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Digesting the data

How research is the key to conservation success



ANOTHER BUG IN THE WALL
INSIDE THE WORLD'S LARGEST INSECT HOTEL

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NEW ARRIVALS



© PRAGUE ZOO

FIRST PANGOLIN BIRTH AT PRAGUE ZOO

PANGOLINS ARE EXTRAORDINARILY DIFFICULT MAMMALS to keep, and although many European zoos – including Prague – had repeatedly imported both the African and Asian species, the zoos have never managed to keep them for long. The births of young have always been a matter of coincidence, as the females were imported already pregnant, and no offspring were successfully raised. The long-term keeping of pangolins in Europe has only recently been successful at Leipzig Zoo (Germany).

Prague Zoo (Czechia) obtained a pair of Taiwanese pangolins from Taipei Zoo (Taiwan) in April 2022. Intensive communication with colleagues from Taipei preceded their arrival, which resulted in fundamental adjustments being made to the nocturnal exhibit in the Indonesian Jungle House. Not only did it require the creation of a larger space and the building of artificial burrows, but also we adjusted the temperature, increased the humidity and provided the best possible lighting and finishes to the surfaces. In addition, our keeper David Vala learned how to prepare the feeding mixture for pangolins combining the experience of colleagues from Leipzig Zoo and experts from Taipei Zoo. The suitable substitute food that replaces ants and termites is the key factor in providing pangolins with the best care. The slightly modified recipe, which we use in Prague Zoo, consists of frozen bee larvae supplemented by mealworm larvae, detoxifying clay, chitin and other components.

After their arrival at our zoo, the

pangolin couple adapted well, and on 15 June 2022 we recorded mating for the first time. David trained the female to lean on a special bar made for her during feeding so she could undergo an ultrasound examination. That confirmed her pregnancy on 7 October.

The young was born on 2 February 2023 and its postpartum weight (without the umbilical cord) was 113.5 g. Although the mother showed interest in it and the young tried to suck, it was not gaining weight. Based on advice from Taipei Zoo, we started artificial feeding. This took place two or three times a day using artificial cat's milk and after that it was always returned to the mother. By 18 February, when the young reached a weight of 180 g, we offered only the morning feed, and soon afterwards dropped that feed as well. On 20 April, when this article was submitted, the young weighed 870 g, was very active and had already started tasting the mixture prepared for its parents. However, there is still a critical period of transition from the mother's milk to the feeding mixture. Only in August will we be able to consider it successfully raised.

This young Taiwanese pangolin has aroused tremendous public interest and fuelled interest in these mammals and their conservation. In a way, it can be considered the ambassador of these endangered species in Europe. Our efforts to breed the species also fulfilled this key objective.

We would like to thank our colleagues from Taipei Zoo not only for providing the animals, but also for their continuous support and cooperation.

FOUR CUBAN ROCK IGUANAS

© JONAS VERHULST, ANTWERP ZOO



ZOO DVŮR KRÁLOVÉ WELCOME

ON 4 MARCH 2023 A BLACK RHINOCEROS (*Diceros bicornis michaeli*) calf was born at Zoo Dvůr Králové (Czechia). While every black rhino calf born anywhere in the world is a reason to celebrate, as the species is Critically Endangered according to the IUCN Red List, this birth marked a unique achievement – it is the third black rhino calf to be born in the zoo within one year.

In March 2022, the staff at Dvůr Králové were happy to welcome a newborn after four long years. The hiatus was well planned as the park staff needed to dedicate all its space and energy to the project of relocating five black rhinos to Akagera National Park in Rwanda, which took place in June 2019. After the rhinos left for Rwanda, it was necessary to move some of the remaining individuals and form new pairs.

The hard work paid off – a male was born on 4 March 2022. As it was only a week after the Russian invasion of Ukraine, he was named Kyiv after the capital of the Ukraine to honour the resistance of the nation that was attacked by its neighbour.

While Kyiv was born to experienced parents, the female born on 13 December

BORN IN ANTWERP ZOO

THE BIRTH OF FOUR CUBAN ROCK IGUANAS (*Cyclura nubila*) is an unexpected first for Antwerp Zoo (Belgium) because it is the very first time the 15-year-old male and 16-year-old female have successfully reproduced.

Also known as Cuban ground iguana, the species is endemic to Cuba. They inhabit coastal and inland rocky areas, dry forests and undergrowth. At Antwerp Zoo, the adults are housed with a group of six red-footed tortoises (*Chelonoidis carbonarius*) in a large indoor exhibit inside the reptile house.

The iguanas used to be housed as a trio of one male and two females. During this period, no mating behaviour was seen, nor were fertile eggs laid. After one of the females passed away in 2019, the remaining iguanas were housed as a couple. In June 2022, the female buried seven

eggs approximately 50 cm deep underneath the roots of a plant. After an incubation period of ± 95 days at 29°C, five hatchlings were born (two eggs did not fully develop). Shortly after, one of them died for unknown reasons. The remaining four are healthy and growing steadily.

Cyclura nubila is a large, heavily built and rather slow-moving lizard, with males being larger than females and reaching a length of around 1.5 m and weighing up to 8 kg. In the wild, the animals live an average of 60 years. They have thick, armoured scales, which are very variable in colour, ranging from grey, brown and olive green to bright greenish-blue. Their tails are long and powerful, and are used as a defence mechanism against predators and rivals.

These iguanas are diurnal. They spend most of their time basking,

foraging for food and defending their territory. They are primarily herbivorous, feeding on a variety of plant matter, including leaves, flowers, fruits and berries. However, they are also known to opportunistically feed on small invertebrates and carrion.

The solitary species has minimal social interactions. However, during the breeding season, males become territorial and compete for access to females. Females lay clutches of 2–10 eggs, which they bury in sandy soil or soft substrate.

Habitat loss, hunting by feral cats and dogs and the exotic pet trade severely impacted the population size of the Cuban rock iguana. There are several conservation programmes to protect and preserve the species, including breeding programmes in human care, habitat restoration, and education and awareness campaigns.

ES THREE BLACK RHINO CALVES IN ONE YEAR

2022 was the first calf to be born to female Molly. However, the mother behaved so well that she not only provided perfect care to her baby, but also, thanks to training, even allowed keepers to milk her and freeze the milk for later use in case of rearing problems with newborn calves. The baby was named Mihindi after a lake in Akagera National Park, close to the area where the EAZA rhinos were released.

Finally on 4 March 2023, another male was born. This time it was the first calf from the new breeding bull Embu, brought to Dvůr Králové in 2020 from Chester Zoo (UK). The baby was named Magashi –another

connection to the new home of EAZA rhinos in Rwanda, as it is the very peninsula in Akagera where they now live.

All three births took place without problems and Magashi is now the 49th eastern black rhinoceros born in Zoo Dvůr Králové, which currently holds 15 individuals of this taxon.

Thanks to successful breeding in EAZA facilities, the zoo community is now able to supply rhinos for reintroduction. Both Akagera National Park in Rwanda and Mkomazi National Park in Tanzania are great examples – in both parks the rhinos brought from European zoos flourish and in Tanzania they even breed successfully!

