The magazine for friends of the Brno Zoo
No. 4

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4 Nordic Fauna
Reindeers – Gourmands among
the Ungulates



Nordic Fauna
The Silver Family of Brno Zoo



Centre for Environmental Education



Natural Science Day
Two Days of a Traditional Event



Winter Programme
Christmas Holidays at Brno Zoo



Protecting the Nature
Our Fight against Plastic Pollution



14 Rescue Station
Jinačovice Cares for the Otter



We help
Successful Rescue of European
Ground Squirrels Continues



17 News from the Exotarium Transformation into the Australian Pavilion



18 Events in Brno Zoo
Diverse Activities for Everyone





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First page: Reindeer Photo by Michal Vaňáč

UNSALEABLE

### **EDITORIAL**

## Dear readers and friends of Brno Zoo,

Leaves have fallen from the trees, temperatures are approaching zero and the nature is slowly falling sleep. The zoo is buried under a cover of snow. The chimpanzees still venture out, though only to a limited extent. Brown bears are in hibernation, but for Arctic wolves and reindeers, the perfect season has just begun. As the winter sets in, we feel like we are in Kamchatka or Alaska as we walk through the Beringia Exposure Complex, to the piercing sounds of two species of eagles.

Polar bears adapt very well to these conditions. They have dark skin and hollow, colourless hairs that transmit heat available in the form of sunshine – their coat functions like an improved fur jacket. Polar reindeers have hooves similar to snowshoes – broad and divided. You can read more about these fascinating inhabitants of the north in our two introductory articles.

A successful breeding season is marked by autumn litters, even among reptiles and mammals. Pavilion Exotarium, which is gradually being con-



verted into the Australian Pavilion, is witnessing a great breeding season this year.

The Interest Activity Centre has just completed an exciting period. The Environmental Education Centre Hlídka 4 hosted a popular event, called 'Bramboriáda'. In the zoo, the first week of October kick started a ten-month marathon of interest clubs and educational programmes. The highlights of the events organised by the educational staff were the competition for elementary schools and the multi-year gram-

mar schools on 'Natural Science Day' and the suburban summer camps.

I wish you a pleasant read and good health and strength in the upcoming calendar year. The entire team of employee sat Brno Zoo and the Interest Activity Centre wish you a successful year ahead!

*Bc. Marek Sláma* Editor of Zooreport



The male reindeer Vašek. Photo: Eduard Stuchlík

## Reindeers – Gourmands among Ungulates

Reindeers (Rangifer tarandus) are elegant creatures that can survive even in the most extreme conditions. Both the males and females have antlers, but the antlers on the males are significantly larger and more majestic. In Anglo-Saxon countries, reindeers feature prominently in fairy tales, as Santa Claus' helpers, for example, symbolic of Infant Jesus.

Reindeers livein the northern regions of America, Europe and in the adjacent islands. They move in large herds, the largest of which can consist of hundreds of thousands of individuals. Given their distribution over such a large area, the species is divided into 14 subspecies, of which two – Dawson's caribou (*Rangifer tarandus dawsoni*) and Arctic reindeer – are extinct. Another three island subspecies are on the verge of extinction. Their natural environment has been occupied by humans, and it seems that the of large populations of reindeer on the islands are significantly endangered.

Their natural food consists of lowlying tundra vegetation. Mushrooms are a good addition to their feed, apart from lichens. Both these items contain selenium and other substances essential for their breeding.

Theherd of reindeer in the enclosure at the lower part of the zoo has 11 individuals, and the leader of herd is a male named Karel. There are six females with him –Dáša, Pepina, Světlá, Malá, Jarina and Barča–and four youngsters, who wereborn this year.

In the past few years, the females have been able to raise their young

ones into adulthood. Their feed has contributed greatly to their good health. They are fed special granules apart from carrot, a herbal mixture and lichens.

### Reindeer - The "Herbalists"

These ungulates are fed only the highest quality feed. Typically, within the zoo, the best and finest hay is given to the reindeer and the reticulated giraffe (Giraffa reticulata). Both species have access to as much hay as they can eat. In the morning and afternoon, the reindeer receive the main ingredients of their daily diet. Together with grated carrots, the breeders feed them chamomile, yarrow and raspberries, blackberries and blueberries haulm. All these herbs are of excellent quality. The chamomile that we feed our reindeer is the same as the one that you may find in your cup of tea. As in the wild, a large part of their food is made of lichens. These include, in particular, the reindeer lichen (Cladonia rangifera), which we transport from the Baltic States in the dried blocks soaked in water. Reindeer lichen, thanks to its absorption capacity, retains water, and we feed it to the



reindeer in the same form as that available for grazing on the tundra plains.

All the year round, we provide them branches or whole small trees for gnawing. Reindeer, as you have already learned, are fairly choosy. In summer, they do not feed on consume bark like other ungulates; they only eat leaves. In

winter, they reject spruce and pine trees and feed only on young fir trees. All the coniferous trees needed for their feed are provided by the Christmas-tree sellers.

Come in May to see the young reindeer or in the winterto see their charm on the snow cover. In Beringia, the frost should not stop you!

A young reindeer born in the second half of May. Photo: Eduard Stuchlík

Good quality food is extremely important for the reindeer. Photo: Eduard Stuchlík



### Polar Bears – Our Silver Family

The most famous animals in Brno Zoo are definitely our polar bears (*Ursus maritimus*). Outside Russia, only a few zoos have been long-term successful breeders of these Nordic beasts. In Brno, the female Cora has already raised five cubs; their father Umca died in the summer.



Cora and Umca were partners who not only understood each other but also play with each other.

Photo: Eduard Stuchlík

Polar bears living in the north are the largest bears on the planet. The heaviest male was reported to weigh almost a ton. On average, the weight of female polar bears ranges from 180 to 300 kg, while that of the males ranges from 350 to 800 kg. The most significant threat to them is the melting of ice in the Arctic as a result of global warming. Polar bears are skilled in ice-fishing or hunting from their shelter made up of ice floes. Another factor that makes this species extremely vulnerable is the fact that their breeding in captivity is extremely difficult.

In the beginning of the year, polar bears live independently. The males look for food and try to survive the harsh winter conditions of the Nordic areas. By the end of autumn, the females dig the lairs in which they plan to breed their cubs. The fate of the cubs is influenced by several factors, one of which their viability and the other is the ability of the mother to nurse them. The expectant mother often does not find enough food and is unable to nurse her offspring simply because she has no milk for it. It is important that the female polar bear eats and gains weight by the end of summer and the beginning of autumn so that she can feed her young. The females tend to stay with their cubs in the lair for up to five months. This is why in



Cora set off with her cubs, Kometa and Nanuk, out in the snow. Photo: Eduard Stuchlík



Noria was the only cub of her mother, and she was easily startled and active. It added to her adventurous character.

Photo: Eduard Stuchlík



The first cubs – Bill and Tom – turn 11 years old this year. Bill is also the father of a cub. Photo: Eduard Stuchlík



Sizzell and Noria Anna Krasselt Zoo Rostock.jpg – Noria has adapted to her new home. She currently inhabits the exposition with the female Sizzell. Photo: Zoo Rostock/Anna Krasselt

the zoo, we increase the feeding ration of the pregnant females.

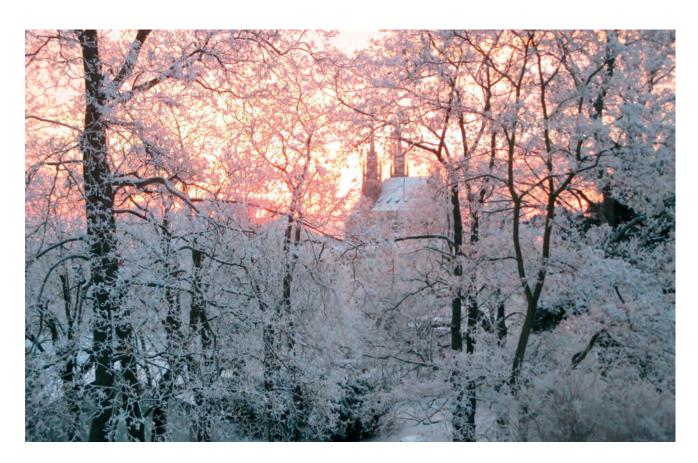
At the onset of spring, the female bear breaks the icy wall of the lair and steps out to hunt. The cub remains safe in the lair, and after a few weeks, it will set out to explore its surroundings. However, the cubs should be careful of adult male bears, who pose a great risk their lives. The mother teaches her cub to swim, hunt for seals and fish and shows the cub how to use herbs as food. This teaching continues into the next season. To ensure peace during the rearing phase, Brno Zoo has built a separate enclosure for males. This has solved the problem of possible transports and the need for tranquilizers.

By the end of winter and the beginning of the third year of a cub's life, the mother begins to drive her cub away. The cub is ready to start its own life, while the mother prepares for another baby. Thus, towards the end of 2017, Noria was separated from her mother Cora and replaced by her father, Umca, in time for the mating season.

You may remember from Zooreport's previous issue how Noria was moved to a new home in Rostock Zoo in Germany in mid-September. In our zoo, the Darwinarium exhibition devoted to the evolution of organisms on planet Earth is called Polarium. It is dedicated to polar fauna and is home to many representatives of the North Pole –polar bears and seals – and the South Pole – penguins. Complementary expositions display marine ecosystems and include an educational exhibition called Eiswelten–Worlds of Ice.

In Germany, Noria has a large exhibition area with an impressive pond that she currently shares with another female Sizzell, who is from the Dutch city of Rhenen and was imported in the end of October. Sizzell is a year older than Noria, and the four-year-old male Akiak from Rotterdam, the Netherlands, is looking forward to meeting them in the neighbouring exposition.

Noria is in love with the aquatic element, which forms a significant part of the exposition. At Brno, she was known to be shy, but later we learned that water is her element. She is an exceptionally playful female bear who will definitely impress visitors in Germany with her cheerful antics.



### Tradition and Ecology Come Together at the City Centre

Temperatures have begun to drop in the city centre, and Špilberk has already recorded its first frost. The Ecological Education Centre at Hlídka has introduced programmes to teach its youngest visitors and their parents about winter's natural treasures and how they can help animals survive in these harsh conditions. Such information is very useful in the city centre, where the animals usually don't get enough food in the winter. The educational staff has also started several new hobby groups this school year.

One of them is a breeders-naturalist group called Lišáček, which is open to children aged 5 to 12 years. The idea behind this group is to expose young natural scientists to new knowledge. But it is not just boring theory lessons – they are supplemented by various activities, full of fun and games. These activities will give the children a wide range of information

about the animals kept in the Hlídka facility and about other species living in the Czech Republic. Learning through play helps children retain information better. For instance, through practice-based lessons, children will learn about caring for a veiled chameleon (*Chameleo calyptarus*) Leon, a bearded dragon (*Pogona vitticeps*) Aladin and cuddly rabbits

(*Orictolagus cuniculus*). From a very early age, we have been trying to encourage children to connect theoretical information with practical activities.

Christmas time at Hlídka starts on Saturday 1st December, before the first Advent Sunday. Mothers and grandmothers along with children chose a corpus, which they decorate using branches or ornaments such as ribbons. Interesting workshops are organised to keep the smaller children engaged. A true pre-Christmas setting is created by the fragrance and flavour of non-alcoholic bumbo.



On the feeding table in the centre of the city, the hawfinch makes an appearance.

Photo: CEE Hlídka

Another event to be organised on Friday, December 14, is "Baking at Hlídka". Little nature scientists will make gingerbread carp while little princesses will make small stars and hearts. You can bake healthily at Christmas, too! We will teach you to use other types of flour and substitutes for white sugar. What you make and decorate can be taken to the Advent board at home or tasted right here, at Hlídka.

At the beginning of the New Year, we explain how winter can be beneficial for animal observation – everything can be seen better, and an advantage is that the animals leave their tracks in the snow. You'll learn to identify the animals from their tracks! For our little handymen, we will organise simple workshops, where they can build feeders to help the birds living in cities. Do you know how to reuse an old plastic bottle, a hard coconut shell, a pine nut or unused fat? Come and be inspired!



Contrabass funeral marks the culmination of carnival celebrations. Photo: CEE Hlídka



The best carnival celebrations include feasting and fun. Photo: CEE Hlídka

### Spring Break at Hlídka

The spring break will last from 11<sup>th</sup> to 15<sup>th</sup> February – the time of the Shrove. At Hlídka, we will revive folk traditions through interesting events. On Tuesday, February 12<sup>th</sup>, during a black hour, you can try your hand at weaving or making a fragrant soap with herbs. The workshop will be filled with the lovely aroma of beeswax candles, which can also be made there. Wednesday is dedicated to playful characters. Drop your cell phones, come make your own social games and test them out with a bunch of other enthusiasts!

Friday is the last day of the spring break. At Hlídka, we will organise carnival celebrations on this day –the day before the beginning of the fast. During the fast, no meat or celebrations are allowed. Traditionally, the celebration before the fast has entertainment, music and feasting. Visitors can taste sausages, greaves and doughnuts –typical carnival dishes. Children will wear masks and dance. We will end the programme with a symbolic contrabass funeral.

Have you ever visited Hlídka? Come and enjoy your days –pleasant moments and unusual experiences await you! Even today, in the heart of the city, you can observe and experience the tradition of our beautiful Moravian culture with your children.

## Chemistry in Action Once Again at the Zoo



Geologists showed beautiful varieties of common minerals. Photo: Eduard Stuchlík



The most popular chemistry show this year showed how a hydrogen bomb works.

Photo: Eduard Stuchlík

| Category→             | Elementary                                  | Elementary                                  | Lower grammar       |
|-----------------------|---|---|---------------------|
| Result ↓              | school, 6 <sup>th</sup> and 7 <sup>th</sup> | school, 8 <sup>th</sup> and 9 <sup>th</sup> | grade               |
|                       | class                                       | class                                       |                     |
| 1 <sup>st</sup> place | ZŠ Elišky                                   | ZŠ Židlochovice                             | Gymnázium           |
|                       | Přemyslovny                                 | (M023)                                      | Matyáše Lercha      |
|                       | (R012)                                      |   | (K034)              |
| 2 <sup>nd</sup> place | ZŠ Náměstí míru                             | ZŠ a MŠ Střelice                            | Gymnázium,          |
|                       | (NN038)                                     | (W042)                                      | tř. Kapitána Jaroše |
|                       |   |   | (A003)              |
| 3 <sup>rd</sup> place | ZŠ Sirotkova                                | ZŠ Kuřim,                                   | Gymnázium           |
|                       | (Q009)                                      | Jungmannova                                 | Tišnov, nám. 28     |
|                       |   | (D005)                                      | října (G018)        |

After the first cold week this autumn, the weather turned warm, and the colours of a true Indian summer were on display. Pupils, teachers, educators and contestants from elementary schools and grammar schools all across South Moravia came to Mniší hora. They were shown around the zoo by the students of the Secondary Industrial School of Chemistry, Brno.

Participants at the sixth year of the Natural Sciences Day consisted of 165 teams from 33 elementary schools and 12 grammar schools. Each team had a maximum of three members. The participants listened to the brief on each issue and responded to quiz questions.

This year's theme was Outsiders – those who, according to us, do not have a life as easy as the others. In physics, we talked about the challenges faced by Thomas Edison and Nikola Tesla. On the topic of vertebrates, we discussed the difficult life of albinos in nature.

The competition was organised by 205 students of the Secondary Industrial Chemistry School in Brno. The Science Day is a science-popularization event not only for schools but also for all visitors. Next year, this event will be held on 1 May 2019, and the theme will be "Save yourself if you can!"

This year, for the first time, we divided the contestants into three categories according to the type of school they attended, and within elementary schools also by age. Participating pupils and teachers welcomed this change. In the teachers' category, the winners were representatives of Střelice Elementary School, Židlochovice Elementary School and Matyáš Lerch Grammar School. Congratulations!

### Frosty Experiences with Nordic Fauna

Have you marvelled at the shiny white winter coat of polar foxes (Alopex lagopus) and the strength of wolverines (Gulo gulo), or do you want to know more Santa's helper, Rudolf the reindeer? If yes, then our winter programmes are perfect for you!

One of Brno Zoo's great assets is our large collection of Nordic species. This year, our zoo managers have decided to make the winter programme more appealing to our animals and visitors alike. Wolverines are remarkable, though often overlooked, aggressive beasts capable of killing prey that is twenty times heavier than them. A meeting with them is therefore devoted mainly to their evolutionary advantages and fascinating hunting strategies.

You can replace this horror movie animal with a fairy tale fixture. In Anglo-Saxon countries, Santa Claus often hands out presents to children during Christmas. But because he cannot manage all this work alone, he uses a magical carriage that is drawn by reindeer. In all fairy tales, the reindeer is described as having beautiful antlers. Both male and female reindeer have antlers, but the ones on the females are less developed. Was Santa's helper Rudolf or Rudolfina? You will learn the answer to this at a meeting with the reindeer.

Polar foxes face many challenges in the wild. They have to find food for themselves and their cubs, and they also need to protect their cubs from the attacks of the merciless skuas (*Stercorarius* sp.). In the zoo, food is delivered to them "on a silver platter", and no other predators pose a threat to their

survival. To prevent them from being bored, we have created an enriching environment for them. Do you want to know how we entertain our foxes? Come and find out!



Wolverine. Photo: Eduard Stuchlík





At Kamchatka, brown bears are at the perfect place to meet a large number of people. Photo: Eduard Stuchlík

### Enjoy Your Christmas Holidays at Brno Zoo

It may appear as if nature is falling asleep around you, but it is wide awake in the zoo. On Christmas Eve, you and our breeders can deliver gifts to our animals, and in the first few months of the next year, we are going to organise theme-based feeding sessions.

### Christmas Attractions

A female Sumatran tiger (*Panthera tigris sumatrae*) Satu; the chimpanzee (*Pan troglodytes*) family, headed by the male Fáben and wolverines will get food and special gifts as part of a Christmas package. While the female chimpanzees Gina and Mary will break their heads finding solutions to riddles that the breeders will build for them, the male Fáben will launch himself at his gifts and completely destroy them. Our breeders will be standing at selected expositions, ready to share information and answer your questions. For a similar experience, you also can visit the zoo on 1 January 2019.

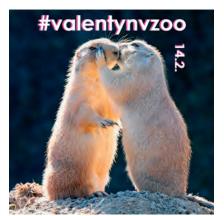
### Winter Specials

From November to March, we have a new event for all our visitors. On the first weekend of these months, we will hold informative feeding sessions, on different topics. You will get a chance to meet many animal species, which are often forgotten, and learn about their engaging stories. For instance, January is dedicated to the capabilities of animals that battle harsh winter conditions. February is reserved for mysterious creatures, such as, for example, northern caiman lizards (*Dracena guianensis*). In March, we focus on the love of animals, so you can learn about common ravens (*Corvus corax*) or why the bigger vasa (*Coracopsis vasa*) female parrots look like vultures.

#### For Lovers

And while we're on the subject of love, the most important holiday for lovers is February 14<sup>th</sup>. For the fourth time, we will have a wall of love. The zoo

area will be decorated in line with the theme, and a lot of activities will be arranged for couples, including specialised feeding sessions.



Valentine's Day in the zoo.

Photo: Zoo Brno

Tigers always enjoy Christmas Eve. Photo: Eduard Stuchlík



## Brno Zoo Fights Plastic Pollution

Brno Zoo is among the first in Czech Republic and Slovakia to become a member of the global coalition to combat plastic pollution. The activities of the zoo and aquarium association are coordinated by the European Commission and the United Nations Environment Program. Plastics constitute the largest non-decomposable waste on the planet. Not all types of plastics can be recycled.

Martin Hovorka, Director of Brno Zoo, said that the coalition was formed at the meeting of European Union of Aquarium Curators (EUAC), in England. For Brno Zoo, the coalition is recognition of its efforts and commitments. These include, for example, organising educational events and workshops to generate awareness among the general public. The objective is to change the behaviour of both companies and individuals so that the use of disposable plastic articles is completely stopped.

The countries of the European Union have agreed to prohibit disposable plastic products. This is because of the coordinated efforts of the European Commission, which has been working for 18 months to create a coalition to fight against plastic pollution. "Aquariums and zoos are a window into our oceans. Their collections

and educational programmes show us what we need to protect, and they inspire ocean lovers. Every year, they are visited by millions of people around the world. This project can mobilise people to rethink the way they use plastics," said Karman Vellum, Commissioner for the Environment, Maritime Affairs and Fisheries.

The new coalition has been supported by 106 institutions from 33 countries. There are 67 organisations in the European Union. Each of these organisations on social networking platforms uses the hashtags #ReadyToChange and #Beat-PlasticPollution. The goal is to involve at least 200 zoos and aquariums in the project by 2019, thereby raising public awareness of the dangers of plastic pollution.

A huge amount of plastic waste pollutes oceans and coasts and threatens

most marine species. Moreover, small plastic particles (called microplastics) accumulate in the food chain and pose a health threat not only to animals but also to people who consume them. While cleaning of beaches is an important and necessary measure, it is equally necessary to change production and consumption habits to prevent plastic from getting into the environment in the first place. Most plastics floating in the seas do not reach the beach at all; they sail freely on the surface to form huge floating junkyards. Their volumes are still growing, and the largest floating junkyard contains more than 80,000 tons of plastic waste.

Brno Zoo joined the coalition thanks to Petr Šrámek, the curator of fish, amphibians and reptiles, as the mentioned at the meeting of the European Union of aquarium curators, where he applied for membership. Recently he received a notification that he is the first member from Czech Republic. Each applicant is required to have the appropriate education, experience and most importantly the recommendation of the three current members. "It's the work of the whole team that takes care of all the aquariums on Mniší hora. So far, it's only a trial membership. In the next two years, it is necessary to prove the eligibility of the candidacy," Šrámek explained.

Michal Vaňáč



Beaches are polluted not only by fishing activities but also by common objects that people use, such as plastic bottles.

Photo: Jana Hadová, Zoo Brno



Disposable plastic products are responsible for the destruction of planet Earth. Photo: EU



### Vydrýsek. A Precious Beast Was Saved in Jinačovice

Experienced breeders at the Jinačovice rescue station are caring for roes, hedgehogs, little birds and bats. This summer, they were presented with an opportunity to rescue a beast. It is not one of the largest, but it is definitely cute, interesting and rare. For the first time, the rescue station received a young Eurasian otter (Lutra lutra).

A small otter was spotted by a lady from Moravské Knínice while she was walking around. Strangely, the cub approached her across a harvested field. Typically, these beasts don't do this as they are afraid of human contact. Sadly, the animal was starved, had diarrhoea and was desperate for help.

The considerate finder immediately contacted the rescue station staff and was willing to bring the young otter directly to the Jinačovice facility. On arrival, the otter was examined by a vet and quarantined. The main information that the breeders needed for successful rehabilitation was the age of the

otter and its ability to eat a solid diet. They reached out to other rescue stations to get information about the growth curve of otters and the appropriate rearing measures. The small otter quickly got used to a breast milk substitute and drank from a bottle attached with a rubber nipple. Because of its weight, which was three quarters of a kilogram, it was fed fish from the first day of care at the facility. The otter was fed trout, which it ate eagerly. Fish is the main component of the diet of young otters in the wild. The mother teaches her offspring to swim and hunt in water, but cubs without a mother do

not have very well-developed thermoregulation, so our otter was given only a small pool.

Breeders also added a crate with plant material as well as a cloth to the dwelling of the small otter to create a bed for sleeping during low temperatures overnight. In the day and in the evenings, the young otter sought attention with a tingling whistle. To be returned to nature, which is the basic objective of every rescue station, no animal should be tamed. Breeders, therefore, ignored this call, though with a heavy heart.

Eurasian otters, which live in Europe, are solitary animals. The only exception is females who care for their young. Also, South American giant otters (*Pteronura brasiliensis*) and Asian small-clawed otters (*Aonyx cinerea*) create large family groups that live together.

The living area of Eurasian otters can extend up to 30 sq. km along river streams; they mark it with dung that they leave in very visible locations along waterways, such as on large, solitary boulders. They are excellent swimmers, and they can stay fully active underwater

The Eurasian otters, which live in Europe, are solitary animals. Photo: Eduard Stuchlík

for up to five minutes without breathing. The main period of their activity is at dusk and after night. In these times, they hunt shellfish, fish, amphibians and small mammals and birds.

The home of the otter is a hole in the earth with an exit below the water's surface so the predators cannot penetrate it. At the end of spring, the females give birth to one to four cubs in these holes and raise the young in the first days of their life. Pregnancy takes about two months, and cubs are born blind and defenceless. The mother feeds them with high-fat milk, and the cubs grow very fast. At one month of age, they open their eyes, and after about seven months,

the mother takes them out of the earthhole and teaches them all the necessary skills to survive. The cubs leave their mother at about one year of age.

Otters are indicators of clean and fish-rich streams and ponds. The fish-ermen view otters as a problem, but in reality, their food makes up only a small percentage of fish in ponds and rivers. In fact, the State Treasury compensates, although marginally, possible damages caused by otter feeding.

The Eurasian otter is considered a heavily endangered species in the Czech Red List of the Czech Republic and is protected. This protection also extends to biotopes where specific populations live. In our country, otters are found on the rivers Dyje and Ohře, in Šumava Mountains and other regions. Individuals have also been observed on river Syratka.

MVDr. Radek Ficek Simona Blahoňovská



A fearsome cub that is afraid of people and is very difficult to photograph.

Photo: Eduard Stuchlík



Breeders added a crate with plant material as well as a cloth to the dwelling of the small otter. Photo: Eduard Stuchlík



This year, approximately 60 small European ground squirrels were born in Mniší hora. Photo: Michal Vaňáč, Zoo Brno

# Successful Rescue of European Ground Squirrels Continues

Other European ground squirrels have left the zoo in Brno to strengthen the population of these endangered rodents on the Písečný vrch in České středohoří Mountains. Last year, a total of 42 European ground squirrels were reintroduced in these mountains; this year, the number increased to 57.

This year, we found a number of these young rodents in traps. Compared to 2017, the number was higher by a third, and according to our estimates, about 60 small European ground squirrels were born at Mniší hora this year. Interestingly, six adult European ground squirrels were seized within seven days.

Because a high number of youngsters were born to us, we could transport all the animals together. This year, we released them into the well-known Písečný vrch in České středohoří Mountains.

With regular monitoring, we observed that the European ground squirrels reintroduced into these mountains had successfully survived the first year, so we decided to add more individuals this year to stabilise their population. The transport took place without any problems. We made small boreholes, which resembled their burrows, directly on the site, and after reintroduction, we always stuck a bottle in the hole. As a result, the ground

squirrels were forced to dig their own earth-holes.

In 2017, we reintroduced 20 European ground squirrels tithe České středohoří Mountains; the rest were animals from the Rozovy Rescue Station at Hluboká nad Vltavou Zoo. This year we reintroduced 17 European ground squirrels from Brno –10 males and 7 females – to Písečný vrch.

Brno Zoo has participated in the European ground squirrel rescue programme for a long time. We have been addressing this issue since 2005. Ten years later, the Agency for Nature Conservation and Landscape Protection of the Czech Republic launched public awareness activities as part of its rescue programme, entitled "Launch of New Breeding of European Ground Squirrel". Brno Zoo has actively participated in it since the very beginning. We have also built a special breeding facility, to which we brought 39 European ground squirrels from the Bratislava airport. Continuous care has finally met with success. The population of these rodents is growing, and dozens of individuals have been taken back to the wild - this time in the Czech Republic.

Michal Vaňáč



The high number of youngsters born to us allowed us to transport the animals into the wild. Photo: Petr Šrámek, Zoo Brno







The area at the end of the main visitor's path – at the upper loop of the train – has been consistently transformed into a set of Australian expositions over several years. In 2014, we started a walkthrough exposition that houses the swamp wallaby (*Walabia bicolor*) and the yellow-footed rock-wallaby (*Petrogale xanthopus xanthopus*). The Pavilion Exotarium has undergone sweeping changes this year.

Newly built terrariums are now inhabited by egernias (*Egernia stokesii*), green tree pythons (Morelia viridis) and kowaris (Dasycercus byrnei). In addition to the typical Australian ichthyofauna; the aquarium exposition is inhabited by interesting amphibians -dwarf toads (Pipa parva) and rubber eels (Typhlonectes natans). New bird representatives of the Australian fauna, for example, include timid Eurasian stone curlews (Burhinus oedicnemus), pied imperial pigeons (Ducula bicolor) and a flock of rainbow lorikeets (Trichoglossus moluccanus). Addition of new inhabitants to the pavilion will continue in the same spirit in the coming year.

### Young Ones Are Born in the Second Half of the Year, Too

While the outdoors is in sleep mode, in the heated pavilions, life continues to thrive. At the end of the summer, specifically on August 20<sup>th</sup> and 29<sup>th</sup>, two youngsters of a critically endangered subspecies of spider tortoises (*Pyxis arachnoids brygoii*) hatched. The female three-banded armadillo (*Tolypeutes matacus*) became a mother on 7<sup>th</sup> October. Lastly, a joint exposition with the blue-and-yellow macaw (*Ara ararauna*) parrots in the Exotarium Hall now houses a new baby bird.



In the beginning of October, a small three banded armadillo was born.

Photo: Dorota Gremlicová, Zoo Brno

Green tree pythons always rest in an elegant manner.

Photo: Eduard Stuchlík, Zoo Brno



Kowaris, who have a reversed sleep cycle, inhabit the terrariums. You can watch them during their night.

, Photo: Eduard Stuchlík, Zoo Brno



Dwarf toads have expanded the collection of amphibians of Brno Zoo. They inhabit the exposition along with rubber eels.

Photo: Eduard Stuchlík, Zoo Brno

## Mark your diaries. Events at the Brno Zoo celebrate diverse events

Colourful, educational and, of course, full of animals. This is how the first half of the year looks at the zoo in Brno. You can look forward to an exciting period.

Apart from the New Year's Special Feeding Session (1st January) and Valentine's Day at the zoo (14th February), we have the International Day of Polar Bears at the beginning of the year. It is organised by Polar Bears International around the world, and Brno Zoo has always been involved in it. Every year it falls on 27th February, and this time is no different. Visi-

tors will be able to test their knowledge of these beautiful beasts in a fun quiz. The competition card can be collected directly at the cash registers.

The end of March is associated with the onset of spring. We would like to welcome the season to Mniší hora in Brno Zoo. On Saturday, 23<sup>rd</sup> March, you can participate in the symbolic winter expul-

sion in the form of Morana, decorating the Easter Tree, competitions and the educational nature trail.

A rich programme calendar will be waiting for you from 19<sup>th</sup> to 22<sup>nd</sup> April. Easter festivities at the Brno Zoo will include, for example, children's workshops, searching for eggs and a sheep shearing demonstration.

In April, we will participate in the Earth Day by organising activities together with the students of the Faculty of Business and Economics at Mendel University. Shortly thereafter (1st May) we will organise the Natural Sciences Day together with the students of the Secondary Chemical Industrial School in Brno. At both events you will learn a lot and so will your children.

Michal Vaňáč, Marek Sláma



Natural Science Day. Photo: Denisa Jančíková



A demonstration of sheep shearing is a traditional part of the Easter programme at Brno Zoo. Photo: Michal Vaňáč, Zoo Brno



We will say qoodbye to the winter season by the symbolic expulsion of Morana. Photo: Zoo Brno



Easter at Brno Zoo will be held from 19<sup>th</sup> to 22<sup>nd</sup> April. Photo: Michal Vaňáč, Zoo Brno



B R N O Statutární město Brno finančně podporuje TIC BRNO, příspěvkovou organizaci



Children on náměstí Svobody (Freedom Square)

Virtual Reality, theatre and music performances, St. Nicholas, reading for children, Czechia Sings Carols

Children on Dominikánské náměstí (Dominican Square)

ZOO zone, Little Jesus Post Office, wooden Nativity Scene, Christmas workshops

