ZOO
Ústí nad Labem

Annual report 2012

Contents

Animal management

Chief Curator's report

Ing Petra Padalíková

The past year saw a couple of capital projects being completed, enhanced housing conditions for existing species being the focus. Among these, the improved water management system in pinniped facilities being the major example. Actually, with potable water supplied to the sea lion and seal pools from the mains, day-to-day costs of housing pinnipeds were among the major expenditure items of the operating budget. This year, the two pools were connected to a source of service water from a bored well. In addition, filtration and water-cooling technology was installed behind the scenes at the sea lion exhibit, which greatly improved water quality. The project also comprised redesigning the area around the windows where animals can be watched under the water surface to imitate a cave.

In early February, three renewed aquaria were officially opened at the lower floor of the Exotarium house ***(Figure 1)*** since the old tanks had failed to comply with aesthetic and technical standards. New equipment was installed in the tanks, e.g. lighting, filtration and water heating systems, whilst the adjacent facilities were refurbished. From the visitor side, the aquaria received animal labels of a new design. Photo frames are another innovation, displaying images from the homeland of the fish we keep. New residents of the tanks, there are now 10 fish species native to three large river basins of South America.

Completed development projects included building a housing facility for a cheetah male. The year before the plan won a competition called "Ústí - a Degree Better" launched by Heineken. The new house was officially put into operation on 3 June 2012. A simple non-exhibit building, it is placed near the zoo entrance up the hill and is to house a male cheetah outside the oestrus period. This achievement enabled us to meet the requirements of the respective European breeding scheme, giving us eventually the chance to reproduce this rare species.

The construction of three outdoor aviaries for the wrinkled hornbill behind the scenes was another welcome investment ***(Figure 2)*** as our breeding pair had been kept in a cage that was inadequate in terms of space and weaned juveniles did not have any opportunity to stay outdoors. The completion of new aviaries has significantly improved welfare and enables the staff to build a second breeding pair of this rare species in future.

Compared with 2011, there was a slight increase in the total number of taxa kept, with a total of 214 species held on 31 December 2012. The numbers of individuals have increased as well - fish taking the lead in particular. By the end of the year, we kept a total of 1,114 animals. As part of international cooperation, we participated in

34 European endangered species breeding programmes (EEP) and had 15 species on stock for which pan-European studbooks are in place.

A total of 37 species reproduced in 2012, which still did not overcome the extreme success seen in 2011, resulting in considerable efforts dedicated to arranging for transports just to place the last year's offspring. To this end, the number of animal transfers abroad reached 20, breaking all records.

The 2012's most important breeding success became the young **Hartmann's zebra** (*Equus zebra hartmannae*). Named Dorotka ***(Figure 3)***, this mare is the first foal fathered by the new stallion who became successfully involved in breeding after three years of holding. Dorotka is also the first zebra bred and reared in the new facility that was put into service the year before.

2012 also met with success for the other equine species in the collection - the **Somali ass** (*Equus africanus somalicus*), when Georgina the mare gave birth to a healthy filly. It is already the 25th young animal of this rare hoofed mammal reared with success in the history of the zoo.

A change occurred in our South **American tapir** (*Tapirus terrestris*) stock. As the young female Tira, born in 2010, has reached sexual maturity, this animal travelled in the summer to Szeged Zoo, Hungary.

Two young males were added to the group of **Bactrian camels** (*Camelus bactrianus*) - both the cases involved the offspring of Chorchoj, the breeding bull, who however died the year before. Once weaned, the two young males left the zoo, with the group incorporating a new unrelated male Sahbi whom we received from Erfurt ***(Figure 4)***. Any other calves are however expected two years later due to the camel's young age. A baby was born to **llamas** (*Lama glama*), and juveniles (5) were also reared in **alpacas** (*Vicugna pacos*). A new male was acquired for the two existing **guanaco** females (*Lama guanicoe*). Sadly, one of them soon died.

Thriving stocks in cervids included that

of the **Vietnamese sika deer** (*Cervus nippon pseudaxis*), with five calves reared with success there. Positives this year arrived in the group of the **Reeves' muntjak** (*Muntiacus r. reevesi*) as well, since offspring was reared by both of the females, one of which even managing to give birth twice.

Key was however the success we saw with our **white-lipped deer** stock (*Cervus albirostris*). Admitted to the herd the last year was a new male Kailás, whom we obtained from Tierpark Berlin. The stag made clear as early as the spring that his mission had been accomplished for full marks, because each of the five adult females appeared to be pregnant. Birth in the wild in this cold-loving deer species native to the Tibetan plateau is timed to take place in summer, but the temperature level experienced in summer here is something that often negatively influences the process as well as the post-partum period. In 2012, however, four pregnant females out of five gave birth without any complications, the fifth female's calf unfortunately dying due to a wrong birthing location and had to be delivered with the assistance of a veterinarian. Of the four births, animals were reared with success in three cases, which is a record-breaking number in the history of zoo.

Regarding antelopes, the stock flourished in the **lechwe** (*Kobus leche kafuensis*), where one calf was reared with success ***(Figure 5)***. A private zoo in Limassol, Cyprus, became the place to send 0.2 young lechwes from the previous year. The **defassa waterbuck** (*Kobus ellipsiprymnus defassa*) group has grown with one animal born. Two calves were reared in the **blackbuck** (*Antilope cervicapra*) and a total of three animals in the **nilgai** (*Boselaphus tragocamelus*).

Great changes have taken place in the group of the **Rothschild giraffe** (*Giraffa camelopardalis rothschildi*). First, it was necessary to remove all the three calves born back in 2010 fathered by the male Atbar, now dead. The female headed for Poznan Zoo, Poland, where she arrived and settled well. One of the young males was transported to a zoo in Spain near


5

Sevilla. This move did not take place without complications, as the male after loading burst through the door of the trailer and went back into the stall. This failure was caused by poor design of the special trailer. Within hours, however, the defect was repaired by our maintenance team and the male fortunately loaded the second time and leaving without any problems. Unfortunately, complications came back before transporting the second male. The receiving party requested a health examination, during which the animal had to stay under a deep sedation, which in giraffes is always a very risky business. Sadly, the young male collapsed during the process and any effort to revive failed. Late in the year, there was one more event consisting in importing a new breeding male from Arnhem. The move went smoothly and added a three-year-old male Bastian into the herd ***(Figure 6)***, giving our female another chance to become pregnant. Due to the long pregnancy period, however, the birth of first calves can be seen only in 2014.

The female **Asian elephant** (*Elephas maximus*), Delhi, was undergoing several ultrasound examinations made by a team of IZW Berlin. The most recent of these reindicated a fluid in the uterus, which prevents any further attempts at artificial insemination. The prognosis in this case is not favourable, with natural mating being probably the only option for the pregnancy to be successful. Positive news arrived from the zoo's founder supporting our plan to build a breeding facility for elephants and allocating funds for the building documentation.

At the carnivore house, the weaning age was reached in the leopard cubs born the year before, the zoo in Edinburgh becoming a destination for the young female of the **clouded leopard** (*Neofelis nebulosa*), while the

remainder of young leopards are to leave early in 2013.

Sad events also came our way with euthanising Kubula, the old **Malayan sun bear** female (*Helarctos malayanus*), which was part of our sun bear group since 1987. Physical problems in this animal resulting from arthritic changes in its musculoskeletal system significantly worsened during the year, making any movement in the paddock deeply difficult and often leading to dangerous falls.

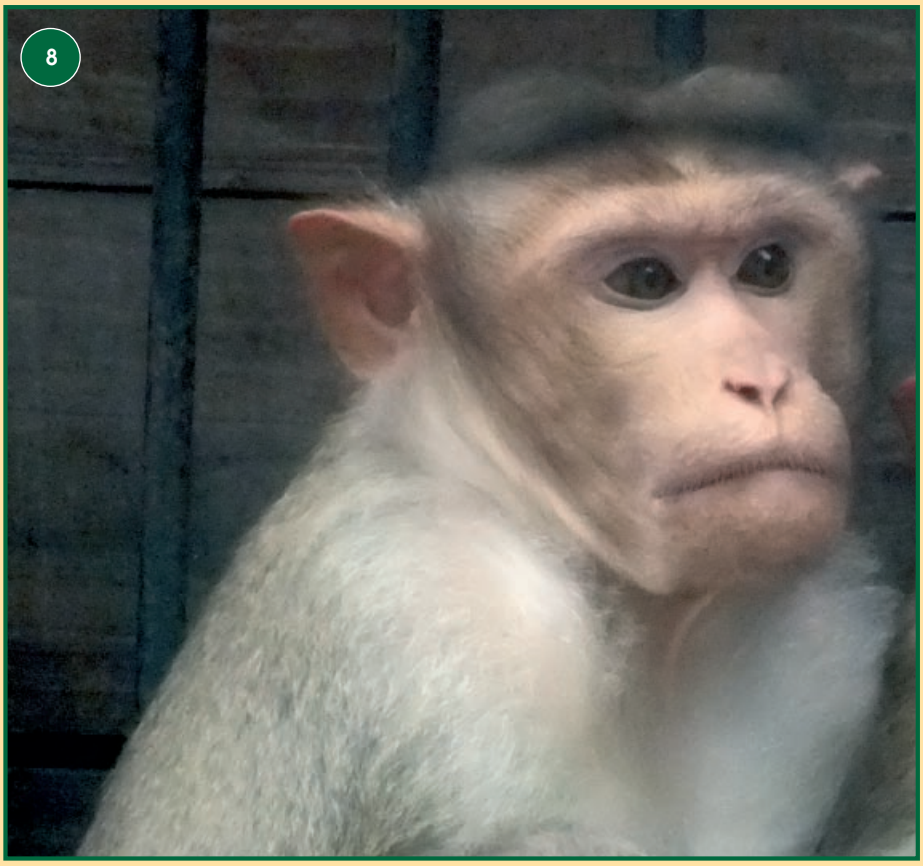
A positive development occurred in our **cheetah** stock (*Acinonyx j. jubatus*). The construction of a separate male facility helped us to achieve the status of a breeding institution, resulting in the EEP coordinator's recommendation to receive a female called Suna from Ebeltoft, Denmark. Once the cheetah was transported, this done by our staff members, the process of joining Suna with the male Hobit started immediately. No mating however occurred the last year.

The two remaining cubs of the **fishing cat** (*Prionailurus viverrinus*) left in 2012 to Olomouc and Duisburg. In addition, the pair of the **Geoffroy's cat** (*Leopardus geoffroyi*) was made complete by adding a young Banham female to our male. After six months of being held together the animals produced two babies. Whilst one of these was not viable, the other one was reared without problems despite the female's lack of experience ***(Figure 7)***.

Success was seen in our stock of Asian **small-clawed otters** (*Amblonyx cinerea*) as well, these rearing five young animals.

In the late summer it was necessary to euthanise Hemminki, a male **wolverine** (*Gulo g. gulo*). His advancing age brought about the development of cataracts and the resulting blindness. Moving around the enclosure became very complicated for this animal that in the last stage was never leaving its stony den. Nonetheless, a positive message arrived after this sad event from the EEP coordinator, who identified a new male for us. This was Marco, a two-year-old wolverine, coming from Nordens Ark, Sweden, to become a new hope for potentially first-ever breeding success in this species throughout the Czech zoo community.

Several stories were seen at the house of Old World primates. **De Brazza monkeys** (*Cercopithecus neglectus*) produced another newborn. Rearing this animal however failed due to a head injury that the young female suffered when two months old. There were positive developments in the **guereza** (*Colobus guereza*) stock. A male Kasal coming from Bojnice was integrated into the group of three females the year before and it became clear early in the spring that all the females were pregnant. After the first female gave birth to a dead animal, a second birth followed, given by another female. Subsequently, however, the situation turned into an intriguing phenomenon with the dominant female confiscating the baby and refusing to give it back.



This required keeper's intervention consisting in removing the animal, returning it to the mother and separating the dominant female from the group for some time. The third female had a complicated birth resulting in the baby being impossible to save. Despite the fact that just a single guereza was reared with success out of three animals born, this development is assessed positively in that it was the first-ever birth for each of the females, which all of them endured without their future fertility being affected. In addition, losing first offspring is quite common. The group of **mandrills** (*Mandrillus sphinx*) has expanded by another descendant, whilst the two three-year-old mandrills were placed in a private zoo in Indonesia. The group of **Javan langurs** (*Trachypithecus a. auratus*) was enlarged with a new male Áron coming from Dvůr Králové. A very crucial step was the importation of the unrelated **Bonnet macaque** (*Macaca radiata*). Since Ústí Zoo is the only holder of this noteworthy species amongst EAZA institutions, the possibility of obtaining unrelated blood was very complicated. Fortunately, we managed to get in touch with a small private zoo in Jocksdorf, Germany, another holder of this macaque, which resulted in a six-year-old male called Chap imported in October ***(Figure 8)***. The animal will be integrated into the group in the spring 2013.

Examples of success reported from the Exotarium house included reproduction seen in all the three **ring-tailed lemur** females (*Lemur catta*) and a total of five young lemurs reared. In the late autumn, there was a very turbulent heat period in the group, with two females causing themselves unusually severe injuries. One of them had to be eventually separated from the group as its injured limb did not heal, thus the medical treatment had to be finished out of the scenes.

The move of a young male **red ruffed lemur** (*Varecia rubra*) to La Fleche discontinued the local stock of this species.

Twins ***(Figure 9)*** were achieved in **golden lion tamarins** (*Leontopithecus rosalia*), one baby was born in the **white-lipped tamarin** (*Saguinus labiatus*) and another set of twins was reared in **cotton-top tamarins** (*Saguinus oedipus*). The group of the **pygmy marmoset** (*Callithrix pygmaea niveiventris*) had to be disintegrated as the breeding male died in 2011. A new group was put together, composed of two females reared in Ústí and a male from Bojnice, the remainder of the animals distributed to other zoos and private breeders.

A pair of the **Guianan saki** (*Pithecia pithecia*) was completed in summer by adding a Zlín female to the current young male. Both animals got used to each other very well, but the female began lose weight a few months later,

subsequently showing symptoms of illness. Despite intense treatment, the animal's condition could not be stabilised and the female died, the autopsy revealing an extensive abdominal infestation by parasitic nematodes.

Unfavourable developments occurred in the stock of the **two-toed sloth** (*Choloepus didactylus*). The young breeding female died, as did the juvenile produced the previous year. Although our zoo was ranking amongst the top breeders of sloths, the most recent events have clearly shown how fleeting the breeding success can be. Creating a breeding pool consisting of multiple generations will be necessary in future for the stock to continue.

Four births took place in **Patagonian maras** (*Dolichotis patagonum*) **– *Figure 10***, resulting in four reared animals. Unfortunately, the group is now placed in a temporary enclosure inside the former elephant house. Plans exist to adapt the South American enclosure in 2013 and keep maras in a mixed-species exhibit along with greater rheas and guanacos.

The 2012 nesting season furthered the success with our **wrinkled hornbills** (*Aceros corrugatus*), the birds rearing two chicks. Ústí Zoo is amongst the few institutions breeding the species on a regular basis. A pair of young birds hatched in 2011 was sent as part of the breeding programme to Parc des Oiseaux, France, a zoo dedicated to avifauna. On the contrary, we have seen a loss in **southern ground hornbills** (*Bucorvus leadbeateri*), the male falling victim to a fox in the late autumn.

With not much success reported from the parrot breeding centre, no reproductive activity seen even in the macaw pairs that normally reproduce on a periodical basis, the bird keepers were left with just a single **African grey parrot** (*Psittacus erithacus*) reared. Seeking to get rather rare species of large parrots in 2012 in line with the new strategy, we acquired a pair of one-year-old **blue-throated macaws** (*Ara glaucogularis*) from a private breeder ***(Figure 11)***. By the 1970s, the blue-throated macaw had been considered a subspecies of the blue and yellow macaw, a much better known species which it resembles with its blue and yellow colouration. The natural habitat of this species comprises gallery forests in northern Bolivia that support last remaining 73-87 sexually mature individuals as estimated by BirdLife International. Including sub-adult birds, the wild-ranging population of this macaw counts some mere 130 individuals, making it currently the rarest species of macaws in the wild, classified by the IUCN's Red List as CR, that is, Critically Endangered. Ústí nad Labem Zoo has become the first UCSZOO member to keep the species.

A male **red-fronted macaw** (*Ara rubrogenys*) was acquired from Budapest as part of EEP to join the local female and to form a breeding pair of this threatened species.

The stock of **emerald doves** (*Chalcophaps i. indica*) was restored at the elephant house as part of a mixed-species exhibit, where kept along with mynahs. The three young birds were received from Ostrava.

First-ever chicks were seen in the new

aquatic bird display, the **mandarin duck** (*Aix galericulata*) being the species to reproduce ***(Figure 12)***. In addition, the exhibit's multiple species community was made complete with a pair of **ringed teals** (*Callonetta leucophrys*) originating from Prague Zoo.

As usual, the terrarium section reports breeding in ***Cyclemys pulchristriata*** turtles and **Sinaloan milk snakes** (*Lampropeltis triangulum sinaloe*). Breeding success was achieved in the **red-foot tortoise** (*Chelonoidis carbonaria*) and the **Madagascar day gecko** (*Phelsuma madagascariensis*) as well. Several new species were added to the collection of reptiles, this involving the brightly coloured **Brazilian rainbow boa** (*Epicrates c. cenchria*) and, an intriguing snake, the **cave dwelling rat snake** (*Orthriophis taeniurus ridleyi*) **– *Figure 13***. New species included the **Dumeril's boa** (*Acrantophis dumerili*), a pair of these received by the wildlife rescue centre. Losses were recorded as regards the breeding trio of the **bluetail monitor** (*Varanus doreanus*), one of the females attacked by the male causing the female animal fatal injuries, while the other female died as a result of retained eggs. Discontinued

was the stock of the **knight anole** (*Anolis equestris*), for which there was no reason for placing it on display.

The frog section managed to reproduce in 2012 ***Theloderma stellatum***, a spectacular species, and a member of so-called flying frogs. Unfortunately, activities to make any of otherwise normally breeding dart frogs reproduce failed, as did the efforts to complete breeding groups of these attractive animals after the previous year's series of deaths the cause for which could not be discovered.

The fish collection was made more diverse in connection with the process of redesigning as outlined above, through several very interesting additions. The first tank mimicking a river bank somewhere in the Orinoco Basin covered with vegetation is dominated by the majestic **deep angelfish** (*Pterophyllum altum*) that can grow up to 25 cm high. The second tank aims to display fish species from the Amazon River, the freshwater **ocellate river stingrays** (*Potamotrygon motoro*) being the most distinctive species. The area above the stingrays is inhabited by a pair of **peacock cichlids** (*Cichla ocellaris*) **– *Figure 14*** and a single **marble cichlid** (*Astronotus ocellatus*). The last remaining tank of the three, imitating the Paraná River Basin, has become home to the well-known **red bellied piranha** (*Pygocentrus nattereri*) that the zoo already kept in the past.

As part of expert activities, Animal Husbandry staff joined in 2012 meetings of UCSZOO's specialist committees held in zoos in Brno (primates and felines), Dvůr Králové (parrots) and Prague (amphibians & reptiles; deer; sheep & goats). They also participated in meetings held in Kostelec nad Černými lesy (record keeping, equines and animals transfer committees). The Chief Curator attended the annual conference of EAZA held in Innsbruck, Austria.

Veterinary services

MVDr Renata Poživilová

Veterinary services for the zoo as well as its Animal Rescue Centre were provided by a partnership of veterinary doctors and services under the contract won within a tender, and included both pre-emptive ***(Figure 1)*** and medical treatments as part of daily visits on business days, as well as services of availability over the weekends and public holidays.

Ensuring the high quality of care for animal health necessitated cooperation with other professional workplaces, such as the State Veterinary Institute Prague, Diagnostika, s. r. o., Ústí nad Labem, Laboratory of Dr Veselská Ústí nad Labem, IZW Berlin and others. Accredited to provide specialised diagnostic and treatment services, these are used for special laboratory testing in the fields like serology, microbiology, parasitology, biochemistry and haematology, which are beyond the capacity of veterinary practitioners.

Surveillance over the performance of veterinary care and animal welfare is formally carried out by the Veterinary Administration for Ústí nad Labem Region through its Inspectorate based in Ústí nad Labem, their staff members conducting regular checks in the premises of both zoo and the Animal Rescue Centre. During 2012, no observations were found.

There was a procedure to renew the license to operate the zoo pursuant to the Act 162/2003 Coll. (Zoological Gardens Act), the Ministry for Environment being the licensing body. Site visits carried out by the Czech Environmental Inspectorate and the locally relevant State Veterinary Administration office form the grounds for issuing the license, this done after discussing all the reports with the Committee for Zoological Gardens. The procedure takes place on a bi-annual basis. The zoo passed the procedure in 2012 and was re-licensed as a result of positive and consenting reports made by each of the parties involved.

The members of the partnership attend workshops and conferences on a periodical basis to gain new knowledge in the field of veterinary services as regards exotic animals and native wildlife in this country and abroad. This year we became members of the European Association of Zoo and Wildlife Veterinarians (EAZWV), as well as participated in the International Conference on Diseases of Zoo Animals and Wildlife in Bussolengo, Italy, organised by the Association. Our particular focus in personal development was the topic of infectious diseases as well as aging disorders affecting zoo animals. Participating in such a reputable organisation is always beneficial not only for strengthening personal

relationships, but also for the zoo to closely follow the situation in other zoos, not just the parks associated in EAZA, as regards animal health and epidemiology or potential states of emergency.

To us, the issue of diseases in aging animals is a hot topic with many of Ústí Zoo animals soon to reach the „retirement" age. In fact, this is already happening and health problems associated with the problem of aging have occurred ***(Figure 2)***. Examples include Ferda the orang-utan who almost stopped eating early in the year, with painful teeth observed to be the reason. With the administered treatment being successful and the loose tooth falling out without assistance, the ape did not need any treatment under general anaesthesia.

Not so happy were we with Kubula, the old Malayan sun bear female. The animal had problems with its locomotor system over several years, which in 2012 reached such a degree that no treatment was working any more and the sun bear suffered from pain in spite of administered medicines. Due to this, the carnivore had to be euthanised.

The case of twins born, rare in camels, ended in miscarriage and subsequent prolapse of the uterus. Treating such a condition is no easy and the female Fatima had to withstand this under general anaesthesia. After repositioning the uterus, the vaginal opening had to be closed by special clips to prevent recurrence whilst administering antibiotics, non-steroidal anti-inflammatory drugs and medicaments to support the immune system. After nine days, the clips were removed, while the antibiotic treatment continued for five more days. Now Fatima enjoys good health.

As in the previous year, several examinations were carried out in 2012 along with colleagues from IZW Berlin. Targeting Ústí female elephants Delhi and Kala and including ultrasound checks, they revealed major changes to reproductive organs in Kala - multiple cysts in the vaginal and uterus walls. Due to the increased number of cysts and related health problems it was decided to administer a special vaccine to fully stop the sexual activity, this done repeatedly. Follow-up checks are scheduled for the next year to see whether there was a mitigation of pathological changes and regulation of the health issues.

Having bred and reared offspring in several species of felines at the zoo back in 2011, we saw the cubs growing and knew in the second half of 2012 that it was time for the clouded leopards, Amur leopards and the snow leopard to leave for new homes. Pre-requisites for the transports to take place included various necessary tests and medical exams. The animals had to be put to sleep in order to perform clinical examinations and to sample blood and swabs from these. Subsequently, the samples were subject to special examinations at SVÚ Prague ***(Figure 3)***. With all tests passed, no infection was confirmed and our „babes" were able to leave.


3

Animal nutrition

Ing Pavel Král

The daily operations of the department were provided by two persons employed on a permanent basis. In addition, there was a staff member employed within the public works scheme to assist with the alternating schedule. Further support was delivered by Horticulture members distributing feedstuffs and taking vegetables from outsourcers.

The amount available for 2012 to purchase feeds was 4.3 million CZK, of which spent funds amounted to 4.268 million CZK (99.2% of the total sum). The amount covered by grants from the Ministry for the Environment to support the management of rare and endangered animal species was 0.775 million CZK. This financial aid helped us in handling the issue of rising feed costs.

Compared with 2011, the prices increased in all essential items, this specifically involving beef and most of fruits and vegetables.

The purchased beef is the commodity that usually contributes to total costs at the greatest level and is replaced to some extent with pork ***(Figure 1)*** and sheep meat. The cost of purchased meat increased by 47% in 2012 compared with the previous year, which in addition to an increase in prices was also caused by the higher consumption, mainly due to greater numbers of cubs at the Carnivore House. The meat is supplied as human consumption grade from the Váša Company based in the town of Mimoň. For poultry, there was a slight decrease in costs by 10%, whilst in rabbits the decrease was 7%. The cost of fish consumed (i.e. herrings) too saw a slight reduction in overall costs compared with 2011, this caused by dietary problems in Moritz the sea lion. The issues resulted in the late 2012 in changing the diet for both pinniped species, starting to feed mackerels as a replacement for herrings. Fish is normally supplied by the Agro-bio Company, whilst the major portion of fruits and vegetables is purchased from the Hoka Company, with total costs chiefly covering apples, carrots, bananas, grapes and tomatoes purchased. There was an increase in the total cost for the items listed above in 2012 compared with the year before, as was the case of pomegranates, mangoes, pineapple, khaki and yellow watermelons. Taking unsalable fruits and vegetables from the Globus and Albert hypermarkets helps us in efforts to reduce overall feed costs. Both hypermarkets also serve as places to source pastry and bread that we take to provide extras to the ration in some hoofed mammals ***(Figure 2)***. A part of this type of feed is also used as a supplement for the production of feeding mice. To a lesser extent, dairy products are taken from the stores. Whatever the case, the foods have usually reached the limit of their „good for use" period, whilst still undergoing our entry check when being picked up.

A relatively large part of the costs comprises pellets for hoofed mammals, the total amount being mainly affected by the price per quintal and the number of animals fed. While the cost of pellets for ruminants and for horses (the „Relax" product) increased in 2012 compared with the previous


1

period, the overall cost of the giraffe compound decreased, this product supplied by Sehnoutek a synové, v. o. s., VKS Voleč ***(Figure 3)***.

Further savings are achieved through in-house production activities, which for instance covers the consumption of feed mice and rats including freshly born juveniles of these. Breeding and rearing birds is the most challenging activity in terms of feed consumption, the costs rising when there is an increased number of injured predators.


2

The overall consumption of mealworms is another item covered to a major extent by own production activities, as are freshly hatched chickens that we are finishing in the premises to provide a sufficient quantity of biological food to carnivores. Horticulture members provide bamboo for the red panda through setting up and cultivating the bamboo vegetation in the zoo grounds, whilst also providing sprouted barley to Hartmann`s zebras and Somali wild asses in the respective mating periods. The same team supplies, on a routine basis, fresh browse throughout the year. This mostly involves birch, willow, fruit trees and maple, with giraffe, elephant and other hoofed mammal enclosures being the destinations. The material is mostly sourced outside the zoo grounds.

The increased cost of hay was the result of higher rates per quintal and the reduced quantity of small bales from our own production, the latter resulting in the need to buy from a private vendor. The total stock of hay for the winter season that is stored in the central barn was 105,580 kg, this including 67,200 kg of hay as large round bales (c. 300 kg each) - all of this quantity acquired through purchasing ***(Figure 4)***. To this end, the collaboration with Mr Čurda from Cínovec proved very successful, the gentleman supplying the hay for 350 CZK per bale (incl. delivery). The commodity was provided by his farm based in Mirkov. In addition, 28,380 kg of hay were delivered as small bales, mainly for facilities with small storage areas available, with Mr Štrympl from Svádov being the main supplier. The zoo`s own production was capable of providing 10,000 kg of bulk hay, with additional 4,350 kg of alfalfa hay supplied by vendors. Of the total quantity of hay for consumption throughout the year, 15,900 kilograms were produced by the zoo staff, which represents 15%. In fact, the rate of self-sufficiency is around 30% in more successful years. Litter was provided as wheat straw, the quantity being 17,100 kg. Sawdust and shavings are normally provided by the horticulture team by bringing the matter from commercial wood-working operations in the neighbourhood.

The same staff provides green fodder, 100% of which is produced by the zoo`s own services, with alfalfa, grass and mixed crops harvested on the leased land stretching on the hill of Mariánská skála. With a total of 26 hectares managed, this area is sufficient to generate a continuous supply of green fodder throughout the season. A total quantity of the mass harvested from early May until the latter half of October was 263,740 kg. Green fodder is carried to individual sections on a daily basis, with twice as much given on Saturday to cover the Sunday consumption. Consumption of this commodity throughout the collection is 1,713 kg per feeding day.

Refurbishing the freezer and the refrigerator in the animal food preparation building was scheduled for the late 2012, the freezer area expected to increase by 100%, which would be sufficient for the needs of the zoo in terms of size. Conversely, the underused refrigerator box for meat is to be reduced by half. The plans include replacing all windows and doors throughout the facility.

The management of the cheetah (*Acinonyx jubatus*)

Bc Tomáš Anděl

The history of keeping the cheetah in Ústí has been, despite its relatively short span of time, accompanied by a number of notable events as well as disappointments, but, above all, continued hope for the future.

The original range of the species once included the entire African continent with the exception of forests and the central Sahara region, as well as western and southern Asia. Currently, there are small patches of range in Africa south of the Sahara, whilst in Asia the cheetah can be found only in some Iranian territories. Cheetah's habitat chiefly ranges from open grasslands to arid zones, including savannahs and forest steppes, the altitude being up to 2,000 metres. The natural diet of this feline comprises mainly smaller species of hoofed mammals, such as the Thomson's gazelle and impala or young wildebeest, hares and other vertebrates under 40 kg are also taken. The population trends in this carnivore are, as with many other species, still declining, the species listed as Vulnerable in the IUCN's Red List, the habitat loss caused by the constant growth of the human population and the related decline of natural food resources being the main cause.

The beginnings of keeping cheetahs in Ústí date back to 1999, when the first two animals ***(Figure 1)*** arrived at the zoo - a female Gara, born on 19 November 1997 in Prague, and a male Inongo, born on 15 May 1998 in Amersfoort, the Netherlands. The first unsuccessful attempts at making them breed were terminated after two years by the construction of a new house for the Asian elephants Kala and Delhi, which started in the immediate vicinity of the former cheetah facility, one that should actually be referred to as non-compliant anyway. Thus, both animals were sent on loan to Dvůr Králové nad Labem in December 2001, this zoo then already managing a breeding facility that was providing housing completely separating both sexes and avoiding any visual, acoustic and odour contacts, in full compliance with the latest findings of wild cheetah ethology. Upon arrival at the zoo, the animals were first separated for a couple of weeks, and after reuniting, there was the first mating as early as February 2002, which eventually proved to be successful. About three months later, on 24 May 2002, the first as well as the last Gara's descendant was born, a female Jane. She was delivered after a complicated Caesarean birth, after which it was decided to employ hand rearing. As early as the first months of Jane's life, the keepers noticed frequent limping of the right hind limb, which with time was achieving ever-greater intensity. X-ray examination of the young female cheetah made at month 5 showed a deformed hip joint, which at this stage was diagnosed to be a post-traumatic condition. Jane was closely monitored and a medicinal product was added to her diet to support the apparatus of the joints. Since this however did not improve the animal's health over the coming months, the staff moved on to another X-ray examination. This confirmed the continued deformation of the damaged joint and everything indicated that in this case it is a congenital defect. In June

2003, Jane, whose health continued to deteriorate to a slight extent, was transferred to Ústí ***(Figure 2)***, where by that time prearrangements had started for building a section 1 of a new cheetah facility. In October 2003 Jane underwent another examination, so far the most thorough one, during which CT images were made of the joint that by that time was seriously damaged. After many hours of meetings and consultations with orthopaedic surgeons, it was decided to choose a unique solution - the replacement of the deformed joint with an artificial one. During 2004, Jane underwent several treatments ***(Figure 3)***, beginning, after a successful convalescence period, to perform the role of an exhibit animal. Two years later, in 2006, a new cheetah house was put into service in the upper section of the zoo grounds below the camel enclosure, where, after returning from Dvůr Králové, met Inongo and Gara with their daughter Jane. Since Gara unfortunately died in February 2007, there was no choice but to get a new female for Inongo. A female Zoe was imported from Prague in June the same year. Born in Safaripark Beekse Bergen, the Netherlands, in 2000, this animal was put together with Inongo after a few weeks of necessary acclimatisation in its new habitat. However, the expected mating did not occur with this pair, even after repeated reuniting. The subsequently performed sonographic examination of Zoe showed polycystic ovaries and blood tests were clearly displaying high levels of thyroid hormones. As a result, Zoe was returned to Prague as a not prospective animal, not suitable for further breeding. Since any allocation of animals as part of European breeding programmes (EEP) is normally decided by European coordinators, this applying to cheetahs as well, the Cheetah EEP was approached with a request for a new female. The female was promised, with however building a separate facility for a male being the precondition. Since the zoo was lacking funds for the same at the moment, cheetahs were kept only in an exhibit situation, without the possibility of breeding. In 2008, health began to worsen in the female Jane who in October underwent a comprehensive CT examination at the veterinary clinic in Mimoň. Chronic kidney problems and subsequent failure of the organ necessitated euthanasia of the female in November. In December, a young male Hobit was imported from Prague Zoo to be added to Inongo who had been kept alone. Another change occurred in our cheetah stock in 2011 when Hobit was sent on loan to Olomouc Zoo as part of breeding plan, returning after six months in November of the same year with suspicion of possible infection by corona viruses and placed into an isolation facility. Fortunately, subsequent repeated testing of blood samples was negative. A very positive event of that year was winning in a competition of the Heineken brewery, where the Ústí Zoo's project to complete the cheetah house placed first in an ultimate manner. Subsequently, a base plate was set up at the selected site in January 2012, and the new facility opened as early as June. Two months later, a five-year-old cheetah Suna ***(Figure 4)*** arrived from Ree Park Ebeltoft Safari, Denmark. The time to remain until the end of the year was spent by repeated efforts to put this cheetah together with male Hobit, but mating has not yet occurred. It is everyone's hope that this will happen in the year to follow.

The management of the guereza (*Colobus guereza*) in 1993-2012

Patrik Matějů

In December 1985, two male guerezas arrived from Dresden Zoo, each of them being one year old. The animals were kept together until they stopped tolerating each other, then they had to be separated. In early May 1992, one of the males was taken to Hodonín Zoo (now kept in Bojnice since 14 June 2002). The male retained (Lukáš) got a female only a year after.

The female (Phyllis, born 1988 in Dresden) and the male (born 1984, Dresden) became the founders of the guereza stock in Ústí nad Labem, the first baby guereza, a male Danek, born in May 1995, followed by Pepča (1.0, 1996), Doris - Alfa (0.1, 1997), Beta (0.1, 1998), Gama (0.1, 2000), Sára - Delta (0.1, 2001), and Rita (0.1, 2002), the last newborn being Šárka (0.1, 2003) **– *Figure 1***. In April 2004, Phyllis had a miscarriage and died a month after. As for Lukáš, the male died at the age of 23 in November 2007. The offspring that these parents left at the zoo comprised Doris, Sára, Rita and Šárka.

After the death of the male, efforts were underway to find a new male, this plan becoming highly complicated by the issue of guereza subspecies purity in Europe. The Dresden line was included in the *C. g. caudatus* subspecies, while most Europe-based guerezas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are the *kikuyensis* subspecies or not identified at the subspecies level. Even consultation with the studbook keeper was not helpful, since the exact determination of animals was under planning. We eventually concluded that our guereza stock members are most likely subspecific hybrids.

In 2010, a young male Merti (born 2004) appeared on the Colchester Zoo's available/wanted list, with the zoo referring to their animals as being the *caudatus* subspecies. Merti had been expelled out of his native group, meaning that making use of the offer could help Colchester to solve the problem. Transport took place in February 2010. From the very beginning of being kept in Ústí, the male suffered from diarrhoea. A sample of faeces was taken, showing an increased incidence of faecal parasites. Treatment was applied immediately. A note in the registration card from Colchester was saying that the male had suffered from diarrhoea and had been treated in its home zoo since 2007. The medical problems were attributed to the stress of being expelled from the group. With another stress of transportation and changes in settings bringing the guereza no good and, sadly, continuing diarrhoea, the male's health steadily worsened, the animal was vomiting and was extremely weakened. Examinations detected inflammation of the pancreas. The male's pitiable status was terminated by euthanasia. In the late March 2011, the same was done with the female Rita who was detected to have suffered adrenal tumour.

After the failure with Merti, the animal managers were seeking to find a new male very promptly since the females had been getting into the problematic age. Colchester had no other males available, which resolved the subspecies issue. At a meeting of UCSZOO specialist committees, we were offered by the colleagues from Bojnice their proven breeder Kasalo (*G. g. kikuyensis*) **– *Figure 2***.

The male (born 1999 in Frankfurt) did arrive, this taking place in early June 2011. A common practice is that the newcomer is allowed to get used indoors before released into the outdoor enclosure. This male, however, was released outdoors as early as the next day because when kept indoors, he was just sitting sad and showing no interest in food. When put out, his activity immediately restored, the animal displaying interest in other primates and the guereza females ranging the next door. Animals were separated from each other by contact bars and their behaviour was not raising concerns about potential

aggression. In eleven days the male joined the females, the first mating attempt observed a week after.

In January 2012, a dead newborn baby was found in the outdoor enclosure. It belonged to the female Doris, who attacked the keeper removing the dead body. The autopsy showed that the newborn - male - did not take the first breath. A happy birth event was seen in the female Sára on 13 March 2012. Interestingly, the female was laying the young one on the ground instead of holding it on her body. The girl-keeper was stating with confidence that the newborn was a female. The mother held the baby on her belly and nursed it only in the afternoon. As the female displayed a lack of experience and was avoiding the remainder of the group, it was kept separated. The next day the mother treated the newborn (Sally) more carefully. On day 3 after delivery, Sára was allowed to reunite with the group. The dominant female Doris immediately grabbed the young one, refusing to hand it back. Concluding that such behaviour could be, amongst others, associated with the recent loss of Doris` own offspring, with additionally the young one seeking milk from Doris and Sára trying to have it back, we decided to take action. Actually, a similar situation was experienced by Ostrava colleagues in their group of hanuman langurs, where the „stolen" baby died as a result of hunger. Doris was captured, separated from the group and the baby returned to the mother ***(Figure 3)***, the two animals reunited the following day with the male and the pregnant female Šárka. After three days, when the group had calmed down, the pregnant female started to give birth. Sadly, the newborn became stuck in the middle of the birth canal. The invited vet pulled the body out with pliers, but the newborn male was already dead. It was a premature birth, probably caused by the commotion around the other young one. Šárka was administered antibiotics and medicaments to expel the placenta. During the next couple of days, Sára was borrowing Šárka little Sally with no problems. Reuniting with Doris took place a month and a half after the birth of Sally. During the following week, Sára was borrowing the young one to Doris as well.

Despite the fact that just a single guereza was reared with success out of three animals born, this year can be assessed positively, in that a well-performing breeding group was put together and each of the females endured the first birth without consequences. In addition, Šárka`s belly was clearly enlarging in December ☺...

The white–lipped deer (*Cervus albirostris*) and its management in 2012

Ing Pavel Král

Breeding history of this deer species in Ústí began in 2000 when we imported a total of five animals over two years, with two males and two females coming from Tierpark Berlin and one female from Rotterdam. The enclosure the deer were placed in was large in terms of area, sloped and with some extent of rocky ground and tree cover. Despite the fact that the animals got used to it within a short time, we still lost both does that came from Berlin. The first died after 16 months of staying here due to trauma after being pierced by the male deer during the oestrus period, while the other (arriving as the last one) did not integrate into the herd properly and died after three months. The founding group of the stock therefore consisted of both males and a single unrelated female, but the herd gradually expanded to comprise six animals (1.5) due to females being born more frequently in relation to males and a higher overall viability of female animals. As unfortunately the young does began displaying close inbreeding traits, a new unrelated male Kailás (8 months old) was brought in 2009 from Tierpark Berlin, replacing the other male in the herd in 2011. With as many as seven does kept at the moment that additionally descended from only the first three founding animals, the year 2012 was characterised by high expectations, especially when it came to the number of births and the viability of the offspring. A new change that we made in 2012 compared with previous periods was closing the visitor road leading by the deer enclosure when the birthing period was nearing, the only reason being to prevent the does from being disturbed. Blocking the road was even extended to three weeks after the birth of calves.


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Monitoring the increasing volume of the abdominal cavity resulted in determining that a total of five does were about to give birth - only two young animals were not pregnant. Births took place following the expected timing - within 14 days between the 7th and 21st of June. The first ongoing delivery was found early in the morning. The doe was moving forward around the enclosure, often lying down and displaying occasional contractions. After about an hour and a half we found that the birth was not moving on and the animal's behaviour remained unchanged. The deer was watched from a good distance to prevent any disturbance. It was decided that should there be no development after 12.00 a.m., the doe would be put to sleep. Since the situation did not change, the animal was anaesthetised at 1.30 p.m. Dr Poživilová found the neonate to have been in the back position with its hind limbs completely folded below the body, so repositioned and delivered the dead juvenile out of the mother's body. The doe was provided a medical treatment. After more than an hour, the animal began to wake up and after two hours, it was able to stand up, integrating into the herd only the day after. Although the delivery


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Figure A

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
No. of young bred and reared	0.1	0.1	0.1	0	0.2	0	1.1	0.1	0	1.2

was a challenge, the doe was saved with success.

The following three births took place shortly after each other and went smoothly. Watching out for each of the does was not easy if we wanted to avoid any disturbance with the group hardly seen to stay together at that period. As the does were separating from the group, locating a newborn calf required thorough browsing throughout the enclosure ***(Figure 1)***. This was usually done when all the does were staying in the group. As a result, locating the three calves took three days. The calves were only monitored and their sex not yet determined. We were taking our best to minimise any disturbing. The calves were put aside at the opposite end of the enclosure, at different sites. The behaviour of each doe matched that described at the first-ever birth in Ústí back in 2003 (Král, 2003), only the period of laying the young aside did not last so long. All the calves were taken into the group by does after 4-6 days ***(Figure 2)*** and even the last (fifth) doe gave birth at that time. In this case, a calf in good health was delivered, which took place outside the group, as with the previous animals. This newborn was even seen to suck from the mother, it staying with the calf more frequently than the other does. The deer was quite often even not returning into the herd and guarded the calf. However, this young deer died after 8 days from causes unknown to us. It also happened when the calf was still put aside from the group. The previous calf from this doe became in the previous year targeted by an infanticide conducted by other females, but such a reason for death was excluded with regard to the fact that the young one had been put aside, considering also the behaviour of the female and other animals. With the offspring, the deer numbers increased during the year from 9 to 12 individuals, this most likely comprising a new male and two new females ***(Figure 3)***. The herd sex ratio increased to 3.9. With so many animals, the method of administering food at a single site near the upper shelter was appearing to be insufficient for the deer stock later in the year, which also applied to the area for the animals to hide from the rain. Thus, plans for building a new shed in the lower part of the enclosure are explored.

To conclude, 2012 was the most successful year in the zoo history in terms of numbers of animals being born and reared. In 2003-2012, a total of 11 (2.9) animals were bred and reared ***(Figure A)***, of which one male went to Bojnice, while one male and all female animals are still held in Ústí, the original founding trio now represented only by the male Timur, who was thirteen in 2012.

A new visitor information board was installed in 2012. Placed near the enclosure, it describes the traits of the white-lipped deer and its range.

Král, P, 2003: Chov jelena bělohubého (*Cervus albirostris*) v Zoo Ústí nad Labem. Fauna Bohemiae Septentrionalis, Tomus 28, pp. 28–32.


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New species of macaws

Bc Tomáš Anděl

The local stock of the *Ara* genus has grown in 2012 with two more species added. First, we were more than happy to get a year-old pair of the blue-throated macaw (*Ara glaucogularis*) from a private breeder ***(Figure 1)***. By the 1970s, this macaw species had been considered a subspecies of the much better known blue and yellow macaw, which the former resembles with its blue and yellow colouring. Unlike the latter species, blue-throated macaws display a large dark blue spot below the lower jaw, whilst in the blue and yellow macaw this spot is smaller and coloured black. The featherless area around the eyes is also considerably lesser in the blue-throated. There is also a noticeable difference in the size and volume of the beak, which in the blue-throated macaw is smaller and rather subtle. The natural habitat of the blue-throated macaw comprises gallery forests in northern Bolivia that support the last remaining 73-87 sexually mature individuals according to the 2012 estimate of BirdLife International. Adding sub-adult birds, the wild-ranging population of this macaw counts a mere 130 individuals approximately, making it currently the rarest macaw species in the wild, classified by the IUCN's Red List as CR, that is, Critically Endangered. Ústí nad Labem Zoo became the first UCSZOO member to keep the species.

In addition to the blue-throated macaw, the red-fronted macaw (*Ara rubrogenys*) is another new member of the genus ***(Figure 2)***. A two-year-old male was received from the zoo in Budapest to join the Ústí female that hatched in Dvůr Králové five years ago. An endemic species, inhabiting a small area of the eastern slope of the Andes in the south of central Bolivia, red-fronted macaw's natural habitat is deciduous forests and cactus vegetation of mountain valleys, where they normally range in altitudes from 1,100 to 2,700 m, sometimes occurring even beyond that level (up to 3,000 m). Their diet in the wild comprises a variety of fruits and seeds. Given that sources of food are often relatively scarce in their native range, the birds now increasingly feed on farm crops, especially peanuts and unripe maize. According to the latest estimates by the IUCN Red List, there are last remaining 1,000-4,000 birds in the wild, the species now listed as E, that is, Endangered. The main cause for declining is the loss of habitat caused by human activity, which in this case mainly involves deforestation with subsequent production of charcoal.

With other macaws already kept at Ústí Zoo in addition to the two new species discussed above, more specifically the military macaw (*Ara militaris*), the blue and yellow macaw (*Ara ararauna*), the red-and-green macaw (*Ara chloroptera*) and the scarlet macaw (*Ara macao*), the local list forms, within the UCSZOO membership, the most comprehensive collection of these beautiful large parrots.

New aquaria at the Exotarium house

Ing Pavel Král

The aquarium section was reflecting a considerable lack of maintenance, being compliant with the standards of the period when it was founded, i.e. about 35 years ago. In fact, there was no servicing, just purchasing diverse non-compliant lighting units and placing them above the tanks. The level of purchasing new equipment was also very low, this naturally reflected in the overall level of breeding rate.

Having considered all of the above, a decision was taken around the middle of 2011 to start rebuilding the ground floor aquariums at the Exotarium. The team's goal was to follow the period when the facility was thriving, i.e. the 1970s and the 1980s, when there were several cases of breeding success, with red bellied piranhas (*Pygocentrus nattereri*) being the very example. Actually, Ústí Zoo was amongst the first-ever institutions to achieve this. There was even successful reproduction of the discus fish (*Symphysodon sp.*).

The process of redesigning was split into two phases - the phase 1, which was completed in early 2012, involved repairing the first three aquariums (including the adjacent service areas) along with upgrading the keeper's room and providing hot water supply and new wiring for the aquarium area. The phase 2 is scheduled for 2013, when other tanks are to be redesigned. The target region for the first three tanks became South America.

After in-depth consultations, which included regards as to the size of each tank, the following species were specified to settle in the aquaria:

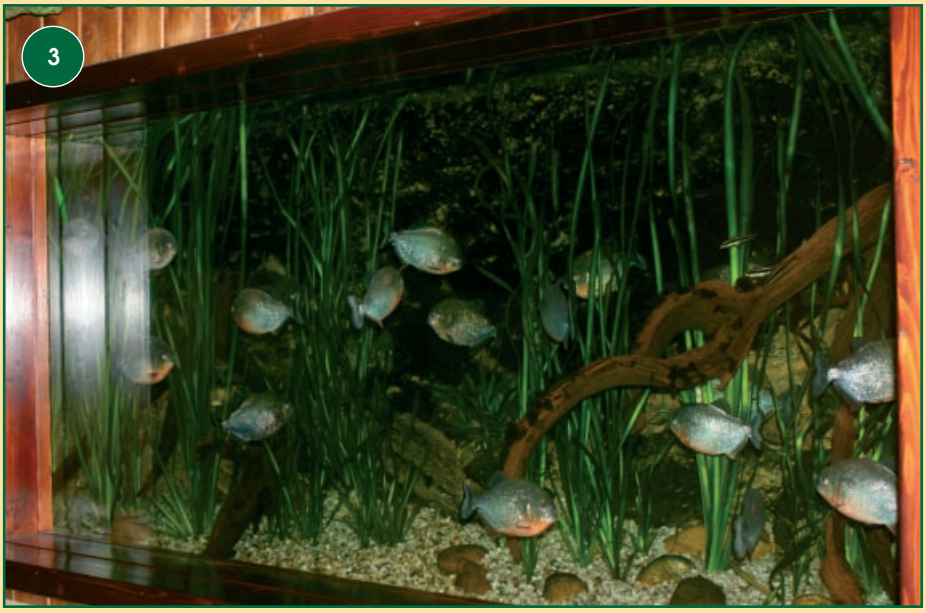
Tank 1 *(Figure 1)*:
Volume: 1,250 litres, dimensions: 200 x 90 x 70 cm, habitat-compliant, richly planted.
With regard to the height of this tank, the deep angelfish (*Pterophyllum altum*) and the blue discus (*Symphysodon aequifasciatus*) were selected to be the key species. These were supplemented with two shoaling fish species, the cardinal tetra (*Paracheirodon axelrodi*) and the rednose tetra (*Hemigrammus rhodostomus*). The *Corydorcas sterbai* catfish was elected to play the role of a bed-dwelling species as it fits into the tanks of a rather great height. The dwarf sucking catfish (*Otocinclus affinis*) was specified as an algae-eating species.

Tank 2 *(Figure 2)*:
Volume: 1,400 litres, dimensions: 300 x 67 x 70 cm.
Due to the length of this aquarium, species selected comprised the peacock cichlid (*Cichla ocellaris*) and the marble cichlid (*Astronotus ocellatus red oscar*), these supplemented with the fresh water ray (*Potamotrygon motoro*), a member of river stingrays.

Tank 3 *(Figure 3)*:
Volume: 1,680 litres, dimensions: 240 x 100 x 70 cm.
Given the breeding record, the red bellied piranha (*Pygocentrus nattereri*) was chosen for this tank as this was a formerly bred species (1984). In addition, feeding piranhas was once amongst much-sought animal shows.
Due to the need of savings, the

redesign operations were provided and carried out directly by the zoo team. The author was doing all the work after working hours, supported by the maintenance department and the respective contractors supplying requested materials. The number of hours worked by the author neared 600. Most of the necessary materials (diverse types of sand, roots, plants, luminaries and coats) were sourced directly from the reseller to have a better choice.

The original paint was removed inside each of the tanks and a new one provided. The tank 2 received a stylish wall background on the side and on the back, with pockets shaped for plants. The background made of polyurethane materials was customised by and delivered from a commercial maker of artificial rocks and stones. The original background was maintained in the tank 3, with only a minor refurbishment and new paint provided.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Existing glasses of the tank 1 and tank 2 were replaced due to scratches with a glass of a thickness of 3 x 8 mm (two


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films). This option was chosen due to the price of the extra-clean glass, which was twice as expensive. In addition, there were safety concerns in case of the glass being broken. The glass was supplied by the Sklenářství Kos company ***(Figure 4)***.

With the tank 1 and tank 2 specified to be flow-through aquaria, the side wall of each concrete tank was drilled and provided with a drain hole. This determined the inner water level and ensured automatic outflow. An external glass filter for the tank 2 was added into the system and the automatic outflow hole provided as well. A pump was put into the filter to close the pumped water circuit inside the tank 2. There is the option of combining the alternatives, i.e. closing the outflow hole, thus increasing the water level in the aquarium. Closing the outflow will turn the flow-through tank to a conventional aquarium, this to be used when all the fish kept in the aquarium need medical treatment. The glass filter can be disabled without compromising the flow capacity of the tanks. The volume of the glass filter medium is 90 litres. The former old Eheim canister filters including filling were removed. Filtration was resolved by buying new Fluval FX-5 external filters supplied by the Plaček company. In addition, a transparent Plexiglas cover was installed on the tank 2 giving the possibility of simple opening and making servicing easier.

No longer needed old wiring was removed along with sub-standard luminaries and new outlets installed above the tanks. Lighting rigs and units were provided, which for the first two tanks involved T5 tubes, while the third tank was fitted with T8 Narva/Aqua Medic tubes. Two Eheim Jager 300W heaters were added to each of the tanks.

As regards plumbing, the former old water heater in the keeper room was replaced with a larger unit, sufficient for a partial water circulation in the tanks, and new hot and cold water distribution piping was installed over each aquarium.

Brickwork included fixing and replacing floor tiles in the keeper room, renewing floor tiles in the service area in front of the tanks, patching tanks and walls around them and in the keeper room and producing a step along the longer rear wall of the tank to make handling and servicing easier. Finally, paintwork and whitewashing was carried out throughout the keeper room and in the area of all the three tanks.

New racks for aquarium equipment were purchased, as well as small tanks to be used in the servicing area. New stands for terrarium purposes were also supplied into the keeper room.

The last alterations were made in the visitor area around the tanks. The entire wall around the tanks was treated and natural wood panelling added, along with signage for the tanks and species labels. A small screen was added to each of the tanks, showing a short film about the natural habitat of the fish.

The grand opening for the public took place on Saturday, 4 February 2012, as part of the "It's the Half-term Break" event, this including a small aquarium exchange market and an exhibition of underwater photography by Martina Balzerová.

Acknowledgements

My thanks go to Dan Valenta for providing valuable guidance during the process and help in getting the fish species ***(Figure 5)***.

Elephant management update

Jan Javůrek

With a grant received from the ČEZ Group and amounting to 100,000 CZK, it was decided to use the money to build a filtration in the tropical river exhibit located in the visitor section of the elephant house ***(Figure 1)***. Thanks to Ing Petra Padalíková, the head of Animal Husbandry, a better quotation was received for the filter, as well as for the Oase vacuum system. The team provided a concept of installation system that was consulted with and then executed by a plumbing outsourcer. The filter was installed in the underground technology section of the house. In addition, the staff themselves placed new hoses in the exhibit and connected pumps to these, setting up two minor waterfalls which are to oxidise the water whilst warming it up to 22-24 °C through two heating elements with the output of 4 and 6 kilowatts, respectively. The old silicone filling lining the exhibit glass was also re-trimmed and the glass stuffed. Naturally, sturgeons and goldfish were captured before draining the pool and replaced, upon consultation with Animal Husbandry, with new fish and turtle species - the *Barbonymus schwanenfeldii* and *Hypsibarbus wetmorei* barbs, and the Fly River turtle - that better represent the Asian region to make the visitor more familiar with the habitat where the species of our elephants range in the wild. Formerly, before installing the biological filtration system, measures had to be taken three times per year consisting in capturing the fish, draining the exhibit and washing the basin with pressurised water. Then water had to be refilled, amounting to approximately 5,000 litres per a cleaning operation. With the filtration now in place and the underwater vacuum cleaner, draining the pool was not necessary for almost a year.


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As regards health of our female elephants, several changes took place. On 16 February 2012, Delhi was found by the IZW Berlin team to have a small cyst on her right ovary, whilst having developed three follicles on the left one, one of which was maturing. Everything looked promising. The preliminary date of insemination was set for 8 March 2012. Thus, we started to take blood samples from Delhi on a daily basis, having them checked for hormone levels. As however no peak appeared against expectations, we took Delhi's blood samples to IZW laboratories in Berlin on 19 March 2012. The result was that the cycle had been underway very poorly and unpredictably. The next examination was set for the summer. As for Kala, her health seems to have been getting worse, with the cycle still underway to some extent, exhausting the body and also threatening with rupture of the cysts. We were advised to administer hormones to stop the cycle, with expected improvements in findings as regards cysts. As mentioned above, the next examination was set for the summer. Eventually, the IZW doctors arrived in August ***(Figure 2)***, re-detecting a cyst and fluid in the Delhi's uterus. They

recommended us to consider uterus flushing under partial anaesthesia. Kala was injected Improvac, this expected to stop the cycle. The procedure was repeated after three and six weeks in conjunction with the zoo`s veterinary doctor. Unfortunately, on 15 October Kala started to limp on the right rear leg while being walked, losing any good mood. On 16 October in the morning the female did not eat, refused to stand up and obviously suffered from pain. She was injected Ketofen into the muscle with the effect being relatively good. The difficulties however again highlighted the long-standing problems with the elephant`s musculoskeletal system. After consultation with the zoo`s veterinary doctor the female`s walking schedule was restricted, the medicine for joints was re-applied and veterinarians from the Liberec Zoo were contracted for x-raying the elephant`s limbs. The check was done on 25 October, and the result pleasantly surprised everyone. None of the Kala limbs (with about 20 frames involved) was found to suffer any significant arthritic or degenerative changes. Although it must be admitted that the hip area, which was where the site of painful problems had been expected to occur, could not be fully x-rayed by the device, the fact that the lower parts of the female limbs were okay was very heart warming. In November, IZW specialists arrived to update the sonography in Delhi and agree on the next steps. The finding was however worse than previously. One more cyst was discovered, and Delhi ultimately confirmed to have had a single ovary working. After the examination and subsequent consultation, we were again recommended approximately one-hour treatment during which Delhi would be put to sleep to some extent, and the uterine area inspected using endoscopy, the cyst removed by laser and the entire uterus flushed with antibiotics. For our part, building a walkway over Delhi was necessary, as the animal would have to be tied out, pulleys and chains had to be provided, etc. - all of that being a task for zoo`s technical department.

Due to the worsening condition of nails in Kala, the staff got an opportunity of trying out the „smart sponge". We performed several cycles of repeated bathing, but without any obvious success which actually had been expected and it should be noted that for Kala this aid was not working. On the other hand, the experience with one of the Fly River turtles can be clearly evaluated to be very positive. The turtle suffered from sores on the shell caused by mould. After the application of the sponge the inflammatory deposits greatly diminished and eventually disappeared to the full extent.

Since it was 25 years from now in June when Delhi arrived in Ústí, it was decided to hold a celebration in collaboration with Marketing, Publicity & Conservation Education. A quite varied schedule was planned and as we constantly strive to draw attention to the problematic future of the elephant stock in Ústí, we designed the celebration to take place throughout the week, each day featuring an event that was to attract both visitors and the founder. The celebration week was started with a rice cake. The goodie was prepared by a colleague from Animal Nutrition and handed over to Delhi (Kala naturally assisting) by Dr Václav Poživil - Zoo Director, and Petr Slavík, a photographer, traveller and supporter of our elephant females ***(Figure 3)***. Afterwards, there was the act of formal opening the exhibition of Petr Slavík`s photographs. A visit arrived from Ostrava Zoo: our dear colleague and friend Pavel Zvolánek coming not just to repay our visit to Ostrava (that was to congratulate their small Rashmi the elephant female for her first birthday) and to bring Delhi a gift from Ostrava colleagues (10 kg pack of Orling, a joint care product), but especially to help us with our attempt to outline two options for our

elephant stock in the future. These involve paving the Ostrava way, where with their compliant husbandry facility there is an ideal breeding group of females and an adult male, as well as rearing takes place; or, as the second option, following the example of Liberec Zoo, where they plan to terminate the elephant stock if a new elephant house is not built or the existing facility extended. Pavel Zvolánek prepared for this occasion, mainly for invited politicians and journalists, a very interesting presentation on the development of elephant management in Ostrava. Unfortunately, none of politicians arrived, so the lecture was at least heard by journalists. For Tuesday, a „public grazing" event was arranged for visitors, the elephants with their keepers heading for the adjacent meadows on the hill of Mariánská skála, giving all those who gathered by the ticket office up the hill the opportunity of enjoying the stroll and narrated grazing of our female elephants. Subsequently in the afternoon, our colleague Pavel Zvolánek was giving one more lecture. Accompanied with a presentation, this time it was targeting visitors and elephant fans. Wednesday was marked by colours and painting. Elephants were painted all over the body with India-related motifs before they walked out, while we dressed up in original costumes borrowed from the city theatre, nicely complemented by Pavel Zvolánek`s wife in her Indian saree complete with the local jewellery ***(Figure 4)***. To attract school groups as well, chalks were made available on Thursday by the education department at the ticket office up the hill, the children invited to paint pictures of elephants on the panels lining the road from the ticket office to the elephant house, with which the kids were chiefly very happy. In the afternoon, after elephant training, we showed visitors as part of enrichment that even elephants (particularly Delhi) can paint. The fresh picture drawn by the female was handed to the visitor who had correctly answered a question related to the topic. On Friday, we took the elephants (accompanied by visitors) back for grazing. We were much surprised with a number of people attracted, submitting applications to join even via the Facebook profile of our elephant females. Fortunately, the weather was great and people interested in this event were leaving with real satisfaction. Of course everyone expected that the culmination of the week would take place over the weekend, when even larger visitor numbers were assumed, which despite the heat was eventually confirmed. On Saturday, visitors were invited, before the elephant walk that the team was again undertaking in costumes, to try to arrange enrichment in the elephant enclosure and to watch after we returned from a walk with the females how the hidden food would be handled by the girls. There were two stands placed near the enclosure where very nice and pleasant Vietnamese ladies were selling genuine food and products from the country. Additionally, the training session was made more varied with us wearing rice hats and linen shirts to raise awareness of dresses of native mahouts ***(Figure 5)***, and female elephants bathing in a natural pool in their paddock. Sunday was just a conclusion of this very busy, but hilarious elephant week. Ms Andrášková arrived from Sokolov, the lady being not only a great elephant enthusiast, but also a collector of elephant figurines, statuettes and other similar artefacts, of which she brought 100 pieces that we used for arranging a small on-site exhibition right in elephant „bedrooms". Subsequently, Monika Absolonová arrived in the afternoon, who together with animal

fosters and sponsors - small ladies Natálka and Magdička Zavoral and Mr. Schnepp, a representative of the ČEZ Group - gave Delhi one more cake of rice and fruits. In addition to the activities outlined above, guided tours of the house and behind the scenes were underway throughout the week, taking place after each elephant training session (even three times a day during the weekend). Every participant was given a small gift at closing in the form of an elephant hair and a commemorative card, and invited to buy a flower planted directly in dried elephant dung ***(Figure 6)***. This busy week yielded not only the interest from the media in the elephant stock, but also a funding support granted by the Region of Ústí nad Labem and amounting to 1,000,000 CZK, which was decided to be used for setting up a new floor in elephant bedrooms, improving the surroundings of the elephant paddock including erecting small seating areas at the main viewing site, and producing new educational elements along the enclosure to bring daily life of our female elephants much closer to the visitor.

Late in the year, an investment plan was approved by the founder for the completion of the housing facility for elephants - more specifically, two millions were earmarked for drafting a project dossier required for building approval.

The staff participated during the year in a couple of events in the zoo grounds, such as „Dreamnight at the Zoo" for disabled children or „Christmas Day Celebration at the Zoo", whilst assisting as part of the elephant-related Christmas present-giving event. Several filming days took place throughout the year, be it for Internet TV stations as well as for the Czech TV and their „Tour around the Zoo World" programme with Vanda Hýbnerová or filming a commercial for Czech Railways and their „Join the Elfling and Visit the Zoo" show.

We very more than happy to welcome several celebrities, like actors Veronika Žilková with her children and Tereza Kostková with her son and film director Petr Kracík - her husband ***(Figure 7).***

Finally, I would like to highlight the considerable income in cash amounting to 94.500 CZK, which we raised through well-functioning learning-by-experience programmes entitled „Feed and Touch an Elephant" and „Elephant Keeper for One Day".

Naturally, our sponsors and donors have to be applauded, more specifically the ČEZ Group, our animal fosters Natálka and Magdička Zavoral, the Oase, Dorant and Bushman companies and all fans of our elephants.

Animal Rescue Centre update

Jaroslava Ježková

In 2012, a total of 557 dogs and 288 cats passed through the Centre's premises, of which 257 were returned to the owner. All of the cats were placed under the adoption agreement or released back into the site of capture after castration and/or treatment.

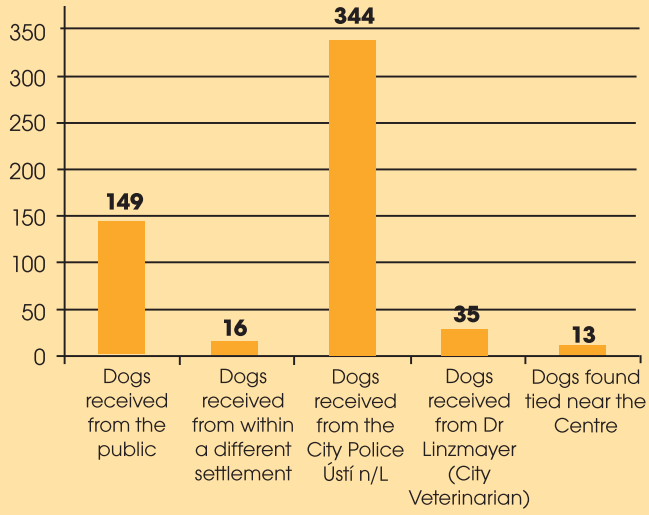
With the dramatic increase in the number of problematic dogs as well as those placed over a long term, the staff focused mainly on re-education and socialisation of these to be able to return to normal life and underway the adoption process ***(Figure 1)***. This often did not involve dogs that were unbalanced in terms of temper or aggressive - rather, they were animals that failed to handle staying at the centre or the loss of the owner. Such dogs need a lot of time to regain confidence in humans as well as the ability to communicate with them. The reward was then the 254 dogs that the staff was able to relocate as part of the adoption scheme.

Success was also achieved as regards various shows of „mixed-bloods" at which the Centre has been participating on a recurrent basis. The mission to take part in these is not only receiving rewards for dogs ranking as part of the competition, but also promoting the Centre and educating its volunteers to love animals and take care of them. Accompanying events usually include shows supporting the placement at which the creatures we nurse are more likely to get quickly to the new owner.

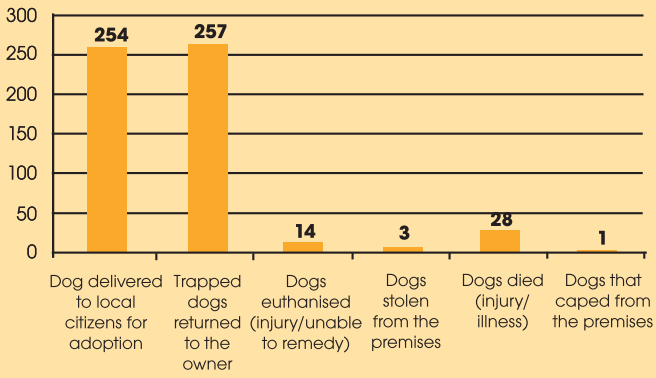
The foundation of Nadace na ochranu zvířat included the Centre this year into the project designed for animal shelters called „Fill the Bowl". As a result, a half-year stock of animal food was provided through the MARS Company - the help that is greatly appreciated by Centre's staff members.


1

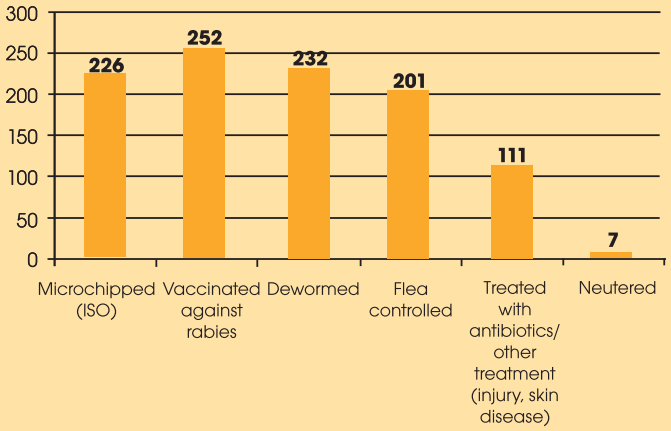
Dogs in (1 Jan–31 Dec)	
Dogs recieved from the public	149
Dogs recieved from within a different settlement	16
Dogs recieved from the City Police Ústí n/L	344
Dogs recieved from Dr Linzmayer	35
Dogs found tied near the Centre	13
Total dogs	**557**



Dogs out (1 Jan–31 Dec)	
Dogs delivered to local citizens for adoption	254
Trapped dogs returned to the owner	257
Dogs euthanised (injury/unable to remedy)	14
Dogs stolen from the premises	3
Dogs died (injury/illness)	28
Dogs that escaped from the premises	1
Total dogs	**557**

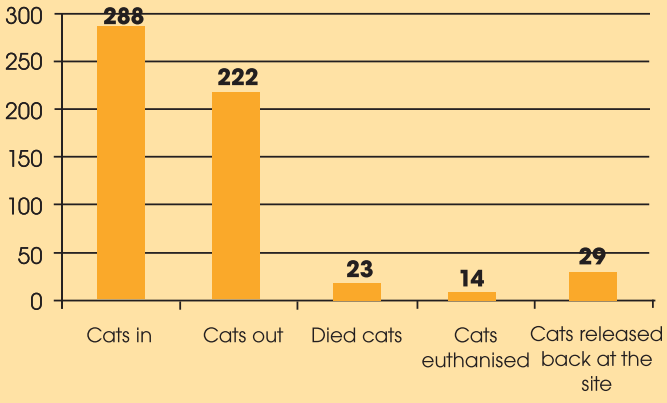


Dogs treated and vaccinated throuhout the stay (1 Jan–31 Dec)	
Microchipped (ISO)	226
Vaccinated against rabies	252
Dewormed	232
Flea controlled	201
Treated with antibiotics/other treatment (injury, skin disease)	111

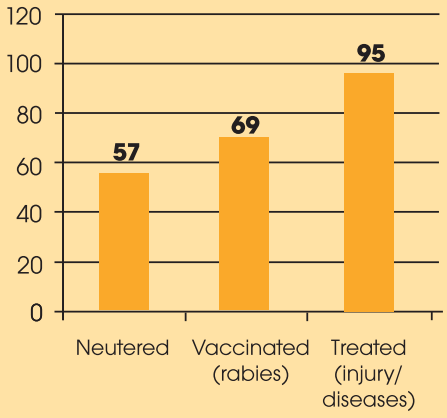


Financial sumary	
Fee for dogs out (vaccinated, microchipped)	300 CZK
Fee for dogs out (vaccinated, microchipped) - outside of the city Ústí nad Labem	400 CZK
Dog housing fee per day	60 CZK
Fee for transporting dogs into the Centre	100 CZK
Flat payment per stay (dog height 30- cm)	1,000 CZK
Flat payment per stay (dog height 30+ cm)	1,500 CZK
Payment for carcass	22 CZK/kg

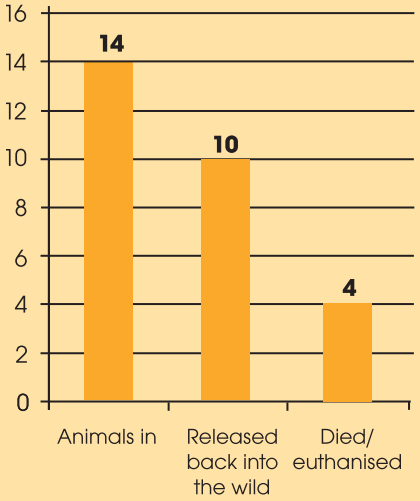
Cats received and treated (1 Jan–31 Dec)	
Cats in	288
Cats out	222
Died cats	23
Cats euthanised	14
Cats released back at the site	29



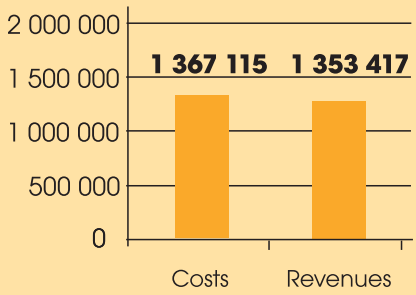
Cats treated (1 Jan–31 Dec)	
Neutered	57
Vaccinated (rabies)	69
Treated (injury/diseases)	95



Disabled animals (native wildlife)	
Animals in	14
Released back into the wild	10
Died/euthanised	4



Centre funding in 2012	
Materials consumed	315,725 CZK
Energy consumed	102,866 CZK
Repair and maintenance	78,341 CZK
Other services	140,994 CZK
Other costs	13,583 CZK
Payroll costs	552,665 CZK
Health and social insurance	162,941 CZK
Income (adoption fees, donations)	300,017 CZK
2012 co-funding	1,053,400 CZK



Wildlife Rescue Centre report

Mgr Martina Kocábková

In 2012, the **Wildlife Rescue Centre** received 150 animals of approximately 45 species of Czech native wildlife ***(Figure A)***. As usual, birds comprised the largest portion, their number being 91 individuals of 30 species, followed by mammals with 56 individuals of 12 species. Numbers of disabled reptiles or amphibians are normally smaller.

Birds

Young birds are amongst the most frequent inhabitants of the Centre, these mostly involving individuals that had failed to make their first flight out of the nest. Younger birds, i.e. those not yet fully feathered, are received to a lesser extent. Reasons for their arrival range from falling out of the nest to nests being damaged or destroyed. A significant proportion also comprises adults who are injured or just shaken up after hitting the window glass or colliding with a car.

While in the previous years swifts were ranking the first in terms of numbers of individuals taken, a high number of these received in 2012 as well - a total of 18 individuals, of which 12 were successfully released back into the wild, kestrels hold, surprisingly, absolute primacy in the realm of birds. Of the 22 kestrels that arrived, 14 were returned into the wild with success, some of them in the presence of media ***(Figure 1)***. For the remainder of individuals, there were devastating injuries of wings or head that made the creature's life impossible to sustain.

Outside of standard representatives of native avifauna, i.e. birds of prey, swifts or song birds, several noteworthy bird species passed through the premises and deserve more detailed report.

A few days old abandoned chick of the common coot (*Fulica atra*) ***– Figure 2*** was found by the River Elbe in late May. Caring for such a young animal required a full-time effort of the keeper. The coot was anxiously seeking a close physical contact, so the care was necessary even in the first couple of nights with the bird curled up with its adoptive parent. Later on, the coot got its own little pool, in which it was gradually adapting to its natural environment. As chicks in coots do not hatch with fully developed and functional sebaceous glands, staying in water had to be controlled with care, since there was a risk of the bird getting cold soon being there no sufficient greasing of plumage. At that time, we started to see a deformation of the right leg to develop to a rather great extent, with fingers curving towards the underside of the body and the chick moving by touching the ground with the edge of the foot. Despite every effort, this condition was impossible to control. On the other hand, the bird thrived well in other aspects and this small deviation proved to be a rather cosmetic defect. However, a question remains about the cause of such deformation. It could be a birth defect or the result of an unidentified injury, such as one resulting from the young bird being trapped incorrectly. After several weeks, the young coot was moved and released into the aquatic bird exhibit at the zoo. Whilst it was initially maintaining a close relationship with its keeper, the bird acquired a natural shyness over time, flying away in the early August.

In October, an adult eagle owl (*Bubo bubo*) was brought into the Centre. Although it had suffered extensive injuries of the wing after colliding with a car, the staff members felt it should be treated. This task was undertaken by Dr Helena Vaidlová from Kralupy nad Vltavou, a veterinary doctor and a specialist in injured birdlife, who managed, during a challenging surgery consuming several hours, to relocate several dozen fragments of shattered bones, thus ensuring maintained functionality of the wing after their reintegration. The eagle owl underwent further treatments over the course of several months, the prognosis now being very positive. The wing has healed and the bird quickly restored a good condition. Plans are to return this creature back to the wild in the spring of 2013.

In November, the Centre received a threatened member of native fauna - a woodcock (*Scolopax rusticola*). This inconspicuously coloured bird with a long and slender beak is rarely seen in the wild in this country since it is an elusive and solitary animal. Additionally, it tends to be active mostly at dusk. This individual was fortunate enough as it was not injured, just exhausted. As early as several days after, the bird regained a good condition, and it was even clear that staying any longer in the aviary would be no good. After the woodcock spent about one week in the Centre, the staff members - in consultation with the Agency for Nature Conservation and Landscape Protection - chose a suitable site near the village of Strážky

and released the bird ***(Figure 3)***.
Finally, a young lapwing (*Vanellus vanellus*) was brought in mid-December from the Čížkovické cementárny company (a cement-processing plant). After having ranged amongst construction workers for several days, it was obvious that the bird was unable to survive without human support. The lapwing stayed in the Centre over one month, during which it gained strength as well as lapwing's typical black and white plumage to eventually find a new home at the zoo in Prague, where it successfully integrated into a flock of other individuals of the species.

Mammals
The absolute leadership in terms of number of received individuals is kept by hedgehogs (*Erinaceus spp.*), like in the previous years ***(Figure 4)***. In hedgehogs, the "high season" is somewhat specific compared with other disabled animals. Since the animals in our care hibernate, thus their period of stay spans over two calendar years, the success of release in this animal can only be back trailed, with just temporary data available at the end of each calendar year.

The rate of success of survival in previous periods (2007-2010) was not very high in hedgehogs that we cared for. Over time, however, our management techniques improved, which influenced the rate of success to a considerable extent. More specifically, most of the animals were housed in the same quarters in earlier seasons, where they had a choice of several shelters and boxes. The food was also served on multiple trays to avoid the competition of stronger and weaker individuals. Hedgehogs are however solitary animals so were far from benefitting through such housing in groups. In addition, the high concentration of animals within a small area was promoting the spread of parasites and potential diseases, which, despite quarantine measures and routine veterinary care, is something that can never be completely avoided.
Currently, only young hedgehogs with weight limit below 600 grams dwell in the common quarters indoors. Too young as well as weak or sick individuals are now kept separately and provided with individual care, while larger and already sufficiently „fattened" animals are moved to an outdoor aviary where they can hibernate in a prepared pile of leaves and other natural matter. These healthy and strong animals are too offered food throughout the winter, to give the opportunity to feed even to any restless sleeper. This way we managed to hibernate a large number of hedgehogs in the 2011-2012 season that in the early spring months „released themselves" into the wild when they discovered a hole in the aviary mesh.
Figure B shows the success of overwintering in hedgehogs since 2007. The numbers, however, needs to be accompanied by a commentary. For example, the 2010-2011 season success was lower than in the previous period, but it should be noted that our statistics were significantly affected by a large number of cases that we had no chance to influence. The point is that it was very often happening at that time that people brought a very young animal that had undergone a couple of days of improper treatment by enthusiasts. Unfortunately, due to a lack of knowledge and under the influence of many established misconceptions, the creatures were offered completely unsuitable food (e.g. grain for rodents or birds, fruit etc.), thus the animals were delivered to the Centre weakened and on the verge of existence. Any efforts to save such hedgehogs were no longer successful.
The second group from the top as regards numbers of mammals received are normally bats ***(Figure 5)***, a part of them successfully released in the autumn and the remainder surviving the winter hibernation in the premises. With the collection of 13 different species, this year was unusually rich in arrivals of these winged mammals. This was not only due to increased public awareness of bats and related issues, but also a result of unstable weather as when any larger warming occurs, resulting in bats coming out of hibernation, the animals subsequently set off to search for food. Such confusion may also result from human activities, such as when starting the heating season, the sudden significant warming of the walls of the building, in the crevices of which bats often hibernate, tends to have the same effect as a change in weather.

Reptiles and amphibians
In 2012, the Centre received only three members of Czech „cold-blooded" fauna - the smooth snake, the adder and the European green toad. The adder, unfortunately, succumbed to its injuries, whilst the smooth snake and the green toad were successfully released in the zoo grounds.

For the summary, please see ***Figure C***.

Figure A

GROUP	SPECIES	INDIVIDUALS	RELEASED	DIED	OTHER	FEED DAYS
Mammals *(Mammalia)*	**12**	52	24	11	17	2936
Birds *(Aves)*	**30**	91	44	43	4	1192
Reptiles *(Reptilia)*	**2**	2	1	1	0	2
Amphibians *(Amphibia)*	**1**	1	1	0	0	1
TOTAL	**45**	**146**	**70**	**55**	**21**	**4131**

Figure B

RATE OF SUCCESS IN RELEASING HEDGEHOGS						
Season	**Received**	**Released**	**Balance**	**Rate of success**		
2007–2008	78	16		20.5		
2008–2009	63	25		39.7		
2009–2010	59	25		42.4		
2010–2011	72	28		38.9		
2011–2012	51	43		84.3		
2012–2013	33+	12+	11			

Figure C

LIST OF ANIMALS KEPT AND TREATED IN 2012						
	INDIVIDUALS	**RELEASED**	**DIED**	**OTHER**	**FEED DAYS**	**COMMENT**
MAMMALS						
Hedgehogs *(Erinaceus sp.)*	**33**	16	6	11	2464	Still kept on 31 Dec 2012
Stone marten *(Martes foina)*	**1**		1		2	
Bat (species unknown)	**2**	2			2	
Grey big-eared bat *(Plecotus austriacus)*	**2**	2			79	
Common pipistrele *(Pipistrellus pipistrellus)*	**1**			1	29	Nyctalus Centre – Prague
Nathusius' pipistrele *(Pipistrellus nathusii)*	**1**			1	20	Still kept on 31 Dec 2012
Parti-coloured bat *(Vespertilio murinus)*	**2**			2	26	Still kept on 31 Dec 2012
Noctule *(Nyctalus noctula)*	**5**	3		2	302	Still kept on 31 Dec 2012
Edible dormouse *(Glis glis)*	**1**	1			1	
Wild boar *(Sus scrofa)*	**2**		2		3	
European red squirrel *(Sciurus vulgaris)*	**1**		1		7	
European hare *(Lepus europaeus)*	**1**		1		1	

LIST OF ANIMALS KEPT AND TREATED IN 2012						
	INDIVIDUALS	**RELEASED**	**DIED**	**OTHER**	**FEED DAYS**	**COMMENT**
BIRDS						
Lapwing *(Vanellus vanellus)*	**1**			1	41	Placed at Prague Zoo
Hawfinch *(Coccothraustes coccothraustes)*	**1**		1		1	
Song thrush *(Turdus philomelos)*	**1**		1		1	
Rock dove *(Columba livia)*	**3**		2	1	124	Adopted for life term
Woodpigeon *(Columba palumbus)*	**2**		2		6	
Northern house-martin *(Delichon urbica)*	**5**		5		8	
Mallard *(Anas platyrhynchos)*	**1**		1		3	
Long-eared owl *(Asio otus)*	**1**	1			23	
Buzzard *(Buteo buteo)*	**4**	2	2		55	
Eurasian sparrowhawk *(Accipiter nisus)*	**1**		1		2	
Grey wagtail *(Motacilla cinerea)*	**1**	1			6	
Eurasian blackbird *(Turdus merula)*	**4**	2	2		22	
Mute swan *(Cygnus olor)*	**1**		1		71	
Kingfisher *(Alcedo sp.)*	**1**	1			2	
Common coot *(Fulica atra)*	**1**	1			67	
Eurasian kestrel *(Falco tinnunculus)*	**22**	14	8		343	
Tawny owl *(Strix aluco)*	**1**			1	78	Still kept on 31 Dec 2012
Gull *(Larus sp.)*	**1**	1			1	
Black redstart *(Phoenicurus ochruros)*	**3**	2	1		28	
Swift *(Apus apus)*	**18**	12	6		127	
Woodcock *(Scolopax rusticola)*	**1**	1			9	
Jay *(Garrulus glandarius)*	**2**		2		3	
European magpie *(Pica pica)*	**2**	1	1		36	
Woodpecker *(Dendrocopus sp.)*	**4**	2	2		24	
Little owl *(Athene noctua)*	**1**	1			19	
Tit *(Parus sp.)*	**4**	1	3		13	
House sparrow *(Passer domesticus)*	**1**	1			5	
Hooded crow *(Corvus cornix)*	**1**		1		1	
Eagle owl *(Bubo bubo)*	**1**			1	69	Still kept on 31 Dec 2012
Eurasian green woodpecker *(Picus viridis)*	**1**		1		4	
REPTILES						
Smooth snake *(Coronella austriaca)*	**1**	1			1	
Adder *(Vipera berus)*	**1**		1		1	
AMPHIBIANS						
European green toad *(Pseudepidalea viridis)*	**1**	1			1	

Pesisir Balikpapan: project update

Stanislav Lhota

The aim of this research and conservation programme that has been running under the auspices of Ústí nad Labem Zoo since 2007 is to protect the unique area of the Balikpapan Bay in East Kalimantan, Indonesia, the ecosystems that the bay encompasses being of such diversity as are primary and secondary rainforest (protected to some extent as part of the Sungai Wain Reserve), coastal mangroves, coral reefs and shallow sea. It is home to the proboscis monkey and the Irrawaddy dolphin as well as more than 100 species of mammals, almost 300 species of birds, and a range of other animals and plants. In addition to performing important ecological services, the bay is a source of clean water for the city of Balikpapan, provides livelihood for numerous traditional fishing communities and carries a huge potential for the development of ecotourism.

The project schedule for 2012 focused on the campaign against the planned expansion of commercial zones into the natural ecosystems of the bay area, whilst other activities involved environmental education schemes or research.

Monitoring

For conservation to be effective, knowing about what is happening in the field, and knowing it in time is essential. Many destructive development projects in Indonesia were pushed through with success because with companies starting the construction activity in secrecy, the negative effects of the works were not revealed at all, or it was too late, when it was no longer possible to stop the project - the plantation already set up, logging underway or a factory constructed. To avoid such situations, a routine scheme was implemented in 2008 to monitor the condition of the coastal territory ***(Figure 1)***, the activity in fact running without interruption until February 2012, when we unfortunately had to pause it due to funds lacking in connection with a very busy campaign that was then underway (see below). Nonetheless, the activity was restored in December 2012.

From the beginning, i.e. since 2008, the monitoring team was headed by Darman, a fisherman from the village of Gersik. Initially accompanied on his boat by sailors Bedul and Ali from the village of Kampung Baru, who assisted in my research on the proboscis monkey in 2007 and 2008, his original team split after we founded Landing, an association dedicated to activities in ecotourism and environmental education (see below). While the Kampung Baru team fully focused on the new programme, Darman bought his own boat and combined the routine monitoring scheme combined with awareness and publicity efforts by choosing other fisherman from Gersik and surrounding villages as boatmen to do monitoring. These take turns in the respective months.

This way enables the team making the fisherman community more familiar with factors that lead to the devastation of the Balikpapan Bay coast, thus reducing fish catches, while motivating them to participate in campaigns to save the bay. Simultaneously, it enables Darman to capture a lot of useful information that circulate among local villagers as "rumours".

The monitoring team travels on a monthly basis around a half of the coastal region. We decided for the northern portion that is still well preserved to a great extent and where the conservation efforts are going to have the greatest impact since monitoring and protecting the area throughout the coast, i.e. one of approximately 320 km^2, would unfortunately be exceeding our possibilities. The monitoring period takes about 3-5 days each month, the guards touring the coast and entering most of the rivers as far as the depth of water permits. Thus, the monitoring route represents a couple of hundred kilometres. Places visited periodically are chiefly those where various destructive activities were recorded in the past or where we expect these to take place on the basis of various anecdotal messages. Records are entered into standardised forms to make it possible for other conservationists to work with, the form including data on oil palm plantations, brown coal mines, ports, shrimp and fish farms, industrial enterprises, illegal logging, charcoal burning, land speculation, forest burning and any buildings.

Ecotourism and environmental education

The project team launched their environmental education scheme in 2012 based on the initiative of Mary Anne Asrani, a local teacher, who turned to the author as project leader, requesting suggestions for activity like this. A new programme was arranged to be developed, aiming to show the local natural sites around the bay to Balikpapan residents. Due to a lack of funds, it was decided to design the scheme as a self-funding activity, this done through the income from ecotourism. For this purpose, we established a non-governmental association. Called Landing (the local name of one mangrove species), it chiefly targets people from Balikpapan and Samarinda ***(Figure 2)***, who live in close proximity to wildlife, but mostly are not aware of that since estrangement from nature is in Indonesian cities progressing very quickly and has advanced very far. However, trips to the mangroves of the Balikpapan Bay meet a considerable acclaim amongst the local people, proboscis monkeys and Irrawaddy dolphins being the major attraction, as are full-day trips to extensive primary mangroves in remote parts of the region. The tours include natural education and campaigning to engage the local population in conservation activities.

Fees for the trips applicable to local residents are kept to a minimum, so they do not generate any additional earnings, just costs of the programme are covered. Potential for any increase could be in activities focusing on foreign tourists, which however had many pitfalls so far, starting with a small capacity of the existing team when it comes to potential visitor numbers (there is a single boat as well as a single English-speaking guide), ending with much higher expectations and a lower rate of satisfaction of a foreign visitor compared with a local tourist. Another problem is in that only a limited number of excursions can be taken to see the monkeys or the dolphins, to

avoid excessive disturbance of the animals. For this reason, we make every effort to diversify the scheme as much as possible in order to offer the visitor other attractions, such as trips to fisherman villages, snorkelling on coral reefs, observing life on the sea shore during low tide and, in the future, perhaps also birdwatching and trips to the Sungai Wain Reserve.

Other Landing's activities include environmental education in schools, which involves both lectures and events in the field, such as cleaning mangroves found around the school from garbage. Anna Mara Asrani is also in the process of developing a "green your lifestyle" manual for the people of Balikpapan, which will cover particular options when buying and recycling waste, energy saving and making one's shopping more friendly to the environment.

The campaign to save the Balikpapan Bay

The political situation in the territory in relation to conservation and the environment has been developing in a highly unfavourable manner in the last two years. While the former mayor, Imdaad Hamid, was assigning environmental issues a high priority, Rizal Effendi, the new mayor, is - along with his government - strongly committed to the fastest possible economic development regardless natural systems and the environment. The same approach has been followed over a couple of years even by the government of the province of East Kalimantan headed by Governor Awang Faroek. This is also the reason for the planned construction of a bridge across the island of Balang ***(Figure 3)*** and the associated speedway around the Balikpapan Bay to continue to be a hot topic, with Awang Faroek and some members of his government sharing a private interest in the plan. Since the project is considered to be not only environmentally disastrous, but also economically senseless, no investor has been found to be attracted by funding. The governor, however, continues his search, targeting chiefly Chinese companies, offering them concessions for setting up new oil palm plantations and new coal mines as a reward.

In addition to that, whatever connection of the threats to the future of the bay with the interests of the provincial government, efforts of the new mayor and the local government has begun to prevail very recently. This brought a whole new set of complications that need to be addressed. Of these, the new zoning plan of the town of Balikpapan is now the biggest problem in that it has turned about 20 percent of so far pristine coast of the bay from the "protected area" status to that of "industrial zone". Even prior to approval of the document, two palm oil processing companies (Wilmar and Kencana Agri, Ltd.) started felling forests and building ports.

This unleashed a vital campaign against zoning and activities of the two companies at both the local and provincial government levels, i.e. Balikpapan and East Kalimantan, respectively, as well as at the level of the national government (ministries, the Parliament and the President's Office). A number of NGOs became involved in the campaign, but students organised within the Pecinta Alam network (which translates as "nature lovers") throughout Indonesia are the driving force. We formed an activist forum called Peduli Teluk Balikpapan as part of several different local groups of Pecinta Alam that now organises rallies, demonstrations ***(Figure 4)*** and concerts, managing Facebook discussions and distributing flyers and brochures on Balikpapan issues to other groups within the network, NGOs, the media, and the government. We also made a film called *Gone with*

the Tide, which is free for viewing on the Internet and received (along with nine more films) the Best Documentary award at the second Golden Lens, an annual international festival.

The campaign to protect the Balikpapan Bay was quite challenging in terms of funding, which was exactly the reason for suspending the regular monitoring scheme from February to November 2012. Unfortunately, due to the corruption of local and provincial governments and the powerful lobbying by companies like Wilmar, the zoning plan amendment was eventually approved, this to create even more problems when trying to save the remaining natural ecosystems of the bay.

International campaigning

Due to the unsatisfactory outcome of the negotiations with the government and corporations at local, provincial and national levels, it was necessary to enter into an international campaign, with the orang-utan becoming its flagship species as it was the Balikpapan Bay (the Sungai Wain reserve) where one of the first-ever successful programmes for releasing confiscated orang-utans from captivity into the wild had been underway. Actually, the activity even produced one of the major international organisations active in the protection of the species. Called the Balikpapan Orangutan Society (BOS), whatever later renamed to the Bornean Orangutan Survival Foundation (BOS F), orang-utans released by this entity in Sungai Wain still live here and reproduce with success. Unfortunately, BOS F failed to stand up for their protection. Support was however received from three other like-minded organisations - COP (Centre for Orangutan Protection), OLT (Orangutan Land Trust) and JAAN (Jakarta Animal Aid Network). I left in August 2012 for Cancun in Mexico where joined the congress of the International Primatology Society to gain a more general support for the protection of orang-utans and proboscis monkeys in Balikpapan ***(Figure 5)***, witnessing highly emotional debates about whether or not the international primatology community should be venturing into similar political activities. Sadly, pushing forward any pro-active participation of this body in what was happening in Balikpapan (or in other similar cases) eventually failed.

While the international scientific community rather turned their back upon the protection of the bay, support was gained from several activist organisations such as the Friends of Borneo (Canada) of Save Wildlife (Germany). Along with these, we now push on the multinational companies that invest into the destructive economic activities in the territory to make them communicate. This resulted in discussions with the Singapore-based Wilmar to begin, which first of all happened to take place thanks to OLT (Orangutan Land Trust). Unfortunately, although Wilmar representatives spent several days in Balikpapan, conducting investigations in the field and even contacting several local researchers

and conservationists, as well as members of local communities, these negotiations did not bring any real change as regards Wilmar's conduct in the field, with the destruction of mangrove forests in places of planned company's transit warehouse and factory to process palm oil still running at the same pace. Therefore, RSPO (Roundtable for Sustainable Palm Oil), in which Wilmar participates, was approached with a formal protest. The trade-off that we propose is to complete the warehouse, the construction of which has costed Wilmar several billions, whilst restoring any mangrove swamp that Wilmar had illegally occupied and deforested ***(Figure 6)***, as well as moving the factory under planning (but so far not under development) to a different and more appropriate place.

Research

In 2012, student Kat Scott (U.K.) spent two months in the Bay to repeat my 2007 research in the proboscis monkey, the aim being to find out to what extent the population status of this primate changed over the last five years. The point is that according to the mathematical model, which we published in 2012 with the Canadian student Danica Stark and other colleagues, the Bay's population of the species is in risk of extinction and may disappear within a mere 15 to 30 years. Kat's aim was to verify such a result through a survey in the field. She therefore used the same methods, the same boat and to some extent the same team of assistants with whom I was counting the primates back in 2007. Within two months, she managed to count the proboscis at two different sites that together account for about 20 percent of the entire Bay's coast area. While one of the sites more or less retained the abundance, the second location has seen a totally drastic decline - about 20 percent in just five years. Unfortunately, this corresponds to our mathematical model, and is a very disturbing result because the decline in numbers is much faster than the loss of proboscis' habitat, which in the Bay is being recorded through analysing satellite images. It thus seems that even degrading the forest through selective logging and disturbing through the nearing

civilisation is enough for the monkey to disappear from coastal mangroves.

Sungai Wain, which is part of the Balikpapan Bay catchment area, was too seeing busy research activities to take place over the past year. We managed to arrange for the cooperation with the UK-based Oxford Brookes University, which sent to Sungai Wain three other students in addition to Kat, these accompanied by two quite big names - primatology scientist Susan Cheyne and mammalian expert David McDonald. Studying several species of primates and carnivores was underway under their leadership in the rainforest reserve, with Lauren Gilhooly dedicated to determining the population abundance of the Müller's Bornean gibbon, her data fortunately showing a stable condition of the stock that has not substantially changed since the time of my research in 2005 or even earlier studies by primatologist Vincent Nijman in the 1990s. Elena Bersacola was studying the population density of the red leaf monkey (*Presbytis rubicunda*). Surprisingly, even though the results are not yet available, she was not successful in making any sight of the white-fronted leaf monkey (*Presbytis frontata*), a species recorded at the same site by me as well as Vincent Nijman. It appears that the past 20 years may have experienced a decrease in the abundance of this rather rare species, which has raised concerns about the so-called island phenomena, caused by the increasing isolation of Sungai Wain from the surrounding masses of the primary forest, with the more common species continuing to thrive, whilst species of scarcer occurrence may be slowly disappearing unnoticed.

The team of David McDonald and his son Ewan was specialising in feline research in Sungai Wain. Actually, all of the five Bornean felines have been recorded in the reserve, including the renowned clouded leopard (*Neofelis diardii*) ***– Figure 7 (credit: Gabriela Fredriksson).*** The research team deployed 140 camera traps in the jungle to document the abundance and habitat preference of each species. Results are not yet available, but data were already assessed from the previous research of another carnivore - the Malayan sun bear (*Helarctos malayanus*). This was the subject for Indonesian student Wiwit J Sastramidjaja, who, along with my former assistants (Fitri and Ulir), was tracking signs left by the bears, the amount of which is very large, especially as the animals forage. The results of this study are encouraging in that they show a gradual recovery is the bear population in the secondary forest that burned during the catastrophic fires in 1998 and has been recovering since then. While after the fire the animals were avoiding such vegetation (as is clear from the research of Dutch zoologist Gabriella Fredriksson), now the density of tracks recorded here is half of that of the primary forest. In addition, there is no difference between the secondary forest inside

the reserve and beyond its boundary - the bears make use of all the forested areas. Such outputs demonstrate the importance of secondary forests outside Sungai Wain, i.e. stands that were mistakenly referred to by the local government and various corporations as degraded, worthless in terms of ecology and good for being transformed for other uses.

While the research on the Malayan sun bear has justified the importance of any forest, whether primary or secondary, the particular importance of the remainder of the primary forest that has preserved only in the core of Sungai Wain was illustrated based on the analysis of earlier data collected by Aleš Dolný, Dan Bárta and assistants Fitri and Ulir, the team surveying the species diversity of dragonflies in different habitats throughout the reserve. In our most recent paper on this subject published in 2012 we attempted to statistically examine how species diversity of these insects is affected by various human interventions in the forest stand - from the smallest (such as routine maintenance around the research camp) to those with harshest consequences (represented e.g. by complete deforestation or flooding). The result was surprising, as not only the wildest, but also the finest human actions disturbing the structure of primary forest are reducing the occurrence of rare, endemic and specialised species of dragonflies. This documents that primary rainforest is a very sensitive ecosystem, which should be, at least in some areas, granted strict and unconditional protection if it is to be preserved in its full diversity.

List of technical papers in 2012:

Konečná M., Weiss A., **Lhota S.**, Wallner B. (in press): Personality in Barbary macaques (*Macaca sylvanus*): Temporal stability and social rank. Journal of Research in Personality.

Dolný A., Harabiš F., Bárta D., **Lhota S.**, Drozd P. (2012): Aquatic insects indicate terrestrial habitat degradation: changes in taxonomical structure and functional diversity of dragonflies in tropical rainforest of East Kalimantan. Tropical Zoology 25 (3):141–157

S. Lhota, B. Loken, S. Spehar, E. Fell, A. Pospěch, N. Kasyanto (2012): Discovery of Miller's Grizzled Langur (*Presbytis hosei canicrus*) in Wehea Forest Confirms the Continued Existence and Extends Known Geographical Range of an Endangered Primate. American Journal of Primatology, 74:193–198

Stark D. J., Nijman V., Lhota S., Robins J. G., Goossens B. (2012): Modeling population viability of local proboscis monkey (*Nasalis larvatus*) populations: conservation implications, Endangered Species Research, 16:31–43

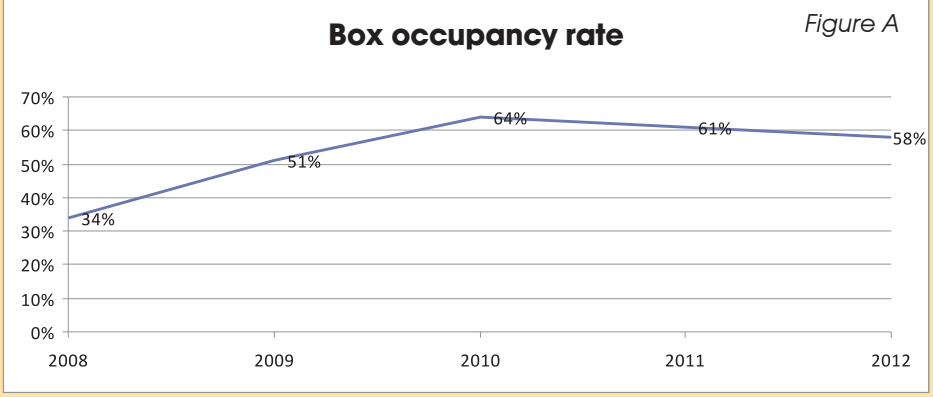
The 100 Bird Nest-Boxes: project update

Ing Eliška Vrabcová

In 1908, Dr Heinrich Lumpe founded a bird sanctuary amidst the industrial town. It later transformed into what is now the zoo in Ústí nad Labem. The zoo grounds form a place for both exotic animals and many native species to find a refuge, the latter involving birds in particular. A project was launched in 2008 to support the local avifauna while building on Dr Lumpe's activities. Entitled „100 Bird Nest-Boxes", this starting by installing eleven different types of nest boxes over the area of almost 30 ha. The boxes can house up to 21 bird species nesting in hollows and crevices. Manufactured and donated by the Kuchyně Pokorná company, all boxes were made of boards, thickness of 1.5 cm, and comprised half open nest-boxes for redstarts and wagtails, starling boxes with an entrance opening (a diameter of 5 cm), boxes for owls ***(Figure 1)***, and flycatcher boxes with an oval entrance, as well as special oblong boxes for swifts and boxes of various sub-types for tits - tit boxes with a slit, and tit boxes for large and small tit species. Each owl box included a hinged roof to enable finding whether or not it was occupied, whilst other boxes, i.e. those for starlings, tits, swifts and flycatchers, included a hinged front wall. It turned out that this method of opening has its advantages and disadvantages. When the birds were expected to leave their nests, it sometimes happened that they jumped out when we detached the front wall while checking the box, whilst this opening method was allowing a better control of eggs and hatchlings. Boxes were installed in trees to a height of about 3-4 metres above the ground for tits, flycatchers and starlings and 4-5 metres above the ground for owls, while those for swifts and half open-boxes were installed on buildings 7-8 m above the ground or in shelters approximately 3-4 m above the ground. Each box was numbered to enable monitoring on a regular basis. The most frequent type was a tit box for large tit species, with 40 boxes installed, followed by half open-boxes represented by 15 items. Tit boxes for small tit species, tit boxes with a slot and starling boxes were represented by 10 items per type. As regards flycatcher, swift and owl boxes, five items were installed per type.

Boxes were periodically monitored every year from early April 2008 until the end of August 2012. Efforts were made to check them once per week with about thirteen checks performed each year. It results from the data obtained within the most recent five years that the rate of occupancy was 38% in 2008, as much as 51% in 2009,

Figure A



and even 64% in 2010. In 2011, there was a moderate decrease to 61%, which might have been caused by the decline in the number of boxes, and in 2012, it even dropped to 58% ***(Figure A)***. Items found in unoccupied boxes comprised unfinished nests or a small amount of material on the bottom, a wasp nest (three boxes), and a nest of hornets (one box). An ant colony was discovered in five boxes and in one case, when the entrance had been enlarged by one of woodpeckers, a red squirrel settled inside and reared three young with success. In 2010, the boxes began to deteriorate and some of them had to be removed and repaired for technical reasons. Therefore, the number of boxes installed was only 95 in 2011, and even 93 boxes in 2012.

In 2008, nests were set up by a total of five bird species, the great tit (*Parus major*), the blue tit (*Cyanistes caeruleus*), the house sparrow (*Passer domesticus*), the European starling (*Sturnus vulgaris*), and the common redstart (*Phoenicurus phoenicurus*). Two years later, in 2010, it was already seven species, the wood nuthatch (*Sitta europaea*) and the black redstart (*Phoenicurus ochruros*) being the additions. In 2011 and 2012, the number of nesting species dropped back to five, without both redstart species (i.e. the common and the black redstart) that probably chose natural cavities or crevices for nesting ***(Figure B)***.

In any of the years, the highest percentage was that of the great tit, with 39.2% in 2009, 37.5% in 2010, 44.8% in 2011 and 33.3% in 2012. The European starling placed second, with the representation of 19.6% in 2009, 25% in 2010, 20.69% in 2011 and 22.2% in 2012. Whilst the 3rd place was taken in 2009 by the blue tit with 15.6%, in 2010, 2011 and 2012 it was by the house sparrow (14.0625%, 18.96%, 20.37%).

Nests of the species observed were very intriguing. Based on the material used for building, one could tell what species occupied the box. For example, a very beautiful nest was that of the wood nuthatch, with the entrance and the chinks sealed with a mixture of clay and saliva, the nest as such built of bark and mud piled up to two-thirds of the box and finished by bark flakes in its top portion ***(Figure 2)***. Nests of the great tit and the blue tit were the same in their appearance, largely made up of moss with conifer needles, with the nesting well produced from hairs of

Figure B

Species	2008	2009	2010	2011	2012
Wood nuthatch *(Sitta europaea)*		X	X	X	X
Great tit *(Parus major)*	X	X	X	X	X
Blue tit *(Cyanistes caeruleus)*	X	X	X	X	X
House sparrow *(Passer domesticus)*	X	X	X	X	X
European starling *(Sturnus vulgaris)*	X	X	X	X	X
Common redstart *(Phoenicurus phoenicurus)*	X	X	X		
Black redstart *(Phoenicurus ochruros)*		X	X		

mammals (Cameroon pygmy goats and domestic llamas). In 2009, even pink, yellow and green Chemlon (polyamide) fibres were found in one of the nests ***(Figure 3)***. Nests of the common and black redstarts were made $$up of catkins and moss with loam, grass, hair and feathers. The house sparrow nests were very interesting and beautiful and very far from being messy as one might expect. They consisted of dry grass and feathers of peacocks, ratites and parrots, the feathers stacked in various ways to eventually form a spherical nest built of dry grass that the sparrows variously intertwined, using it to make an entrance with a curved corridor into the nest ***(Figure 4)***. As a result, this box was impossible to check. The nests of the European starling were made $$of grass, twigs and feathers. The birds were sometimes even making use of plastic sheets, paper and other materials.

As we monitored the nests during the year, various stages of reproduction were encountered. Some nests were already showing hatched chicks ***(Figure 5)*** that were about to fly out, while in others females were only incubating eggs. This was also a species-specific feature depending on how many times that bird was rearing the young per breeding season. For example, house sparrows were nesting even three times in the row during the 2009 and 2010 breeding seasons, while some of great tits, European starlings and black redstarts were nesting twice. Laying their eggs and rearing the young with success much later than great tits, blue tits nested only once per season. This also applied to the wood nuthatch and the black redstart. In 2011 and 2012, most of the species nested twice, with some birds sadly not completing their nesting period with success due to edible dormice (*Glis glis*) that moved into the boxes in the late July 2009, their number reaching 12 in that year. Occurring in pairs, they later on reared their offspring with success. All such boxes were found in the section of the zoo grounds with rather extensive wood stand ***(Figure C)***. In many boxes, the dormice had large supplies of acorns. Since 2010, the dormice began to appear in the boxes as early as the late June, and therefore the birds in many cases had only one or maximum two nestings. While in 2010 the dormice occupied 20 boxes, the number fell slightly to 18 boxes in 2011 and in 2012, the mammals seized 21 boxes ***(Figure 6)***.

Figure C

Where parents were not present in the nest or nearby, we were also able to use the appearance of the clutch to identify the species. The monochromatic light blue to greenish eggs were attended by the common redstart, starlings` eggs were coloured bluish and eggs of tits were speckled with brown-orange dots on a white background. Similarly, the house sparrow clutch was camouflaged with brown-grey spots covering the white surface.

The largest clutch in 2010 and 2011 was that of the blue tit; counting up

to 12 pieces, it mostly averaged to 9-10 eggs. In 2008, 2009 and 2012, the great tit had the largest clutch (11 eggs), with egg counts however ranging from 8 to 10. The number of eggs found in European starlings` nests was mostly 4-6. House sparrows had 2-5 eggs, meaning that their clutch was the smallest of the bird populations. In 2009, six eggs were found in the nest of the wood nuthatch, but the following years the box was not inspected to avoid any damage to the nest. Clutch size in the black redstart and the common redstart ranged 4 to 6 eggs.

Another parameter to monitor was the mortality rate in chicks. While no death was noticed in 2008, there were eight dead chicks a year later (five with the great tit, two with the blue tit and one with the house sparrow). In 2010, we recorded 28 dead chicks (ten starlings, nine blue tits, two great tits and seven common redstarts). In 2011, ten young birds died (six great tits, two starlings, one blue tit, one sparrow), whilst in 2012 it was 12 chicks (nine great tits, three blue tits). The obtained data enabled us to conclude that the highest mortality was seen in great tits each year, except 2010, while the vitality of the wood nuthatch and the black redstart was 100%.

A minor portion of the nest boxes was plated in 2009 with a lustre unpainted metal sheet ***(Figure 7)*** to prevent entrance pecking by woodpeckers, this followed by eating eggs or chicks. The monitoring activities included checking the rate of preference for plated and unplated boxes, concluding that the glossy surface was not discouraging for the birds and they did not care about choosing any of the box option. Anytime the breeding season was nearing the end, box checking and cleaning was underway. Many boxes were found to have been infested with fleas and louse flies, so had to be sprayed using Biokill and other preparations prescribed by the vet that are generally not expected to make any harm to birds. We can conclude that the 100 Bird Nest-Boxes project at Ústí nad Labem Zoo has been very meaningful in that it was found to have helped free-ranging birds to nest and rear the young with success. The breeding seasons monitored so far can be assessed as very successful and it is hoped that the same would apply to those to follow.

Stock list (individuals)

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Mammals (*Mammalia*)						
Addax	**2.0**					**2.0**
Addax nasomaculatus	*EEP,ISB,RDB=CR,CITES=I*					
Alpaca	**4.12**	**3.2**			**2.1**	**5.13**
Vicugna pacos						
Amur Leopard	**1.3**					**1.3**
Panthera pardus orientalis	*EEP,ISB,RDB=CR,CITES=I*					
Angola Lion	**1.1**					**1.1**
Panthera leo bleyenberghi	*RDB=VU*					
Baringo Giraffe	**2.4**		**1.0**	**1.0**	**1.1**	**1.3**
Giraffa camelopardalis rothschildi	*EEP,RDB=EN*					
Bengal Elephant	**0.2**					**0.2**
Elephas maximus bengalensis	*EEP,RDB=EN,CITES=I*					
Black and White Ruffed Lemur	**4.1**					**4.1**
Varecia variegata	*EEP,ISB,RDB=CR,CITES=I*					
Blackbuck	**5.4**	**0.2**			**2.0**	**3.6**
Antilope cervicapra	*RDB=NT*					
Blue Monkey	**1.1**					**1.1**
Cercopithecus mitis	*RDB=LR*					
Bonnet Macaque	**2.3**	**1.0**	**1.0**			**4.3**
Macaca radiata	*RDB=LR*					
Bornean Orangutan	**2.2**					**2.2**
Pongo pygmaeus	*EEP,ISB,RDB=EN,CITES=I*					
Brazilian Tapir	**1.2**				**0.1**	**1.1**
Tapirus terrestris	*EEP,RDB=VU*					
Californian Sea Lion	**1.0**					**1.0**
Zalophus californianus	*ESB,RDB=LR*					
Central American Agouti	**0.1**					**0.1**
Dasyprocta punctata	*RDB=LR*					
Clouded Leopard	**3.2**				**0.1**	**3.1**
Pardofelis nebulosa	*EEP,ISB,RDB=VU,CITES=I*					
Collared Peccary	**0.2**					**0.2**
Pecari tajacu	*RDB=LR*					
Cotton-top Tamarin	**2.2.1**	**0.0.2**				**2.2.3**
Saguinus oedipus	*EEP,ISB,RDB=CR,CITES=I*					
De Brazza´s Monkey	**2.3**					**2.3**
Cercopithecus neglectus	*ESB,RDB=LR*					

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Mammals (*Mammalia*)						
Defassa Waterbuck	**1.3**	**1.0**				**2.3**
Kobus ellipsiprymnus defassa	*RDB=NT*					
Domestic Bactrian Camel	**1.5**	**2.0**	**1.0**		**3.0**	**1.5**
Camelus bactrianus	*RDB=CR*					
Domestic Dog	**0.1**					**0.1**
Canis familiaris						
Domestic Goat	**0.1**					**0.1**
Capra hircus						
Domestic Sheep	**2.12**	**7.2**		**1.0**	**7.1**	**1.13**
Ovis aries aries						
Domestic Sheep	**1.3**					**1.3**
Ovis aries aries						
Eastern Pygmy Marmoset	**7.6**		**0.1**	**0.1**	**5.4**	**2.2**
Callithrix pygmaea niveiventris	*RDB=LC*					
Fishing Cat	**1.3**				**0.2**	**1.1**
Prionailurus viverrinus	*EEP,ISB,RDB=EN*					
Geoffroy´s Cat	**1.0**	**0.1**	**0.1**			**1.2**
Oncifelis geoffroyi	*EEP,RDB=NT,CITES=I*					
Golden Lion Tamarin	**1.4**	**1.1**				**2.5**
Leontopithecus rosalia	*EEP,ISB,RDB=EN,CITES=I*					
Guanaco	**0.2**		**1.0**	**0.1**		**1.1**
Lama guanicoe	*RDB=LR*					
Guianan Saki	**2.0**		**0.1**	**0.1**		**2.0**
Pithecia pithecia	*EEP,RDB=LC*					
Harbour Seal	**1.1**					**1.1**
Phoca vitulina	*RDB=LR*					
Hartmann´s Mountain Zebra	**2.8**	**0.1**		**0.1**		**2.8**
Equus zebra hartmannae	*EEP,ISB,RDB=VU*					
Cheetah	**2.0**		**0.1**			**2.1**
Acinonyx jubatus	*EEP,ISB,RDB=VU,CITES=I*					
Japanese Serow	**0.1**					**0.1**
Naemorhedus crispus	*ESB,ISB,RDB=LR*					
Javan Langur	**0.3**		**1.0**			**1.3**
Trachypithecus auratus	*RDB=VU*					
Kafue Lechwe	**1.4**	**1.0**	**1.0**		**1.2**	**2.2**
Kobus leche kafuensis	*ISB,RDB=VU*					
Kilimanjaro Colobus	**1.3**	**0.1**				**1.4**
Colobus guereza caudatus	*ESB,RDB=LR*					
Llama	**1.2**	**1.0**				**2.2**
Lama glama						

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Mammals (*Mammalia*)						
Lowland Anoa	**2.2**					**2.2**
Bubalus depressicornis	*EEP,ISB,RDB=EN,CITES=I*					
Malayan tiger	**0.1**					**0.1**
Panthera tigris jacksonii	*ISB,RDB=EN,CITES=I*					
Mandrill	**3.7**	**0.1**			**1.1**	**2.7**
Mandrillus sphinx	*EEP,RDB=VU,CITES=I*					
Maned Wolf	**1.1**					**1.1**
Chrysocyon brachyurus	*EEP,ISB,RDB=NT*					
Meerkat	**1.3**			**0.1**		**1.2**
Suricata suricatta	*RDB=LR*					
Nilgai	**3.3**	**2.1**				**5.4**
Boselaphus tragocamelus	*RDB=LC*					
Northern White-cheeked Gibbon	**2.2**					**2.2**
Nomascus leucogenys	*EEP,ISB,RDB=CR,CITES=I*					
Orangutan	**1.0**					**1.0**
Pongo sp.	*EEP,ISB,RDB=EN,CITES=I*					
Oriental Small-clawed Otter	**1.2**	**3.2**			**2.2**	**2.2**
Amblonyx cinerea	*ISB,RDB=VU*					
Patagonian Mara	**2.2**	**0.3.1**			**0.3**	**2.2.1**
Dolichotis patagonum	*RDB=NT*					
Pony	**1.4**	**0.2**			**0.3**	**1.3**
Equus caballus						
Prevost´s Squirrel	**1.0**					**1.0**
Callosciurus prevostii	*RDB=LR*					
Red Panda	**1.1**					**1.1**
Ailurus fulgens fulgens	*EEP,ISB,RDB=VU,CITES=I*					
Red Ruffed Lemur	**1.0**				**1.0**	
Varecia rubra	*EEP,ISB,RDB=EN,CITES=I*					
Red-handed Tamarin	**2.0**					**2.0**
Saguinus midas	*ESB,RDB=LC*					
Red-chested Moustached Tamarin	**1.1.2**	**0.0.1**				**1.1.3**
Saguinus labiatus	*ESB,RDB=LC*					
Reeves´ Muntjac	**2.2**	**0.2.1**			**1.2**	**1.2.1**
Muntiacus reevesi	*RDB=LR*					
Ring-tailed Lemur	**3.5**	**2.3**			**2.2**	**3.6**
Lemur catta	*ESB,RDB=NT,CITES=I*					
Silvered Leaf Monkey	**0.2**					**0.2**
Trachypithecus cristatus	*RDB=NT*					
Snow Leopard	**2.1**					**2.1**
Uncia uncia	*EEP,ISB,RDB=EN,CITES=I*					

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Mammals (*Mammalia*)						
Somali Wild Ass	**3.4**	**0.1**				**3.5**
Equus africanus somalicus	*EEP,ISB,RDB=CR,CITES=I*					
South American Coati	**3.2**			**0.2**		**3.0**
Nasua nasua	*RDB=LR*					
Southern Two-toed Sloth	**1.3**			**0.2**		**1.1**
Choloepus didactylus	*ESB,RDB=LC*					
Southern White Rhinoceros	**0.1**					**0.1**
Ceratotherium simum simum	*EEP,ISB,RDB=NT*					
Sun Bear	**2.5**			**0.1**		**2.4**
Helarctos malayanus	*ESB,RDB=VU,CITES=I*					
Thorold´s Deer	**2.7**	**1.0.2**				**3.7.2**
Cervus albirostris	*RDB=VU*					
Variable Flying Fox	**2.3**					**2.3**
Pteropus hypomelanus	*RDB=LR*					
Vietnamese Sika Deer	**3.8**	**1.4**			**1.2**	**3.10**
Cervus nippon pseudaxis	*EEP,ISB,RDB=LC*					
Western Hedgehog	**0.0.22**		**0.0.23**		**0.0.34**	**0.0.11**
Erinaceus europaeus	*RDB=LR*					
Wolverine	**1.1**		**1.0**	**1.0**		**1.1**
Gulo gulo sibirica	*EEP,RDB=LC*					
Birds (*Aves*)						
Blue-throated macaw			**1.1**			**1.1**
Ara glaucogularis	*EEP,ISB,RDB=CR,CITES=I*					
Blue-and-yellow Macaw	**2.4**				**0.1**	**2.3**
Ara ararauna	*RDB=LC*					
Blue-fronted Amazon	**1.0**					**1.0**
Amazona aestiva	*RDB=LC*					
Budgerigar	**0.0.28**	**0.0.40**	**0.0.6**	**0.0.5**	**0.0.15**	**0.0.54**
Melopsittacus undulatus	*RDB=LC*					
California Quail	**1.1**			**1.0**		**0.1**
Lophortyx californica	*RDB=LC*					
Cockatiel	**1.1**	**0.0.2**			**0.0.2**	**1.1**
Nymphicus hollandicus	*RDB=LC*					
Common Barn-owl	**1.1**					**1.1**
Tyto alba	*CROH=SOH,RDB=LC*					
Common Kestrel	**0.0.1**		**0.0.17**	**0.0.5**	**0.0.13**	
Falco tinnunculus	*RDB=LC*					
Crested Pigeon	**1.1**					**1.1**
Ocyphaps lophotes	*RDB=LC*					
Crested Wood-partridge	**2.2**			**1.0**	**0.1**	**1.1**
Rollulus rouloul	RDB=NT					

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Birds (*Aves*)						
Demoiselle Crane	**1.1**					**1.1**
Anthropoides virgo	*RDB=LC*					
Emerald Dove			**1.0.2**			**1.0.2**
Chalcophaps indica indica	*RDB=LC*					
Emu	**1.1**					**1.1**
Dromaius novaehollandiae	*RDB=LC*					
Eurasian Eagle-Owl	**1.1**		**0.0.1**			**1.1.1**
Bubo bubo	*CROH=OH,RDB=LC*					
Ferruginous Duck	**2.2**					**2.2**
Aythya nyroca	*CROH=KOH,RDB=NT*					
Greater Rhea	**2.1.2**	**0.0.1**				**2.1.3**
Rhea americana	*RDB=NT*					
Grey Parrot	**1.1**	**0.0.1**			**0.0.1**	**1.1**
Psittacus erithacus	*RDB=NT*					
Helmeted Guineafowl	**0.0.2**			**0.0.2**		
Numida meleagris	*RDB=LC*					
Himalayan Griffon	**1.1**					**1.1**
Gyps himalayensis	*RDB=LC*					
Hyacinth Macaw	**1.1**					**1.1**
Anodorhynchus hyacinthinus	*EEP,RDB=EN,CITES=I*					
Chestnut-eared Finch	**2.3.11**			**0.0.2**	**0.0.9**	**2.3**
Taeniopygia guttata castanotis						
Indian Peafowl	**3.5.3**	**0.1**		**0.1.3**		**3.5**
Pavo cristatus	*RDB=LC*					
Little Owl	**1.1**					**1.1**
Athene noctua	*CROH=SOH,RDB=LC*					
Mandarin Duck	**1.1.5**			**0.0.1**		**1.1.4**
Aix galericulata	*RDB=LC*					
Marabou	**1.0**					**1.0**
Leptoptilos crumeniferus	*ESB,RDB=LC*					
Mealy Amazon	**2.2**				**0.1**	**2.1**
Amazona farinosa farinosa	*RDB=LC*					
Military Macaw	**5.5**				**4.4**	**1.1**
Ara militaris	*ISB,RDB=VU,CITES=I*					
Northern Long-eared Owl	**0.0.1**		**0.0.1**		**0.0.2**	
Asio otus	*RDB=LC*					
Palm Cockatoo	**2.1**					**2.1**
Probosciger aterrimus	*EEP,RDB=LC,CITES=I*					
Raven	**1.1**					**1.1**
Corvus corax	*CROH=OH,RDB=LC*					

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Birds (*Aves*)						
Red-and-green Macaw	**2.1**				**1.0**	**1.1**
Ara chloroptera	*RDB=LC*					
Red-fronted Macaw	**0.1**		**1.0**			**1.1**
Ara rubrogenys	*EEP,RDB=EN,CITES=I*					
Ringed Teal			**1.1**			**1.1**
Callonetta leucophrys	*RDB=LC*					
Rose-ringed Parakeet	**1.1**			**1.0**		**0.1**
Psittacula krameri	RDB=LC					
Rothschild´s Mynah	**1.1**					**1.1**
Leucopsar rothschildi	*EEP,RDB=CR,CITES=I*					
Saker Falcon	**1.1**					**1.1**
Falco cherrug	*CROH=KOH,RDB=VU*					
Salmon-crested Cockatoo	**2.1**					**2.1**
Cacatua moluccensis	*EEP,RDB=VU,CITES=I*					
Scarlet Macaw	**1.1**					**1.1**
Ara macao	*RDB=LC,CITES=I*					
Senegal Parrot			**1.1**			**1.1**
Poicephalus senegalus	*RDB=LC*					
Silver Teal	**0.2**					**0.2**
Anas versicolor	*RDB=LC*					
Smew	**1.1**					**1.1**
Mergus albellus	*RDB=LC*					
Snowy Owl	**1.3**		**1.1**		**0.1**	**2.3**
Nyctea scandiaca	*RDB=LC*					
Southern Ground-Hornbill	**1.1**			**1.0**		**0.1**
Bucorvus leadbeateri	*ESB,RDB=VU*					
Sun Parakeet	**1.1**					**1.1**
Aratinga solstitialis	*RDB=EN*					
Tawny Owl	**0.0.1**		**0.0.1**			**0.0.2**
Strix aluco	*RDB=LC*					
Ural Owl	**1.1**			**0.1**		**1.0**
Strix uralensis liturata	*CROH=KOH,RDB=LC*					
Victoria Crowned-Pigeon	**1.1**					**1.1**
Goura victoria	*ESB,ISB,RDB=VU*					
Violet Turaco	**1.1**			**1.0**		**0.1**
Musophaga violacea	*ESB,RDB=LC*					
White-faced Whistling-Duck	**1.2**					**1.2**
Dendrocygna viduata	*RDB=LC*					
Wrinkled Hornbill	**3.3**	**0.0.2**			**1.1**	**2.2.2**
Aceros corrugatus	*EEP,RDB=NT*					

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Birds (*Aves*)						
Yellow-bibbed Lory	**1.2**					**1.2**
Lorius chlorocercus	*RDB=LC*					
Reptiles (*Reptilia*)						
Cave Dwelling Rat Snake			**1.1**			**1.1**
Orthriophis taeniurus ridleyi						
African Spiny-tailed Lizard	**2.7**					**2.7**
Uromastyx acanthinura						
African Spurred Tortoise	**0.0.3**					**0.0.3**
Centrochelys sulcata	*RDB=VU*					
American Alligator	**1.0**					**1.0**
Alligator mississippiensis	*RDB=LR*					
Annam Leaf Turtle	**0.0.5**					**0.0.5**
Mauremys annamensis	*RDB=CR*					
Asian Leaf Turtle	**2.0**					**2.0**
Cyclemys dentata	*RDB=LR*					
Ball Python	**1.1**					**1.1**
Python regius	*RDB=LC*					
Black Marsh Turtle	**0.1**					**0.1**
Siebenrockiella crassicollis	*ESB,RDB=VU*					
Black-bridged Leaf Turtle	**1.2.12**	**0.0.2**			**0.0.1**	**1.2.13**
Cyclemys pulchristriata						
Blue-tailed Monitor	**1.2**			**0.2**		**1.0**
Varanus doreanus						
Boa Constrictor	**0.1**		**0.1**			**0.2**
Boa constrictor						
Brazilian Rainbow Boa			**1.1**			**1.1**
Epicrates cenchria cenchria						
Burmese Python	**1.0**		**0.1**	**0.1**		**1.0**
Python bivittatus	*RDB=LR*					
California Kingsnake	**0.2**		**0.0.1**		**0.0.1**	**0.2**
Lampropeltis getula californiae	*RDB=LC*					
Central Asian tortoise	**4.2**			**1.0**		**3.2**
Testudo horsfieldii	*RDB=VU*					
Cuban Boa	**1.0**					**1.0**
Epicrates angulifer	*EEP,RDB=LR*					
Cuban Iguana	**1.2**					**1.2**
Cyclura nubila nubila	*ISB,RDB=VU,CITES=I*					
Dumeril's Ground Boa			**1.1**			**1.1**
Acrantophis dumerili	*RDB=VU,CITES=I*					
Eurasian Pond Turtle	**0.0.1**					**0.0.1**
Mauremys rivulata						

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Reptiles (*Reptilia*)						
Fly River turtle	**2.0**					**2.0**
Carettochelys insculpta	*RDB=VU*					
Green Tree Python	**0.1**					**0.1**
Morelia viridis	*RDB=LC*					
Greer's Kingsnake	**1.1**					**1.1**
Lampropeltis mexicana greeri	*RDB=LC*					
Grey-banded King Snake	**1.1**					**1.1**
Lampropeltis alterna	*RDB=LC*					
Hermann´s Tortoise	**0.1.1**					**0.1.1**
Testudo hermanni	*RDB=NT*					
Honduran Milk Snake	**1.1**					**1.1**
Lampropeltis triangulum hondurensis						
Horn´s Monitor	**1.0**					**1.0**
Varanus panoptes horni						
Chinese Softshell Turtle	**0.0.1**					**0.0.1**
Pelodiscus sinensis	*RDB=VU*					
Inland Bearded Dragon	**1.2**		**1.1**	**1.2**		**1.1**
Pogona vitticeps						
Knight Anole	**1.1**				**1.1**	
Anolis equestris						
Leopard Gecko	**0.0.4**		**1.0**	**0.0.1**		**1.0.3**
Eublepharis macularius						
Madagascar Giant Day Gecko	**1.1**	**0.0.10**			**0.0.8**	**1.1.2**
Phelsuma madagascariensis	*RDB=LC*					
Northern Chuckwalla	**0.2**		**1.0**			**1.2**
Sauromalus obesus	*RDB=LC*					
Oriental Water Dragon	**1.0.7**			**1.0**		**0.0.7**
Physignathus cocincinus						
Ouachita Map Turtle	**0.0.1**					**0.0.1**
Graptemys ouachitensis						
Panther Chameleon	**1.1**			**0.1**		**1.0**
Furcifer pardalis						
Red-bellied short-necked turtle	**0.0.2**					**0.0.2**
Emydura subglobosa	*RDB=LR*					
Red-eared Slider	**0.2**		**1.0**		**1.0**	**0.2**
Trachemys scripta	*RDB=LR*					
Schneider´s Skink	**1.1**					**1.1**
Eumeces schneideri						
Siebenrock´s Snake-necked Turtle	**2.0.1**					**2.0.1**
Macrochelodina rugosa						

	01/01/2012	Birth	Arrival	Death	Departure	31/12/2012
Reptiles (*Reptilia*)						
Sinaloan Milk Snake	**2.2.10**	**0.0.13**		**0.0.4**	**0.0.10**	**2.2.9**
Lampropeltis triangulum sinaloae						
Smooth-fronted Caiman	**1.1**					**1.1**
Paleosuchus trigonatus	*RDB=LR*					
South American Red-footed Tortoise	**6.6.2**	**0.0.10**			**0.0.9**	**6.6.3**
Chelonoidis carbonaria						
Southeast Asian Box Turtle	**3.0**					**3.0**
Cuora amboinensis	*ESB,RDB=VU*					
Spur-thighed Tortoise	**1.0**					**1.0**
Testudo graeca	*RDB=VU*					

	31/12/2012	Birth
Amphibians (*Amphibia*)		
Aplash-backed Poison-arrow Frog	**0.0.1**	
Dendrobates galactonotus	*RDB=LC*	
Argentine Common Toad	**0.0.4**	
Bufo arenarum	*RDB=LC*	
Blue Poison-arrow Frog	**0.0.1**	
Dendrobates azureus	*RDB=LC*	
Dyeing Poison-arrow Frog	**0.0.2**	
Dendrobates tinctorius	*RDB=LC*	
Green And Golden Poison-arrow Frog	**0.0.1**	
Dendrobates auratus	*RDB=LC*	
Java Whipping Frog	**0.0.1**	
Polypedates leucomystax	*RDB=LC*	
Malayan Bullfrog	**0.0.1**	
Kaloula pulchra	*RDB=LC*	
Mission Golden-eyed Trefrog	**0.0.4**	
Phrynohyas resinifictrix	*RDB=LC*	
Orange-legged Leaf Frog	**0.0.2**	
Phyllomedusa hypochondrialis	*RDB=LC*	
Ribbed Newt	**0.0.7**	
Pleurodeles waltl	*RDB=NT*	
Sambava Tomato Frog	**0.0.4**	
Dyscophus guineti	*RDB=LC*	
Smooth Clawed Frog	**1.1.6**	
Xenopus laevis laevis	*RDB=LC*	
Taylor's bug-eyed frog	**1.1.6**	**6**
Theloderma stellatum	*RDB=NT*	

	31/12/2012	Birth
Amphibians (*Amphibia*)		
White´s Treefrog	**0.0.8**	
Pelodryas caerulea		
Yellow-banded Poison-arrow Frog	**0.0.9**	
Dendrobates leucomelas	*RDB=LC*	
Yucatecan Shovel-headed Treefrog	**0.0.1**	
Triprion petasatus	*RDB=LC*	
Fish (*Pisces*)		
Golden Belly Barb	**0.0.2**	
Hypsibarbus wetmorei		
Altum Angelfish	**0.0.9**	
Pterophyllum altum		
African Butter Catfish	**0.0.3**	
Schilbe mystus	*RDB=LC*	
Angelfish	**0.0.1**	
Pterophyllum scalare		
Bristlenose Catfish	**0.0.18**	
Ancistrus cirrhosus		
Cardinal Tetra	**0.0.53**	
Paracheirodon axelrodi		
Carptooth Catfish	**0.0.2**	
Clarias gariepinus		
Clown Loach	**0.0.4**	
Botia macracantha		
Featherfin Squeaker	**0.0.11**	
Synodontis eupterus	*RDB=LC*	

	31/12/2012	Birth
Fish (*Pisces*)		
Giant Gourami	**0.0.3**	
Osphronemus goramy		
Green Discus	**0.0.7**	
Symphysodon aequifasciatus		
Harlequin Rasbora	**0.0.1**	
Trigonostigma heteromorpha		
Cherry Barb	**0.0.4**	
Puntius titteya	*RDB=LR*	
Iridescent Shark	**0.0.2**	
Pangasianodon hypophthalmus		
Iridscent Mystus Cat	**0.0.1**	
Mystus vittatus	*RDB=LC*	
Kennyi mbuna	**0.0.25**	
Metriaclima lombardoi		
Kingsley´s Ctenopoma	**0.0.4**	
Ctenopoma kingsleyae	*RDB=LC*	
Knifefish	**0.0.1**	
Xenomystus sp.		
Maylandia	**0.0.21**	
Maylandia zebra		
Midget Suckermouth Catfish	**0.0.19**	
Otocinclus affinis		
Oscar Fish	**0.0.1**	
Astronotus ocellatus		
Peacock Bass	**1.1**	
Cichla ocellaris		
Red Bellied Piranha	**0.0.22**	
Pygocentrus nattereri		
Red Hook Myleus	**0.0.4**	
Myloplus rubripinnis		
Redfin Shark	**0.0.8**	
Epalzeorhynchos frenatum		
Rummy Nose Tetra	**0.0.70**	
Hemigrammus rhodostomus		
Siamese Algae Eater	**0.0.29**	
Crossocheilus siamensis		
Spotted Hoplo	**0.0.1**	
Megalechis thoracata		
Spotted sailfin pleco	**0.0.2**	
Glyptoperichthys gibbiceps		

	31/12/2012	Birth
Fish (*Pisces*)		
Spotted Talking Catfish	**0.0.6**	
Agamyxis pectinifrons		
Sterba´s Corydoras	**0.0.5**	
Corydoras sterbai		
Stinging Catfish	**0.0.4**	
Heteropneustes fossilis	*RDB=LC*	
Tinfoil Barb	**0.0.21**	
Barbodes schwanenfeldii		
Yoyo Loach	**0.0.3**	
Botia almorhae	*RDB=LC*	
Cartilaginous Fish (*Chondrichthyes*)		
Ocellate river stingray	**1.1**	
Potamotrygon motoro	*RDB=DD*	
Invertebrates (*Invertebrata*)		
Honduras Curly Hair Tarantula	**0.0.1**	
Brachypelma albopilosum		
Mexican Flame Knee	**0.0.1**	
Brachypelma auratum		
Crown Stick Insect	**0.0.6**	
Onchestus rentzi		
Pachnoda thoracica	**0.0.3**	
Pachnoda thoracica		
Peruphasma schultei	**0.0.50**	
Peruphasma schultei		

Animal census 2012	1 January 2012		31 December 2012	
	Species	Individuals	Species	Individuals
Mammals (*Mammalia*)	68	310	67	302
Birds (*Aves*)	47	174	48	177
Reptiles (*Reptilia*)	41	136	43	141
Amphibians (*Amphibia*)	18	96	16	62
Fish (*Pisces*)	27	214	34	369
Cartilaginous Fish (*Chondrichthyes*)	0	0	1	2
Invertebrates (*Invertebrata*)	8	28	5	61
Total	209	958	214	1114

Animals reared

Mammals	Born
Mammalia	
Alpaca	**3.2**
Vicugna pacos	
Blackbuck	**0.2**
Antilope cervicapra	
Bonnet Macaque	**1.0**
Macaca radiata	
Cotton-top Tamarin	**0.0.2**
Saguinus oedipus	
Defassa Waterbuck	**1.0**
Kobus ellipsiprymnus defassa	
Domestic Bactrian Camel	**2.0**
Camelus bactrianus	
Domestic Sheep	**7.2**
Ovis aries aries	
Geoffroy´s Cat	**0.1**
Oncifelis geoffroyi	
Golden Lion Tamarin	**1.1**
Leontopithecus rosalia	
Hartmann´s Mountain Zebra	**0.1**
Equus zebra hartmannae	
Kafue Lechwe	**1.0**
Kobus leche kafuensis	
Kilimanjaro Colobus	**0.1**
Colobus guereza caudatus	
Llama	**1.0**
Lama glama	
Mandrill	**0.1**
Mandrillus sphinx	
Nilgai	**2.1**
Boselaphus tragocamelus	
Oriental Small-clawed Otter	**3.2**
Amblonyx cinerea	
Patagonian Mara	**0.3.1**
Dolichotis patagonum	
Pony	**0.2**
Equus caballus	

Mammals	Born
Mammalia	
Red-chested Moustached Tamarin	**0.0.1**
Saguinus labiatus	
Reeves´ Muntjac	**0.2.1**
Muntiacus reevesi	
Ring-tailed Lemur	**2.3**
Lemur catta	
Somali Wild Ass	**0.1**
Equus africanus somalicus	
Thorold´s Deer	**1.0.2**
Cervus albirostris	
Vietnamese Sika Deer	**1.4**
Cervus nippon pseudaxis	

Birds	Born
Aves	
Budgerigar	**0.0.40**
Melopsittacus undulatus	
Cockatiel	**0.0.2**
Nymphicus hollandicus	
Greater Rhea	**0.0.1**
Rhea americana	
Grey Parrot	**0.0.1**
Psittacus erithacus	
Indian Peafowl	**0.1**
Pavo cristatus	
Wrinkled Hornbill	**0.0.2**
Aceros corrugatus	

Reptiles	Reared
Reptilia	
Black-bridged Leaf Turtle	**0.0.2**
Cyclemys pulchristriata	
Madagascar Giant Day Gecko	**0.0.10**
Phelsuma madagascariensis	
Sinaloan Milk Snake	**0.0.13**
Lampropeltis triangulum sinaloae	
South American Red-footed Tortoise	**0.0.10**
Chelonoidis carbonaria	

Financial management

Senior Manager's report

Jana Černá

In 2012, the zoo employed 64 full-time equivalent staff members.

Economic situation:

In 2012, the zoo managed a budget of 47,871.31 thousand CZK, incorporating also its income from supporting activities ***(Figure 1)*** amounting to 1,489.85 thousand CZK.

More detailed overview of the actual costs and revenues is presented below (all costs given in thousands of CZK):

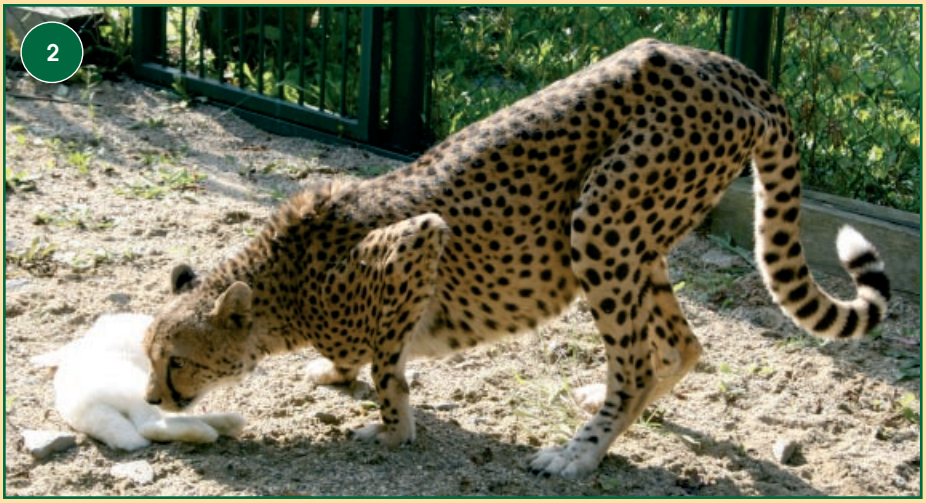
Financial summary	Thousand CZK
Material consumption	2,953.28
Feedstuffs	4,268.81
Fuel consumption	645.49
Electricity	3,426.39
Water and sewerage	1,393.40
Repairs of long-term assets	2,122.17
Payroll costs	14,502.61
Payroll taxes	4,879.11
Depreciation of long-term assets	9,325.51
Other costs	5,721.66
Total costs	**49,238.43**
Revenues of funds	7,996.07
Other revenues (donations, etc.)	1,042.09
Inclusion of the profit supporting activities (sales, advertising, rental fees, etc.)	1,489.85
Inclusion of funds	0.00
Allocation from founder's budget	27,347.68
Allocation from MoE's budget for operations	795.38
Allocation from the budget of the Labour office (Ústí nad Labem)	538.41
Allocation from the budget of the Region of Ústí nad Labem	178.00
Use of funds	7,000.00
Other revenues	3,097.26
Total revenues	**49,484.74**
Profit/loss (profit)	**246.31**

Staff costs that made up 39.36% of the total costs were the highest cost item of the organisation, the average 2012 salary amounting to 17,626 thousand CZK per employee.

Depreciation costs formed another major cost item. These amounted in 2012 to 9,368.62 thousand CZK, of which 2,368.62 thousand CZK was financed, while the remainder, not covered by the funds, was settled against the use of funds.

The cost of feeding ***(Figure 2)*** amounted to 4,268.81 thousand CZK, this including feedstuffs from the zoo's own production and representing 442.03 thousand CZK. It involved production of hay, green forage, feeding mice, rats, rabbits and other miscellaneous feedstuffs consumed during the year. Feedstuffs consumed at the Animal Rescue Centre, which is organisational part of the zoo, amounted to 108.07 thousand CZK.

The electricity costs were structured as the power for general use (2,020.24 thousand CZK) and that for heat pumps used throughout the zoo as part of the heating system (1,342.68 thousand CZK). The power consumption at the Animal Rescue



Centre was 63.47 thousand CZK.

The cost of water including sewerage amounted to 1,393.43 thousand CZK. Although the price of water was higher compared with 2011, the costs decreased as a result of commissioning the capital project designed for pinnipeds. Whilst reducing water consumption due to cooling water using additional technological equipment, it however increased the consumption of electricity used within the cooling process. As usual, sea lions, seals ***(Figure 3)*** and tapirs were the creatures with the largest volume of water used.

Funds from the zoo's operational budget to repair long-term assets were spent as follows:

- repairs of motor vehicles, housing resources, zoo office, rented premises, engines and installations; a total of 2,122.17 thousand CZK

For more information, including details about capital projects executed in 2012, please refer to the report of the Operations & Technology department.

Own institution's revenues consisted of incomes from entrance fees, rental fees, advertising, and donations. In 2012, visitor numbers dropped by 6,750 persons, which in terms of sales means a decrease in revenues of 373.68 thousand CZK. The achieved average admission price for the January-December period including zoo train fee ***(Figure 4)*** was **55.36 CZK**, which is 2.93 CZK less than in the same period of 2011. This is due to changes in VAT in 2011, when the rate increased from 10% to 14%, whilst no increase was applied as to the admission price.

The average cost of a ticket in 2012 was **340.92 CZK**. The difference between the admission price paid and the actual price per ticket was covered from the following:

- income from supporting activities (rental fees, adverts, sales, etc.) in the amount of **10.32 CZK**;

- founder's co-funding (**325.09 CZK** compared with **253.19 CZK** in 2011);

- co-funding from the budget of the Ministry for Environment (**5.51 CZK**). The Ministry helps to cover part of the cost of keeping endangered species and disabled wildlife placed in the zoo grounds. The funds were used to cover the cost of feed, energy and animal health care to some extent.

As regards the supporting business activity, the revenues consisted of the following:

- income from rental of residential and non-residential facilities (**882.52 thousand CZK**);

- income from adverts (**660.03 thousand CZK**);

- income from sales of goods (**362.13 thousand CZK**);

- other income (**1,113.09 thousand CZK**), including revenues from the trampoline tower, sales of feedstuffs as part of the pet animal yard activities, commissions from suppliers of products sold at the zoo, re-invoicing energy in rental activities, etc.).

The cost of supporting activities consists of payroll, energy re-charged

Employees‘ lenght of service

Zdena Švorcová

Continuous service over 26 years
Bělková Šárka
Hippmannová Alena
Holubová Lenka
Petrbok Tomáš

Continuous service for 21–25 years
Kökert Pavel
Král Pavel, Ing
Roháčková Hana

Continuous service for 16–20 years
Doseděl Zdeněk
Gruntová Andrea
Hejduková Eva
Hrnečková Věra
Hrubant Miroslav
Javůrek Jan
Kostečka Jiří
Novák Jaroslav
Nyáriová Zdeňka
Skopcová Hana
Starecký Vít
Vaššiková Jiřina
Voráček Petr
Vrabcová Věra, Ing

Continuous service for 10–15 years
Beránek Jaroslav
Černá Jana
Hacmac Petr
Hanzlík Jiří
Kašpar Václav
Kostečková Jana
Matějů Patrik


Operations
& Technology

Senior Manager‘s report

Jiří Hanzlík

The team‘s performance has still been under a heavy influence of the general economic stagnation; this making it increasingly hard to fulfil our mission, i.e. making sure that the technical condition of the City‘s property is well maintained. With requirements to ensure the greatest possible savings, urgent repairs, failures and faults had to be usually handled, but preventing such conditions was actually impossible. 2012 also saw placing even greater emphasis on self-help to ensure the widest possible scale of work.
The department has continued to be sub-divided to maintenance, transport and horticulture sections, with the first mentioned possessing the broadest scope of work.

Daily activities
Services that had to be provided on a daily basis involved woodworking, masonry and electrical services, metalwork, heating and plumbing. In addition to minor measures, major failures had to be treated as well, in both the zoo grounds and at the Animal Rescue Centre, which is a separate facility under the control of the zoo management.
Machinery and car park received daily self-help maintenance in the zoo‘s car service area whilst the department was making use of the tenant of another servicing area who offered ensuring formal inspection of technical performance of vehicles on a periodical basis. The zoo train was the only exception as in this specific type of vehicle, technical inspection needs to be obtained via the manufacturer.
Daily activities included tasks of horticulture ***(Figure 1)***, the team taking care of greenery within 26 hectares. In addition to daily cleaning, removing fallen leaves in autumn is particularly challenging task with respect to the very rugged terrain.
Joiner services are mainly used in manufacturing equipment and installations for the animal department. The services are largely ensured by a single worker ***(Figure 2)***, in collaboration with practising students.

The comprehensive range of electrical services chiefly involves handling failures and matters of urgency, as well as replacing old equipment and installations to achieve higher energy savings.

The metalwork shop carries out repairs and maintenance of fences around enclosures and roads/paths in the grounds, ensuring the production of special metal elements or parts of metal structures throughout the area.

The department also guarantees the waste management in accordance with laws and regulations. In cooperation with contractors, waste is forwarded for disposal. The main staff members' responsibility is then separation, storage and collection of all municipal, bulk, construction and animal waste.

A special item on the "to do" list is keeping the dead animal box used also for dead animals collected within the city boundaries by city/national police or fire service.

Major repairs and services

After finishing the zebra house, completing a connection to the grounds' heating system using thermal water was necessary ***(Figure 3)***. This involved the construction of a separate branch of central heating including the return circuit and its connection to the thermal station via a pipe of almost 120 m. The connection has significantly increased thermal comfort inside the house.

A process of refurbishing heating and water distribution piping was underway in the greenhouse that had been two years out of service, because in winter 2010-2011 all the pipes became frozen and cracked. The operation required a complete replacement of the piping and renewal of damaged registers, with partly new and partly refurbished items supplied. Since the 2012-2013 winter, the facility has been in service to its full capacity.

Based on the screening of regional health inspectors, illumination in the two largest shops, used for woodworking and metalworking, had to be renewed to comply with standards for sufficient lighting at the workplace.

The repair of the main pump serving the reservoir providing water supply became one of the major repair operations as part of utilities. The pump had to be removed using heavy machinery and a backup pump installed. On the basis of this emergency, it was then decided to draft a project for a total reconstruction of drinking water distribution piping, because the system of using two reservoirs and pumping water with subsequent hydrostatic distribution to the houses was in terms of the overall needs very costly, outdated and loss producing. Based on designer calculations, the cost is estimated to be around 1.5 million CZK. Any decision as to the work is under preparation.

The repair of water pipes for pinniped facilities became the capital project of the year, when it resolved the water supply for sea lion and seal pools using groundwater from a drilled well in the zoo grounds. The event is covered in more details under a separate section in this report.

The house for cheetahs ***(Figure 4)*** was completed in the springtime. Constructed in compliance with the recommended standards for cheetah breeding facilities and as part of self-help activities, the structure was put into test operation in June as part of holding a celebration of the World Children's Day. The entire complex was successfully approved for use on 23 October.

A comprehensive process of refurbishing the entrance gatehouse was underway in the second half of the year, the former portable unit replaced with a brick building with a self-contained WC and a kitchenette. The building received a new water supply and drainage piping, as well as the increased insulation of the pipe to supply heating water. A new

aluminium pike was installed at the main gate ***(Figure 5)***. The activity took place under full operation and had no significant effect on the performance of the service at the entrance to the premises.

The lowland anoa yard had to receive treatment due to soil washed down, the operation involving the clearance and removal of the material, disassembly of the wood structure extensively damaged by rotting and dismantling of a part of the fence ***(Figure 6)***. New retaining walls were erected to anchor a new fence that was then installed. The former roofing structure was replaced by a small visual wall made of quarry stone, while modifying the wooden fence and including plants.

Major events requiring an urgent action included leaking gas at the base of the zoo office, immediate placing a new welded service pipe being the response.

The department activities involved those of the transportation section that provided all the year round services and, to some extent, servicing of machines and vehicles with regard to operational needs. The car park was extended with a new lorry (AVIA D90) being added, for which we bought five transport containers. A Škoda Octavia became another addition. The Zetor 5211 tractor serving for distribution of feedstuffs and Multicar M25, the small fixed-platform truck ***(Figure 7)***, underwent a renovation. Stable operation was seen in the zoo train (Isuzu brand), in which no major failure occurred. The train was also lent for events outside the zoo.

In the autumn, we launched the overall building renovation of the ticket office up the hill, which included treatment of surfaces, replacement of flooring, insulation, installation of new safes and other minor alterations. Furthermore, the building was connected to the main zoo office via an optical fibre to provide a landline and computer connection.

The process of gradual removal of existing wooden windows and doors in all buildings continued, these replaced by plastic elements, yielding relatively large heat savings. This involved the zoo office, the orang-utan house, the carnivore house and the feed preparation facility. In addition, some of the smaller structures were treated as part of a separate operation.

New heat-insulated sectional doors were also installed as part of finishing the zebra facility.

During the springtime, we managed to build three new outdoor aviaries for hornbills and other animals from the wintering facility, thus providing the creatures the possibility of staying outside. In terms of costs, this was a self-help operation and the time to complete was less than three months.

A renovation of public toilets was launched ***(Figure 8)***. Once upgrading the social facility in the middle of the zoo grounds, new wall and floor tiles will be provided as well as heat insulation, something that was never done before for this structure. A system of central distribution of hot domestic water via an electrically heated reservoir will be implemented throughout the building.

The housing resources count a total of 9 apartments that are allocated to employees. The funds collected through a renting scheme enabled the repairs of the housing units to continue.

The department members joined both 2012 meetings of the UCSZOO Construction & Maintenance Committee. Held in Brno (the spring meeting) and Pilsen (autumn) zoos, they helped to deepen the cooperation and exchange of fruitful experience in technical operations of Czech and Slovak zoological parks. Based on the good connections, members of the team along with elephant keepers visited the recently renovated house in Ostrava and subsequently the soon-new elephant complex in Prague. The reason was planning a capital project to improve the floor in the bedrooms of Ústí-based elephant females.

Two studies were drafted in the late 2012, one as a response to the current condition of local elephant management, the other addressing capacity gaps at the Animal Rescue Centre. Both documents address the constructional, economic and operational impact as the respective project is underway, giving the founder a basis for their decision making as regards the two cases described above.

As part of the contract with Telefónica O2, the mobile operator, several laptops were obtained for senior

animal managers, with new IP technology additions yet to take place in the period to follow.

The collaboration with the local labour authority in Ústí nad Labem successfully produced, in addition to the agreement to provide workforce as part of the compulsory job scheme, a contract to provide workers as part of the community sentence scheme. This supplied to the zoo six persons as part of the former programme for a period of one year and over 50 workers as part of the other scheme, these serving from February until October, when the scheme was cancelled nationwide.

From March, Centropol energy became the zoo's electricity supplier company, replacing the existing supplier (ČEZ), the zoo budget seeing a substantial price reduction as a result.

At the end of the year, the Region of Ústí nad Labem approved a grant for the project entitled "Female elephant welfare at the zoo" to be implemented in the near future.

Capital projects of the year

Two major projects were completed in 2012. They involved building a new house for cheetahs and repairing technology in pinniped pools. Whilst the first-mentioned plan was benefitting from the proceeds raised within the "Ústí - a Degree Better" operation, the other was financed by an ear-marked grant allocated by the founder, i.e. the City of Ústí nad Labem. To help co-fund both of the plans, the zoo made use of its asset replacement fund that was filled with funds through the depreciation scheme during the year.

The cheetah house

Starting a new house for cheetahs was made necessary by the Cheetah EEP Coordinator requesting another holding facility. The operation enjoyed the greatest support of respondents - the citizens of Ústí nad Labem and its surroundings - electing one of three candidates for grants announced as part of the "Ústí - a degree better" poll. In addition, the endowment fund that had launched the event covered a part of funds from their budget.

The foundation stone was laid in December 2011 and the completion timed through the respective schedule to take place in early June, when there was a grand opening of the house as part of celebrating the World Children's Day, supported by the presence of Mayor of the City of Ústí nad Labem. The structure was the only new building opened in 2012 ***(Figure A)***.

In the desired context, the structure was designed as a stand-alone indoor and outdoor facility for a male cheetah. Due to the exposure of the building in terms of visibility, the customer's need of using visually and technically compliant materials was fully met, mainly with respect to the treatment of the surface of the building alone, as well as that of the surrounding terrain of the enclosure and yards. A simple building with fenced enclosures was constructed. In terms of architecture, it is a ground-floor, bricked and non-basement building of a rectangular shape with dimensions of 8.5 x 5.5 metres, divided by wooden partitions, with a gabled roof, slope of 30°, without the use of the loft space ***(Figure 9)***. The structure contains three indoor boxes, a service corridor,

Figure A

STAVBA: „DOMOV GEPARDŮ"

STAVEBNÍK: ZOO ÚSTÍ NAD LABEM, p.o., DRAŽDĚANSKÁ 23, ÚSTÍ n.L.
STAVEBNÍ DOZOR: JIŘÍ HANZLÍK, HUSOVO NÁM. 452, 403 17 CHABAŘOVICE
STAVBU PROVÁDÍ: STAVEBNÍK SVÉPOMOCÍ

STAVBA POVOLENA

MAGISTRÁTEM MĚSTA ÚSTÍ NAD LABEM

Dne: 15. 2. 2012 Pod č. j.: MM/SO/6/6639/2012/Doš/81-11

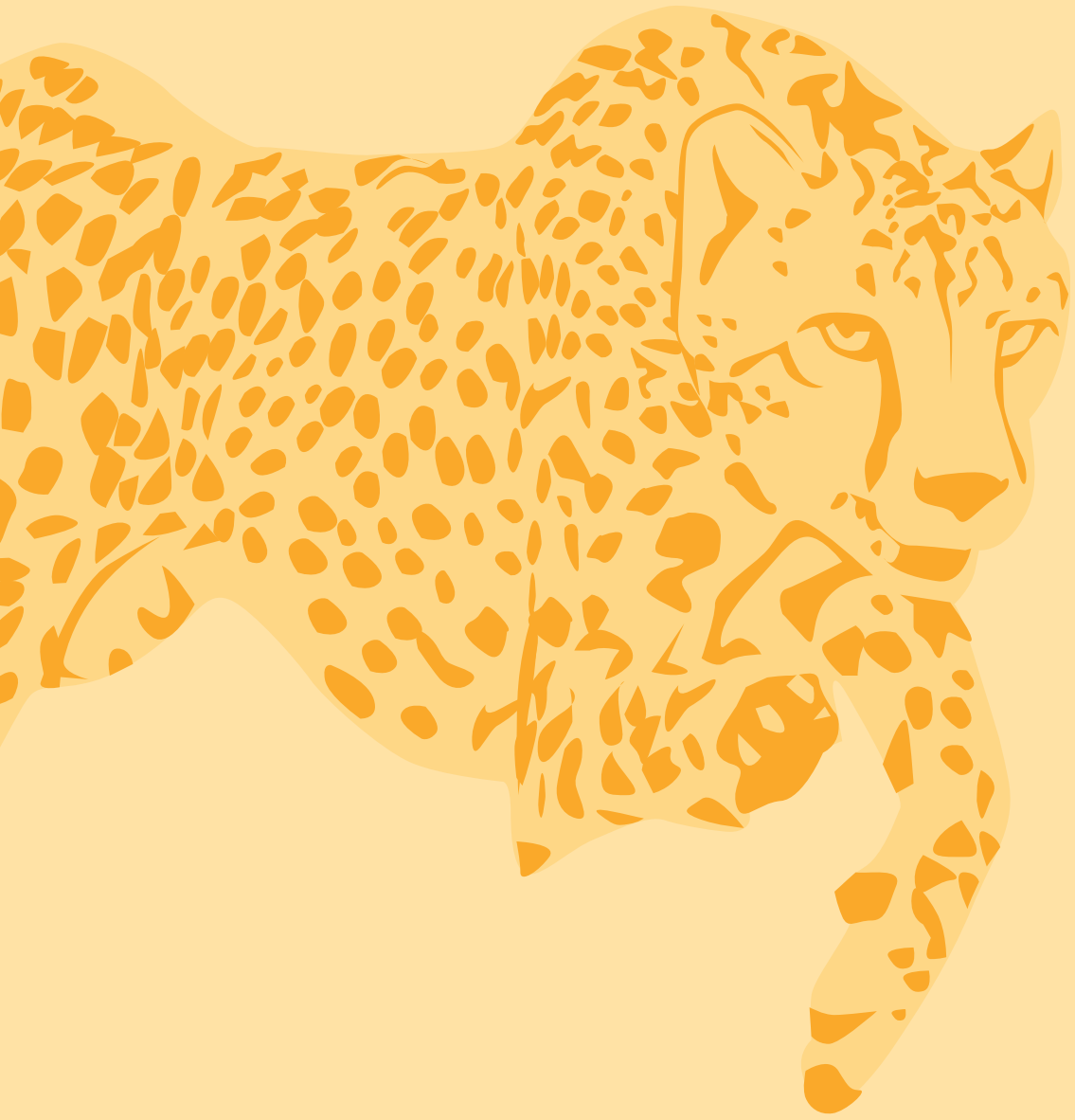
a backyard for trapping, an isolation backyard, the main enclosure of 890 m² and a spare enclosure of 96 m², this one secured against undermining. The outdoor enclosures are fenced with plastic-coated mesh, a height of two metres. A sliding partition wall was built near the box 1, this to serve for capturing the animal into a crate on moving, if any, to avoid any need for anaesthetisation. An under-floor heating system was installed to some extent in each of the boxes. The structure as such was designed as a low-energy building. The finish of the outer walls (a trowel-applied cement plaster), along with the use of large quarry stones, has delivered a quite good design, making the building fit into the overall concept of the habitat required to hold cheetahs.

Repairing technology in the pinniped pools

After several years of efforts, we were finally successful to get funding for this operation. Entitled "Urgent repair of the facility and water management technology in pinnipeds", this is a follow-up to the measure of repairing the surface of the sea lion pool that was underway the year before. The main subject of this public contract was a transportation of water from a drilled well in the grounds and a major renovation of the water management technology. A new filtration system was made with the use of membrane pressure filters. The system includes a three-chamber stainless steel tank, a capacity of nearly 3 m³, serving for pre-filtering coarse dirt, with control valves for automatic starting of feeding water from the well into the sea lion pool. The method of cooling water in the pool ***(Figure 10)*** to achieve a constant target temperature of 12 °C - especially in summer seasons - appears to be quite a pioneering approach. Water thus cooled handles the issue of algae and cyanobacteria quite well and at no additional cost (especially in summer), the microorganisms being undesirable for the animals in terms of health. This also results in the water in the pool being clearer and of better quality. The animal's activity as demonstrated in the water thus cooled was also considered one of strengths for the works. To ensure a certain extent of flow through the pool, the facility was connected to the pipeline to drain

thermal water from the zoo directly into the River Elbe, which reduced sewage fees by making use of the standard sewerage system of the city. The modifications of the sea lion pool surroundings included the newly opened underground section that is now restyled into a rock cave with a window below the surface. A skeleton of the common seal was also put on display in the cave as part of visitor discovery programme ***(Figure 11)***. The pool surroundings were also altered, especially in the visitor zones. The construction plan included, in terms of the water flow system, the pool for harbour seals, thus providing quite good housing conditions in both pools. The disadvantage of the system is the relatively high energy demand, especially in cooling the water in the summer season. The financial analysis has however shown savings with the water pumped from the zoo's own source instead of buying it from a distributor, the saved amount being favourable when compared to the increased cost of electricity. The contractor for the works was the SKD Průmstav - stavby company based in Ústí nad Labem ***(Figure 12)***, CHTS Prague becoming the chief supplier of technology. The acceptance procedure was completed on 29 June 2012. Initially, the new technology was facing some problems that after several meetings with suppliers were settled to the full satisfaction. Nonetheless, some minor issues still persist, such as the optimisation of switching the water pumping system and monitoring groundwater level in the well, the availability rate for the main pump in the bored well and some minor problems as regards operations of the sea lion pool engine room. On the contrary, no problems have been actually registered with the pool for seals, where everything is running smoothly. With respect to the total quantity of water delivered from the zoo's own drilled well, connecting the new water system to the tapir exhibit is also under consideration since the tapir facility has been recorded to have a relatively high water consumption, especially in summer.

Marketing, Publicity & Conservation Education



Management report

Bc Tereza Limburská & Ing Věra Vrabcová

In 2012, the department saw no principal changes. Rather, the workflow has undergone stabilisation, as did the number of team members.

Visitor rate

In 2012, the zoo was visited by a total of 144,430 visitors, the number comprising 71,244 children guests and 73,186 adults. Compared to 2011, there was a decline of 6,750 persons, the largest decrease recorded in quarter 2, i.e., at the beginning of the high season. It was a result of very cold weather and the drop could not be compensated even by the summer inflow.

Cooperation with media

Collaborative activities with the media have been running for many years based on mailing short press releases related to updates in the field of animal management (newborn animals, new imports etc.) or events taking place at the zoo. In 2012, a total of 39 briefs and two major press releases were mailed out.

Television - several reports were broadcast as part of nation-wide coverage of television stations. A report was recorded for the Czech TV's "Wandering Camera" programme to introduce experience programmes that the zoo has been marketing since April 2011. In August, shooting of one of Ostrava TV's "Tour around the Zoo World" episode was underway ***(Figure 1)***, the series comprising 13 parts representing different zoos in the country. Ústí keepers and curators presented five animal species (Bornean orang-utans, Asian elephants, Hartmann's zebras, Amur leopards and California sea lions).

Radio - For several years, Rádio Blaník and Český rozhlas Sever have been the major partners informing about zoo updates, the latter station broadcasting, on a periodical basis, interviews with keepers about their work and the animals they nurse, such as elephants, parrots, orang-utans, frogs, etc.

Press - Ústí region's residents were informed primarily through various regional newspapers, but weekly and monthly magazines were also cooperating. As regards informing other regions, this was done through the ČTK agency.


1

Internet - Zoo updates are routinely posted on the two websites, www.zoousti.cz and www.choboti.cz. In addition, the Ústí Zoo's Facebook profile was in use, as well as other various parties' information servers.

Events for the public

In 2012, the zoo organised a total of 21 events for the public, of which three took place with the support of other partners. This included seven competitions and quizzes with attractive prizes available for participants. Events meeting the highest visitor satisfaction comprised the traditional ceremony of opening the high season, children's day, holidays farewell party, the Halloween event or Christmas time celebration, as well as the first-ever St. Nicholas' day. Promotion of events was underway on the zoo website and Facebook profile as well as through posting flyers in public transport vehicles, mailing information to nursery and primary schools or cultural centres. Various online portals were also in use.

It's the Half-term Break! (3 to 5 February)

A quiz focused on animals acting in Czech fairy tales and movies was available for visitors throughout the three days. Children with honours were invited to enjoy that with free entry into the zoo.

On Saturday, 4 February, three refurbished aquarium tanks dedicated to South American habitats ***(Figure 2)*** were officially opened on the ground floor of the Exotarium. Children were invited to participate in the "Finding Nemo" competition or create something in a fine art workshop. A small aquarium exchange market was also underway with the sale of fish, plants and feedstuffs. The floor 1 of the house was featuring an exhibition of underwater photographs.

Spring Break at the Zoo (3 to 11 March)

The school holidays programme was reserved for the pan-European campaign to protect natural systems of Southeast Asia (EAZA - IUCN/SSC Southeast Asia Campaign 2011-2013).

Grand Season Opening (1 April)

This traditional early April event was accompanied this time by music performances, competitions and activities for children. The highlights

were taking place by the Koliba Restaurant: the announcement of the winner as part of the 2011 Baby of the Year contest, a bubble show and a musical performance by The Boom band. The activities were followed by a party near the Bornean House to name the young orang-utan female.

Win the Rhea Egg
(5 to 9 April)
A five-day Easter quiz was available for children, with ten questions placed throughout the grounds and focused on eggs of various animal species. Every participant took home a stylish prize and was also included in the draw to win three real rhea eggs.

The Earth's Day: The Colour Planet in a Little Different Way
(21 April)
The particular focus was the EAZA - IUCN/SSC campaign to protect Southeast Asian habitats. Children from primary schools prepared sites for the visitor in the zoo grounds with competitions and activities, an exhibition of nursery school children products dedicated to the "Mysterious Forest: The Tale of Princess Saola" activity was opened at the Exotarium, and the Carnivore House hosted slide shows made by secondary school students and focusing on the "Foreign Country - Familiar Problems" topic. Small shops were available throughout the day, offering ethnic products (Africa, Georgia, Armenia, etc.). The main programme was underway at the Koliba Restaurant, featuring a theatre/dance performance of primary school students, evaluation of the competition for secondary school students, African drumming show (Tam Tam d'Afrique group), oriental dancing (Karima), Mongolian dance and music (Dunjingarav) ***– Figure 3*** and the music of the Draga Banda group.

The Day of Birds
(1 May)
This early-morning event enabled the participants to watch wild birds, listen to their singing and see birdlife catching and ringing.

The May Day
(1 May)
A quiz called "Love in the Wild" was organised for visitors, with every participant awarded a small prize. The supporting programme was held by the Koliba Restaurant.

Tracking the Fox
(12 May)
The year 8 of this traditional programme arranged by the Bílý javor scout centre comprised learning, sports and knowledge-based activities and was underway throughout the grounds.

Dreamnight at the Zoo
(1 June)
After a three-year break, the zoo re-joined this event running throughout Europe and dedicated to chronically ill and disabled children. As usual, the activity took place in the evening, the participants coming into close contact with certain animal species (elephants, camels, llamas, terrarium animals and others), enjoying the entertainment by the Koliba Restaurant, touring the Carnivore House and the Exotarium and participating in various competitions. The evening ended with a sea lion exercise and a fire show ***(Figure 4)***.

Children's Day
(3 June)
A diverse entertainment programme was underway all the day long, with attractions and competitions for children placed throughout the grounds. In addition, a new enclosure for a cheetah male was formally opened up the hill. The main part of the day was running by the Koliba Restaurant, ending with naming two male camels. The event was possible thanks to the significant support from the City of Ústí nad Labem and the Ústí nad Labem Region.

The Elephant Week
(18 to 24 June)
This week-long event was filled with activities prepared on the occasion of the 25th anniversary of Delhi the elephant's arrival at the zoo. The celebrations would be far from being complete without a cake for both elephant girls, which was handed over twice, i.e. both on opening and closing. In the respective days, there was an exhibition of elephant photographs, a presentation given by Ostrava Zoo keepers and covering the successful keeping and breeding of local elephants, elephant walks to a meadow on the hill of Mariánská skála along with visitors, painting on the skin of elephants and drawing of elephant pictures, a small market with Vietnamese native products and ingredients, opportunities for visitors to pre-arrange elephant enrichment activities and a display of elephant figurines and statuettes. Each day there were tours behind the scenes accompanied with keepers' commentary and the possibility of buying a flower in a unique pot (elephant's dung).

Take Your Full Marks and Visit the Zoo
(29 June to 1 July)
This was the period when no special programme was prepared for the visitors, just a surprise in the form of free entry for children who showed their certificate with honours.

A Day for Children with Czech Railways - Join the Elfling and Visit the Zoo
(26 August)
Visiting the zoo and its elephants while having fun was possible thanks to the Czech Railways company. The afternoon event was comprising competitions for children to win attractive prizes and entertain themselves by the Koliba Restaurant.

Farewell to the Holidays: A Fairy Zoo
(15 September)
All the day long, visitors were invited to take a stroll accompanied by fairy tale creatures that had simple tasks available for kids as well as to join a Fairytale Quiz Lottery. The main program was held by the Koliba Restaurant and involved an evaluation of the "Fill in the Bubble" competition, as well as a theatre and musical shows, all topped off with a party to name a baby Hartmann's zebra ***(Figure 5)***. Every visitor bringing a used electrical appliance obtained from ELEKTROWIN a discount on admission to the zoo.

The Day of Zoo Friends
(6 October)
A traditional event for invited guests organised for animal fosters, patrons, donors and other zoo partners, it involved a guided tour presenting news and updates of the past year and was followed by a programme by the Koliba Restaurant where major and long-time sponsors received "gold certificates" and large photographs by Petr Slavík, this topped off with a generous cultural show.

World Animal Day
(6 October)
A traditional celebration that falls on the fourth of October, it took place as part of the "zoo friends day", but was made available to all of the audience to give every visitor the opportunity of enjoying the cultural part of the programme. A quiz was also prepared throughout the weekend and entitled Discover Animals around the World.

Along Zoo Trails
(25 to 28 October)
A quiz was prepared for visitors during the autumn break on how the animals are getting ready for winter, the correct answers then included in the draw for prizes.

The Zoo of Ghosts
(3 November)
This event was organised already for the second time as a joint activity of the Union of Czech and Slovak Zoos (UCSZOO). Although the weather was not very favourable, a large number of visitors shows that such events have become increasingly popular. There was an art workshop available for children, in addition to the opportunity of carving one's own jack-o'-lantern. After evaluating the competition for the prettiest pumpkin products, there was a lantern procession going along the ghostly trail toward the lower part of the grounds, where diverse ghosts and various scary tasks had been made available. Unlike the previous year, some sites were provided scary sounds background. Before closing, everyone was welcome to watch a sea lion training show under a night illumination.

St Nicholas' Day
(2 December)
The first year of this activity recalling the old tradition was taking place inside the Carnivore House, with a stylish fine art workshop and performance, and even the Devil, the Angel and the Saint himself coming to the scene to top off this gift-giving event. After that, the visitors set out for the Devil's Path towards the lower portion of the grounds, the route giving the kids the opportunity of testing different "devil's" tasks. Eventually, a Christmas tree was formally lit in front of the zoo office ***(Figure 6)***. The event was held under the auspices of Mayor of the City of Ústí nad Labem.

The Christmas Day
(24 December)
The annual present-giving event took place in the morning, wrapped gifts and decorated trees gradually prepared for Bornean orang-utans, mandrills, Bonnet macaques, Malayan sun bears and Asian elephants. In the middle of the trail, there was refreshment made ready in the form of hot drinks and Christmas confectionery.

Christmas Carolling
(27 December)
Taking place at the Carnivore House, this event included making New Year greetings or bookmarks in the available workshop, as well as entertaining performances. The top part involved naming a young mandrill female.

Exhibitions

Creating Animals from PET bottle caps
(1 January to 15 April)
This was a follow-up to the 2011 event - a project for primary school students making use of unconventional materials to create a mosaic presenting animals from Ústí Zoo.

Mysterious Forest: The Tale of Princess Saola
(20 April to 31 August)
An exhibition of products made by nursery school children to support the EAZA - IUCN/SSC Southeast Asia Campaign 2011-2013) with a total of 9 participating teams of children.

Fill in the Bubble
(15 September to 31 December)
An activity to present the most interesting statements as part of the competition for the funniest text to include in three photographs posted on the zoo web site in July and August. The competition was organised to support the EAZA campaign to protect Southeast Asian species and habitats.

The exhibition of cacti and succulents
(19 to 24 June)
The local cacti enthusiast community held this well-established event presenting cacti, succulents and carnivorous plants. Visitors were invited to see a large number of cultivated plants and buy some of the cultivars.

Schools and conservation education
All types of schools are offered a wide

range of educational and learning programmes. In 2012, the range covered 13 different schemes, some of which prepared as several options based on the age of participants. Learning activities make full use of the Heinrich Lumpe Zoo School. The activities mostly run as a self-service with the use of worksheets and throughout the zoo grounds; in some cases, meetings with animal keepers are arranged ***(Figure 7)***. A guided tour using the zoo train is also an option. There is a charge for education programmes amounting to 20 CZK per student. In 2012, there were a total of 77 activities, of which 70 were programme sessions, while seven involved a guided tour, the latter enjoyed by 178 persons out of a total of 1,722 children and students participating.

Towards the end of the year, the zoo offered nursery schools the opportunity of decorating their own Christmas tree, like in the previous periods. Since this activity is becoming increasingly popular, more trees were identified for use, such as yew trees, white cedars etc. In 2012, a total of 41 children teams responded.

As part of cooperation with the University of JE Purkyně Ústí nad Labem, Grade 3 students of the Faculty of Natural History participate every year in the spring semester in mandatory workshops entitled "Using the gene pool of captive wildlife for reintroduction schemes". In 2012, there were two groups of standard and combined courses with a total of 39 participants.

In cooperation with the Czech University of Life Sciences, a technical lecture took place at Heinrich Lumpe Zoo School, followed by discussion with zoo keepers at the elephant and orang-utan houses. The activity was used by 38 students as part of the respective module. A tour was arranged for the university of the third age; including a trail behind the scenes, it attracted 22 people. There was a guided tour as part of a special training module (the SVOPAP agency) with the participation of 16 persons.

The zoo researcher held two lectures concerning the Pesisir Balikpapan conservation project, one of which was held at the zoo for the members of the Zoological Society, while the other was organised for the Department of Biology at the local university as part of an expert workshop.

There was a special lecture for the visually impaired and included a presentation of natural specimens. It took place at the Heinrich Lumpe Zoo School and met with great acclaim of 45 adults and children.

The zoo was also visited by a 35-member group of Czech and German kids, for which the team prepared a presentation on the use of geothermal energy in the zoo grounds, a guided tour and a learning programme.

A special event was organised by the Museum of Česká Lípa on the occasion of the World Animal Day and included a presentation of Ústí Zoo making use of information boards, activities for children and natural specimens ***(Figure 8)***, which attracted a total of 1,057 children and adults, part of which comprised school groups.

Animal shows
The series of standard animal presentations continued to run in 2012, which certainly seasoned the visitor experience. Of these, training of the sea lion or that of the elephants - combined with the elephant walk around the zoo, feeding and enrichment in the Bornean orang-utan and the honey tree for Malayan sun bears raised the greatest attraction.

The 2011 Baby of the Year
With the extensive breeding success, the sixth annual survey seeking to find the most favourite animal of the year focused only on offspring, thus the changed name of the activity. Launched on the zoo website, the poll lasted seven weeks, with seven babies nominated. A total of 2,262 voting participants decided on the ultimate winner, this being the female Bornean orang-utan receiving 42% of the votes. The winner announcement and awarding was held during the grand ceremony of opening the 2012's high season, when the little girl was also given a name: Cantik ***(Figure 9)***.

Pesisir Balikpapan
Since 2007, the zoo has been supporting the research and conservation project on the island of Borneo, Indonesia, with a view to found a reserve and protect unique coastal mangroves. The zoo researcher spends most of the year in the location (January to July in 2012), cooperating with local authorities, the media, the public, students, and conservation organisations. Most recently, his work has been chiefly focusing on an awareness-raising campaign on activities threatening the natural surroundings of the Balikpapan Bay. He also participated in making the movies entitled Green Desert and Gone with the Tide. Tracking the latest updates from the field is possible following the special link ("Bornean Diary") on the zoo website (Czech version only).

Zoological Society
Closely cooperating with Ústí Zoo, the society has continued the joint activities, which are chiefly dedicated to deepening the relationship of the Society's members and the organisation. An annual meeting was held, along with three member meetings, each containing a report from a traveller tour, a presentation of an interesting part of collection or breeding success by zoo staff members and a tour behind the scenes. Members receive a newsletter (four issues per year), this bringing them closer to what is happening at the zoo. The zoo published another volume of the Fauna Bohemiae Septentrionalis (technical journal), Tomus 36 (2011). It totalled 250 copies and contained reports and papers of zoo personnel as well as the Society's members. The publication is distributed to various scientific institutions in the Czech Republic and abroad.

Other activities
The team members participate in periodical meetings of the UCSZOO's Education and Marketing Committee. This year's session was held in Jihlava, where Ústí staff members took part in presenting activities supporting the EAZA campaign and outcomes of the IZEA international conference, whilst giving a separate report, as a ppt slide show, to outline the issue of expanding oil palm plantations.

Věra Vrabcová joined the conference of the International Zoo Educators Association (IZEA), which was held at Chester Zoo, UK, in the late August ***(Figure 10)***.

In addition to using both of the zoo's key websites to post periodical updates on what is happening at the zoo, the joint online site of UCSZOO has been employed.

Three zoo team members joined a discussion forum organised by the local university's Faculty of Natural History and taking the form of a round table as part of the "PARNET - Partner Network" project, the activity aiming to create a network of companies, government agencies, research institutes and the Faculty.

Two persons from the zoo participated in the workshop organised by the zoo in Liberec and entitled "Sun in the Zoo Grounds", presenting a paper that covered the project of utilising geothermal energy in Ústí nad Labem Zoo.

In mid-June, the team from Ústí became participants in the Year 15 of "Zoological Games without Frontiers", the competition organised by Olomouc Zoo ***(Figure 11)***.

In September, there was a special tour to Nuremberg Zoo, the visitor group comprising Ústí nad Labem staff members, personnel from other zoos, members of the Zoological Society, and other persons.

The zoo presented themselves via publicity materials at every fair and exhibition joined by the City of Ústí nad Labem.


11
ZOO
pro každého něco...

Adoption and animal patrons, donations and advertising

Bc Tereza Limburská

The financial support by individuals, groups and other various entities in the form of the animal adoption/patron schemes, financial donations or placing adverts in the zoo grounds continued in 2012, the first-mentioned alternative being increasingly used as an unusual birthday or Christmas gift.

The funds raised in 2012 amounted to 707,544 CZK (animal adoption); 1,407,401 CZK (donations) and 660,027 CZK (adverts). Donations included gifts to the zoo's Animal Rescue Centre amounting to 122,786 CZK, as well as one million CZK from Heineken to build a new enclosure for a cheetah male that was granted by the company based on the project winning the competition entitled „Ústí - a Degree Better" ***(Figure 1)***.

„1000 Elephant Footprints" is the name of the fundraising campaign, which the zoo has been running since 2006, its aim being to link the zoo with major businesses and prominent personalities throughout the city and the region. The essence was purchasing „elephant footprints", i.e. hoardings that were placed on a wall in the zoo grounds reserved for the campaign. The „footprints" were available in three sizes as per financial range. The proceeds were used for the process of redesigning that is underway in the zoo grounds.

The campaign enjoyed the greatest-ever attraction over the first three years of operation. Since the level of support has declined more recently, probably also due to lacking funds in businesses, the activity was running in 2012 for the last time, with a mere of seven entities involved ***(Figure 2)***:

- AMÁDEUS REAL, a. s. - OC SEVER
- AZ Consult, spol. s r. o.
- AZ SANACE, a. s.
- ELI-PRO, s. r. o.
- K+K EXAKT, s. r. o.
- MONZAS, spol. s r. o.
- URBAN - PROJEKTOVÁ KANCELÁŘ

Many thanks to all the partners who participated in this advertising campaign for seven years, granting the zoo their valuable support. Thanks also to all our supporters!!

Experience programmes

Ing Věra Vrabcová

Ústí Zoo first started to market their learning-by-experience activities in April 2011, this opportunity then used by a total of 27 participants from April and to December. This naturally continued in 2012, chiefly making use of a special section on the zoo website as previously, this displaying all the information about what the scheme entails, the target groups and conditions that need to be complied with. The site also provides an online form to make ordering easier. Given that the staff was quite often encountering a desire to donate an experience programme as a gift, rules had to be amended and specified to fit this option. The agreement is made in such cases with the donor, who then are responsible themselves for informing the beneficiary about the agreement, clause by clause, which in particular involves beneficiary's rights and duties. Subsequent mandatory insurance contract is too signed by the beneficiary and evidenced by copies of insurance or signing an affidavit of insurance, this applying to any other applicant. Before entering the session, every person is trained in rules of safety, which they also confirm by signing before coming into contact with animals and after completion of the programme - the latter meaning that if one leaves the programme, they are alive and healthy :-).

Surprisingly, the greatest interest was not raised by the activity in December before Christmas, as it happened in 2011, but in July. The reason was an impressive report filmed ***(Figure 1)*** and broadcast on Czech TV in their Wandering Camera programme at the beginning of the holiday season. Out of the total number of 69 contracts in 2012, 19 were signed in July, with the remainder evenly spread over the other months.

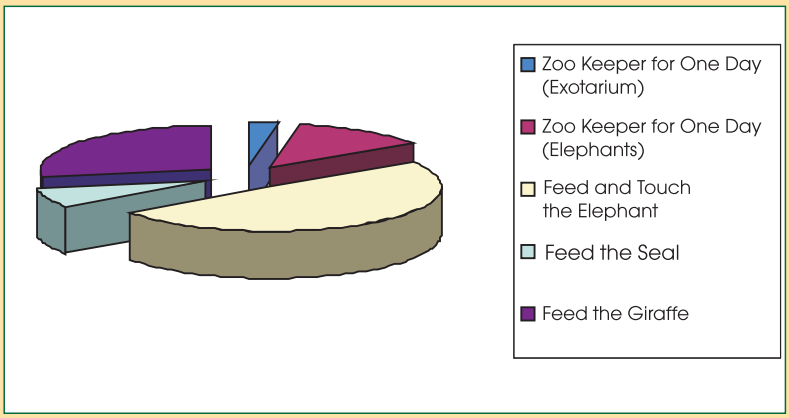
The experience programmes now count five in two categories, the first one presenting a „zoo keeper for one day" concept, while the other enabling the visitor to participate in feeding activities for the chosen species. Two exhibits were specified for the „zoo keeper for one day" scheme - the Exotarium house and that for elephants. Animal feeding programmes can take place in seals, giraffes ***(Figure 2)*** or elephants. Since the former scheme is naturally a greater challenge, stricter rules apply (e.g., age over 18 years), whilst the range of applicant's „entitlements" is wider and includes a lunch, a zoo-branded T-shirt etc. This programme is obviously more expensive: 5,000 CZK to be paid by the applicant - but it should be noted that it attracts real animal lovers and is the most frequent programme ordered by people who have always wanted to work in a zoo, but for various reasons, fate took them into a completely different profession. An age limit of 12 years was set up for feeding selected species, the agreement signed with a legal guardian for any applicant under 18. In addition, the programme is not only shorter in length, but also cheaper - applicants pay 1,500 CZK. The time spent by feeding is species specific, the factors however often including things like being thrifty as to the amount of food allocated. Generally speaking, feeding seals is an extremely swift session in that how quickly the allotment of fish is swallowed by the creatures ***(Figure 3)***. After all, time to eat dry bread in giraffes or special balls in elephants is roughly the same. Another couple

of moments can also be spent by the customer talking with animal keepers, when everything depends on the amount of interest and questions asked as keepers are very patient and competent in answering every query.
The level of popularity of different types of experience programmes was suggested back in 2011, the 2012 season in fact only confirming the statistics. ***Figure A*** shows the total count of schemes as well as numbers per type. „Feed and Touch the Elephant" ***(Figure 4)*** definitely took the lead, followed by giraffe feeding. The proof for the favour for elephants is manifest in the rather expensive „elephant keeper for one day" scheme placing third, followed by feeding seals. The „zoo keeper for one day at the Exotarium" programme placed last. The categories are very well visible from ***Figure B***.
The great satisfaction is supported by the host of comments, whether published in the guest book on the zoo website or delivered by email. Last but not least, the financial aspect also needs to be considered, since the sum raised this way in 2012 amounted to 142,000 CZK.

Figure A

Experience programme	Total
Zoo Keeper for One Day (Exotarium)	2
Zoo Keeper for One Day (Elephants)	9
Feed and Touch the Elephant	34
Feed the Seal	5
Feed the Giraffe	19

Figure B



Activities to support the Southeast Asia conservation campaign

Ing Věra Vrabcová

Ústí Zoo has always been supporting conservation campaigns organised and launched by the European Association of Zoos and Aquaria (EAZA) from the very beginning, i.e. since 2000. This was also true for the 10th campaign in the row. Launched at the 27th Annual Meeting held at Montpellier Zoo, France, in September 2011, its focus being Southeast Asia, it was the first-ever activity of its kind joined by the World Union for Conservation of Nature (IUCN) through one of its bodies - the Species Survival Commission (SSC). It was only in 2012 when the campaign was decided to span over two years, i.e. that its date of formal ending would be September 2013, the closing to take place at Edinburgh Zoo.

EAZA campaigns are always much in focus in Ústí, with the current subject being accompanied by a variety of activities throughout the year or even until the closing. The staff members take every effort to prepare something special and unique for zoo visitors, as well as all types of schools. The goal in this case was the same as previously, i.e. telling the participant about the grounds for choosing Southeast Asia (namely the ASEAN countries) as the target region and the main criteria of the campaign, as well as explaining why the campaign was launched and what its aims are. After studying the criteria, we found that campaign's focal species kept at Ústí Zoo counted nine: the Bornean orangutan, the northern white-cheeked crested gibbon, the fishing cat, the Malayan tiger, the Asian elephant, the lowland anoa, the Rothschild's mynah, the Annam leaf turtle and the iridescent shark-catfish. In addition to the above, we keep other rare and red-listed species, that however are classified Vulnerable (VU): the clouded leopard, the Malayan sun bear, the red panda, the Salmon-crested cockatoo, the Victoria crowned-pigeon, the Fly River turtle and many more. While obviously taking advantage of the species from the local collection when presenting the campaign, palm oil issues were also highlighted. Our aim was to raise public awareness and influence consumer behaviour since the purchase of goods containing this commodity can be considered to have a direct impact on the loss of South Asian rainforests in Indonesia and Malaysia.

The individual activities were prepared for launching in January 2012, because the period between September and December 2011 was dedicated to translating information materials, whilst different types of ideas needed to be devised and pre-arranged. In addition to some one-off events, there were operations lasting throughout the campaign period as initially contemplated, i.e. from January to September 2012. Details including photographs and

Máme rádi zvířata. Nejvíc z jihovýchodní Asie

Zoologická zahrada v Ústí nad Labem se zapojila do celoevropské kampaně. Pro ty, kdo do ní přijdou, **připravila akce až do září**

IVO CHRÁSTECKÝ

Ústí nad Labem – „Máme rádi zvířata, protože jsou chlupatá, mají hebkou srst…," zpívají děti v písničce k desátky let starému naučnému televiznímu seriálu. Lásku ke zvířatům je potřeba projevovat i dnes, a nejen k těm chlupatým. Na celé planetě kvůli zásahům člověka doslova melou z posledního stovky ohrožených živočišných druhů. A právě člověk jako jediný je schopen zabránit tomu, aby budoucí generace neznaly některá zvířata už jen z obrázků...

K tomu slouží mimo jiné kampaně, které se na ochranu ohrožených druhů dlouhodobě zaměřují. Do té celoevropské, kterou každoročně vyhlašuje Evropská asociace zoologických zahrad a akvárií (EAZA) společně se Světovou unií pro ochranu přírody (IUCN) a Komisí pro záchranu druhů (SSC), se tradičně zapojuje Zoologická zahrada Ústí nad Labem. Tu aktuální EAZA vyhlásila v září 2011 na svém 27. výročním zasedání ve francouzském Montpellier a je zaměřena na živočichy jihovýchodní Asie.

MEZI devíti zástupci živočišných druhů z oblasti jihovýchodní Asie, na něž je kampaň zacílena, jsou v Zoologické zahradě Ústí nad Labem chováni i gibon bělolící, želva anámská (na snímku s ní Věra Vrabcová ze vzdělávacího a propagačního oddělení ústecké zoo) , orangutan bornejský, slon indický a také tygr malajský. Foto: Deník/Karel Pech

Tropický prales mizí kvůli plantážím

„Jedná se v pořadí o 10. kampaň EAZA, ke kterým se ústecká zoo připojuje od samého začátku. Kampaně jsou zaměřeny buď na konkrétní ohrožené druhy zvířat, jako jsou tygři, nosorožci či ohrožující nebo na oblast vyžadující zvláštní pozornost, což je příkladně Madagaskar. Jihovýchodní Asie patří mezi oblasti s vysokou biodiverzitou , ale zároveň i oblast s největším počtem ohrožených druhů. Je domovem známých a oblíbených zvířat jako jsou sloni, orangutani či nosorožci, ale i málo známých jako kahau, banteng, tahon či batagur," přibližuje Věra Vrabcová ze Zoologické zahrady v Ústí nad Labem.

Cíle kampaně jsou, jak informovala, jednak zvýšit povědomí veřejnosti v Evropě o ohrožených druzích jihoasijských zvířat, nashromáždit 750 000 Euro na záchranné projekty a přispět ke snižování lovu a obchodu se zvířaty.

„V posledních třiceti letech dochází ke kácení tropického pralesa zejména kvůli zakládání plantáží palmy olejné, proto je dalším z cílů kampaně ovlivnit spotřebitelské chování Evropanů, neboť jeden ze zemědělských produktů – palmový olej – využívají zejména země Evropy a Severní Ameriky," vysvětluje Věra Vrabcová.

Ekonomický vzestup oblasti, lov a obchod

Podívejme se na důvody, proč jsou zvířata v jihovýchodní Asii ohrožena. Kvůli ekonomickému vzestupu oblasti, zemědělství, těžbě nerostných surovin a zvyšujícím se možnostem dopravy ztratila přirozené životní prostředí. Pak je tu ilegální lov a obchod s masem, kožešinami, kůžemi, trofejemi. Zvířata jsou lovena kvůli tradiční medicíně a chytána živá, aby sloužila jako domácí mazlíčci. Jejich životu nepřidá ani znečištění, tlak invazivních druhů, což má negativní vliv na ovzduší a vodní zdroje a vznik skleníkových plynů.

Kampaň se týká regionu zahrnujícího deset zemí (Indonésie, Malajsie, Filipíny, Singapur, Thajsko, Brunej, Vietnam, Laos, Myanmar, Kambodža), které jsou seskupeny do Sdružení států jihovýchodní Asie – ASEAN (Association of Southeast Asian Nations). Další důležité kritérium kampaně říká, že druhy zvířat, jichž se týká, musí být zapsány v Mezinárodní knize ohrožených druhů v kategorii „ohrožený" nebo „kriticky ohrožený".

Kromě druhů zvířat vyjmenovaných v šedém bloku na této straně zoo chová i další vzácné druhy, které jsou také zapsány v Mezinárodní červené knize, ale „pouze" v kategorii „zranitelný" – levhart obláčkový, medvěd malajský, panda červená, kakadu molucký, korunáč vějířový, karetka novoguinejská a mnohá další.

Do kampaně zoo zapojí návštěvníky...

Ústecká zoo počítá v průběhu kampaně se zapojením nejen svých návštěvníků, ale také škol.

Pro návštěvníky budou od 3. do 11. března připraveny „farní prázdniny v zoo", kdy v areálu vyrostou stanoviště s informacemi, pohybovými aktivitami a soutěžními otázkami kvízu zaměřenými na probíhající kampaň. Každý účastník bude na závěr odměněn drobným tematicky laděným dárkem.

Na Mezinárodní den Země bude 21. dubna program zaměřen na téma kampaně a zapojí se do něj děti všech typů škol.

Víte, co je zoogeocaching? Spočívat bude v založení kampaňové „keše", po které pátrají milovníci této dobrodružné aktivity. K dispozici bude i cestovní cache s cílem dostat se místa v ústecké zoo do místa konání 28. výročního zasedání EAZA v září 2012, do rakouského Innsbrucku, kde bude kampaň slavnostně ukončena. Hrát budou moci návštěvníci zoo od února do září.

Soutěž o nejvtipnější text na webových stránkách zoo „Dopište bublinu" proběhne od června do srpna. V září se uskuteční v pavilonu exotária výstava nejzajímavějších výroků.

Již nyní mohou návštěvníci zahrady najít stanoviště se základními informacemi doplněné trojrozměrnými exponáty a přírodninami. Informace o kampani jsou k dispozici nejen na www.zoousti.cz, ale také na vzdělávacích panelech umístěných v zoologické zahradě.

...a děti od mateřských po střední školy

„Aktivity pro školy jsou rozděleny podle věkových kategorií dětí a jednotlivých typů škol. Pro mateřinky je potřeba vždy vymyslet něco jednoduchého. Proto se nám daří pavilon exotária plnit výtvarnými dílky nejmenších dětí. S některými mateřskými školami máme už stabilní spolupráci. Podílejí se třeba na zdobení vánočního stromku v zoo. Pro tuto kampaň jsme pro ně vyhlásili výtvarnou a tvůrčí dílnu „Tajuplný prales aneb Pohádka o princezně Saole". Za použití libovolného materiálu mají vyrobit strom s obyvateli jihoasijského pralesa. Všechny výrobky budou od 21. dubna vystaveny v pavilonu exotária u příležitosti Mezinárodního dne Země," popisuje zkušenosti s mateřskými školami a novinkami pro ně Věra Vrabcová.

Zoo vyhlásila také projektové dny pro školy Ústeckého kraje na téma kampaně. Děti si samy připraví informační stanoviště formou posterů, prezentaci, soutěží, vhodných aktivit a podobně. Projekty představí veřejnosti v areálu zoo rovněž 21. dubna během Mezinárodního dne Země. „Šest let spolupracujeme s ústeckou ZŠ Vojnovičova, ZŠ Svážná v Mostě, ZŠ v Krupce a ZŠ Buzulucká v Teplicích, kde pracují opravdu nadšené učitelky. Počítáme, že se k nim ještě tak dvě tři školy přidají a vznikne sedm stanovišť," říká Věra Vrabcová.

Žáci prvních a druhých tříd zde vystoupí s divadelními představeními – příběhem, bajkou nebo pohádkou.

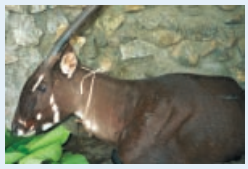
Žijí v ústecké zoo

orangutan bornejský
gibon bělolící
kočka rybářská
tygr malajský
slon indický
anoa nížinný
majna Rothschildova
želva anámská
pangas dlouhý

Ve státech ASEAN se vyskytuje dalších 38 druhů zvířat, které ZOO Ústí nad Labem chová a jsou zaneseny v Červené knize.

„Pro střední školy se vymýšlí soutěž nejobtížnější. Nejužší spolupráci máme se Střední školou obchodu a služeb v Kelperově ulici v Krásném Březně. Ale věříme, že téma chytne i další. Pro střední školy a odborná učiliště jsme vyhlásili soutěž o nejlepší zpracování problematiky jihovýchodní Asie v programu PowerPoint s názvem „Daleká země – blízký problém". Všechny zaslané práce budou představeny a oceněny opět u příležitosti Mezinárodního dne Země 21. dubna 2012."

Vlajkovým zvířetem kampaně je saola



Do loga kampaně byla vybrána saola (Pseudoryx nghetinhensis), tajuplný sudokopytník, který patří k nejvzácnějším zoologickým objevům, protože byl popsán až v roce 1993. Je to endemit, který žije pouze v pohoří Annamite ve Vietnamu a v Laosu. V Mezinárodní červené knize ohrožených druhů je zapsán v kategorii „kriticky ohrožený", jeho počty se odhadují mezi 10 a 400 jedinci.

upcoming activities were posted in January on the zoo website, while a press release was mailed to the media with specifications (for example, an entire page was allocated for the campaign by the newspaper of Ústecký deník - ***Figure 1***).

A total of eight activities were prepared for the visitor:

(1) Find Who I Am!
(January - September 2012)

A pre-recorded session on a specific topic (introducing the campaign, campaign objectives & criteria, tourist behaviour, saola - a flagship species, etc.) was broadcast by the Český rozhlas Sever radio on the last day of each month, along with a test question. Based on several hints, the listeners had the opportunity of guessing, during the day, the „mysterious" beast of Southeast Asia kept in Ústí. Three competition winners received prizes each time, these provided by the zoo as well as by the radio station.

(2) Presenting the campaign
(January - September 2012)

A glass display case placed on the ground floor of the Exotarium house was showing information, along with three-dimensional exhibits and natural specimens, this including samples of products „with" and „without", i.e. containing or not containing palm oil ***(Figure 2)***.

(3) Zoogeocaching
(February - September 2012)

In January, consultations started about setting up a campaign „cache", the subject of searching by lovers of this adventure activity. In February, we managed to meet all the conditions, our cache „hunted" for the first time on the third day of this month. With „mystery" being the type chosen, the hunter first had to browse the geocaching website, it actually containing information about the campaign along with base details on the use of palm oil. Necessary coordinates had to be revealed through answering some questions. Only then the hunter was able to visit the zoo and try to find the cache. The chosen hiding place was a true original, which was often appreciated in commentaries. There was also a travel cache, the idea being to get it, within seven and a half months, from the hidden place in the zoo grounds to the venue of the 28th Annual Meeting of EAZA, i.e. Innsbruck, Austria, where in September 2012 the campaign was to be officially closed. Unfortunately, this plan failed with three caches still travelling in the late 2012 in other parts of Europe.

(4) Collecting mobile phones
(March - December 2012)

In cooperation with Asekol we decided to support our conservation project entitled *Pesisir Balikpapan* that is underway in the island of Borneo by collecting old and out-of-service mobile phones. A collection point was set up next to the ticket office below the hill and an information board placed on the site along with a tube, into which visitors were invited to throw their devices. Flyers were published and contained detailed information about the operation, as another idea behind the activity, in addition to provide support for the Balikpapan project, was in that the used mobiles were checked and, where possible, repaired and forwarded to children's homes. With Asekol committed to pay 10 CZK per device, counting the collected mobiles at the end of the year ***(Figure 3)*** yielded 7,700 CZK for 770 mobile phones throughout the project.

(5) Spring Holiday at the Zoo
(3 to 11 March 2012)

Sites were prepared in the zoo grounds for Ústí nad Labem schools as students were enjoying nine days off. Located nearby exhibits of the nine campaign species, they offered information, physical activity and test

quizzes. Each participant received, upon completion, a small themed gift - an elephant hair „for happiness" with an attached picture of our elephants. The event was attended by 539 competing persons.

(6) The Earth`s Day
(21 April 2012)

A special programme was prepared for visitors by children from all types of schools (i.e. nursery, primary and secondary school facilities), for which they had been invited earlier in the year: the Exotarium house hosted an exhibition of works of children from nursery schools called „Mysterious Forest or Tale of Princess Saola", whilst at six sites in the zoo grounds the visitor was meeting Southeast Asia through activities devised and developed by primary school children (competitions, posters, creative workshops, quizzes, etc.). Primary school students were also invited to devise a theatre performance and/or other type of show while focusing on the campaign theme, with the Koliba Restaurant being the site of performance as part of the main program. Secondary school students were competing in making the best PowerPoint presentation, „A foreign country - a familiar problem" being the title and the slideshows screened throughout the day at the Carnivore House.

(7) Fill in the Bubble
(July - August 2012)

During the holiday season, a competition was launched on the zoo website to attach the funniest possible comments to three photographs of campaign animals - the Bornean orang-utan, the Asian elephant and the Malayan tiger. A total of 47 contestants participated who usually were annotating each of the three images. In September 2012, nine authors of the best sayings were rewarded and all the texts published as part of exhibition at the Exotarium.

(8) Two information boards were produced containing information about the campaign and placed later in the year near the orang-utan house ***(Figure 4)*** as part of the celebration of the first birthday of Cantik, the

orangutan female. The creature, along with its family, got a big „bouquet" of fruit and vegetables. In addition, there was a festive „board" with cups of tea and pieces of fruit, wrapped gifts and plush toys to play with. Premiered was also The Green Desert, a documentary produced by Michal Gálik, a student of natural history at the Charles University, Prague. By the way, the film was co-developed in collaboration with Mgr Stanislav Lhota, PhD, the Ústí Zoo researcher and the person dedicated to the *Pesisir Balikpapan* conservation project. Studying the issue of growing oil palms in Southeast Asia and all the consequences thereof, the film covers the rapid loss of tropical rainforest, which specifically occurs in recent years in the island of Borneo, as Indonesia and Malaysia have become the largest growers of oil palm and pristine forests are the very habitat replaced by the plantations being set up. The document is screened for the visitor on a 24/7 basis. Discussions were underway on creating a shorter, twenty-minute version, which would be more suitable in terms of screening time.

Activities for schools were structured by age groups of children and different types of schools.

Nursery school children were invited to create a work of art, the subject being „Mysterious Forest or Tale of Princess Saola". A story devised by staff members was forwarded to all nursery schools, telling the children, in a simple way, about the dangers that are threatening wildlife in Southeast Asia. The subsequent task was to produce a tree with creatures dwelling in the South Asian jungle, using any material. Eight nursery schools made use of this option, creating 13 works that were displayed at the Exotarium house to mark the Earth's Day ***(Figure 5)***.

As regards primary schools, a call to participate in „the day of projects" was published, with the students to prepare their own information stand using posters, presentations, competitions, creative workshops or other ideas ***(Figure 6)***. This offer was responded by six class teams from around the Ústí nad Labem Region. The projects

were introduced to the public on the occasion of the Earth's Day, along with another activity - theatrical or other performances presenting the campaign by way of stories, fables or fairy tales. Four performances of this kind were on as part of the main programme on the stage by the Koliba Restaurant ***(Figure 7)***, with two primary schools involved.

Secondary and vocational schools were invited to participate in a competition to depict the subject entitled „A foreign country - a familiar problem" using PowerPoint presentations. The contest was focusing on the destruction of South Asian forests and oil palm plantations being set up. Using palm oil at an excessive level by European consumers was also targeted as this oil is actually used in food, cosmetics and aviation industries, the main customers being China and India, the European Union placing the third. Specifications included a question reading *How can we solve this?* The competition was designed for teams of a maximum of three members. Five schools joined with a total of 50 participants, who submitted 30 works. On the occasion of the Earth's Day, the top five teams were awarded, all the presentations then screened inside the Carnivore House all the day long.

Remembering Mrs Beránková

Ing Věra Vrabcová

A report on the death of a long-time staff member always hits everyone who knew the person, encountering them in the daily work at the zoo. Such sad news arrived in early February 2013 and the person that passed away was Mrs. Jiřina Beránková who started her engagement in Ústí as early as under the management of Mr Sedlář, the first zoo director. Born in Český Brod (1943), her fate took her in 1949 to the north of Bohemia, where she attended a primary school in Ústí nad Labem. In 1959, she moved to her grandmother based in Brno, where she in fact worked off the zoo industry. A year later, she returned to Ústí nad Labem, joining the local zoo in December 1963 as a keeper of exotic wildlife. Subsequently, she completed a vocational school of agriculture in Trmice in 1965-1967, and then a vocational school in Prague dedicated to managing exotic animals. She remained a faithful employee of Ústí Zoo until her retirement in 1997, holding numerous positions during 34 years, from animal keeper through senior specialist to headkeeper position. She saw all the directors that served in the period of the lady`s engagement, from MVDr Dušan Sedlář through Mr Rudolf Bejdl and Ing Bořek Voráč through Ing Zdenka Jeřábková, under whose leadership Mrs Beránková retired. Most of the years she spent as a keeper in greater apes, which first involved a group of chimpanzees and later on a pair of orangutans. Also she made the survival of the orang-utans Ňuňák and Ňuninka possible in 1989 when the animals arrived at the zoo in a poor condition, needing excessive, but mainly loving care.

To me Mrs Beránková was a „walking chronicle of the zoo", remembering individual animals, the initial houses and buildings, all the changes that occurred in the zoo grounds, thus often serving me as a source when details like „how this or that happened back then...". After retirement, she did not go to the zoo very often, but the door to their house was still open. Mrs Beránková loved to laugh and laughed often, telling her stories in an attractive and engaging way, and adding delicious snacks to all of this, each visit was more than pleasant. Knowing that she is not with us any longer makes me feel sorry...


Staff
members

Staffing on 31 December 2012

Senior management

MVDr Václav Poživil	Director and CEO (by 30 Sep 2012)
Jana Černá	Deputy Director, Senior Manager - Finances, CEO (from 1 Oct 2012)
Ing Petra Padalíková	Senior Manager - Animal Husbandry
Jiří Hanzlík	Senior Manager - Operations & Technology
Bc Tereza Limburská	Senior Manager - Marketing, Publicity & Conservation Education

Specialist personnel

Ing Pavel Král	Curator
Bc Tomáš Anděl	Curator

Other managers

Hana Roháčková	Horticulture
Jaroslava Ježková	Animal Rescue Centre of Ústí nad Labem Zoo

Staff members

Animal Husbandry	32 persons (includes 2 persons on maternity leave)
Finances	5 persons
Operations & Technology:	10 persons
Marketing, Publicity & Conservation Education	3 persons
Animal Rescue Centre	2 persons
Public works scheme	6 persons

TOTAL as per 31 Dec 2012: **66 persons (includes 2 persons on maternity leave)**

Legal information

Legal information

Zoologická zahrada Ústí nad Labem, příspěvková organizace (co-funded entity)

Drážďanská 23

400 07 Ústí nad Labem

Czech Republic

Legal form:	CZ: příspěvková organizace / EN: non-profit, city co-funded organisation
Registration number:	00081582
VAT ID:	CZ00081582
Telephone:	+420 475 503 354
Telephone/facsimile:	+420 475 503 421
Email:	zoo@zoousti.cz
Internet:	www.zoousti.cz, www.choboti.cz
Legal name in Czech:	Zoologická zahrada Ústí nad Labem, příspěvková organizace
Registered address:	Drážďanská 23, 400 07 Ústí nad Labem, Czech Republic

Founder:	Statutární město Ústí nad Labem / Statutory City of Ústí nad Labem
Registered address:	Velká Hradební 8, 400 01 Ústí nad Labem, Czech Republic
Registration number:	00081531
Mayor:	Ing Vít Mandík

Zoo's Chief Executive Officer:	MVDr Václav Poživil (by 30 Sep 2012)
	Jana Černá (from 1 Oct 2012)

Zoo Ústí nad Labem je členem:

WORLD ASSOCIATION OF ZOOS AND AQUARIUMS

EUROPEAN ASSOCIATION OF ZOOS AND AQUARIA
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