species has been revitalized well. But now we have a big problem. Prof. Żurowski said that once the population size exceeded 20,000 individuals, the species should be listed for hunting and its numbers should be controlled, because it has a certain economic impact. However, we let that moment pass us by – at this point we have 100,000 to 150,000 beavers in the country. In recent years the State Treasury has been paying out more than 10 million złotys annually in compensation for damage they cause, whereas compensation for losses caused by wolves, lynxes, and bears taken together cost a total of 500,000 to 600,000 złotys per year.

Hunters do not want the beaver to be listed as a hunted species again, because then they will have to be the ones to pay compensation. Apart from that, they do not have much use for the beaver – the fur market is partially nonexistent, the meat is not eaten, and the fat is no longer used as a medicine.

What should be done in that case? Proposals have been made to set up a special government beaver-hunting service, like back in the Middle Ages. But someone would have to pay for that, and no one is eager to. The beaver's success is therefore gigantic, and we are unable to cope with it. For the time being there is no good solution, but the numbers of these animals definitely need to be reduced.

What is the situation like for other species whose numbers have increased in recent years, such as the wolf?

Here we also have a success, and at the same time another problem. After WWII wolves were being exterminated and the numbers dropped to 100-150 individuals in the 1970s. The wolf then became endangered and there began to be calls for it to be protected (particularly by Dr. Piotr Sumiński). As a result, in 1975 the wolf gained the status of a hunted animal protected during its reproductive period. Hunting wolves is very difficult and although every hunter would love to bag such a trophy, not many have ever managed it. At the height of the hunting effort, a maximum of 140-150 wolves were being culled annually in Poland.

The population slowly grew, and in the early 1990s it probably stood at 500-600 wolves. As a result of efforts to impose full protection of the species, in 1998 the wolf was taken off the hunting list, and two years later it was officially put under protection. But its numbers did not start to rise until after about 10 years of stabilization, despite the animals' high reproductive potential. That was probably due to poaching. But that is a thing of the past, and today wolves can be encountered in almost every significantly-sized forest.

For some, the wolf is a symbol of successful nature conservation. It is thought that if a wolf or another large predator occurs in a given area, that shows that the natural environment is in excellent condition. However, that is quite naïve. Wolves are not a symbol of wildness, because they can also live in suburban or agricultural areas. And they are important player on the economic level, because they can cause losses of farm animals.

When they come out of the forests, into agricultural areas.

Yes. The wolf is a territorial species and a limited number of them can fit within a particular forest complex. If there is a shortage of space, wolves will come out into open areas and hunt sheep, cattle, or even household dogs.

What can we do about that?

Unfortunately, in the world dominated by mankind, conflict-generating species cannot be left to their own devices. A social compromise needs to be sought on species protection. When the reintroduction of wolves was being planned for Yellowstone Park in the United States, talks were held with local communities, where there were many cattle farmers. The scientists calculated that there was sufficient space for 700-800 wolves, but the local residents would not agree to that. A compromise was reached on the level of 300 animals – allowing the farmers to be reassured about their herds, because they knew that if the wolf population grew above a fixed level, the proper services would handle their reduction.

In Poland, unfortunately, even if we do have a good idea, the political will is usually not there to sensibly make it a reality. One of the proposed solutions involves zoning, in other words identifying locations where certain animals can occur and where they should not. But that has certain shortcomings. It could turn out, after all, that wolves occurring in a sub-optimal environment do not actually come into conflict with people. And so perhaps we should only react after the fact, only once conflicts do start to become evident?

I am an advocate of sensible management, which through scientific oversight does not allow either of the extremes to gain the upper hand – neither the farmers nor the radical "protectors." Two years ago my colleagues and I drafted a wolf population

Cezary Korkosz (2)

management strategy for Poland, where monitoring is fundamental, but it is now lying somewhere in a drawer in Warsaw.

Wolves and lynxes were once monitored under the auspices of the PAN Mammal Research Institute in Białowieża.

Yes, and all the precise data we possess come from that period. At that time, cooperation was successfully established with the State Forests, verifying out in the field the data obtained from forest administrators. That is very costly and today, when economic issues are crucial, the State Forests do not want to provide funding for it. We scientists do not have such money. And so we come to the essence of the problem. The wolf is a priority under the Habitat Directive, and our country is obliged to monitor it, but no one is responsible for that. It is not clear who should take responsibility for the species: the General Directorate for Environmental Protection, the regional directorates, or perhaps the Central Inspectorate for Environmental Protection? In practice, once a year public officials call up us scientists and ask us how many wolves there are in a given terrain. And those estimates are taken as the actual numbers.

We scientists know how to carry out such monitoring, we have a well-developed system and methods, but someone has to pay for it. When we apply for funding, we get told that the state budget cannot afford it. And so, success for these species is in a certain sense a failure of the system.

Quite a number of highways and new roads have been built in Poland in recent years. More and more wildlife-crossing overpasses can be seen along them. They represent a considerable success for nature conservation.

Highway bridges for wildlife are part of a broader issue of ecological corridors. Certain animals need to have the ability to move about across significant distances. This is important, for instance, in preserving genetic variation. The construction of linear elements of infrastructure across the landscape, such as fenced-off highways or railway lines, causes the fragmentation of the environments inhabited by those species.

Ecological corridors are therefore very important, although in practice the concept does not exist in legal terms. There is no formal legal footing for their protection. We have a nicely defined network of corridors, but when it comes time to do spatial planning, the scientific guidelines do not bind the planners in any way.

But wildlife crossings are nevertheless being built. Those on the A2 highway are wide and covered in vegetation.

Yes, but the beginnings were difficult. For example, over the highway from Kraków to Wrocław there are "pseudo-crossings," concrete bridges 6-7 meters wide.

It is important here for engineers to cooperate with biologists. It is more convenient for the engineers to space such crossings evenly, every 10 or 15 kilometers, irrespective of how they fit into the landscape. In the case of the Kraków-Tarnów road, we managed to intervene at the design stage and to have several small wildlife crossings in heavily populated areas replaced with a single large one near the Niepołomnice Forest.

So we can call that a success?

Unfortunately, only partly so. Although the crossing was situated in an ecological corridor, in the local municipality's land-use plan the area is zoned for investment. And so directly across from the crossing there is a depot for construction materials. And there is no legal means to have it moved from there, even though it means that the crossing is not functional. And so it appears that if nature is given a chance, success is easy to achieve. But managing that success is much harder. Nature adapts to what we offer it. Is therefore easy to let the right moment slip by without noticing it, like in the case of beavers and wolves, and a success can turn into a failure. Another such problem is slowly arising with cranes. They are big birds and when big flocks gather, they can destroy crops. And so we create good conditions for animals, but then we are unable to keep them wisely under control.

Nature conservation was once an ethical-philosophical enterprise, but now economic issues are coming to the fore. It is no longer enough to put up a plaque declaring something a "natural monument." Now everything is evaluated in terms of money, and obviously such things cost a lot. Moreover, some see nature conservation as just a whimsical fancy. And so there need to be compromises, planned action, but that is unfortunately not our strong suit. ■

Interview by **Agnieszka Kloch**