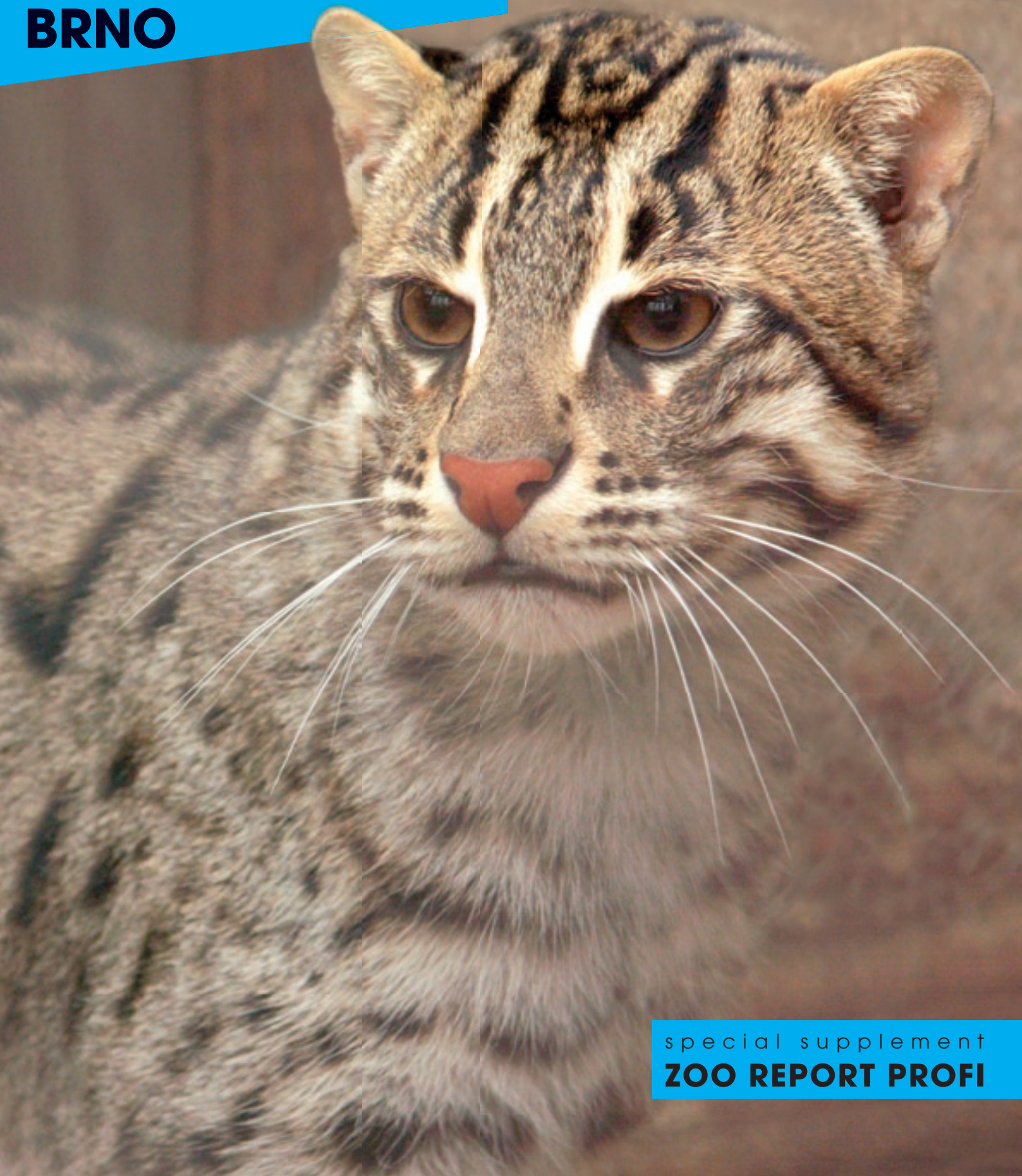


No. 4 / december 2006

# **zoo**report

the magazine for friends of the Brno Zoo

## **BRNO**



special supplement

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### Zooreport

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UNSALEABLE



## For Zdeněk Veselovský

**A notable Czech zoologist, the Prague Zoo director of many years' standing, Prof. Zdeněk Veselovský, died on 24<sup>th</sup> November 2006 after a short hospitalization in Praha-Motol hospital. The cause of death was a heart failure.**

Zdeněk Veselovský was born on 26<sup>th</sup> August 1928. He graduated from the Faculty of Natural Sciences of the Charles University in Prague, where he afterwards worked as an assistant lecturer (1952-1959). However, most of his professional life was connected to the Prague Zoo, where he had worked for more than 30 years.

Already at the end of his studies, he worked at the Prague Zoo as a zoological assistant of the then director Cyril Purkyně; Prof. Veselovský himself was appointed the director in 1959. After his entrance, the zoo gradually changed from a slowly developing provincial zoo into an institution of European and world-class importance. A cardinal contribution to the Przewalski horse's saving, one of the world's first breeding of cheetahs, Clouded leopards, Maned wolves, Humboldt penguins and other difficultly reproduced species – these were the main things that contributed to the high international prestige of the Prague Zoo. It was not

by accident that Prof. Veselovský had executed many duties in the International Union of Directors of Zoological Gardens (IUDZG). In 1964, he was elected a general secretary of the union, from 1967 to 1971, he was a vice president and from 1971 to 1975, he was a president of this prestige organisation. He became an honorary member of the European Academy of Arts and Sciences. He was also active at home ground – he was a chairman of the Czechoslovak Society for Ornithology for 25 years and worked as a deputy chairman of the zoological organisation of the Academy of Sciences of the Czech Republic. Prof. Veselovský carried out the function of the Prague Zoo director till 1988; he left the zoo by political decision.

He was a tireless propagator and popularizer of sciences during whole his life. He wrote tens of books and countless articles, he got published in foreign specialist magazines. His best-known books are: "Trip to the Tertiary Period", "Do We Behave as Animals?", "To the Heads of Orinoco" or "Common Ethology". He always found some time to lecture on the Faculty of Natural Sciences and to lead diploma thesis of his students, even during the time he was fully occupied by his function. He didn't leave the pedagogical activities even after he had left the zoo – he lectured on the Faculty of Biological Sciences of the University of South Bohemia in České Budějovice. He also externally lectured on his "home" faculty in Prague.

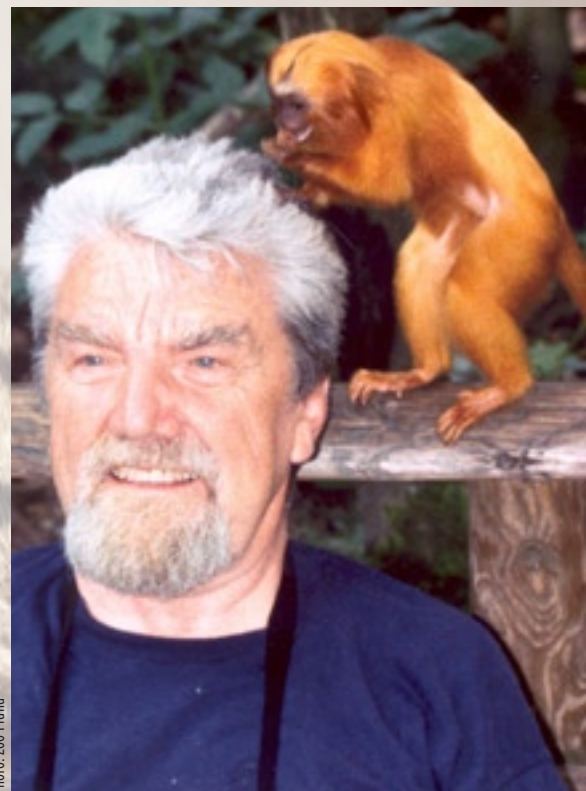


Photo: Zoo Praha

Prof. Veselovský was one of the biggest personalities of the Czech zoology and ethology; he was a follower of Konrád Lorenz, a Nobel Prize winner and ethology founder. He educated several generations of specialists, who apply his heritage in their research, protectionist or breeding work today. He also was a great proponent of zoos; he saw specific cultural and educational institutions for both present and future world in them.

Above all, he was a great animal lover and a real envoy of the animal kingdom in the human world. He fought out that some animals could live with him on the Faculty of Natural Sciences in Prague, where he lived in secret during his studies. He regularly visited the Prague Zoo and enjoyed its development till his last days. Some animals that remembered him as a director still recognized and greeted him. The 35<sup>th</sup> birthday celebration of Kama - the first orang-utan bred in Prague – in June 2006 and the 75<sup>th</sup> celebration of the zoo founding in the end of September 2006 were his last visits to the Prague Zoo.

The passing of Zdeněk Veselovský means a tremendous loss for the Czech science, education and the world of zoos. (red)



Photo: Zoo Praha

One of the last pictures of Prof. Zdeněk Veselovský at the Prague Zoo – during the birthday celebration of orang-utan Kama in June 2006 Photo by the Prague Zoo





Young Blue wildebeest with its mother

### This Year's Second Young Blue Wildebeest

On 6<sup>th</sup> September, a young Blue wildebeest was born in the stable of the Safari exhibit. It has spent the following nights with its mother at the dormitory and they have both been going out to the side yard during the day. Other wildebeests were often coming to the fence and watching the calf – love for the descendants is typical for this species...

From safety reasons, the young one had to be separated from other animals at the Safari exhibit, among which belong the Chapmann's zebras, Giraffes and Ostriches; it will get into the common exhibit only after it will strengthen, i.e. at the age of four or five months. The mother will then still take care of her child – she will stay with it another about half a year. At the same time, the young bull will join the group that is made of one bull, three cows and a heifer born in January.

The Brno Zoo breeds the Blue wildebeests (*Connochaetes taurinus taurinus*), one of the five subspecies of the Wildebeest that belongs to the Artiodactyla order, Bovidae family and Connochaetes



Young Blue wildebeest

tribe. This subspecies is quite common at zoos, but in the Czech Republic, it is bred only in Brno and Dvůr Králové nad Labem. The wildebeests got to other Czech zoos from the Dvůr Králové nad Labem Zoo, where Ing. Josef Vágner brought them from Africa in 1970. The Brno Zoo has bred them since the half of the 70's and one of the today's females is a descendant of the Vágner's catching. We got the other specimens from Dutch zoos.

The wildebeest's appearance is bizarre: they have horse's mane and tail, buffalo's horns and bison's head, but they tend to be classed among antelopes. Adult specimen may be up to 240 cm high and weigh up to 300 kg. Both the sexes have horns cocked to the sides with tips upwards, but the female's horns are smaller. The hair on the neck makes a long beard.

The wildebeests live in Africa, from Kenya down to Northern S.A.R. and their area reaches Angola and Namibia in the west. In places, where there are drought periods, these animals migrate for water and food, which mostly consists of fresh green grass. They unite into herds of tens of thousands specimens of both the sexes and all ages during the migration. The wildebeests occur in wild in large numbers; there are about 350 thousands specimens only on the plains of Serengeti National Park in Tanzania.

The wildebeests stay permanently in places, where there is enough food throughout the year; thus their social relations differ from the ones mentioned above. After the fights with their rivals, the strong males make their own territory, where they mate every incoming female. The females with the young ones live in separate herds. The young wildebeests, whose biggest danger are lions, hyenas, hyena dogs and cheetahs, are able to stand on their legs 15 minutes after the birth and after another 15 minutes, they are able to follow their mother. The males that did not fight out own territories create "bachelor's" groups and, in most cases, they are out of the reproduction cycle.

The Connochaetes tribe has two species. Besides the Blue wildebeest, there's the Black wildebeest (*C. gnou*), which lives only in South Africa. In the 19<sup>th</sup> century, it was almost exterminated by the Boer farmers, because it was a food rival to their farm animals. However, new colonists from the later wave of the European colonization started to protect this species and there are approximately eleven thousands reintroduced Black wildebeests in several South African national parks today.

Same as the Brno Zoo, also other zoos chiefly keep the wildebeests, because they, together with zebras, create an authentic ambience of the African savanna.

Eduard Stuchlík



## The Ústí Zoo Opened Six New Expositions

The Ústí nad Labem Zoo, one of the four zoos in the North Bohemia, belongs to the larger ones. The range of its animals will captivate both the specialists and the public, which has not fully "discovered" the zoo so far – lately, about 130 000 adults and children visited it per year. But it seems that times are changing for the better: the zoo has reached the last years numbers already in the end of October 2006. Six new expositions, which have been built with the help of the town this year, were surely helpful.

We have presented to the public a new breeding facility for the Snow leopards on 22<sup>nd</sup> April – the Earth Day. This highly endangered mountain beast is a new species for our zoo; female Nima from the Nuremberg Zoo and male Makan from the Plzeň Zoo create a young promising pair. They occupy a large outdoor exhibit in natural style and an indoor dormitory with decorations of high mountains with a Buddhist church on its sides.

An exhibit for the Reeve's muntjacs – rare South Asian deer – grew up in the lower part of the zoo, apart from the visitor's route. Male Ross and female Bára come from the Plzeň Zoo and they are the first specimens of this species to be kept at Ústí ever. We opened the exposition on the occasion of the European Day of Parks, which takes place on 24<sup>th</sup> May. By that, we wanted to remember that our zoo was founded in 1908 as a bird preserve Lumpepark (called after its founder Heinrich Lumpe).

The cheetahs were the next ones to get a present: four years old female Jane, her mother



Photo by Věra Vrabcová

### Cheetahs' exhibit

Gara and father Inongo returned to the zoo after a five year long asylum, which they have spent firstly at the Dvůr Králové nad Labem Zoo and later at the Prague Zoo. The cheetahs occupy roomy exhibits with parameters that meet the breeding requirements of the fastest land mammals very well. A small pavilion with a sight glass into the indoor dormitory, which serves the purpose of monitoring especially in winter, is also a part of the cheetah's complex. While building this exposition, we have also thought of the visitors' comfort – a patisserie called At the Cheetah was built nearby.

Close exhibit of the South American Collared peccaries is a little bit in shadow of the large-scale space of the cheetahs; it's also outlined in natural style.

The so-called Lemur Tree became an attraction of the zoo. We dedicated the space around a huge oak near the Exotic pavilion to the last

year's breeding of the Ruffed lemur in both colour forms. The lemurs had soon explored the tree and found out that they could not find anything new



Photo by Věra Vrabcová

### Ruffed Lemur

there. Thus they started to go on trips into other parts of the zoo. Their action range was getting larger; a small forest around the Dwarf Castle became their favourite place, where they showed the visitors unbelievable stunts in the treetops. They have gained an enormous grace and popularity by partly losing their shyness and allowing the visitors to come to close proximity.

Opening of the last exposition – an aviary for great parrots of the Ara genus – was a part of the programme on the occasion of the Adoptive Parents and Sponsors Day. Nowadays, four Military macaws live there and two other attractive Blue Yellow macaws will join them next year.

Ing. Věra Vrabcová,

Promotional Department, Ústí nad Labem Zoo



Photo by Věra Vrabcová

### Snow leopards' exhibit





Children from a special school at the zoo



The rabbit brings joy to Elpis



Children from a special school at the zoo

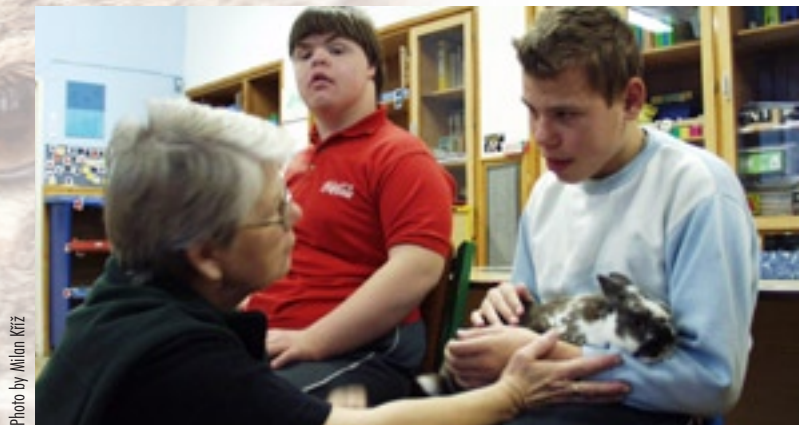


Photo by Milan Kriz

Tomáš and Michal meeting the rabbit

### Animals Help the Handicapped Children

It's a fact that the mere presence of an animal nearby people decreases the blood pressure, loosens the mental tension up and eases stress. We also know that we can affect feelings and behaviour of a person, especially mentally and physically handicapped, by contact with animals trained for such work. Various zoo therapy methods are based on this experience. Also the Brno Zoo uses the beneficial influence of animals while cooperating with the special school for children with multiple handicaps called „Elpis“ (F. Skaunicové Street, Brno-Židenice). The animals from the Brno Zoo have been helping the pupils to cope with their daily tasks and problems of their handicap since the school year 2003/2004.

Elpis has two special kindergarten classes and six special basic school classes, where mentally and physically disabled children, children with Down

syndrome and autistic children are being educated. Regularly once a week, so-called „visiting zoo therapy“ takes place in their teaching programme. During the therapy, the children work with contact animals from the Station of Young Natural Scientists, such as ferrets, guinea pigs, rabbits, turtles or a prairie dog. The children gradually get to know the animals, learn not to be afraid of them and treat them well. An individual plan corresponding to their diagnosis has been made for each of the children visiting the zoo therapy.

The autistic children with various levels of retardation started to create an emotional relation to the animals shortly after the beginning: the children showed pleasure, laughed and reached unprecedented results so far. E.g. medium retarded Tomáš (born 1986), who firstly spoke only quietly and answered with one word, learned to speak loudly and to create simple sentences while stroking a fer-

ret. Also other pupils of the special school lost their shyness, their muscle tonus loosened up, emotional sphere enlarged and their communicativeness was improved. They stopped whispering and using the third person singular, they now manage to start both verbal and nonverbal communication, keep the eye contact, follow simple instructions and create simple sentences.

Let's give an example of an animal's effect on a disabled child. Petra (born 1989, diagnosis: heavy mental retardation, epilepsy, autism and Rett's syndrome) just partially communicates with a help of a communication book, where she shows single symbols. Sometimes, she can't keep the eye contact. By manipulating with the animal, we are trying to provoke emotions, loosen her muscle tonus up and involve her in active working – that means she would improve her passive vocabulary by nonverbal communication with a feedback to





▲ ▼ The muscular tonus in fingers loosens up and Petra starts to stroke the ferret.



▲ ▼ The initial distrust of the animal soon changes into an emotional relation. ▼



the communication book. Small successes came after two years of regular work. She responds to the "aunt's" (that what they call me) arrival with a smile, she hurries to meet me and she is looking forward to be with the animal. While being with the animal, her involuntary frictional gestures disappear and she is able to straighten fingers on her hands without any help and stroke the animal. She reacts on simple instructions, she doesn't avoid my look, when I'm talking to her and she is watching me. It is obvious that she was looking forward to meet me and the animals.

Michal (born 1988, diagnosis: Down syndrome, medium mental retardation, certain signs of autism) was passive, didn't communicate, was afraid of animals, sometimes showed negativism and tried to attract the attention of the surroundings. We chose to create an emotional relation to the animals, remove the fear and shyness and free him from

his desire for attention as the main targets of our therapy. We also focused on improving Michal's active vocabulary, syntax and speech comprehension. Michal firstly avoided the contact with the animals, he even showed loud disapproval. Nevertheless, step by step, he learned to take the animal on his lap and nowadays, he even touches it with his hand. He answers with simple sentences while holding the animals. He likes to feed them and he speaks to them. After two years of work, he communicates with his surroundings regularly. He watches impatiently for the "aunt" and the animals every Tuesday.

We prepare educational programmes for the special basic school, e.g. "Four seasons of the year", "Domesticated animals" or "Wild animals in winter". The programmes complement the elementary lessons and they proceed in a playful form and the animals play an important role again. In the end of the programme, the pupils complete a simple test - alone

or with the teacher. There are usually children with various levels of handicap in the class, some can read, write and count. Mentally retarded Kája (11) can count up to ten, read, write and is very interested in nature. She always gladly welcomes me and the animals and cooperates spontaneously. Mentally retarded Hanka (14) can also count up to ten, read, write and she likes to draw. She is attentive during the lessons and answers the questions with simple sentences. She feels rewarded, when she may take the animal, cuddle it and stroke it.

The children from Elpis visit the Brno Zoo several times a year. Their "aunt" acts as their guide. The Christmas party at the zoo is an unforgettable experience for them; it is prepared by the members of the scientific group of the Station of Young Natural Scientists.

Mgr. Světlá Vitková,  
free time educator





Lamas with their trainers



Training of the lying position



Riding the llamas

### Training of Lamas Has Nothing to Do with Circus

If a visitor meets a herd of llamas during the tour through the Brno Zoo, it is not an accident or an error. The llamas with their trainers go to the park on the other side of the zoo twice a week, on Thursdays and Saturdays. Not even bad weather discourages them.

Llama is a domesticated form of guanaco. Llama is an animal quite easily controllable by human. Well, if it takes part in a basic training. And that's what all the Brno llamas did. Members of the Domestication group from the Station of Young Natural Scientists take care of them.

The llamas know how to walk with a headstall, jump over fence, back up, carry children and lay down at command. Someone may object the zoo is not a circus. The main target of the work with the llamas is not a show for visitors, but chiefly a pursuit of better manipula-

tion with these animals, e.g. during transports or vet treatments. Besides, the walks out of their exhibit are a pleasant variation of their lives. The lucky visitors, who will meet the llamas, can stroke them without fear and take photos with them.

The llamas' training and their cooperation with man is something quite natural. The fear that the llama will get angry and spit on someone is idle. Many people think that the llamas are used to spit on everyone they meet. Actually, the spitting is one of many kinds of intra-specific communication. Llama hardly ever deliberately spits right on a person. If this happens, it is most probably because the person accidentally occurs just between two llamas that square accounts with each other right at that time.

Trained llama is much more suitable for breeding in zoos than an untrained one. E.g. vaccination or hoof treating is much less stressful for a llama that is used to human presence. When there is a need to move a llama to another exhibit, it lets itself to be caught voluntarily, then it is carried with a headstall and it does not have to be tranquillized. It's the same during a transport: trained llama usually boards the trailer willingly, similarly as a horse.

The training of young llamas starts about at the age of one month. The first headstalling is a big change for them, because they knew only free romping so far. Thus, at first, they are just wanted to walk calmly alongside the trainer. Then a young llama gradually learns to answer to its name, stand still during cleaning, have its legs lift up, back up and lay down. Llamas are very bright and eager to learn. They only need to be rewarded by, e.g. a piece of stale bread or carrot after a clean exercise and they catch what they are wanted to do very soon.

Each llama has its own character, same as people have. One is placid and lazy, other is skittish and another one is moody. Some learns faster, some slower. But all of them manage it in the end.

*Anna Sedláčková,*

Station of Young Natural Scientists



## Dadyna is Forty

The chimpanzee female Dadyna is the oldest animal of the Brno Zoo. She was born on 1<sup>st</sup> January 1967, as written in her breeding card. Whereas she was born in wild, we can't know her exact age. There is an estimated age written in the papers of animals born in wild that get into a zoo (which is exceptionally possible by apes today) and the month and day is always fixed – 1<sup>st</sup> January. Dadyna got to Europe by a boat from Cameroon and the sailor, who bought the little chimpanzee there, delivered her to Brno in January 1968. At that time, the zoo was artificially breeding young chimpanzee male called Bipo, born on 15<sup>th</sup> July 1967, and Dadyna appeared approximately the same age. She went through a quite stressful journey, she could hardly walk – she had evidently spent a long time in a small box – and suffered from pneumonia. The breeders immediately started with an artificial feeding and cured the young chimpanzee successfully. Dadyna remained a bit smaller and did not become the dominant female of the group, but thanks to her intelligence, she didn't fall to the last place of the female hierarchy. Unfortunately, she never had young ones. The chimpanzee group in Brno has four members; two females, Pegyna and Nymba, also come from wild and the male Faben was born at the Kolmarden Zoo. Although the chimpanzees live to about sixty years, there are not many forty-year-old ones. There is probably only one older chimpanzee in Czech zoos: the Liberec zoo keeps a male called Kong since 1974, acquired as a gift from an ice show. There is the year 1965 written in his papers as his year of birth.

(red)



Photo by Igor Zehl

Chimpanzee female Dadyna



Young Grevy's zebra

## Breeding Two Kinds of Zebras

As in the last year, the Brno Zoo breeders again managed to breed two kinds of zebras this year. A colt of the Chapman's zebra (subspecies of the Burchell's zebra – *Equus burchelli chapmani*) was born on 20<sup>th</sup> October at the Safari exhibit; in addition to that, a little mare appeared at the Grevy's zebra (*Equus grevyi*) exhibit. The Grevy's zebras live in the northernmost zebra's habitat, namely in the scrublands of Ethiopia, Somalia and South Sudan. In captivity, they multiply more often than the Chapman's zebras that live in savannas and prairies of Southeast Africa.

(red)

## The Clinic Will Admit an Injured Animal Even by Night

If a person finds an injured animal in Brno or its surroundings and it's already late afternoon, evening or even night, it is possible to bring it to the Clinic of Avian, Reptiles and Small Mammals Diseases of the Brno veterinary university on Palackého Av. No. 1/3. Emergency phone: 739 100 605; it is possible to call after 3 p.m. The clinic will hand the treated animal over to the Rescue Station of the Brno Zoo the following day. From operational reasons, the zoo had to ask the people to come in the morning so far. The improved service is an effect of an agreement between the zoo and the clinic signed in September 2006.

(red)



Young Chapman's zebra with its mother

## Projection with Livingstone

The Brno Zoo together with the Livingstone travel agency will organize a series of slide and video lectures about nature from half of January to half of April 2007. The lectures will take place in the Anthropos pavilion in Brno-Pisárky every Thursday at 6 p.m. Further information will be published on [www.zoobrna.cz](http://www.zoobrna.cz) or [www.livingstone.cz](http://www.livingstone.cz).

(red)





Kiang

### An Uncontrollable Asian Wild Ass – Kiang

The biggest and probably even the most vivacious representative of the Asian wild asses, the Kiang (*Equus kiang*), has not been even partly domesticated yet. The kiangs that have been bred in Brno since 2000 also fulfil the repute of uncontrollable animals.

We let the male Sumo and females Ulrika and Irbe to settle after we firstly released them into a large exhibit, bound by an iron fence. The animals came to the conclusion that they have to observe the new surroundings closely, so they waited for the dusk, broke the fence and went for the night exploring. In the morning, still before the keeper came, they obediently returned into the exhibit and only small droppings on the outdoor route pointed to the night adventure.

The kiang stallions tend to be aggressive; they attack both the mares and foals. In wild, the mares leave the herd before the birth that takes place in spring and drop the foals apart from the herd. They don't return to the herd until summer.



Mare Irbe with six months old Hanka

In zoos, they usually don't have such possibilities, thus the mare with a foal sometimes have to be separated. The attack frequency is getting higher, e.g. by close presence of other representatives of the Equidae, thus the kiangs have to be bred in sufficiently large exhibit.

Irbe gave birth to two foals in our zoo. While Honzik, born in June 2003, already left the herd before his sexual maturity and moved to the Hodonín Zoo, Hanka may still be seen running around in the exhibit since her birth in July 2005. Even though the ungulate foals are usually born in early morning hours, Irbe "waited" in both cases for the keeper. The keeper always had to interfere and protect the mare from the stallion's attacks. It always took the stallion several weeks to adopt the foal then.

The kiangs grow up to 150 cm in crest and they may weigh up to 500 kg. Pregnancy takes from 11 to 12 months and the mares sexually mature at the age of three, the stallions at four. The kiang used to be ranked as a subspecies of the Asian wild ass (*Equus hemionus*), from which it differs, among other things, by distinctly larger body measurements and by harsher colour transitions between dark brown side and bright stomach.

The kiangs' homelands are the plateaus in Tibet about 4100–4800 meters above sea level. Tough conditions taught them to be unpretending animals. They put up with poor vegetation and are able to drink water with higher salt content, which nor modest and not choosy camels would drink. They take shelter from blizzards in mountain valleys and they are able to meet the water needs by eating snow during the long winters. The Tibetans deified the kiangs as holy animals. On the other side, the Chinese hunted them for leather and meat. Together with the shepherding development and occupation of watering places, this led to a mass decrease of originally big kiang herds.

Today, the kiangs are highly endangered and in zoos, they belong to the rarest animals: only zoos in Riga and Kaunas had bred them in Europe in the 1970's. They immediately gained the repute of shy animals that keep distance from people. When feeling in danger, they don't hesitate to attack – they bite and kick. Even though the distrust of kiangs bred in captivity for already several generations has dulled a bit, they remain the least trustful Equidae representatives.

Miloslav Walter,  
ungulate keeper



## Wells in the Svatka Valley Will Save Drinking Water

Supplying the Brno Zoo with enough service water is one of the requirements of its further successful development; this can be reached by building a new own source of supply. According to its original ideas, the Brno Zoo wanted to eliminate this deficit by taking the surface water from the Svatka river, but the variation of collecting the underground water won in the end.

The feeder channel for the service water from the Brno dam, built in 1974–1975, can not cover the zoo's demand any more – the zoo is forced to use half of the drinking water from the municipal network for filling pools, watering exhibits and other technical purposes. We have already reported about the plan to build a new water-pumping station with a feeder channel and water treatment plants for about 20 million CZK (Zooreport 03/2004). But a cheaper way was found; it would give the zoo an additional high quality raw material, because the water from the river contains cyanobacteria. The Brno City Council authorized a techno economic project for the underground water utilization in June 2006. The new spring area in the Svatka river flood plain will cost about 5,5 millions CZK and it will serve for many years. The Brno Zoo already looks for a contractor for the construction, which could start in 2007.

The project expects the zoo to build two wells with water pumps, from which a lifting pipe will drain the underground water away to a collecting shaft and a water treatment plant. The finished water will then go through a piping to the existing water-pumping station. From there, the water will run through a force main to the tower cistern that stands on the highest place of the zoo since the seventies; the water will then be delivered to the single consumption areas. A check and cleaning of the force main, possibly changing the tower cistern fittings, will also be a part of the construction. A reconstruction of the water supply network, which distributes the water, will follow.

The first well will be 75 m deep, down to the Neogene ground water body. The second one, the reserve, will serve only in case of downtime of the



Magellan goose, Coscoroba swans, tapirs and capybaras at the lake in the South American exhibit

first one; it will collect water from quaternary sediments at depths of 14 m. The underground water will be treated in an iron removing filter that will also collect other filtered particles. The water treatment plant will be necessary, because the water from the quaternary sediments, which has higher iron content, could get into the Neogene water source. The operation and maintenance of the plant can be handled by one person. Regular check of the function, regeneration of filters, quarterly water sampling and its laboratory examination will belong, among others, to the operator's duties.

The new own underground water source will yield a considerable saving, because the expenses for the drinking water are almost eight times higher than for the underground water. At present, the zoo uses up about 60 m<sup>3</sup> of water for service purposes, half of which is the drinking water. If this half would be replaced by underground water, the savings will reach about 600 CZK a day, which is almost 200 000 CZK a year. However, the optimal consumption of the service water is much higher, about 150 m<sup>3</sup> a day. With such high consumption, the savings would reach about 750 000 CZK a year.

However, it is not only about the financial saving, but also about a frugal approach to quality



water sources that are not inexhaustible. Therefore, using the drinking water instead of the service water appears to be irrational

*Ing. Josef Kundera, CSc.,  
Technical Section of the Brno Zoo*





**Kiangs**