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Zooreport

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Polar bears

UNSALEABLE





Zooreport gets a new look and new contents

Brno Zoo has been putting out Zooreport for its fans for eighteen years. After such a long period, we are contemplating and reflecting on how to proceed. Everything changes over time; everything living develops. In our nineteenth year, we are striving to change the appearance and content of our magazine. Before deciding which path we will take for the next issue, we took a poll, sending out a questionnaire asking our readers what they would like to see more of and what might be expendable, as well as their opinions about, for example, periodicity, paper quality, and overall impression. We also asked about their use of the Brno Zoo website. The completed questionnaire was returned by 129 respondents who gave their opinions, to the zoo. They signalled that they would like the magazine to concentrate more on the ordinary visitor and, especially, children.

We intend to achieve this by addressing ourselves to issues that deal exclusively with Brno Zoo, and by replacing the specialized attachments with ones designed for children. In part, it will be geared to pre-schoolers who already know how to read. Little readers will find in Zooreport coloring tasks, mazes, jokes about animals, and quizzes, for example. For all, there will be more information and news about the zoo environment and its hinterland, animals and the work of breeders, as well as public events, educational programs, and upcoming new exhibitions. Entertaining animal stories, crosswords, and sudoku could also be included.



MVDr. Martin Hovorka, Ph.D., Director of the Brno Zoo, comments the giraffe feeding on Children's Day at the Zoo on June 6th 2015

For all these resolutions, it will be necessary to establish an editorial board and increase the size of the magazine from the current sixteen pages to twenty. The existing trimestral periodicity would be retained, and we will also try to prepare special editions for various major events, such as anniversaries. As revealed in the survey, our readers would welcome such a release.

Brno Zoo is a living, constantly evolving organization. This year, we offer school facilities and educational programs not only at the zoo but also in the Centre for Environmental Education Hlídka.

In addition to our past breeding successes, such as young polar bears and brown bears, this year for the first time we have had offspring from maned wolves, Siberian wolverines, African gray parrots, and bristly gray armadillos. This year, we have given our olive baboon new, spacious, natural enclosure; near the African village, we are beginning to build a new enclosure for our lions, and to extend the range of our muskoxen at Beringia. Now that there are red pandas in the zoo, we are preparing a Himalayan exposure.

I believe that we will be able to start a successful new phase of ZooReport, and that we will have lots to write about. We intend to continue to communicate with our fans not only through the magazine, but also via websites such as Facebook, Instagram, and Twitter.

MVDr. Martin Hovorka, Ph.D., Director of Brno Zoo



MVDr. Martin Hovorka, Ph.D.,

comes from Mladá Boleslav, where he was born in 1954. In 1973 he completed his studies at a secondary veterinary school and then, after two years of army service, started work as a veterinary technician. From 1978 to 1984 he studied at the Faculty of Veterinary Medicine in Brno, where he worked as Assistant Professor at the Department of Veterinary Epidemiology and Microbiology. Between 1991 and 1996, he held several positions in the sphere of primary agricultural production as well as in the industrial production. He became the director of Brno Zoo in January 1997.

He and his wife, who is also a veterinarian, have raised two children, a daughter and a son.



The white-faced whistling duck

A flock of ducks in the African village

The lake in the African Village exposition is inhabited mostly by greater flamingos (*Phoenicopterus roseus*), but it's also inhabited by two species of smaller waterfowl from the family Anatidae – white-faced whistling ducks (*Dendrocygna viduata*) and fulvous whistling ducks (*Dendrocygna bicolor*).

The white-faced whistling ducks came to Brno Zoo from Tierpark Berlin, and the fulvous whistling ducks came from Dvůr Králové Zoo in 2014. The flock

The fulvous whistling duck

of ten birds was placed in the aviary along with the flamingos. Visitors can regularly observe these birds as they sunbathe on the grassy banks of the lake or cruise its surface in search of food.

The genus Dendrocygna includes eight unmistakable species which occur in the tropics around the world. For all of them, a long neck and long legs ending in powerful claws are typical. The English name of the genus, "whistling ducks," is fully apt because they give off a loud and long whistle. These are tree ducks, but they can be successfully kept in open water if they have trimmed wings, as is the case with our flock. Both sexes are equally coloured, with brown shades predominant, though females may have a slightly duller colour.

Whistling ducks inhabit wetland and water areas.

During the day, they stay mostly in flocks, sometimes

mixed with other species of waterfowl. They are most active at night, when they move to places providing food – grass, seeds, and shellfish. While searching for food in times of scarcity, they can migrate up to 500 kilometers.

Nesting is, for most species of the genus Dendrocygna, tied to the rainy season. They nest in pairs, in small groups, as well as in large colonies. Their nests appear as a shallow depression in the vegetation, mostly located very close to the water; but some species (as the South American population of the white-faced whistling duck or Indian populations of the fulvous whistling duck) can nest in forked trees, bromeliad rosettes, fans of palm leaves, or tree cavities. Four to thirteen eggs are laid in the nest, which both parents keep warm for 26-28 days. Ducklings already have sharp claws and stiff tails when they hatch, which allow them to quickly leave the nest or cavity. They are able to fly by the time they are two months old. After nesting, adult birds usually moult for about 18 to 25 days. In these species, this is called a complete mew, and means that they are not able to fly during this time. They are therefore very vulnerable. Between nesting periods, these ducks move in large flocks numbering up to several hundred individuals. Unpaired birds are grouped together according to gender during the nesting period. In zoos, they can live as long as 15 years; in the wild they will often live shorter lives.

Our flock of ten ducks along with our majestic flamingos form a representative image of a tropical wetland.

RNDr. Petr Suvorov, Ph.D., Curator of Aviculture



The fulvous whistling duck



Nature in the Brdy Highlands remained untouched

The Protected Landscape Area (PLA) Brdy is situated in the former military area of Brdy and on the surrounding peak Třemšín in the southern part of the Brdy Highlands. The youngest Czech PLA (it was established on the 1st of January 2016), it lies on the border of Central Bohemia and the Pilsen Region, and covers an area of 345 km². The highest peak is Tok, at 865 meters above sea level.

The submountain and mountain landscape, along with its military past, are the cornerstones from which unfolds the characteristic nature of PLA Brdy. Extensive areas without settlements and buildings became refuges in the surrounding farmed landscape. Large areas of forests, waterway networks with clear water, numerous rock formations with scree slopes, and places disturbed by heavy machinery are important for the local fauna.

Unique populations with a high number of endangered species indicate the quality of the habitats of PLA Brdy. We register 15 critically endangered species, 71 strongly endangered, and 33 threatened ones there. They generally occur at Sites of European Importance (SEI) protected by Natura 2000.

The purity of the streams, without significant runoff, and the natural character of their channels explain the existence of many taxa of European importance linked to the aquatic environment. One of these is the stone crayfish (Austropotamobius torrentium), the biggest Czech population of which lives in the Brdy Highlands. European crayfish (Astacus astacus) and Danube crayfish (A. leptodactylus) also live here, as do brook lampreys (Lampetra planeri) and bullheads (Cottus gobio). Also, Europeanic crayfish (Astacus astacus) and bullheads (Cottus gobio).



The drained Malý Padrťský Pond

asian minnows (*Phoxinus phoxinus*) and a freely reproducing population of brown trout (*Salmotrutta f. fario*) are worth mentioning.

Critically endangered tiny crustacean tadpole shrimp (*Triops cancriformis*) inhabit periodically drying ponds, which are abundant in this territory (for example SEI Hrachoviště) due to the continued activity of heavy equipment. Maintaining these specific habitats is an important conservationist task. However, the core subject of protection of SEI Hrachoviště is its large population of yellow-bellied toads (*Bombina variegata*).

Fourteen native species of amphibians can be found in PLA Brdy. Those that demand a higher habitat quality and purer water are the smooth newt (Mesotriton vulgaris), alpine newt (Ichtyosaura alpestris), northern crested newt (Triturus cristatus), and agile frog (Rana dalmatina).

PLA Brdy is home to many other species of



Yellow-bellied toad

birds and mammals important for nature conservation. White-tailed eagles (Haliaeetus albicilla) nest there, black storks (Ciconia nigra) can be seen, and Eurasian lynx (Lynx lynx) are regularly registered. Until the mid 20th century, western capercaillie (Tetrao urogallus) occurred naturally in the Brdy Highlands; and elk (Alces alces) occasionally migrate through the area.

There are too many large populations of other birds, reptiles, and invertebrates in our PLA to mention all. Extensively managed meadows, rocky outcrops, and disturbed areas represent an important mosaic of the treeless area and transitional habitat types (ecotones) of the Brdy Highlands, and these encourage local species diversity.

Mgr. Hana Mayerová, PLA Brdy Administration



Alpine newt





Maned wolves are careful parents. They worriedly transfer their pups from place to place. Grown-up wolves are good at running

The first maned wolf pups in Brno Zoo

The first maned wolf (Chrysocyon brachyurus) pups were born in Brno Zoo in January this year. These shy canines are distinguished from other representatives of their family by their atypical appearance and specific way of life.

Our couple, whose range is located in the upper part of the zoo midway between the pavilions Exotarium and Tropical Kingdom, markedly changed behaviour at the end of January this year. The usually standoffish animals then started running to the fence at the sighting of an "intruder," menacingly growling and howling to vigorously defend their territory. It was obvious that they were hiding pups in one of the two dens of the range. Since maned wolves are very sensitive to disturbance whilst rearing offspring, breeders did not enter the dens. Only during the vaccination on the 10th of March did we discover that there were three pups: two males and one female.

We have kept maned wolves in our zoo since 2000. The current pair is formed by seven-year-old female Saartje, who arrived in 2011 from Gdansk Zoo; and by three-year-old male Karlos, who was born in Tallinn Zoo at the end of 2012 and arrived in Brno as a one year old.

Zoos keep maned wolves in pairs, and, if the male is not separated during rearing, he often participates in it. So it was with our Karlos, who remained in a shed with the cubs, warming and guarding them, while Saartje moved around the range, usually returning only to breastfeed. The behaviour of our pair is harmonious: The young male is submissive towards the female, and no significant conflicts occur between them, even during feeding. To help prevent any conflicts resulting from a dearth of food, increased rations for both canines are given while they are rearing their young. When animals are caring for their offspring, it is appropriate to increase their food rations since, when food is scarce, a fight can very easily break out between the adults, and the cubs can be hurt, too.

Maintaining quiet in the area of their den is also important. A small disturbance outside can make the female nervous. She might then transfer the pups to a safer place, or she may hurt them, or she may abandon them. We have repeatedly observed Saartje bringing a pup out of the kennel. Fortunately, she and the pup always returned safely. At times when she was visibly nervous, Karlos showed his paternal instinct, fol-



Maned wolf pups spend most of their time in their kennel, but also use the natural shelter dug by their parents in the range



A hollow tree trunk provides a good resting place for the pups



lowing Saartje and his baby around the range. If she allowed it, he would take the pup from her and return it to the others. It was often possible to observe the whole family together in one kennel.

Maned wolves live in the scrubland savannahs (cerrados) of South America, which can be regularly flooded. For example, they inhabit the Pantanal in southwestern Brazil, the largest wetland in the entire world. They do not form family groups or packs. Except when a mother rears her cubs, they live solitary lives, but do not behave territorially. If there is enough food, the home ranges of two or more individuals can overlap.

An adult maned wolf has a rust-coloured coat with darker legs, dark ears, a black neck mane, and a tail tipped with white. Cubs are born with drab fur and a white-tipped tail. The colour of the pups' fur changes during adolescence. The legs, unusually long for canines, allow these wolves to easily walk in tall grass: They are pacers.

Although they can catch small or medium-size vertebrates and do not refuse eggs of birds or insects, their diet includes a large proportion of plants. The ratio of plant and animal ingredients changes seasonally. Plants can reach up to 50% of their intake. For the most part, it is the fruit of *Solanum lycocarpum*, from the eggplant family, which they eat. Brazilians call it "fruta do lobo" (wolfs' fruit); the English speakers call it "wolf apple."



An adult maned wolf follows its pup as it runs through the range

It is very difficult to recreate the composition of the natural diet of maned wolves in a zoo, and finding a satisfactory food ration is a challenge for breeders. In zoos, their diet is made up of one-day-old chicks, chickens, quails, rats, mice, and raw eggs; and they are offered fruits, vegetables, cooked rice, and potatoes as well.

Maned wolves can be currently seen in eight Czech zoos (Brno, Děčín, Hodonín, Liberec, Plzeň, Prague, Ústí nad Labem, and Zlín). They do not reproduce often in captivity, but they were bred successfully for a long time in Prague and Plzeň zoos. Before our breeding success, wolf pups were

last born in Hodonín Zoo in 2015. Our zoo cooperates with a European rescue program for this species. The program coordinator, who is based in Leipzig Zoo, will decide to which institution we will send the weaned cubs.

Bc. Dorota Gremlicová, Curator of Mammal Breeding



A harmonious relationship reigns between our maned wolves



The playful puppy carries an apple





The Winter Bird World educational program acquaints the children with the birds that winter in our country, and with those which are migratory

The educational program of the Hlídka Centre takes us among birds

The Centre of Ecological Education Hlídka is an integral part of the Brno Zoo, and is located in a historically valuable building in the park below Špilberk Castle. Since last year, it has offered sixteen educational programs for kindergarten children and primary school pupils.

Programs are often closely linked with how our nature changes with the seasons. During the winter of 2015/16, many groups of children from Brno and its surroundings, together with their teachers, visited the Hlídka Centre for two lessons in their Winter Bird World program, which is held both in the teaching

room and in the park. It acquaints the children with the birds that winter in our country, and with those which are migratory.

A short tale "About Forgetful Bird" helps immerse the children in the program. It tells them how a bird overcomes the pitfalls of winter until the arrival of spring. At the same time, the children can view some pictures of our wintering birds, listen to their beautiful singing, and learn what they eat. They can construct their own colourful birds from paper, too. Additionally, they prepare feeders full of tallow, seeds, and cones for their feathered friends, which they can hang on a shrub or other suitable support outside their home or school upon completion of the program.

This well organized program for younger children also has a motion and game part. For example, in the "Swallow Game," the 'birds' (children) line up on a 'wire'

(a rope stretched on the ground). When they hear the twittering of a swallow, they take off (they begin to move freely around the room). At the next signal, they quickly flock back to the wire. In the "Stork and Frogs Game," a rope coiled in a circle, representing a pond, is placed at the children's feet. The instructor shows how one child at a time should walk around, lifting his legs high like a stork, and moving his outstretched arms before his face like a beak. The other children are frogs, which are hiding from the stork, and they enjoy a lot of jumping.

During these games, children get to know the most common migratory birds, and learn why our fields are full of ravens during winter, also playing "Raven" and other bird games. When they review what was learned about the avian realm, at the end of the program, they transform themselves into one of the birds they studied, and depart either to the tropics or to a winter landscape, according to which bird they are pretending to be.

Other tutorials on offer in the Hlídka Centre are "Winter Tracing," "Spring Awakening," "Summer Flower Playing," "How the Chestnut King Deserved the Oak Princess," and "Christmas as Experienced through Children's Eyes." The centre also organizes various weekend events for the public, such as "A Small Garden Is a Garden, Too," "Among Birds on Mniší Hora," and "Healthy Grilling;" and it offers a lecture series accompanied by practical examples dedicated to the use of cotton nappies or ecological cleaning products. Among other extracurricular activities, children can participate with a group of young ceramic artists, or exercise with animals. The Centre of Ecological Education Hlídka provides more information about its rich offerings at www.sevhlidka.cz.

Mgr. Vladimíra Dolejšová, Lecturer, Centre of Ecological Education Hlídka





A well organized program for younger children also has a motion and game part



The first baby born this year was a giraffe, Zarafa

The first baby born this year, on 5th January, was a female reticulated giraffe. She was named Zarafa. We chose her name from about 1,200 proposals sent in by fans of our zoo. Zarafa's mother, Janette, who came from Dvůr Králové Zoo, has reared four calves in Brno Zoo since 2003. The father, M'Toto, originally came to us from the Cologne Zoo in 2011. Our current herd of giraffes has seven members including the most recent addition.

Rare blood runs through the veins of three takins

A male, Simon, born on the 15th of February 2016, is the latest addition to our group of Mishmi takins (Budorcas taxicolor taxicolor). Simon, like his father, Cotton, is the bearer of rare, unrelated genes.

Mishmi takins have reproduced regularly in our zoo since 2003. Cotton, the current leader of the herd, came from Tierpark Berlin. He was imported as a kid in 2010 to genetically support our breeding program. He is the son of a male born in the wild in Myanmar, which was not related to any Mishmi takin kept in Europe or the USA. The arrival of this male to Berlin in 2004 was of great importance for breeding in captivity because, by then, all European Mishmi takins were in fact descendants of the founding couple, imported in 1974 and 1976 from Zoo Rangoon in Myanmar to Tierpark Berlin . In 2010, two females (Charlotte and Saxana) which had been born in Brno gave birth. Visitors can see six other takins born here from 2013 to 2016.



Children were also able to work with a microscope during spring break at the zoo. Small crustaceans collected in the wetlands at the petting zoo were used in the preparation



Zarafa with her mother, Janette

Cotton had already fathered two kids in Brno. Besides Simon, whose mother is Saxana, he has an older son, which was born in 2015 to Charlotte, the other breeding female. Cotton's genetically valuable sister, Burma, also lived in Brno. After three years, however, she was unfortunately killed by an aggressive male, Roman, while she was in heat in the range. Roman no longer lives in our zoo. Fortunately, we managed to keep Burma 's daughter, Hanča, alive even though she was only six months old when she lost her mother. As a result, we were able to maintain the genes from this line in the Brno herd.

Nearly thirty children spent spring break in our zoo

DTwenty-nine children spent five days of spring break (from the 29th of February to the 4th of March) in our zoo. At eight o'clock in the morning, they came wearing warm clothes and solid winter boots, and carrying slippers and a snack. A hot lunch waited for them in the zoo. Workers of the education sector had prepared a varied program for them – animal watching, competitions, games, quizzes. During inclement weather, the children retreated to a clubhouse and a lecture hall. After 4 p.m., their parents led them home, happy and full of experiences.



Simon, a Mishmi takin kid born this year, with his older sister, Hanča. Both kids are offspring of a male caught in the wild one generation ago

Restriction on smoking

Visitors will find smokers' corners below the terrace of the restaurant U Tygra, near the Pallas cat exhibition, at the Exotarium pavilion, and in the African village.

An additional three smokers' corners will be addend.





Releasing common pipistrelles which were caught after they got stuck in one of the rooms of a currently unused hostel in the city centre.

The rescue station completes its first year of operation

The rescue station for wild animals in Jinačovice completed its first year of operation in February. Brno Zoo opened the station on the 2nd of February 2015, and its membership in the National Network of Rescue Stations was re-established in the autumn of the same year. The station received animals in need found mostly in the Kuřim and Rosice regions; later, animals from Brno-Bystrc and Brno-Kníničky were also brought in. In 2015, over two hundred animals from almost fifty species were admitted, approximately half of which were released back into the wild; and its staff also caught a group of about two hundred common pipistrelles (see below).

The station most often receives juveniles, but people frequently catch them unnecessarily. We try to return these irresponsibly captured animals to their natural environment as soon as possible. Animals in need are mostly orphans or in their late youth, and are as yet unprepared for winter. Station workers often accept a wild animal which had been mauled by a pet which was not attended carefully enough by its owner. There were also frequent cases of fractures and other injuries caused by impact with a moving vehicle or glass.

The rescue station also receives debilitated individuals. Hedgehogs, in particular, usually come to us as immature hoglets. After feeding them, we winterize them in stalls lined with hay placed in outdoor cages.

We also often accept bats. Trapped bats that have flown into buildings are most common in warm winter weather, when the animals prematurely awaken from hibernation and seek shelter in human settlements. We feed bats taken in during the winter for a few days, then transfer them to a cool cellar. Then, in the spring, we let them return to the wild. But we encounter bats all year round. In one case, we caught a group of about two hundred common pipistrelles which flew into one of the rooms of a currently unused hostel in the city centre, and then could not find a way out. In the evening of that same day, we let them fly into the wild on the western outskirts of Brno.



A brown long-eared bat in the rescue station

Other mammals we receive include hares and squirrels, but somewhat less often than hedgehogs and bats. Around eighty animals belonging to protected species (mostly bats) were adopted.

Birds we receive include kestrels, swifts, blackbirds, and pigeons. As for rare birds, a chick of the predator European honey buzzard was raised here. In addition, an edible dormouse juvenile was received, as well as a smooth snake and a common toad.

The rescue station does not forget to educate. We prepared an informational leaflet about our station, as well as one dealing with how people can avoid or prevent the recurrence of situations and circumstances for which animals come to the rescue stations. Education also includes the regular flow of information. News about the animals taken to a rescue station is regularly published on Facebook, and also almost every month in press releases.

An open house event on the 3rd of October 2015 was very successful. About fifty people, mostly locals, came to the station in Jinačovice. A visit to the operational facilities of the station had been prepared for them, and they could also see a screening of photographs of the first animals received there, and attend a lecture about rescue stations.

Due to the cooperation with our capturing service, it is possible, 24/7, to tell us about findings by calling 702 137 837. Because spring is here again, we want to assure the public that the young hares and roebucks which are hiding in the grass might be alone, but they are not lonely; their mothers are watching them, hidden nearby. Please consult us first before trying to help them.

Mgr. Jana Švaříčková, Head of the rescue station



A badger bitten by a dog lies on the operating table after treatment in the rescue station. Extensive injuries to the neck necessitated surgery. Sadly, the animal died after a few days. Dog owners, unfortunately, sometimes give their four-legged darlings too much freedom.



Our female polar bear, Cora, raises her fifth cub

Our female polar bear, Cora, was a perfect mother to her new cub, which was born in Brno Zoo on the 21st of November 2015. In the following weeks, the cub successfully developed under his mother's watchful eye. In mid-February, Cora and her cub began to leave their lair for brief periods to explore its surroundings. After 118 days, on the 18th of March 2016, we opened the exhibit to the public, and, for the first time, visitors could see with their own eyes the new bear, which looked rather like a small white ball next to its mother.

Cora, who had already successfully reared four offspring (twins born in 2007 and 2012), gave birth to this cub in the enclosure at 3:40 a.m. She immediately took her newborn into her mouth, entered the lair, and stayed there with it. The father of the cubs, Umca, has been in the neighbouring enclosure, separated from Cora, since the beginning of October.

After Cora gave birth, the visiting route around the exposition was sealed off in order to leave her undisturbed with her cub. The camera transmitting images and sound from the lair to the Brno Zoo website showed the mother bear lying on her side with her back to the lens. She clutched her baby to her chest, which meant that, at that time, it could not be seen. Its existence was confirmed by the characteristic sounds which accompany a cub sucking milk. Cora did not depart from the den and her cub, even though her passage into the enclosure was still open. With



After the initial bashful small steps around the den, the cub gradually explored the entire paddock. The most attractive object, however, still remained her mother



Cora the polar bear began to leave the den with her newborn cub in mid-February. Initially, however, both stayed by the entrance to the den only

the video recording, which is based on the infrared spectrum, it was not possible to determine exactly when the initially blind cub opened its eyes for the first time; but, on January 15th, we were certain it was seeing.

The last time the parental couple began living together was in the summer of 2014, when the maturing second set of twins left for other zoos. The following spring, handlers observed mating, and pregnant Cora displayed an increased appetite during the summer. Her normal daily ration, consisting of 10 kg of beef, 2 kg of fish and 1 kg of fruit and vegetables, was increased to 15 kg of meat, and she also received more fish and vegetables, but there were no leftovers. In autumn, as the birth of the cub approached, her food intake decreased. Just before birth, a female polar bear will stop eating. In nature, these females must survive with their cubs without eating for up to

four months. They get their water by licking the snow from the walls of their lair. In the zoo, the female has an automatic drinker, and feeding was started for the first time this year on the 22nd of January. The handler, who had noticed that Cora had emerged from the lair and was prowling in the nearby vicinity, threw about a quarter kilogram of meat, one apple, and one carrot into the enclosure after consultation with the curator of mammals. Her daily ration was gradually increased. She then began taking snacks into the lair, where her cub started tasting them, too. In mid-March, her rations amounted to about 6 kg of meat, 1 kg of fish, and about the same amount of fruits and vegetables.

The public learned on the 30^{th} of March that Cora's fifth cub is a female. We found this out when the cub had the first vaccination (mandatory for all babies born in the zoo).

