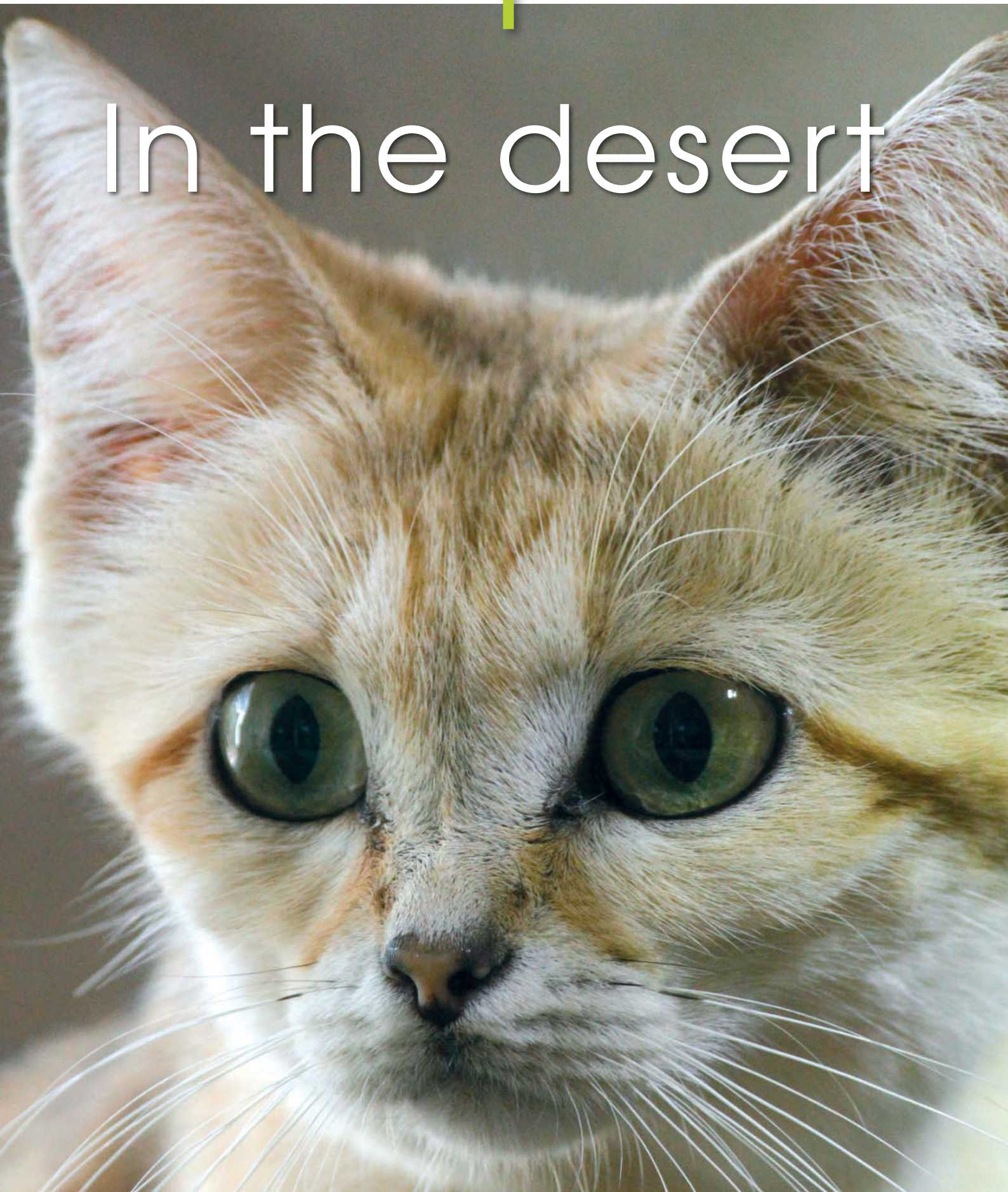


the magazine for friends of the Brno Zoo

Zooreport

No. 3
november 2019

In the desert



4 In the desert

A place where extremes are common



6 In the desert

Camels: Majestic rulers of the desert



8 In the desert

Successful breeding of sand cats



10 In the desert

Reptiles are destined to live in hot climates



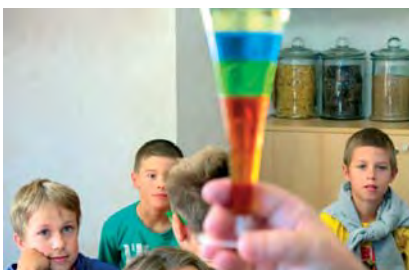
12 Rescue Station

Drought and domestic animals



13 SEV Hlídka

Water at Hlídka



14 Newborns

Additions to the Brno Zoo



16 What is waiting for us

Advent, clubs, workshops, and the Christmas tree



the magazin for friends of the Brno Zoo Zooreport

november 2019

No. 3/19, volume XXI

publisher four times per year

MK ČR E 17723

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@zoobrn.cz

Publisher:

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

Editor's office address

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@zoobrn.cz

Editorial board:

Mgr. Jana Galová, Bc. Jana Hadová,
MVDr. Martin Hovorka, Ph.D. (Chairman
of the Editorial Board), RNDr. Bohumil Král, CSc.
(specialist advisor), Ing. Miroslava Piškulová,
Bc. Eduard Stuchlík, Ing. Oldřiška Kučerová,
and Mgr. Michal Vaňáč (chief editor).

Emendation:

Rosalind Miranda

Distribution:

400 pcs in the English version
1,600 pcs in the Czech version

The author of all unmarked photos is Bc. Eduard
Stuchlík; all unsigned texts were written by
Ing. Oldřiška Kučerová.

First page: Sand cats.

Photo by Bc. Eduard Stuchlík

UNSALEABLE

EDITORIAL

Dear Readers,

In previous issues of ZooReport, we focused on topics unique to Brno. This time we will briefly but clearly focus on a topic which is much discussed and extremely important for the future: deserts and drought.

When talking about deserts, most people think of sand and a hostile environment without a drop of life. In this issue, I hope we will convince you of the opposite. First, let's take a look at what a desert is, how it arises, and why we should definitely not be indifferent to desertification.

Next up are the main stars of this edition, the desert animals. Because we try to show the diversity of nature in Brno Zoo, we cannot forget this key area. We will first take a close-up look at camels. For example, you will learn why they have such long eyelashes and closable nostrils, and how much water they are able to drink in one hour.

Sand cats are one of the most popular animals in Brno Zoo. This is not surprising, due to their appearance and breeding success, which is inherently linked to Brno Zoo. Their long-time breeder, Michal Balcar, told us all about these beautiful beasts, so this is certainly an article to look forward to.

Of course the desert is not just for mammals. It is a place where only specially equipped individuals can survive, those which are adapted for the conditions of this hostile environment of high temperatures and lack of precipitation. In the animal kingdom, reptiles are perfectly adapted for these conditions, and that is why they became the most abundant desert inhabitants. How they did this is definitely worth reading about on page 10.



In the regular section of our rescue station, you can read about how to help local animals in drought conditions. The Ecological Education Centre Hlídka will present its educational program "Let's go where the water flows!" The program is intended for children from three to six years of age and primary school pupils. Another reason to go to Špilberk is to see the beautiful grounds of the Hlídka centre.

Next up is news. Two whole pages are devoted to the pups which were born in Brno Zoo in recent months. Perhaps you will like this dose of cuteness. This is followed by upcoming

events, as well as events that have already occurred that we think are worth remembering.

In this issue, I will also direct your attention to the very last page. Christmas is already fast approaching, as it always does at this time! If you are thinking about a Christmas gift, be sure to check it out.

Happy reading!

Mgr. Michal Vaňáč
Head of External Relations,
Spokesperson



DESERT: a place where extremes are common

We have another hot summer behind us, so we should dedicate the autumn issue of ZooReport to something that is associated with summer; or rather, in recent years it has been associated with it very often. We have had some very extreme seasons, so we will focus on heat and drought, and there is no area warmer and drier than the desert. Therefore, we will take a closer look at the desert species living in Brno Zoo. But first, let's meet the desert itself.

Deserts are areas of the world known for their extreme conditions. They occur mostly around the equator. These are places where rainfall does not exceed 250mm per year, so they suffer from water shortages, and there are also significant differences between day and night temperatures. During the day, temperatures can reach up to 40°C, but can fall to freezing overnight. The opposite is the case with cold deserts, such as the Gobi, which are characterized by extreme frosts during the winter. Because of these conditions, there is very little life in deserts because ani-

mals and plants need to be specially adapted to these extremes.

Recently, the world has faced the problem of slow desertification. This can be caused by global climate change or by human activity in areas adjacent to deserts. The main factors contributing to desertification are changes in temperature or rainfall or surface runoff of the area. Human-induced desertification is most associated with agriculture, such as parallel plowing and planting of monocultures (sowing only one plant species), which lead to water flow without sufficient infiltra-

tion. It can also be caused by contamination of the soil with dangerous or harmful substances, for example unsafe pesticides and herbicides; and by depletion of minerals, which results in the inability to grow vegetation in such places. Indiscriminate logging, which disrupts ecosystems, is also a problem. The common factor is therefore significant overloading of the soil to the extent that groundwater is no longer able to restore vegetation. Desertification is observable in the Sahara, which is increasingly expanding beyond its original boundary; or on Aral Lake, which is disappearing, leaving a hostile and barren desert on its banks.

We can sometimes see the extreme conditions of the desert in our own landscape. In recent years, Central Europe has faced several dry and very hot summers, with essential groundwater levels falling significantly. These conditions, besides causing a decrease in agricultural production, also had a very



▲ In deserts, the precipitation level does not exceed 250mm per year.

Photo: GregMontani, Pixabay

unfavourable impact on the landscape biodiversity. Many plant and animal species suffered from the heat and from water shortages. Changes in the landscape were particularly noticeable in meadows, where formerly lush grasslands sometimes literally just died.

Monocultural fields and forests are not able to retain water, resulting in runoff and soil degradation. This problem is especially evident in sloping areas, where the water runs off and removes layers of topsoil instead of soaking into the depth of the desiccated soil. Such processes can lead to desert landscapes in our own country.

In Brno Zoo, hot summers are the biggest burden on the animals in the Beringia and Himalayas exhibition complexes, where animals from cold areas had adapted to living in freezing conditions. Our breeders must give them special care in the summer. The heat-beleaguered animals do not go anywhere and avoid excessive activity during the day. The animals could hide from the heat under shelters and in burrows and indoor expo-

sures; and those who enjoy such refreshment were occasionally given ice cubes or showers. The water in drinking and swimming pools was also changed more often than in the colder months.

So how does the world treat desertification? The most controversial plan for stopping desertification is offered by Zimbabwean scientist Allan Savory, who claims that desertification can be stopped by grazing cattle at the edge of the desert because their manure helps build soil. This courageous thesis is in direct contradiction to the opinion of most other experts, who claim that grazing cattle on the outskirts helps to spread desertification. Only long-term research will really show which is true. Maybe all we can do is to adapt to desert conditions like the animals which already live there. There are several desert species in Brno Zoo that prove that even extreme conditions will not stop life. Let's take a closer look at the following pages.



Recently, the world has faced the problem of desertification. It is a slow desertification. Photo: _Marion, Pixabay

CAMELS:

Majestic rulers of the desert

Looking at a camel may bring to mind a desert oasis with palm trees and hot sand. Some people might remember (with horror!) the camel's unique ability to spit its saliva and stomach contents over long distances! However, few think of their native habitat, the inhospitable steppes and semi-deserts of Central Asia, where the difference between summer and winter temperatures can be as much as 70°C. These harsh conditions are naturally inhabited by a wild variant of the Bactrian camel (*Camelus bactrianus*), a domesticated form of which can also be found on Mniší hora.

Camels (*Camelidae*) are a family of even-toed ungulates limited to three genera, Lamas, Vicuñas, and Camelus, which are very special. They are distinguished from other even-toed ungulates by a number of special characteristics ranging from the morphology of their digestive system to their unique foot structure that helps them to walk on desert sand.

Let's take a closer look at the genus of camels. They are rightly called desert

vessels, because they were able to adapt to the inhospitable conditions of the local climate. There are two easily recognizable species of camels, the dromedary (*Camelus dromedarius*) and the Bactrian camel (*Camelus bactrianus*). We can easily tell them apart by the number of fat humps that they carry on their backs: the dromedary has one, and the Bactrian camel has two.

Fat store

A camel's humps are the first of its many adaptations to help survive in the hot, dry desert environment. Camels are able to withstand very high temperatures. Unlike human beings, who sweat at high temperatures, camels sweat very little. Therefore, they must have another way to prevent overheating.

The heat they absorb during the day is stored in the adipose tissue of the hump, where it helps to heat them on cold nights and serves to balance body and outdoor temperatures. Furthermore, the humps also serve as a "water reservoir," because digestion of fat from the humps produces metabolic water, which helps maintain the internal aquatic environment.



Eyes with long lashes and closable nostrils protect camels from flying dust. Photo: Eduard Stuchlík



Female Mirai just after birth. Photo: Kristýna Božková

Weight fluctuations and 100 litres of water per hour

Very low sweat production is part of the camel's water management strategy. This includes highly concentrated urine and very dry faeces (which is used in desert areas as a highly valued fuel).

In the desert environment, exhalation is one of the biggest causes of water loss. That part of its anatomy has three times more red blood cells than the blood that circulates in the veins, which helps to reduce the respiratory rate, and thus the amount of exhaled water.

Camels can absorb huge amounts of water at once, and very thirsty individuals can drink up to 100 litres of water within one hour, storing it in the gastrointestinal lining.

Camels in good condition can, depending on the environment, survive without water for 10-14 days. This is because the loss of water from the body is not compensated for by the withdrawal of water from the blood, but from the muscles and tissues of the internal organs. Camels are able to survive the loss of up to 30% of body weight in fluids. This way of managing water reserves usually leads to huge weight fluctuations, but camels are able to make up for this quickly. One Bactrian camel

who lost 120 kg of his weight due to lack of water was able to return to his original weight of 400 kg within two days!

Wind protection

Deserts are windy, full of flying dust and sand, and have lots of treacherous sand dunes, so the camel's adaptation to the extreme desert environment includes not only coping with dryness and heat, but also various accommodations of the body in order to survive. Eyes with long lashes and closable nostrils protect camels from flying dust.

For safe movement, they have wide calloused feet that help them distribute their weight on soft sand in such a way that they do not slip, but are able to move confidently even on the tops of dunes. Also, their hair changes depending on the season: In winter, it is longer and thicker; in summer, very short. This leads to a massive shedding of hair, so we can see camels of very unusual appearance, especially in the spring. Visitors often tell us that clumps of hair are literally hanging off our camels!

In Brno Zoo, you can see the domesticated form of the Bactrian camel, which is quite different from its wild form, especially in the size of the humps. Wild camels have small, pointed, far-apart humps.



Camels are characterized by a unique way of walking on the toes of the feet, supported by flexible "calluses." Photo: Eduard Stuchlík



Camel hair varies depending on the season: In winter, it is longer and thicker; in summer, it is very short. This leads to a massive shedding of hair. Photo: Eduard Stuchlík



We have kept sand cats since 1998. Photo: Eduard Stuchlík

DO YOU KNOW THE SMALLEST AFRICAN CAT?

Successful breeding of the sand cat has a long tradition in Brno

In Brno Zoo, one of the inconspicuous desert specialists, the sand cat (*Felis margarita*) can be found. It is the smallest cat living in desert areas of North Africa and the Middle East. You can recognize it by its sand colour and its remarkably wide head and large ears. Its typical feature is a rough coat between the toes, so that it does not flounder in the sand when walking. Breeding of this species has a long and successful tradition in Brno Zoo. Experienced breeder Michal Balcar told us about sand cats in general and about the history of ours in the Zoo.

How long have sand cats been kept at Brno Zoo? ◀

Breeding of these small cats began in Brno Zoo in 1998, when we acquired two males from the Wuppertal Zoo. Two years later, two females from the Berlin Zoo were imported. One couple found their home in the older part of the terrarium building adjacent to the

Tropical Kingdom pavilion. In this indoor exhibition, on 16 July 2000, we had the first-ever sand cat born in Brno Zoo, and even in the whole of the Czech Republic. I had the rare opportunity to watch this successful breeding: With the male permanently present, the female successfully raised four kittens (two males and two females). The second couple was placed in an exhibition in

the lower part of the zoo, in the so-called Alley of Small Carnivores (which no longer exists), roughly in the place of today's Beringia. They lived there for about 10 years. In 2001, we recorded the birth of three kittens, which sadly died in a few days. Otherwise, this couple did not reproduce.

How many times have we managed to breed sand cats? ◀

Another successful breeding took place in 2009, when the second stage of breeding sand cats in the zoo began. And just this year, in the new exhibition, we registered the first rearing from a newly assembled couple, male Osiris (born in Bristol Zoo) and female Eva (born in Krakow Zoo). This time there were

Brno Zoo boasts a number of sand cat offspring. Photo: Eduard Stuchlík

three kittens. Further litters took place exclusively with this couple. Altogether there were five successful litters, from which 14 kittens were reared naturally by the mother.

What are sand cats fed?

The basis of the diet of sand cats in Brno Zoo is known as biological feeding (whole mice and smaller rats). To diversify the diet, as well as to add an element of enrichment, we allow them occasionally to catch live grasshoppers. Previously, we preferred a six-day feeding week with one day of fasting, but now they are fed daily.

What exactly are sand cats?

All of the sand cats I see almost every day and am in contact with appear to be shy animals. This trait is linked to their distinct preference for a nocturnal way of life in desert areas. The shape of their bodies is characterized by large, wide-spaced ears and a typical fur colour. After a few years, the cats gained confidence in me and they now will carefully approach to feed from my hands, but they will not allow any other contact.

What do you think is most important for the breeding of sand cats?

Assuming that all basic conditions of breeding (climate, equipment in the breeding quarters, feeding, etc.) are fulfilled, I think that the most important thing is to form a suitable and mutually matching couple. In such a case, kittens can be born and reared by the mother even in the presence of the male, as the female is able to tolerate him; and he, in turn, initially brings food directly to the kennel during rearing and participates in the education of the growing kittens. This is exactly how our first successful breeding was recorded.

Sand cats have a sand colour with a strikingly wide head and large ears. Photo: Michal Vaňáč



Reptiles are destined to live in hot climates

The desert is a place where only specially equipped individuals can survive the hostile conditions of high temperatures and lack of precipitation. It is therefore no surprise that there is very little life there. From the animal kingdom, reptiles were perfectly adapted to these conditions and became some of the most abundant desert inhabitants.

First of all, they are helped by the fact that they are poikilothermal (commonly termed “cold-blooded”). Such animals are incapable of thermoregulation, so their body temperature is dependent on the temperature of the environment. That is why we find no reptiles in Antarctica. But desert conditions are so extreme that even animals for which heat is vital have to develop specific survival strategies.

In reptiles, several different forms of adaptation to desert conditions can be found. The first of these are morphological and are visible on the body. It is their skin that at first glance differs from that of other animals. It is very thin and has really low insulation properties. Therefore, reptiles do not risk overheating. The desert gecko of the genus *Palmatogecko* has another adaptation, a floating web-like tunic bet-

ween its fingers that helps it to move across the sand. Because of this, its foot area increases and doesn't sink down into the sand.

Another type of adaptation can be observed on the common chuckwalla (*Sauromalus obesus*), which can be seen in Brno Zoo. This reptile had developed a specific strategy for water conservation: Common chuckwallas have a unique lymphatic bag on the side of their abdomen that serves as a reservoir of this precious fluid. The common chuckwalla also stores energy supplies.

In this same way, turtles use their bladder: It takes up a lot of space under the carapace, and the turtles are able to store



Common chuckwallas are located in the Tropical Kingdom. Photo: Eduard Stuchlík



The Mexican beaded lizard is one of the three known directly poisonous lizards. Photo: Eduard Stuchlík

a relatively large amount of fluid there from which they can eliminate solid urea in adverse conditions and absorb water from the bladder into the body.

In Brno Zoo we also keep a spider tortoise (*Pyxis arachnoides*), one of a wide family of terrestrial turtles. In addition to the aforementioned physiological adaptation of the bladder, ethological adaptation also helps her survive in the desert. As already mentioned, in addition to water loss, overheating is a problem in the desert. Because of the high temperatures, reptiles had to develop another strategy. During the worst periods of drought and heat, the turtle aestivizes (which is like hibernation, but in the summer). During aestivation, a turtle digs into the ground, dampening most of its vital functions and thus helping the creature survive a period of extreme heat. Another surprise is from the radiated tortoise (*Astrochelys radiata*). There is something like a natural hinge on her carapace that allows her to completely pull her head and legs inside the carapace so that she is better protected during aestivation.

However, the main method of most desert creatures of managing heat is to change its activity time. A reptile can be active at night, early in the morning, and late in the evening, hiding in times of extreme heat. Chameleons began to use so-

called "colouring." Changing its colour is used during reproductive rituals and as a warning signal; but this adaptation also serves as thermoregulation. If the chameleon finds itself in a cold environment, we can see a significant darkening of its skin. The darker colour attracts the sun's rays, so the animal warms up faster.

The problem of water scarcity is solved for the vast majority of reptiles by absorbing fluids from food. The above-mentioned radiated tortoise does this

by feeding not only on succulent leaves, but also on the droppings of larger herbivores in times of great need.

The Mexican beaded lizard (*Heloderma horridum*), which is one of the three known directly poisonous lizards, first kills his victim by "spitting" his poison into the wound. He then gets everything he needs from the victim's body, keeping the rest in the fat stores in his tail. One specimen can be seen in Brno Zoo in our Tropical Kingdom.



Brno Zoo is the only zoo in Europe that has bred a spider tortoise. Photo: Michal Vaňáč



A bird water fountain can be installed at home in the garden. Photo: Arcaion, Pixabay

DROUGHT AND DOMESTIC ANIMALS: Beware how you help them

Even the rescue station in Jinačovice has been dealing with drought problems in recent years. We will explore how each of us can help animals in our neighborhood.

If it does not rain sufficiently, the lack of water will curtail the growth of vegetation necessary for the life of all animals. The worst affected are insect-feeding animals, whose food is scarce in extreme drought. Hedgehogs, bats, and insectivorous birds are the most frequent inhabitants of the rescue station in Jinačovice. During our hot summer, exhausted individuals ended up being malnourished due to the lack of natural food, and eventually became dehydrated or overheated. This often happens to bats who find inappropriate shelter, for example under a hot roof.

Generally, animals that get to us at the station during times of heat and drought most often suffer from thirst. Lack of water in the landscape forces animals to travel long distances to reach water resources. This changes their natural migration paths, which were safe for them. When travelling to water, animals often have to cross busy roads. Many smaller

creatures such as hedgehogs, hares, martens and the like are killed there, and often there are collisions with larger animals, such as roe deer or wild boar. Such a collision is dangerous not only for the animal but also for humans. Therefore it is necessary to pay extra attention in dry periods, and always count on the fact that if one roe deer crosses the road, it is likely there will be others.

Problems in dry and hot seasons exist not only for wildlife in nature, but also for our station in the forms of a lack of green vegetation for the animals, a lack of natural insect food, and overheating of the animals. But the biggest problem is obviously the drying up of the local water source. We are then forced to import the water needed for our operation from other sources. Fortunately, it is not an insoluble problem.

Many people will surely think that they could help nature during a hot and dry period, so they ask us how they can ease

the situation of animals suffering from drought. It often happens that people encounter a drying water source (pool, creek, river) and see suffering aquatic animals. Unfortunately, in such a case, aid is undesirable, because moving those animals to other water sources could be more harmful to nature rather than helpful. It could spread a very dangerous crayfish plague, for example, or indirectly cause too much of a profusion of some undesirable species. But that does not mean that help is not possible.

We can offer water in flat bowls to animals in our favourite locations. The bowls should be placed in the shade, ideally in bushes or under trees. At home in the garden, we can install a bird water fountain. Or, a flat bowl of water for birds can be placed on a window sill. In tanks where water is stored (barrels, bathtubs, etc.), we should place a branch or mesh to prevent the birds from drowning. And we can also limit the times at which we exercise our dogs around natural water resources, especially in the evening and night hours, so that animals can quietly quench their thirst.



EEC Hlídka about the water

Tutors of Environmental Education Center Hlídka, detached workplace of Brno Zoo, educate children in a sensitive way, with regard to their age. Therefore, rather than on drought, the topic of this issue, they focus on the only defense against it, on water, when working with them.

Environmental Education Program „Let's go where the water flows!“ is intended for the youngest children from three to six years of age and to pupils of first grade of elementary school. The program works with all their senses. Through stimulation of sensory perception and through experience it helps children to develop positive attitude to the environment and its protection. Using aesthetic stimuli, game and experiments it presents to children characteristics of water and its

place in the environment. It teaches them to love and treasure water. Besides fresh knowledge on water and its importance, children are taking home also information how to save it and not waste it.

Also, this year's Earth Day at Kraví hora dealt with water. With topic „Water over gold“ it aimed on the issue of water pollution, the consequences of which might be as fatal as those of drought.



Earth Day traditionally took place on Kraví hora.

Photo: Centre of Environmental Education Hlídka



We have prepared activities for all age groups.

Photo: Centre of Environmental Education Hlídka



The "Let's go where the water flows!" tutorial is for the youngest children, aged three to six, and primary school pupils.

Photo: Centre of Environmental Education Hlídka



Through aesthetic sensations, play, and experiments, we acquaint children with the properties of water.

Photo: Centre of Environmental Education Hlídka

Newborns

►
Reindeer (Rangifer tarandus).
Photo: Michal Vaňáč



►
Eurasian Elk (Alces alces).
Photo: Eduard Stuchlík



Snowy Owl (Bubo scandiacus).
Photo: Michal Vaňáč



Spider Tortoise (Pyxis arachnoides brygooi). Photo: Michal Vaňáč



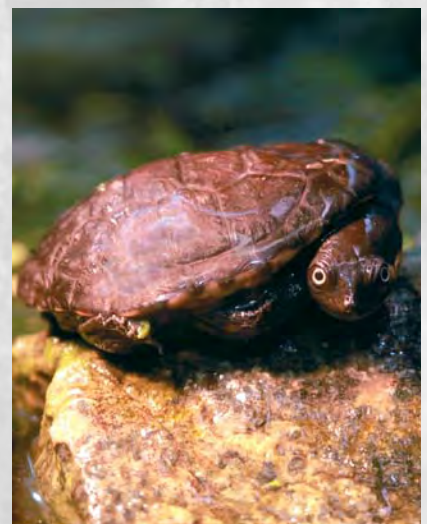
◀ *Himalayan Tahr (Hemitragus jemlahicus).*
Photo: Eduard Stuchlík.



◀ *American Bison (Bison bison).*
Photo: Michal Vaňáč



Greater Vasa Parrot (Coracopsis vasa). Photo: Petr Suvorov



▼ *Roti Island Snake-necked Turtle (Chelodina mccordi).* Photo: Eduard Stuchlík



Komodo dragon Rototom in Tropical Kingdom. Photo: Michal Vaňáč

Be sure not to miss our future events

Even though it might seem that the zoo is gradually falling asleep during the autumn, the opposite is actually true. On Mniší hora and in the Environmental Education Centre Hlídka, we have prepared many interesting events.

Come and join in!

For the winter season, our adventure programs are only for the courageous. Those who dare, accompanied by an animator, can visit the territory of the largest lizard in Brno for a personal meeting with the Komodo dragon! Those who like to face their fears may encounter the ambassadors of such animals as snakes,

spiders, cockroaches, or millipedes. You can find the full range of our adventure programs on the Brno Zoo website in the "For Visitors" section.

Autumn educational programs

The Hlídka Environmental Education Centre has prepared autumn activities at the beginning of this school year in the

form of environmental education programs for children (kindergarten and primary school pupils). Children will learn about the changes taking place in the countryside with the coming of autumn in a playful way in the program "Autumn Colours of the Maple Elf." And how the animals prepare for winter can be learned about in the program "Nuts of the Red Squirrel." For detailed information on environmental education at the Environmental Education Centre, see the website of the Hlídka Environmental Education Centre in the "For kindergartens and primary schools" section.

Advent at Hlídka

The traditional Advent meeting, featuring (non-alcoholic) toddy and the making of Advent wreaths will take place on November 30 at Hlídka. Parents with children and a Christmas spirit are welcome! Details can be found on the CEE Hlídka website in the "News" section, or in the event description on Facebook.

Clubs of interest at the zoo

The Young Natural Scientists' Station at Brno Zoo expands its range of leisure activities for this school year. And the new clubs are definitely not just for older children. The "Fairy Tale to the Zoo" meeting is intended for parents with pre-school children who would like to spend the afternoon with animals. Among the "Panthers" are invited seniors who always wanted to know more about the life of exotic creatures



A festive pre-Christmas atmosphere can be made even better by visiting Advent at Hlídka. Photo: CEE Hlídka



Advent at Hlídka will take place on November 30. Photo: CEE Hlídka



Clubs at the Young Natural Scientists' Station take place every week. Photo: Jana Galová



On Sunday, December 1 at 4 pm, we shall light up the Christmas tree at the entrance to Beringia. Photo: Michal Vaňáč



The entire family can be involved in creating enrichment elements. Photo: Michal Vaňáč

but who did not have time for it previously. The complete range of clubs and workshops can be found on the Brno Zoo website in the section "For children and schools."

Lighting up the Christmas tree

The Christmas spirit will spread at Brno Zoo on 1 December. In addition to specially commented feedings and meetings, along with Advent workshops and clubs, visitors will also have Christmas carols and a decorated Christmas tree. Its lights will be switched on at 4 pm. A detailed program can be found on the Brno Zoo website in the "News" section or in the description of the event on Facebook.

Enrichment workshops

At the beginning of the school year, we started workshops in which people can learn how to make enrichment elements from fire hoses. The dates of the workshops and the booking contact can be found on the Brno Zoo website in the "News" section or on Facebook in the events section. The number of participants is limited, so don't hesitate!

Gifts for animals

Many visitors to the zoo would like to give the animals a little more pleasure, but often don't know how to do this. Therefore, on the website of Brno Zoo in the "Support us" section we publish and seasonally update the list of natural products that we collect for our animals. If you find that you have such a gift at home that would make them happy, you can bring it with you on your next visit. We collect all items at the porter's lodge. Thank you!



Some workshop participants are directly chosen for making enrichment! Photo: Michal Vaňáč



It is simply not possible without garden shears. Photo: Michal Vaňáč

Here, a triangular hammock is being created. Photo: Michal Vaňáč



Recent happenings in the zoo

In the past months, we gave thought to many species which need protection in Brno Zoo. In addition to chimpanzees and tigers, we also paid close attention to some of the fauna of our own country. Additionally, one pleasant surprise awaited us.



World Chimpanzee Day fell on 14 August. Photo: Eduard Stuchlík

World Chimpanzee Day

Our band of Brno chimpanzees (*Pan troglodytes*), male Fábén and females Gina and Mary, enjoyed this year's World Chimpanzee Day, which fell on 14 August. This is the anniversary of the day in 1960 that Jane Goodall first entered the territory of today's Gombe National Park in Tanzania to study wild chimpanzees.

The highlight of the celebrations was a commented zoopharmacognostic meeting. Brno Zoo has long been working with Dr. Tereza Zerhau, whose field this is, and our chimpanzees are very fond of her. Zoopharmacognosy works with the idea that animals in their natural environment are surrounded by sources of flavours, smells, and

healing substances that allow them to develop a wide range of behaviours, including self-medication, such as the widespread use of clay or making a hair perfume from stinking insect repellent plants, to make themselves more comfortable.

This year, World Chimpanzee Day participants had the opportunity not only to learn about chimpanzee life in the wild and the challenges they face, but also to meet Dr. Zerhau and to watch her fully engage the chimpanzees.

The aim of World Chimpanzee Day is to pay homage to these closest living relatives of ours, to highlight their importance and vulnerability, and to support activities that will better protect them.

Profile of Jane Goodall

Jane Goodall (born April 3, 1934 in London) is a British primatologist who became famous for her breakthrough findings during her study of wild chimpanzees at the Gombe Reserve in Tanzania. She was the first to observe and describe the use and production of tools by chimpanzees. This discovery led to a reconsideration of the view of animals and humans. Until then, it was believed that the conscious use of tools was a trait only



Jane Goodall. Photo: U.S. Department of State

of humans. Today she travels around the world, writes books, and lectures on nature conservation and the ethical treatment of animals. She is one of the Peace Messengers of the United Nations.

World Tiger Day

Our Sumatran tigers (*Panthera tigris sumatrae*), Satu and Dandys, received gifts for this year's "Tiger Day," namely a sheep and a camel. However, this was not a variation of their food rations! Cardboard animals with a sheep shed and outlined camel hair served as a sensory enrichment, which makes life more interesting for animals in human care. It aims to support or induce a specific type of behaviour in the animal. Sensory enrichment should stimulate

the senses and encourage the animal to “search” or play. The smell of sheep or camel hair is something unusual for tigers, as if an unknown animal had run through their territory, and the whole enrichment element is something that requires them to make a thorough examination of what seems suspicious, but perhaps might be catchable.

The idea of proclaiming July 29 *World Tiger Day* was the result of the “Tiger Summit” held in 2010 in St. Petersburg, Russia. For the first time ever, representatives of all 13 countries where tigers live in the wild gathered to agree on a common approach to protect this big cat. Among other things, the negotiations resulted in an ambitious commitment to double the number of tigers in the wild by 2022. Part of the species conservation strategy is also the maintenance of *in situ* conservation populations, including our Brno Zoo tigers.

Release of ground squirrels

A record number of young emerged from the burrows in our special enclosure of European ground squirrels (*Spermophilus citellus*) this spring. The colony, which is included in the AOPK (Critical Endangered Species Conservation Agency) rescue project, is stable. Because of this, we were able to return 26 individuals from the colony to the wild. This year's release, which took place on 23rd July and which attracted great interest from the media and political leaders, was carried out below Milá hill in the České středohoří Mountains.

There was a surprise in the birdhouse

A surprise awaited zoologists during their regular inspection of the special booths for the Eurasian hoopoe (*Upupa epops*), which Brno Zoo takes care of within the framework of a project for the protection of this species. Eurasian wryneck (*Jynx torquilla*) chicks were discovered at one of the sites instead of the expected titmice and hoped-for hoopoes. The Eurasian wryneck is one of the most endangered species in the Czech Republic, as is the hoopoe.

Eurasian wryneck chicks in a booth.
Photo: Petr Suvorov



The tigress Satu attacked the sheep without hesitation. Photo: Michal Vaňáč



The male Dandys was cautious about the camel and examined it thoroughly.
Photo: Michal Vaňáč



Sčítání mláďata odhalilo rekordní množství malých syslů. Foto: archiv Michal Vaňáč



GIFT THAT MAKES SENSE



CHRISTMAS ADOPTION

MORE AT WWW.ZOOBRNO.CZ



Reticulated giraffe

Photo: Roman Kočí

B | R | N | O

STATUTÁRNÍ MĚSTO BRNO
FINANČNĚ PODPORUJE ZOO BRNO A STANICI ZÁJMOVÝCH ČINNOSTÍ,
PŘÍSPĚVKOVOU ORGANIZACI