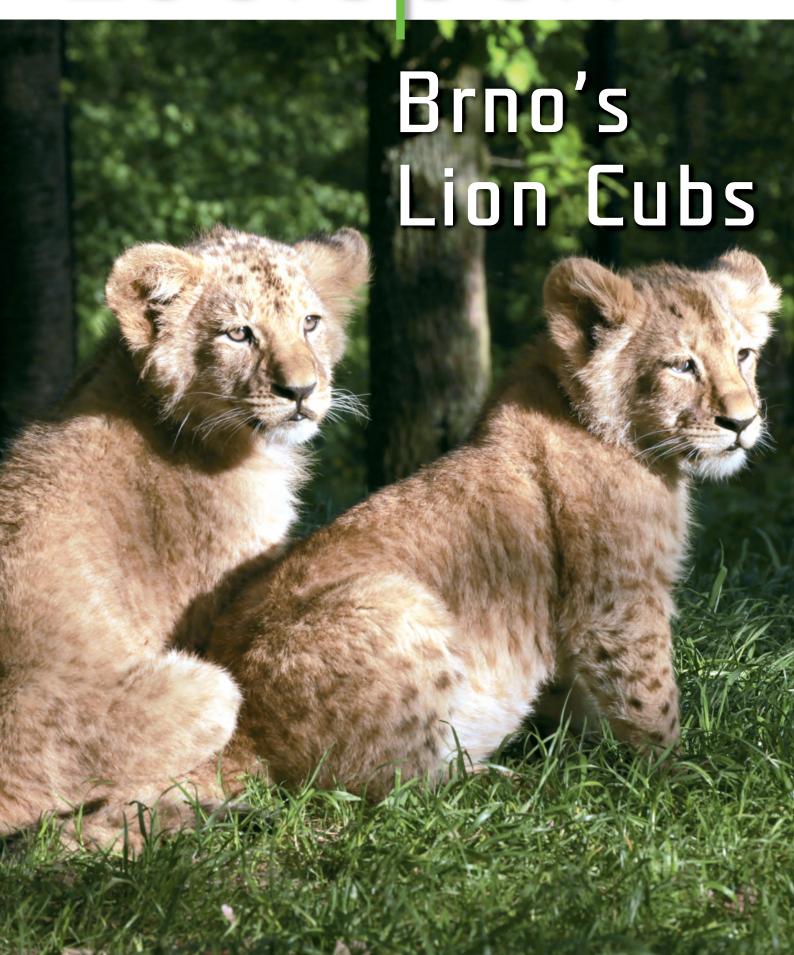
The magazine for friends of the Brno Zoo Coole Coo

No. 2 august 2018







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Editor:

Brno Zoo and Environmental Education Centre, semi-budgetary organization U Zoologické zahrady 46, 635 00 Brno, Czech Republic IČ: 00101451

tel.: +420 546 432 311 fax: +420 546 210 000 e-mail: zoo@zoobrno.cz

Publisher:

Moravian Museum Zelný trh 6, 659 37 Brno Czech Republic IČO: 00094862

Editor's office addres

Zoo Brno a stanice zájmových činností, p. o. redakce Zooreportu U Zoologické zahrady 46, 635 00 Brno, Czech Republic

tel.: +420 546 432 370 fax: +420 546 210 000 e-mail: stuchlik@zoobrno.cz

Editorial board:

Ing. et Mgr. Lenka Blažejovská, Mgr. Jana Galová (children's supplement), Bc. Jana Hadová, MVDr. Martin Hovorka, Ph.D. (chairman of editorial board), doc. MVDr. Jiří Klimeš, CSc., RNDr. Bohumil Král, CSc. (specialist reader), Ing. Miroslava Piškulová, Bc. Eduard Stuchlík (editor manager), doc. Ing. Josef Suchomel, Ph.D., Mgr. Michal Vaňáč.

Emendation:

Rosalind Miranda

Distribution:

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The author of non-attributed texts and photos is: Bc. Eduard Stuchlík

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UNSALEABLE

EDITORIAL

Dear Readers,

This summer issue of ZooReport focuses on two topics. In the last issue, we spoke about our newborn lion cubs. This time we will focus on what happened before their successful breeding, and how much work the zoo staff put in so that all the zoo visitors could enjoy watching these little rascals.

The other section of the magazine focuses on new events at the Exotarium. One of the aquariums is home to a unique species of fish that hunts by spitting out jets of water. Banded archerfish are very interesting creatures, and we will give you more details and explain exactly what is special about them. They inhabit the exposition with the mudskippers. Mudskippers attract attention primarily because they can spend long hours outside the aquatic environment. Pectoral fins connected to their body by strong muscles allow them to move on land, and they can also jump with the aid of their tail.

And there is more! Recently, we made significant contributions towards the Silent Forest campaign, which was launched by the European Association of Zoos and Aquariums (EAZA). Our efforts were well supported by the students of the Faculty of Business and Economics of Mendel University in Brno, and we thank them once again.

Every ZooReport contains updates from SEV Hlídka and the Station for



Handicapped Animals in Jinačovice, and this issue is no exception. This time we will tell you not only about the animals that were saved last year by the station workers, but also about SEV Hlídka's future plans.

We are very pleased with our rescue efforts for sea turtles in Indonesia. As you may know, a year ago we opened a rescue centre on Nusa Penida Island. In this issue, we will introduce you to the individual turtles we have helped. We firmly believe that their numbers will increase in the future.

In addition to helping abroad, we are also dedicated to the protection of animals in the Czech Republic. On page 19, you will learn about our efforts to strengthen the population of

Eurasian hoopoes in southern Moravia. This year we were lucky, and found chicks in a special nesting box.

To all the supporters of Brno Zoo, I wish you a pleasant read and a great rest of the summer!

Mgr. Michal Vaňáč Head of External Relations



The Story of Brno's Lion Cubs

During these months last year in Brno Zoo, we were gearing up for a big event: the arrival of two lions.

Choosing the right breeding couple is a big experiment, and it is preceded by a great deal of work, countless emails, phone calls, a lot of travel, and, last but not least, good luck, which was on Brno Zoo's side this time.

Neither of the lions complained about the fact that Lolek was born in Gdansk, while Kivu was born in Portugal and came to Brno Zoo from Ústí nad Labem. After they sized one another up by sniffing through the contact grid and then clarified their respective positions, we could see that their mutual sympathy clearly outweighed their awkwardness.

"The coupling of big cats is a very risky business," explained Dorothea Gremlicová, the curator of mammalian breeding. "Although Kivu and Lolek behaved exactly as expected, we were not sure if everything was going well. Soon after being put together, the couple mated. The mating of lions is very intense, continuing for several days. Even though the courtship was successful, we were still far from winning. It was Kivu's first experience

with childbirth and child care: She had to learn everything. However, it was extremely satisfying to know that Kivu and Lolek had successfully mated and that they could have cubs."

The first breeding of lion cubs is generally difficult and often unsuccessful, but the females have no option other than to learn to become good mothers all by themselves. Therefore, the keepers did not interfere with the breeding, but provided the lioness with the most suitable conditions and gave her the peace and quiet she needed to concentrate on her youngsters. Kivu turned out to be a great mother. The cubs were born on December 29, 2017, the first one at 19:53, and



Photo: Eduard Stuchlík



Photo: Eduard Stuchlík



Photo: Eduard Stuchlík



Photo: Eduard Stuchlík

the second at 23:55. From the first moment, Kivu began to care for them very carefully, and she has not stopped.

Lolek was not left out. At first, the animal care staff left the cubs only with their mother. The entire family met a few weeks later. "Even wild lions behave similarly, the females giving birth in dense forest cover and introducing them when they're

ready," said Gremlicová. When Kivu was reunited with Lolek, she made it clear that her priority was to protect her youngsters. As it turned out, Lolek had no trouble with this, and soon accepted the cubs even when they decided to convert the tassel at the end of his tail into their favourite toy.

The sex of Kivu's cubs – one male and one female – was determined during the

first veterinary examination. The supporters of Brno Zoo chose a beautiful name for the female cub – Anoona, which in Shona (one of the Zimbabwean native languages) means "God Sees." The person who named the male cub was its godfather, the successful former tennis player Radek Štěpánek. He chose the name Akashing.

"It means brave and, at the same time, it is the name of a special female anti-poaching unit. I hope my godson will prove to be a brave lion and that he will do well. Being his godfather is a great honour to me because the lion is the beast that has accompanied me throughout my career," said Štěpánek.

By the way, we are very lucky to have lion cubs at Monk's mountain after a 25-year-long wait. And, as you know from ZooReport's previous issue, this was definitely not the only good news at the end of last year. About a month before the lion cubs were born, cubs were born to our Ceylon leopards, marking the end of 17 years of waiting.



The fruit tree broken by the storm is the lions' favourite hiding and resting place. Photo: Eduard Stuchlík

The Lion Cubs Must Not Be Missed. Anoona and Akashing in the outdoor exposition

Since mid-April this year, the lion cubs have been walking about in the exposition enclosure along with their mother, Kivu. Their father, Lolek, is always somewhere nearby. Thus, visitors to the zoo have often been able to catch the entire lion family together.

A small hill in the uppermost part of the enclosure near the entrance of the African Village has become the lions' favourite resting place. The curious cubs sometimes come up to the fencing to take

a closer look at the enthusiastic visitors, from whom they are separated by a "no man's land." This is a one-metre-wide area adjacent to the exposure which is inaccessible to visitors. Once, when someone ac-



The broken trunk of the tree allows the lion cubs to walk on it. Photo: Eduard Stuchlík

cidentally stepped into this area, Kivu immediately began to defend her youngsters and sharply attacked the fencing.

The lions, of course, use the entire enclosure and explore its various hideaways. They seem to prefer a place that looks like an artificial decoration but is actually a spot that had been damaged by Storm Herwart. Last October, that storm destroyed more than a million cubic metres of trees in the Czech Republic, especially in spruce monoculture. A fruit tree in the new unfinished lion enclosure became a victim of the storm. Along with this cherry tree, oaks and elms were part of the original forest cover on Monk's Mountain. The storm snapped this tree's half-metrethick trunk at a height of about one and a half metres above the ground, and its crown fell to the earth. However, the crown's connection with its root system must not have been completely severed because the fallen half was blooming in the spring and sprouting new leaves. It is like a thicket that the lions use as a hiding place. And the youngsters walk on the big horizontal trunk, which allows them a better view of the surroundings.

This June, when the leopard twins, who had been born in our zoo in November 2017, were already nearly as big as their parents, the lioness Kivu was still being accompanied by her playful growing cubs.

Rádio Krokodýl je nejposlouchanejší regionální rádio v České republice!



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A New Kind of Antelope Has Settled in the Safari Enclosure

The Safari multicultural enclosure, which is part of the African village, is dominated by large-hoofed animals such as the reticulated giraffe (*Giraffa camelopardalis reticulata*) and Chapman's zebra (*Equus quagga chapmani*). Visitors to Brno Zoo, however, can now also see a new species of antelope there, the blesbok (*Damaliscus pygargus phillipsi*).

Our male blesboks, Makalo and Mel, who are half-brothers, having different mothers but the same father, arrived in August 2016 from Liberec Zoo, where they were born in January 2015. The female, Amali, born in June 2014 in Magdeburg Zoo, Germany, arrived in Brno last September from the German safari park Hodenhagen.

Blesboks (Bovidae artiodactyls subfamily Alcelaphinae) are one of two subspecies of bonteboks (Damaliscus pygargus). They typically stand 85-100 cm high, with a body length of 140-160 cm. Males can weigh up to 80 kg (females are lighter), and their lifespan can reach 17 years. Females give birth to a single calf per breeding season. Both sexes have horns which are lyreshaped, clearly ringed, and slightly curved. A male's horns can grow to 50 cm. Their body is brown with a lighter coloured saddle on the back and a significant white blaze on the face. Their legs are brown with a white patch behind the top part of the front legs.

Blesboks were originally found in the open veldts or plains of South Africa and Lesotho. The altitude of the South African Central Plate is generally between 1,200 and 1,800 metres. The local biotope, with a subtropical to moderate climate, is covered with grasses, and

The rows of large boulders, which cannot be crossed by the hoofed animals, give the blesboks space for quiet grazing.

Photo: Eduard Stuchlík

a woody cover can occupy a maximum of 10% of the area. Relatively frequent fires there are caused by lightning striking dry vegetation. Blesboks eat short grasses, favouring the newly grown grass that appears after a burn.

The daily activity of these antelopes typically has two peaks – in the morning and in the evening. They last out the midday heat in a standing position with the axis of its body oriented northsouth, and its head toward the sun and inclined to the ground. The males form territories marked with heaps of dung and secretions from supra-glandular glands. Mature males face down other males in displays and occasionally combat. Within their territory, males mate with multiple females. A typical herd will have about 20 members, and con-

sists of these females and their calves, although the harem of one male can sometimes have up to 25 females. If there are adequate grazing opportunities available in the territory, the male can remain there all year round.

The subspecies bontebok (Damaliscus pygargus pygargus) developed in a different environment in the low-lying coastal areas south of Cape Mountain, in the southernmost part of the continent. These bonteboks used to eat the fynbos vegetation known for its







The herd of Chapman's zebras is walking around the lake in the Safari enclosure. In the background are a couple of blesboks.

r a coupie ur biesbuks. Photo: Eduard Stuchlík

exceptional degree of biodiversity. The nearest distance between the boundaries where the two subspecies could originally be found is approximately 300 km. The fate of bonteboks was similar to that of blesboks after white settlers arrived in South Africa: During the 19th century, European immigrants killed these antelopes almost to extinction, as they were a popular quarry for hunters because of their meat and skin.

Fortunately, some farmers understood the economic potential of the species and began to farm them. In the 20th century, when wildlife reserves were created in South Africa, several dozens of wild bontebok were protected there. As they were also protected in farms and national parks, the species has proliferated and spread outside its original habitat to, for example, Mozambique, Zimbabwe, and Namibia. The vast majority of blesboks currently live on farms and in national parks, with current estimated blesbok numbers varying from 77,000 to 240,000.

A couple of blesboks, with the female on the right. The corners of the male's horns are stronger and more clearly ringed.

Photo: Eduard Stuchlík

skin is valuable, and game parks offer trophy hunting packages. Farmers also sell live blesboks for grazing or farming. For this reason, farmers created natural colour variant breeds (white or yellow). Blesboks have become a model animal that has been saved because of its economic value. This does bring new risks and new threats, though. The new breeds have led to a decline in genetic diversity; and, more importantly, farmers have crossbred blesboks with bonte-

Blesboks provide delicious meat, their

boks so much that about a third of the blesbok population has been crossbred. The danger of these crossbreeds escaping into the reservations remains. The species has been saved, but the genetic future of the original irreplaceable subspecies is uncertain.





Archers of the Fish World Have Mastered a Special Way of Hunting

The banded archerfish (*Toxotes jaculatrix*), a medium-sized fish from the Asian tropics, was previously bred in Brno Zoo for a short period of time. Now they are kept in a newly modified tank that is only partially filled with water. A mangrove trunk above the water surface helps demonstrate the special hunting method used by archerfish, which are also known as the archers of the fish world, as they are able to shoot with a high degree of accuracy. (The ancient Greek word toxotes means "archer".)

The genus *Toxotes* includes seven species, all of which are capable of shooting a concentrated stream of water on their prey. These fish, equipped with several unique adaptations, predominantly feed on insects present in the vegetation above the water surface. Using a thin stream of water sprayed out of their mouth, they reach small prey at exactly the distance of 1.5 m. The insects then fall onto the water surface, where they can then be caught by the archerfish. The fish can also catch nearby prey by jumping to a height of up to 30 cm. However, jumping is more energy intensive, so

archerfish prefer to knock them down with sprayed water. Although different kinds of insects comprise up to 90% of their food, archerfish are omnivores. They also eat parts of plants, such as buds that have fallen on the water surface; and they hunt within the water as well, eating small fish or crustaceans.

Two cavities are involved in the formation of the concentrated stream of water, the gills and the mouth. Banded archerfish collect water through their gill slits; the opercula then close quickly, pressurizing the water along the formed tube. The jet of water is shot by raising

the tongue, which grows from the lower jaw, against the roof of the mouth to form an elongated groove which terminates in a small aperture. The pressurised water in the groove has an effect similar to a rifle barrel or a syringe.

When the archerfish spots its prey, it approaches it as closely as possible and pushes its mouth slightly above the surface of the water so the "shot" does not have to overcome water resistance. Before shooting, the fish assumes the optimal body position to hit the prey, as the body axis of the fish and the sprayed water stream always have the same angle (about 30°).

This hunting technique is also related to vision adaptation. Archerfish have large eyes which, unlike many other fishes, are positioned for binocular vision. This enables them to render a twodimensional image into a three-dimensional one, enabling them to better perceive their surroundings and estimate the size and distance of the prey. The specific curvature of the ophthalmic lens lends the ability to focus the object from the water to the air at a certain angle so as to eliminate the refraction of light passing through the two optical environments. A large part of the retina is reserved for the treatment of such stimuli, and adult archerfish usually succeed in A popular biotope of archerfish is around the roots of mangrove.

The body axis and sprayed water stream always have the same angle of about 30°.

hitting their target on the first attempt. Archerfish live and hunt in groups, and youngsters learn the art of accurate shooting by watching older individuals.

The body of the banded archerfish is generally silver-white with four or five broad black triangular bars present on the dorsal side. They can reach a maximum length of 40 cm, though individuals in an aquarium tend to be smaller, only up to 25 cm. It is very difficult to distinguish males from females. The natural biotope of the banded archerfish is in shallow shoals, mostly with mangrove estuaries, in the area between India and the Pacific Islands and northern Australia. However, they can also be seen in the open sea or in inland rivers, lakes, and irrigation canals, since they can live in brackish, sea, and sweet water. Water with mild salinity is recommended for breeding. They hunt mostly during high tide, when the elevated sea level can take them closer to the insects on surrounding branches.

In Asia, archerfish are sometimes consumed by humans. It is rare to breed this fish in captivity, so the market is generally supplied by fisheries in Southeast Asia and by imports from nature. The numbers of wild populations are not known. We do not even know the extent to which they are affected by fishing. The World Organization for Conservation of Nature (IUCN) classifies the banded



archerfish as less vulnerable (LC category).

The tank in our zoo also hosts seven-spot archerfish (*Toxotes chatareus*), which cohabitate with our banded archerfish. Among the Czech and Slovak Zoos, Brno Zoo is the only one with this species. The archerfish aquarium in the Exotarium pavilion also contains dry land, where a group of fish that spend much of their time out of the water, the Atlantic mudskipper (*Periophthalmus barbarus*), can be found.





▲ The archerfish shooting crickets which are climbing the mangrove trunk.

Mudskippers Also Use Their Skin to Breathe

The genus *Periophthalmus*, belonging to the Gobiidae family, contains 18 species, and its habitat includes coasts with mangroves in the tropics of Africa, Asia, and Australia; but the only species which inhabits the Atlantic shores of Africa is the Atlantic mudskipper (*Periophthalmus barbarus*). Life at the interface of two different environments – water and land – is typical for Atlantic mudskippers. These fish are unique not only because of their special anatomical features but also their unusual behaviour.

Three individuals, two males and one female, live in the Exotarium pavilion together with the previously described archerfish. Artificial dry land was installed in the archerfish aquarium for the mudskippers.

The mudskippers are interesting primarily because they can spend long hours outside the aquatic environment. Their pectoral fins, which are connected to their body by strong muscles, allow them to move on land, and they can also jump with the help of their tail. They have large, close-

set, movable eyes well adapted to vision both in water and air, with rotating orbits which allow good orientation. They can often be seen with their body immersed in muddy water, out of which their eyes protrude. They primarily use their gills to breathe, but have other modes of breathing, as well. When moving on land, they can absorb oxygen from the air through their skin! An important adaptation in their respiratory system is their enlarged gill chambers, which retain a bubble of air

before the mudskippers climb out onto the land. This prevents their gills from drying out. These unusual adaptations have evolved as a result of fluctuations in water levels during low and high tides.

Atlantic mudskippers grow up to a length of 25 cm. Their elongated bodies are slightly compressed on the sides and cylindrical at the front. They can be grey-blue or brownish in colour, with a speckled pattern. Sexual dimorphism is difficult to distinguish. Mudskippers have a lifespan of about 8 years. They lay eggs at depths of up to 1 meter, and the entrance of the egg-laying chambers allows air to be stored inside. Breeding mudskippers in captivity is difficult. The largest and probably most successful breeder is Burgers' Zoo in Arnhem, Netherlands, where they are kept in a special pavilion for animals living in mangroves.

These fish are found in brackish water along the West African coast from Senegal to Angola. They particularly favour shallow estuaries with thick mangrove vegetation. At high tide, they live in the brackish water; but at low tide, they sink to the muddy bottom or move to rocky roots of the mangrove, or to stones or sand. Both in water and on land, they hunt insect larvae, small fry, and small crustaceans.



Atlantic mudskippers have elongated bodies slightly compressed on the sides and cylindrical at the front. They can be grey-blue or brownish in colour, with a speckled pattern.

Photo: Eduard Stuchlík



Strong dorsal fins allow the mudskippers to move on land. Photo: Eduard Stuchlík

We Have a New Seasonal Entry Point

Since Monday 2 July 2018, Brno Zoo has had a new seasonal entry point at the Kníničky parking area. We opened this entrance mainly because it is more convenient for visitors.

"Visitors will no longer have to walk back the few hundred yards from Kníničky to the main entrance. They can now buy their tickets in the parking area and enter the zoo right across the road near Beringie," explained Martin Hovorka, Brno Zoo's director.

The temporary cash register is located in a wooden sales stand which previously had

been the office of the Brno University of Technology (BUT). After purchasing the tickets, visitors just have to cross Ondrová Street and walk to the seasonal entrance, which is located at the gas station near the rear of Brno Zoo. There are two turnstiles plus a gate for visitors with prams. From that entrance, there is a paved path and a wooden footbridge leading to the polar fox exhibits.

At the temporary ticket register, both basic entrance tickets and transferable tickets can be purchased, but we also accept non-transferable tickets. Payment can be made only in cash.

"It is a temporary but comfortable entrance," added Hovorka. "We hope to ease the load on the main cash registers and, at the same time, access to Brno Zoo will be more convenient and faster for all our visitors"

The seasonal entrance is open every day until the end of August, on weekends in September, and on public holidays. Tickets can be bought from 9 am to 5 pm.

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www.zoobrno.cz ZooReport

When Children Sang for Songbirds

The awareness campaign launched by the European Association of Zoos and Aquariums (EAZA) has highlighted the decline and extinction of bird species in the tropical rainforests of Southeast Asia. The campaign is titled "Silent Forest – Asian Songbird Crisis." As in previous EAZA campaigns, Czech Zoological Gardens have also been involved by, among other things, organising a singing competition,. At Brno Zoo, the competition culminated during the Earth Day celebrations on 21 April 2018.



One of the critically endangered birds in Southeast Asia, the Bali Myna (Leucopsar rothschildi), is bred in Brno Zoo.

Every day, a vast number of songbirds disappear from the forests of Southeast Asia, as they are a profitable poaching commodity. The high demand affects hundreds of bird species and millions of individuals annually in the region. The most wanted among the birds have already disappeared from many places and are on the verge of extinction. The crisis in that part of the world is deeply rooted in the tradition of keeping songbirds as pets. The more songbirds a local person keeps, the greater is the prestige he or she acquires in their neighbourhood. And it is not just about keeping them as pets. The massive decline of songbirds can also be attributed to their involvement in popular singing competitions, through which many families have the opportunity to make extra money. The breeding of birds has thus been transformed into a sport which supports a massive industry that encourages not only poachers and vendors but also the producers and suppliers of cages, food, and accessories. Although there are many legal bird breeders in Indonesia, there are still alarming numbers of poachers and traffickers who deal in illegal wildlife, including songbirds. Many of the birds, sadly, do not survive for more than a few days in the small cages in which they are kept after being captured.

The Czech Zoological Gardens, which organised children's literary and art competitions during previous EAZA campaigns, held a singing competition this time. The rules of the competition were quite strict. Pupils had to write Czech lyrics to match a melody composed at Chester Zoo in the UK for this campaign. They also had to practice the song, record their joint efforts, and share it. The organisers of the South Moravian round of the competition (students of the Faculty of Business and Economics at Mendel University together with Brno Zoo) were curious about how many brave children could handle this challenging task.

In the whole South Moravian region, only three singing teams managed to accomplish this, but their work was extraordinary. The participants were third graders from an elementary school in Babice nad Svitavou, sixth graders from an elementary school on Vejrostova Street in Brno, and 7th graders from an elementary school in Slovanské nám. in Brno. The ceremonial announcement of the results of the singing competition and the award ceremony took place at Brno Zoo on the occasion of their Earth Day celebrations.



Photo: Jana Kratochvílová.

"I was surprised by how much courage the children had. They were not afraid of speaking into the microphone in front of the audience and of answering questions from our camerawomen, Veronika Matějková and Tereza Fogašová," said Petr Miklošík, a student of the Faculty of Business and Economics at Mendel University, who added: "From my point of view, I enjoyed the organisation of the singing competition. It was a very valuable experience for me." The afternoon program of our Earth Day celebrations was supported by more students of the Faculty of Business and Economics at Mendel University. They created four checkpoints along the competition path: at Tiger Rocks, the Haida Indian Cabin, the African Village, and the Tropical Kingdom Pavilion. At each point, the children had to fulfil various tasks, for each of which they received a stamp. They had to pass at least three of the four checkpoints to be rewarded at the end. "The tasks were divided according to the children's age so that no child felt that he or she could not manage them; or, in contrast, that they were too easy or boring," explained Martin Kutálek.

At the first checkpoint, the children competed in a pairing game, coloured pictures of endangered Southeast Asian songbirds, painted pictures, and separated waste. "Il this may seem banal, but lots of parents were given useful information about waste separation," adds Kutálková, further explaining: "For example, rolls of

toilet paper really belong to mixed waste like medicine packaging or egg cartons." At the second checkpoint, the children had to crawl through a rope web without jingling the attached bells, or transport an egg on a spoon safely back into a nest. The third checkpoint, in the African Village, tested the senses: The children had to find out which animal was hidden in the box using only touch. The contestants also identified animal pugmarks or matched animals with the correct continents. The most interesting activity was the distinction of animal sounds. The children had no problem identifying the sounds made

by a lion or eagle; but, surprisingly, they found it difficult to identify those made by sheep and goats. At the last checkpoint, the children could make their own animal masks, which they thoroughly enjoyed.

It was a pleasure to see the happy smiling faces of the children who had been enriched by the experience when they were awarded the prizes, which included sweets, colouring books, puzzles, blocks, caps, and T-shirts. The weather was warm and the sun was shining almost like it does in the summer. Brno Zoo welcomed 4,450 visitors on 21 April 2018, and 220 children successfully completed the competition.

We would like to thank the enthusiastic contestants and their teachers, who sent us beautiful videos. We hope that in-school and after-school singing shall continue, as will our forests.

EAZA aims to raise money for six rescue projects in Southeast Asia, which involve field surveys and the building of rescue centres for the most endangered species of songbirds. The general public may also join these rescue projects. Part of the campaign includes collecting binoculars which will then be distributed through educational programs to children in Asia to help them develop an interest in the environment and its protection. People can drop off their old (but functional) binoculars at their local zoo. For more information, please visit: www.silentforest.eu

Students of PEF MENDELU



Photo: Jana Galová.



A Year in the Station for Handicapped Animals

The Station for Handicapped Animals in Jinačovice has completed three and a half years of its renewed existence. Its employees were busy throughout last year, rescuing and helping a total of 314 animals.

"In 2017, we provided assistance in 266 cases involving 314 individuals belonging to 46 species of animals. The number of animals we received stabilised last year. Mostly we received mammals, especially European hedgehogs and common noctules, and birds such as common blackbirds, common kestrels and song thrushes. The station also

received nine specially protected species, one-third of which were bats," explained Radek Ficek, the head of the rescue station.

The animals, both youngsters and injured ones, are treated in Jinačovice mainly in three ways. About 15% are captured animals, of which a tenth are weak. "About 50% of the animals are later released, and most of the

The coal tit is another kind of small singer accepted in the station. It was easily captured, as it was sitting on the ground. The bird was very frail, but soon after the biggest frost passed, we could let it qo.

rest unfortunately die or must be put down. A small number are transferred to the care of another establishment, and about 5% of the animals stayed at the station until 2018," added Ficek.

Work in a rescue station is not just about animal care or capture. A large part of it consists of educational activities and events. For example, the employees gave lectures at Brno Zoo during the spring and summer camps. An important event in 2017 was firefighter training for bat handling and capture. And because the media is a part of the educational work, we broadcast our activity on the Czech TV show Sama doma.

Another opportunity to share our work with the public was a travelling exhibition of the SEV Hlídka in Špilberk called 'Stories of the Animals in the Station for Handicapped Animals.' 'We designed 15 panels with texts in story form of individual animals that had arrived at the station. These specific cases presented simple solutions to common problem situations. The stories were accompanied by photographs, and contained tips to the public on what to do for the animals if they come across a similar situation. The exhibition was created with the financial assistance of the Ministry of the Environment of the Czech Republic,' said Ficek.



This European hedgehog was brought here by two people from Slavkov. They found it at night on their way home from work. That day, their neighbours had burned plant waste in the garden. At least one third of the hedgehog's spines had been burnt. It was provided with medication, and it was able to take in food very slowly. If you are also planning to clean your garden, first look into the piles of leaves or shrubs to make sure there is no animal there. It takes only a few seconds to prevent such terrible events.



This is how the burnt hedgehog recovered. He's still staying with us in linarnvice

Children's Clubs at Špilberk. Come and join SEV Hlídka

SEV Hlídka, which is a part of Brno Zoo, has gained many satisfied visitors and a permanent clientele during the three years of its operation. We offer not only entertainment and relaxation for children and their parents at our maternity centre, but also organise a variety of out-of-school and educational events.

Educational programmes for schools are conducted in the morning; and in the afternoons and on some weekends. other visitors are drawn to our wide range of educational events. Among the most popular are Harvest-Home (Dožínky), Potato Party (Bramboriáda), Bringing Nature to Sleep (Uspávání přírody), Advent, Christmas or Easter workshops, Blindman's Holiday (Černá hodinka), and a Shrovetide cel-

In this new school year, we plan to expand our range of interest clubs to include children from five to twelve years of age. What can they choose from? The Rolnička Club is for children who like theatre. music, poetry, and singing. Older children can also work as actors in a fairy tale skit to be performed for friends and parents.



Photo: SEV Hlídka

Anyone interested in nature, who wants to know as much about it as possible and wishes to care for animals, is welcome to join in the nature-friendly club, Lišáček. There are plenty of games and activities, visits to the zoo, and a number of animals to care for at Hlídka: Majda and Zajda Turtles, Leon Chameleon, Aladin Agama, and several rabbits.

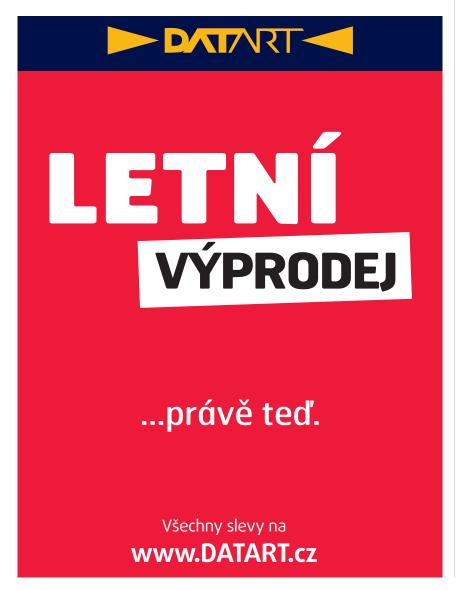
The Sedmikráska Club is perfect for craft-loving children. We will introduce them to various art techniques so that they can make beautiful items from ceramics, beads, and natural materials.

The Pokustón Club is where children can experiment and learn - by trial and observation - about the mysteries of natural sciences.

Those who have a sweet tooth will enjoy the Culinary Club, led by a professional pastry cook. Children will learn to prepare savoury and sweet delicacies that look great and taste even better.

The last club is Svišti. Children participating in this club can look forward to solving puzzles, playing board and outdoor games, participating in treasure hunts, and enjoying other adventures.

SEV Hlídka is the environmental education centre at Brno Zoo located in a newly reconstructed building which earlier housed the magazine in Spilberk Park. The target group of the centre is mainly pre-school and early-school-age children, but our educational events are also intended for the general public. Our visitors appreciate the beautiful surroundings of the historic building, our friendly and helpful staff, and our wide range of activities for children and adults. Come and see for yourself. More information is available on www.sevhlidka.cz.



One Crown from the Entrance Fee Helps Rescue Turtles in Indonesia

The international Kura Kura project, which allows Brno Zoo to rescue sea turtles in Indonesia, has received additional funding. The operation of the rehabilitation centre on Nusa Penida Island received support by the "One Crown from the Entrance Fee" campaign.



The fishing hook was stuck in Imma's mouth. Photo: Matteo Oliveri



A detailed examination of the turtle which our vets had named Imma. Photo: Matteo Oliveri



Rose's nostrils were full of pus (pictured before the treatment). Photo: Eliza Jinata



Rose after the initial treatment.

Photo: Eliza Jinata

One crown from the entrance fee paid by each visitor to the zoo will be given to this project, the main activity of which is caring for wounded turtles or those confiscated from smugglers. The money will be used to finance the operating expenses and building of a training centre and accommodation facilities for vets and property managers.

The rescue centre has been operating since 9 May 2017. In recent months, we've been able to save several turtles. One example is a Pacific ridley sea turtle (*Lepidochelys olivacea*) who was named Rose by the vets. She is about one year old, and she was sent to our centre with inflamed nostrils which were full of pus, and a swollen head. An examination showed that she was suffering from a severe infection. We cleaned her nostrils and regularly administered the necessary medication. Rose is now better, has a great appetite, and is recovering well.

We also saved and released a green sea turtle (*Chelonia mydas*) named Imma. She had a big fishing hook stuck in her mouth. We had to pull it out gently, and treat the wound by disinfecting and rinsing it regularly. After about two weeks of care, she was returned to the sea on the east coast of Bali, where she had been found.

The implementation of "Project Kura Kura – Save the Turtles" took ten years, with Brno Zoo expanding the European Association of Zoos and Aquariums (EAZA) campaign "Shellshock," which was an initiative of European zoos to help avert turtle extinction.

In 2017, a total of 308,112 visitors came to Brno Zoo; and in the first six months of 2018, we have had 168,988 visitors.



A hoopoe in an open landscape. Photo: Petr Suvorov

Helping Hoopoes. A Special Box Hiding a Treasure

The project for the protection of Eurasian hoopoes in southern Moravia, which was started by Brno Zoo two years ago, has been a great success. This year, too, a couple of hoopoes have nestled in one of the boxes and have given birth to young ones. The breeding is very valuable because these particular birds have managed to escape all the traps in the Mediterranean region and came back here to strengthen their own population.

'For the second year, the Eurasian hoopoes returned to the same artificial nesting cavity. This couple even raised five young birds. Every repeated natural nesting of the hoopoe in one place on a longer timescale is a huge success,' said zoologist Petr Šrámek.

The Eurasian hoopoe is a strict migratory bird, which spends winter in Africa. On its several hundred-kilometre long migration route, it encounters many dangers, including temperature fluctuations, limited food sources, the risk of predation, as well as unlawful killing by people, which typically happens not only in Italy, Malta, but also Cyprus, Lebanon and in other Mediterranean countries.

Small birds are caught in nets or on sticky traps, while the larger ones or

those migrating in flocks are shot down together. In some countries, the birds are killed and used in the preparation of traditional dishes, and elsewhere, they killed as a sport. Every year, thousands of birds die on their journey from Africa to Europe and never return back.

'Traditional endangered bird species include, for example, European Turtle Doves and Common Quails, whose systematic shooting has led to a sharp decline in wildlife populations. In addition, orioles, bee-eaters, cuckoos, rollers, buntings and larger species include birds of prey, cranes, or pelicans are also killed. Social network sites carry photos of dozens of harvested shot birds; hunters show them off as trophies. According to Birdlife Interna-

tional, in the Mediterranean, about 25 million birds perish every year, said Petr Suvorov, the Curator of Bird-Breeding at Brno Zoo.

The project to protect the Eurasian hoopoe was launched by Brno Zoo two years ago. Its aim is to strengthen the population of this species by ensuring the management of food sites and increasing the number of nesting opportunities. The Eurasian hoopoe inhabits the open countryside, pastures and meadows with occasional groups of grown trees or even thin forests that give them the necessary cavities for nesting.

Through field monitoring, we have selected five areas where we have placed special nesting boxes. We also monitor these areas closely. In these locations, a total of 15 nesting birds checked in twice during the season that the boxes were placed. Last year, one couple raised four young birds. This year the same couple returned to the same nesting box and raised five young birds.

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