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Miroslav Fišmeister & Mgr. Ilja Kašík

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A zoo is a display of a nation's culture

These days, zoos are a natural part of our lives. People come there to look for and find things that today's hi-tech society slowly loses – a connection with nature, from which it once emerged.

Contact with an animal has a deep psychological impact on a human being: it's been proved, that just the presence of an animal lessens tension, positively effects blood pressure, and eliminates or reduces stress. Children show a special affection for animals.

And it's the children with whom the Brno Zoo works from its first days – it was established more than fifty years ago – and successfully. Its Station of Young Naturalists is being attended by children of various ages and in specialised groups, they get their first naturalist knowledge. Such use of free time cultivates them and often sets the direction of their future lives.

The more animals stay with us, the better

It's obvious that the function of zoos isn't just to provide relaxation, but that it's also to furnish knowledge about the necessity to preserve the complexity of nature. More and more appealingly, the aim to preserve species

is establishing itself. There are species that do not live anywhere but at the zoos and it's likely that there's going to be more of them. There are other species of which more specimens live at the zoos than in the wild. It is extremely important to keep these animals for future generations, instead of letting them vanish. The more animals stay with us, the better it is for us.

We also protect the fauna from our nearest surroundings

The zoos also play an increasingly important role in preserving the future of near or remote surroundings. A Rescue Station for Handicapped Animals has worked successfully for a long time at the Brno Zoo. It takes in, heals, and then returns wounded animals to various parts of Southern Moravia. I whole-heartedly welcome and appreciate that the Brno Zoo also keeps species which are rapidly vanishing from our nature, and that it plans to strengthen the wild populations of Wildcats or Pouched marmots.

The zoo serves and also represents the town

I am convinced that more and more visitors come to the zoo with various interests and with different personal aims. But all of them are trying to look for one thing which unites



Ing. Miroslav Hošek

them – a longing after a harmonious life. I am a good example of this. Even though my profession is purely technical, I never forget to visit the zoo regularly with my little children.

It is said that a zoo is a display of a nation's culture. That is why I'd wish to contribute to the zoo's effort to fulfill all the aforementioned tasks and primarily, to help it to serve the citizens as well as possible and to represent the city with dignity.



Ing. Miroslav Hošek, Deputy Mayor

Ing. Miroslav Hošek

was born in 1965 in Moravský Krumlov, where he finished his studies at grammar school. In 1988, he graduated from Technical college of Brno, engineering faculty, combustion engines and motor vehicles major. After a yearlong military service, he started at the Research institute of building and ground machines. He started to engage in private business – motor diagnostics – already in 1990. In 1992, he co-established a company "Motorcentrum", which speedily became a car seller of SEAT. In 1995, he established a company "Hošek Motor" to represent Mercedes-Benz car corporation. He became a member of Local authority and Council of the city district Brno-Vinohrady during 1998–2002; he was elected member of the Brno city Council in 2002. During this period, in April 2005, he was elected technical deputy of city mayor.

He is married, he's got two sons (19, 14) and a daughter (18). Among his biggest hobbies belong motorcycles.







The Madagascarian iguana Oplurus cuvieri is a new species in the pavillion of the reptiles "Tropical Kingdom"

Madagascar iguanas enlarged our collection of reptiles

The Madagascar iguanas are seldomly kept animals. For example, the species Collared iguanid (*Oplurus cuvieri*) is kept by only four European zoos (5 males, 7 females, 14 undetermined sex and 9 young ones). As for the USA, again only four zoos keep them – furthermore, they only share 3 males and 1 undetermined. The only zoo in the world that hatches this iguana is the Rotterdam Zoo. And that's where our three specimens were born in October 2003. We got them in May 2005. Although they are not particularly varicoloured or extraordinarily

large, they deserve our attention and patience. After all, 95% of reptiles (*Oplurus included*) are Madagascarian endemites; at the same time, mass burning of the woods rapidly decreases their habitat.

This reptile belongs - together with another six species of its genus - to a separate subfamily, which also includes (apart from *Oplurus* itself) the monotypical genus *Chalarodon*. This categorisation results from the presence of iguanas, which is a typically American family, on Madagascar and Comores, within a large area of agamas. This is one of the most interesting zoogeographical oddities.

The Collared iguanids inhabit mainly the western part of Madagascar, but also a large area in the island's centre that goes as far as the eastern border of the rain forest. They're plentiful especially around Mahajango. They live in dry forests, where they climb upon larger tree branches or seek shelter in hollow trunks; but they can also be seen in open areas, on rocks, or on the ground. They can be seen even on garden fences. They usually live in pairs; the females show territorial behaviour as well.

Their usual length is 25-29 cm, exceptionally up to 40 cm. Their squat, mildly flattened body is covered with carinated scales. The head on a strong neck is wedge-shaped, the male head has a visible short crest. They differ from the similar *Oplurus cyclurus* by segmentation of the verticils (scale lines) on the tail. Between the large circles of tail thorns, the Collared iguanid also has a thin line of tiny "betweencircles". This iguanid's base colours are brown, grey, or ochre shades, often with horizontal stripes.

They must be stimulated to hatch. This is done by keeping them for a few months at 20-22 °C. As soon as this cold phase is over, they mate. Males fight for the favour of mature females. Both sexes appear to be big warriors. However, this ritual never takes place in a tiny cage, which can fill them with stress. It's therefore essential to enable them to keep the necessary distance between them when they're kept in a terrarium. Only this will start the optical communication: the male approaches the female and than the process comes to the actual matina. The female lavs three eggs, which she covers with slightly wet soil. The eggs are kept at 29 °C, and the hatchlings appear after some 70-75 days.

Our group (1,2) was placed into one of the large terrariums in the Tropical Kingdom Pavilion, where, as we hope, we'll one day be able to witness the mating of Collared iauanids ourselves.

Michal Balcar



The Spišská Nová Ves Zoo – the gate to the Slovak Paradise

The zoo in Spišská Nová Ves is located on a 6,5 ha area in the south-east part of the town. It's situated in the most beautiful



Chimpanzee

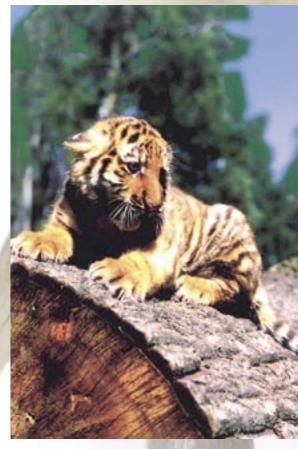
part of Slovakia, in the middle of Spiš, which is the gateway to a tourist-attraction area of the Slovak Paradise National Park, from where it is at a stone's throw to another national park, the High Tatras. Near to it there is the largest castle in Middle Europe as well as the highest Gothic altar in the world, which stands in the church in Levoča. The zoo makes this area, which is the most visited part of Slovakia, even more varied. More and more visitors are coming to this zoo, also due to the exceptionality of the Spiš sights and to the untouched beauty of the surrounding nature.

The zoo preserves the characteristic original shape of the countryside and therefore contributes to keeping a variety of life forms and to using natural resources rationally. A lake, a marked part within the zoo's compound, provides natural conditions for the sociable ducks and swans, and it preserves and keeps their biotope. An allowance organisation tries its best to protect this part of nature from destruction and damage. It improves the state of nature this way, and also creates a place where the visitors and their families can have a nice time, rest, and renew their strength.

The visitors are not only given a chance to rest and get relief from everyday stress, but also a chance to learn and understand the natural patterns. They'll see fifty species of animals in about 200 specimens. Among the rarest, there are those listed in the Red Book of Endangered Species – Ussuri tiger, Persian leopard, Mandrill. Other exotic animasl are capybaras, alpacas, dromedarian camels, jungle cats, chimpanzees, bears, ostriches, lions, and others. Currently, the zoo focuses on the breeding of alpacas.

In May 2004, the zoo celebrated its 15th anniversary. The staff tries to ensure that the animals have as nice conditions in modern "cageless" exhibits as possible, and they also plan to enhance that area of the zoo. The project is finished and now they're waiting for it to be approved. If they manage to rebuild the former bowling alley, the zoo will be open all year. In the new building, there should be exhibits for monkeys, aquariums, terrariums, and other interesting things. They believe that, thanks to the city council, which is very supportive towards them, they'll achieve what they wish.

Not only local people, but all Slovaks and also foreign tourists – especially Polish, Hungarian and Czech – are attracted to the zoo. The zoo is open from 15th April to 20th October daily, except Mondays, from 10am to 6pm.



A young Ussuri tiger

The public shows considerable interest in the zoo and supports it, and the staff will do their best to keep the zoo attractive for both local and other visitors.

Karol Dzurik



A lake dominates the zoo composition



Pictures from the Brno Zoological Garden



Emu



A male of the Emu with young ones

Ostriches, Rheas and Cassowaries at the Brno Zoo

There are not many examples in the animal kingdom, when only the father himself takes care of the young. This kind of rearing is typical for the members of the Peleaognathae superorder – in a few kinds of Ratitae (Peleaognathae) even the mother partly cares for the young. The Brno Zoo breeds four kinds of these big flightless birds: the Ostrich (Struthio camelus), the Emu (Dromaius novaehollandiae), the Great rhea (Rhea americana) and the Southern cassowary (Casuarius casuarius). Some



A young Ostrich

systematists sort them into four tribes of the Ostriches order, whose fifth tribe are the Kiwis; then the second order of the *Ratitae* in this system are the Tinamous. We lean towards the classification, where the superorder is divided into five orders: Ostriches, Rheas, Cassowaries (Cassowaries and Emus), Kiwis and Tinamous.

The emus, same as other orders of *Ratitae* as ostriches, cassowaries and kiwis, completely lost their ability to fly; the flying muscles and the comb of the breastbone, where the muscles of other birds are fastened to, are missing. Nature compensated the atrophic



Ostrich

wings in a different way: they have long strong hind limbs with a reduced number of toes and they usually can reach the speed of 60 kilometres per hour.

In the emu exhibit at the Brno Zoo, the male already in February dug a shallow ground nest, about a meter long and 70 centimetres wide, laid out with grass and sprigs. During about four weeks, the female was laying big dark-green eggs into it. The breeders were at first taking the eggs away and they put them into a layer of wheat grain. When they collected four eggs, they put them back into the nest and the father immediately sat down on them. The female laid another two eggs. The emus lay eggs every year, in their homeland even twice a year. The incubation takes 56 days and the male can lose up to a half of its weight in this period, it lives only on its fat reserves.

If something disturbs the bird sitting on the eggs, it can leave the nest for good and then the embryos die. That's what the breeders were afraid of. Our male left the laid eggs to their fate and it was exactly during the April temperature drop, when the temperature was falling below freezing point. Luckily, the father always returned to the nest after about an hour and as we found later, the coolness didn't hurt the embryos, they were still developing. One of them was unsuccessful in perforating the shell, another died shortly after it hatched, but since the beginning of May, four of the



Great rhea

chicks cheerfully run in the exhibit under the attention of their father. The father takes care of them himself, so the breeders separated the mother, because it could be dangerous for them.

In nature, the caring father protects the young ones from their mother, as well as from other enemies. The father doesn't feed the chicks, he only shows them how to peck and where to find the grain. All of the unfed young ones start to ingest food they find themselves just in the first days of their life, after they digest the last rest of the yolk embryo sac.

The breeding of the emu has a long tradition at the Brno Zoo. We exchanged a group of grown up young ones for other animals with the Russian Kazaň Zoo in 2003. We want to offer the present young birds for an exchange to other zoos, as well.

The emus live in all parts of Australia, except the deserts and primeval forests. They eat seeds, green shoots, and fruits; they vary their menu with insects and small vertebrates. They cause damage to farmers and the farmers try to wipe them out, even with government support – the emu is protected only in preserves. But the biggest Australian bird proved to be a very viable species; it learned to use the cattle watering places and it resists human pressure even out of the preserves. It looks like it is not endangered yet, even though the white colonists exterminated several of its relatives, as, for example, the



A head of the Great rhea

New Zealand moa or probably other kinds of emu from islands around Australia.

The breeding of young ostriches is a bit different from the breeding of the emus at the Brno Zoo. The bird in the nest wouldn't have enough peace in the common exhibit with the African ungulates, therefore the breeders collect the eggs laid in different places and they put them into an incubator. They have put there ten eggs this year, the young ones started to break out in the beginning of May. The young birds are being bred in a group placed in an isolated box. It is important that the oldest one knows how to peck, otherwise the breeders often must teach them. The others then pick it up from watching them. This year's young birds are going to go to the Helsinki Zoo, after they mature.

The ostriches live in savannas and semideserts of sub-Saharan Africa. Their food demands are in essence the same as the emu's. They are interesting for the zoos as an example of the biggest living bird. The existence of this species is not endangered only because they became an object of farming, same as the emus. But these birds are slowly becoming domestic animals that show new physiological and anatomical characteristics, as e.g. more numerous broods or shorter legs. The wild ostrich, extant in four sub-species, is losing its living space with the civilisational change of the landscape and it still is a hunted animal. The Brno Zoo breeds a nominotypical sub-species Struthio c. camelus. The numbers of its members in its homeland in southern Sahara are alarmingly decreasing; sub-species Struthio c. syriacus completely died out in about 1960.



Southern casowary



A head of the Southern casowary

In addition to a pair of the emus and a male and two females of the ostrich, the Brno Zoo also breeds two females of the South American Great rheas and one male of the Southern cassowary from New Guinea and north-eastern Australia. Among the tasks of the zoo also belongs the obtaining of other specimen of these two sub-species for putting pairs together and breeding young ones – in first place are the rare brightly coloured cassowaries.

Bc. Eduard Stuchlik





A young Reindeer with its mother



A young Pere David's deer

Small, but nice

"Look, chickens, following their mum!", a young woman with a pram excitedly tells her child about what's going on in the exhibit of the emus. When she finds out that the mother is their father and he looks after the chickens himself, she disenchantedly corrects herself and immediately makes comments upon this together with her girlfriend. Excitement turns into surprise with a bit of irony and a bit of envy.

A May suckling strongly appeals to a couple of lovers, who get a view of a baby takin as big as a soft toy next to its giant parent. The young man, who's more speculative, runs to the info sign to find out about the young one's age. His theory, that it is a brand new baby, proves to be correct: the little dark-brown takin with a blaze on its forehead was born two days earlier. "This baby's here

for just a couple of days", he tells his girlfriend in a voice in which one can hear the solemnity of the moment of birth. A large group of visitors that watches a baby camel surrounded by a quartet of gigantic relatives is similarly moved...

The last young ones of May at the Brno Zoo are three Siberian ibexes. As well as others, such as Bennet wallabies (that start to look out of mothers' pouches already in March), they're born at Monk's Hill every year. Of all the other breedings this year, we could mention for instance the Chapman's zebra stallion, common squirrel monkeys, or brush-tailed bettong, followed by a Pere David's deer. So far, we've had 32 breedings altogether.

The 2003 birth of a female takin at our zoo was the greatest breeding success of the last few years – this even-toed ungulate of the bovine family, whose home are the steep hills of Himalaya, is very rare both in the wild and at the



A young Mishmi takin



A young European elk

zoos, and in Europe in only four zoos takins bore young so far. The two-year-old female takin is now almost an adult and shares an exhibit with her parents. And her mother gave birth to her brother on 10th May 2005. Unfortunately, this male died after three weeks. In other European zoos, male takins die soon after they're born as well; it's possible that a lethal gene linked to the male sex wanders within this population.

For the first time in the history of our zoo, we also have sucklings of reindeer and elks. The two elks both gave birth to their first sucklings. Their father, Fredy, moved to the Brno Zoo from the zoo in Chomutov in 2000; his mates came in the following years from zoos in Switzerland and Germany. Also, the reindeer have their first young since the beginning of May. The female came from the zoo in Vienna, the male from the Dutch zoo in Plackendael.

Small things are said to be nice. The old Romans had a similar saying mainly about creatures: Inest sua gratia parvis. I think, that even more ancient civilisations transferred their affection for their kids to the baby animals. The phenomenon of the romping age is still attractive. We can see this at the zoo today. Whenever a larger number of young ones appears in exhibits, the atmosphere at the zoo starts to be excited and warm.

Jan Kameník

The leopard female was the first to use the outdoor exhibit

The adaptation of our pair of Sri Lanka leopards, brought here from Colombo last November, lasted till May. During a ceremony on May 15th, we let them into the outdoor exhibit from the indoor exhibits, where the visitors could look at them through a glass wall. The leopards will – at least from the start – live separately in their indoor exhibits and they will go to the outdoor one on a rotational basis. That's why during the ceremony only the female was let outside, but on the following day, the male enjoyed his day out. (red)

A delayed gift: a female of a Japanese crane

The female Japanese crane that we got via air mail in late April is a gift of the Moscow Zoo for our 50th anniversary. The one year delay was caused by the fact that we did not have a proper exhibit. For the same reason, we had to say "no" to a male that was offered us (and that we'd most love to have now) – because that one was not a gift, the Moscow Zoo could not wait with it for so long.



Japanese crane

However, we hope we'll be able to get a male elsewhere. The crane can be seen by visitors in a little wooden cabin beyond the Indian log cabin;



A Sri Lankan leopard in the outdoor exhibit

there's a short detour to it from the main route. The Japanese crane lives in Korea, the Manchoukuo part of China, and in Japan. It is a wading bird that lives in wetlands. It's very rare; it was rare even before the wetlands started to be turned into agricultural areas. And it is the most beautiful crane species, often displayed on traditional Oriental art forms, for example. on Chinese porcelain. (red)

A female beaver bitten by a dog gave birth to baby beavers

Sucklings appeared on a most unusual place at the Brno zoo. The new life did not appear in either an exhibit or an indoor rear area - two baby European beavers were born to a female, which was being treated at the Rescue Centre for Handicapped Animals. Preservationists from Břeclav found her and gave her to our zoo on 23rd March 2005. Many wounds on her back and sides made it clear that the animal was attacked by a doa and that she was in a state of shock. The vet narcotized her in an effort to be able to open the festering flesh and clean the wounds. The he gave her antibiotics. The female, placed in a pool at the veterinary clinic, was at first shy, the keepers had difficulty when they cleaned the wounds with disinfectant. After a few days, however, she got used to them and then behaved cooperatively. Her

condition was getting better all the time. From the very first moments she showed a big appetite for food, which was unusual considering her poor state. This mystery's solution came soon – she was pregnant. Approximately a month after she came to us she gave birth to three kits. One of them died, but the other two promiseto do well. Regarding the return of these protected rodents to the wild, the keepers will consult with those who found her – the preservationists. But this won't happen until the young ones are sufficiently mature. Until then, the keepers will arrange an outdoor exhibit for the family, so that the visitors may have a look at both the babies and their recuperated brave mother. (red)



The Beaver female with the young ones





Six weeks old Bactrian camel Gája

Looking forward to Gája

A long-awaited baby camel, a female named Gája, was born at the Brno Zoo in mid April. The staff was nervous before the actual birth: the two baby camels born last year died shortly afterwards, and no one could find the exact cause. So, when



The camel can't walk, when it's born

Sulika, our most experienced female in that she had already bred many sucklings, was getting ready to give birth in the exhibit on the morning of April 18th, she was in the focus of both her keepers and a vet. Fortunately, the young camel was healthy and it was immediately at the centre of attention of not just the keepers, but also the rest of the herd: father Abdul, a female Isis, pregnant as well, and also the new female in Abdul's harem, Smilte, brought from the Lithuanian city of Kaunas. They all surrounded the suckling and showed curiosity.

The baby camels are very clumsy after birth and it takes them many hours to be able to stand up and start drinking mother's milk. The mother helps: she tries to lift the tiny thing with the help of her mouth or by poking it with her foot, and she stands in a position with her teat

as close to the baby as possible. Unfortunately, sometimes she manages to hit the baby back to the ground just when it finally stood up. If the keeper and the mother have a good relationship, the keeper can also help and can direct the baby to the teat. But the suckling finally manages it on his own.

Wild dromedaries live these days in just one place – the Gobi desert. Domestic forms live in an area that goes from Turkey via central Asia to China and Mongolia. They're often seen at zoos, yet their rearing is not quite easy. They are, for example, very demanding for minerals and salts, which is because of the ingredients of their food in their homeland. Although they can easily withstand both very high and very low temperatures, they withstand wetness very badly, and commonly because of rainy European weather.

Apart from the herd, the Brno Zoo also keeps a female named Majda, brought from Bratislava; She is housed in another exhibit and is being trained by the keepers so that in the future she'll be able to offer the visitor a ride. Currently, one can see her in the company of a keeper walking through the zoo. Also, the baby Gája (which, as we hope, won't be the only suckling in the exhibit for too long) will get the basic training. Hopefully, we'll soon see her walk through the zoo side by side with Majda...

Miloslav Walter



Foursome of the Bactrian camel, second from the right side Abdul



Something ends, so that something other may begin

When we look back at things that happened at the Brno Zoo over the last couple of years, we realise, that apart from rebuilding and reconstruction of exhibits, other, less noticeable things happened: the changes in our collection of species. Changes towards the new direction set by the new breeding conception, a part of the Strategy of Development of the Brno Zoo.

Within less than two years since its publishing, we took away several animals that did not fit in. Another reason for the animals' departure was the fact that some exhibits were too old and did not fit the new knowledge about the biology of the species. Also, the plans to breed endangered species made us offer some animals for exchange.

The building of a set of exhibits for Arctic fauna "Beringia" resulted in the export of a pair of Syrian bears to Zoo Kazaň in September 2003. On the location of their old exhibit, there will be built a part of another exhibit of another subspecies of brown bears - kodiaks or grizzlies, which live in the Beringia area. The last of the large animals that was transported away was the female of the Nile crocodile, Dája, which was consigned to the newly appearing zoo in Southern Bohemia. This is because we want to reserve the pavilion of reptiles for American tropical animals, and so instead of African crocodiles we shall keep caimans and alligators. Bad keeping conditions are the reason for the departure of the female cheetah, which is now consigned to Montpellier, France. After a new exhibit is built (behind the exhibits of bisons and guanacos), this species will return to our zoo. The male Somalian donkey spent the last two



A Nile crocodile in its exhibit a day before the transport

years in a small exhibit placed outside the visitors' route. He will be replaced by a couple of young animals of the same species, which should inhabit a larger area: the exhibit in which there are currently the Grevy's zebras and adaxes.

A female White-tailed sea eagle, a male Bald eagle, and a male Steller's sea eagle are among the newly imported animals (but the Steller sea eagle was just returned to our zoo from the Jihlava zoo, where it had been on loan). We recently imported a female Striped skunk and a male White-nosed coati, all of which are awaiting a partner. We also placed Waxwings and a male Japanese crane into the exhibit. As for new reptile arrivals, there are Caiman lizards, which came from the Prague zoo.

We shall still make an effort to get species that fit the new breeding concept. But most of all, we want to build new exhibits for them, or to rebuild the old ones. We are currently finishing an exhibit with a stable (in the shape of a yurt) for a couple of Przewalski fillies. And we're also rebuilding the former cheetah building into a building suitable for a South American tapir, which – like the Przewalski horses – should be ready during this summer.

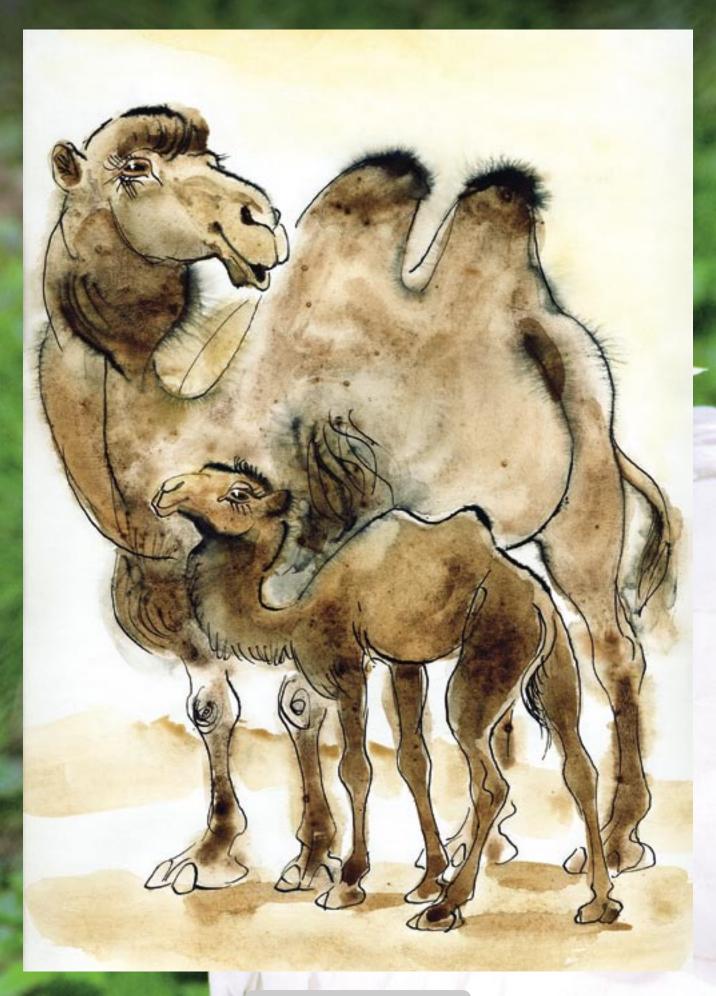
The motivating factor for our work is the fact that we were asked to prepare plans for two great projects – the building of a new exhibit for kodiaks and the reconstruction of the crocodile pavillion. We therefore hope to start large investment actions in the following years, actions, that our zoo needs so much.

Ing. František Slavič





The last crocodile has left the Brno zoo in May 2005, after more than thirty years. The breeders fixed its maw and limbs with a tape, wrapped its eyes with a cloth and then they brought the three-meter reptile in weight of 150 kg into the car



Bactrian camels