



MOSAICS ON THE FENCE OF THE BELGRADE ZOO - WORK OF STUDENTS OF THE FACULTY OF APPLIED ART IN BELGRADE

Throughout the Belgrade Zoo



Belgrade 2011





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Dear animal lovers,

I was delighted to find myself invited to write a few lines for the book on the Belgrade Zoo. As you know, the Good Hope Garden was taken over by the City authorities, who will take care of this place where the curiosity of adults comes across the joy of children, and where animals from the habitats all around our planet found their home.

There has always been a bond between man and animals. One of the first masterpieces of art, "Wounded Bison" in Altamira cave in Spain, is the witness that this bond has never been a simple struggle for survival, but also an inspiration, reflection and understanding. Pablo Picasso wrote that after Altamira everything is decadence, and Jorge Luis Borges mentions the hand in the cave drawing the "curved line of Bison's back" as a testimony that art and animals as parts of man's world regardless of time and place he was born. In the early twentieth century, psychologists even claimed that the humans' treatment of animals will be the mirror of man's treatment of man.

Founded as far as 1936, the Belgrade Zoo has been the pride of our capital. Nowadays, when reading that almost seventy-five years ago people could see lions, leopards, zebras, moufflons and white bears here, we can't help but admire to the management and the state who provided that at that time.

Extraordinary orography of the location of the Belgrade Zoo is what makes it more interesting, in a certain way, than some more brilliant and better arranged zoos in Europe and the world. Both the abundance of species and the micro-environment they reside in recommend this oasis of animal kingdom to everyone wishing for an encounter with nature. For this reason, as well as for many others, I feel the need to contribute to this place so that it has everything needed for the uninterrupted development and giving pleasure to visitors, offering an incomparable experience to all of those who love animals. I would call it our duty, since the importance of the Zoo for the city of Belgrade overcomes by far the boundaries to which the question of its existence and progress can be ignored.

City Major, **Dragan Đilas**





PHOTO: GRADIMIR VIŠNJIĆ

Welcome to the Good Hope Garden



The Belgrade Zoo has been known as one of the cult places of our city for ages. Hundreds of thousands of visitors, mostly the youngest ones: pre-school children, primary and secondary school pupils, students, pass through its gates every year. There are, naturally, those somewhat older, yet always young in heart, animal lovers, both from our country and from abroad. They are of all profiles and vocations, and also prominent public figures – artists, politicians, doctors, sportsmen...

Although it covers only seven hectares of land, the Zoo has extremely large and high-quality wildlife fund. It contains over 2000 exemplars, with around 270 animal species included. We are extremely proud of the fact that their number has been growing continuously. All the objects where animals reside are newly-built and completely renovated.

This Zoo used to look completely different some twenty-five years ago. It used to be so neglected and not taken care of, that its future existence was seriously questioned. Nowadays, however, it is representing our city with dignity and can be listed among the best arranged zoos in the world. It fulfils its purpose entirely and represents a real cultural and educational facility.

Within the walls of the Belgrade Zoo you can entertain yourselves, rest but also test your knowledge and learn a lot of new things, not only about fauna but also about flora. The diversity of our botanical garden is immense. Apart from the abundance of exotic flowers and other vert, there are also samples of rare trees, such as: Paulownia, Ginkgo biloba, Picea omorika, sequoias...

Everything that is exhibited for visitors is taken care of by a small but efficient team of hard-working people. There are only 50 full-time employees, although the requirements are more demanding. Until recently, we have managed all by our own effort, with warm-hearted help of a large number of volunteers of different age and, by all means, of noble people – our sponsors.

And we are still planning to do a lot more!

The Belgrade Zoo is open 365 days a year, from 8 in the morning until dark. Therefore, you should know our slogan: Escape from the city into the city centre. Escape, at least for a while, from everyday worries and troubles and spend an unforgettable day with us.

Vuk Bojović, director







Founder of the Zoo: Mr Vlada Ilić

History of the Zoo

The Belgrade Zoo was founded in 1936. He was founded by the then city major, industrialist Mr Vlada Ilić. When founded, it was occupying about 3 and a half hectares of land, but soon enough it was expanded to seven, followed by the construction of the restaurant Kalemegdanska terasa and joining one part of Lower Town to it and expansion to something over fourteen hectares. Unfortunately, today only half of that area belongs to it again, just seven hectares.

The Zoo is located in the area of Belgrade fortress, Kalemegdan, the biggest and the most beautiful park of Belgrade. It is unique in the world for its location and, even though it is not so big, it has always been interesting, not only for its animal species but also for its specific physical range and architecture.

The design of the Zoo from 1936 represents a unique whole, both in urbanistic and architectural sense. It was designed by engineer Aleksandar Krstić, creator of various objects and parks of Belgrade at that time, who was also the first person acting as director of the Belgrade Zoo.

Ambitious plans for further construction and expansion of the Zoo were interrupted by the World War II, during which it was bombed twice, firstly by German fascists (1941) and then by the allies (1944), which led to its almost complete destruction.

After the war, only one part was renovated, while the rest fell into oblivion. Consequences of destruction were partially removed and a certain amount of animals provided. However, after that renovation, it was stagnating to come to the state, in the mid eighties, where its future existence was brought into question.

When Vuk Bojović was put in charge of this facility (1 May 1986), the Belgrade Zoo has experienced a complete revival, and then also flourished. It has become one of the best arranged parts of Belgrade, the true oasis of beauty in the middle of the metropolis. Every day there have been new, modern objects rising, replacing old, worn-out cages. The paths have been paved, and the heating and illuminations installed throughout the whole Zoo. New water supply and a part of new sewerage has been made. The wildlife fund has been enriched and enlarged ten times. It has become a shelter for many endangered and rare species. Dying of animals has been reduced to a minimum, while the reproducibility has increased immensely.

Today, 75 years after its founding, the Belgrade Zoo is a respectable and modern facility, that we can be proud of and that represents our city and our country worldwide with dignity.

Saving endangered species

A large number of institutions and admirers of animals all around the world participates in programmes of protection and reproduction of endangered species. The Belgrade Zoo also contributes to it, since some really rare animals have been born and looked after, among others. Here are some of them:

Goffin's Cockatoo (Cacatua goffini)
Hawaiian Goose (Branta sandwicensis)
Canada Goose (Branta canadensis)
Saker Falcon (Falco cherrug)
Griffon Vulture (Gyps fulvus)

Hippopotamus (Hippopotamus amphibius)

Leopard Tortoise (Geochelone pardalis)

Tiger (Panthera tigris) **Puma** (Felis concolor)

Leopard (Panthera pardus)

Eurasian Lynx (Lunx lynx) Chimpanzee (Pan troglodytes)

Boa Constrictor (Boa constrictor)

European Brown Bear (Ursus arctos arctos)

Asian Black Bear (Selenarctos thibetanus ussuricus)...

PHOTO: RADE PRELIC

Especially significant is the reproduction of a **Palm Cockatoo** (Probosciger aterrimus), a type of parrot from tropical rainforests of New Guinea and Australia. The zoos where this species are reproducing successfully are rare in the world, and the number of stillborn Palm Cockatoos in nature is alarmingly high.

With the aim of establishing international cooperation in controlling and limiting trade of endangered plant and animal species, on 30 April 1973 the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) was adopted. The Convention was put into force on 1 July 1975. We have been acting as a signatory country since 6 November 2001. CITES foresees three levels of protection of endangered species:

Appendix I contains the list of the species endangered due to real or potential trade impact.

Appendix II contains the list of the species that would be endangered in case of uncontrolled trade.

Appendix III contains the list of species whose trade is limited by any signatory country of the Convention, hoping for cooperation offered by other countries.





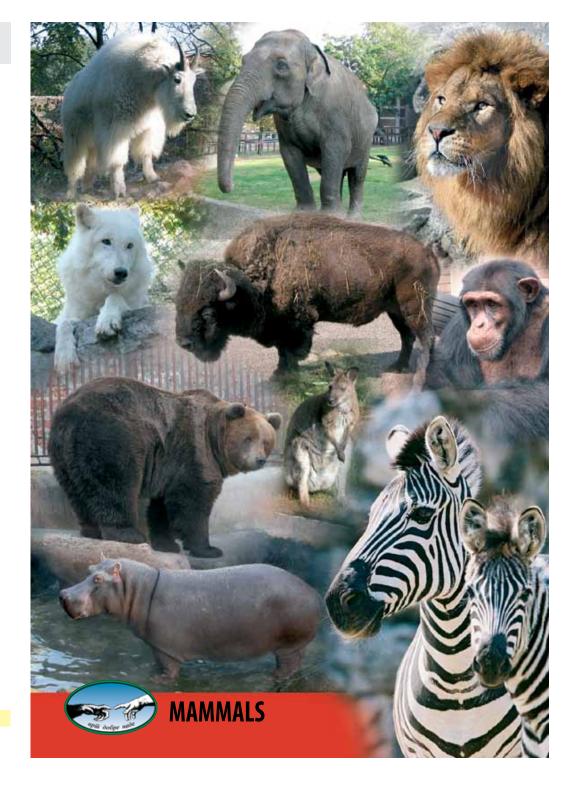
Animals

The Belgrade Zoo contains more than 2000 animals, belonging to around 270 different species.

Among those, more than 120 species is protected by CITES, and over 20 species is covered by the first degree protection.

If humans remained humans as much as lizards remained lizards, Where would they have been by now.

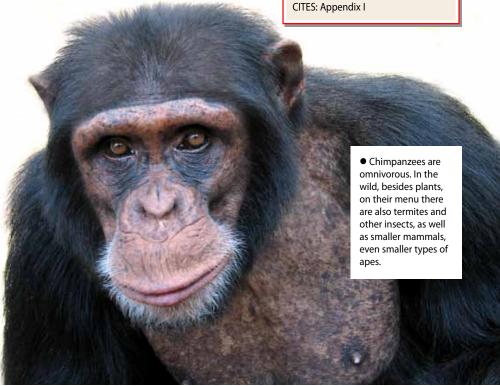
Matija Bećković





Chimpanzee Pan troglodytes

Pan troglodytes Family: Pongidae Geographic range: Equatorial Africa Habitat: Dense jungles and tropical rainforests Life span: 40-50 years CITES: Appendix I



They live in groups of 10-120 members. These animals are active during the day, while they spend night time on trees in nests they make out of branches and leaves. They are skilful at using various objects as tools. Adult males fight for dominance in the group. After gravidity, which lasts 230-245 days, females deliver one young. They are capable of mating again only after the youngest offspring turns three.

• Genetic material of chimpanzees and humans coincides in more than 98 per cent. Some scientists suppose that, many millions of years ago, apes and humans had had a common ancestor.

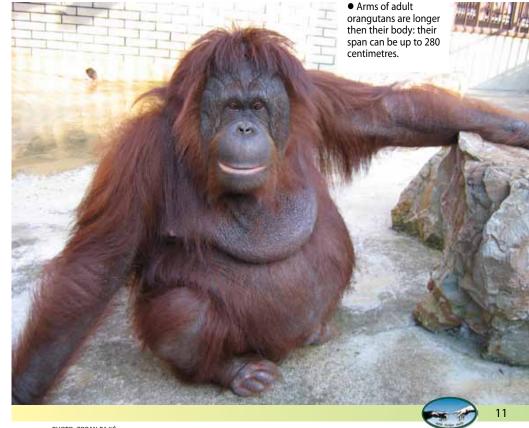
Orangutan

Pongo pygmaeus

• In Malay language the name of this animal means – a forest man.

They live alone. Adult males reside in areas that are parts of territories of several females. The rule is that a female chooses the partner, but it does happen that a stronger male conquers a female by force. Gravidity lasts 260-270 days. The female delivers one cub, rarely twins. The younglings stay with the mother for seven years.

Family: Pongidae Geographic range: Borneo **Habitat: Tropical rainforests** Life span: 35 years in the wild, up to 50 years in artificially created conditions CITES: Appendix I



LEMURS

Crab-eating Macaque

Geographic range: Java Habitat: Tropical rainforests, Macaca fascicularis swamps Life span: over 20 years CITES: Appendix II

> They live in groups of up to 30 members. They often reside on trees. They are active at night. One male mates with several females. Gravidity lasts 5-6 months. The younglings are usually born in the period from May to July, during the rainy season.

Family: Cercopithecoidae

PHOTO: ZORAN RAJIĆ

Ring-tailed Lemur Lemur catta

Family: Lemuridae Geographic range: Madagascar Habitat: Forests and hills Life span: Around 20 years CITES: Appendix I

They live in groups of 5-50 members. A group is led by a dominant female. They are active during the day. They mostly reside on trees but, in case of crossing larger distances, they also move on the ground. They mark their territory with a specific sharp smell. They mate in April. Gravidity lasts around four and a half months. Females usually deliver one cub, which becomes independent at six months. All females in the group take care of the younglings.



• The biggest natural enemy of lemurs are fossas (Cryptoprocta ferox), the biggest carnivore on Madagascar.







Brown lemur

Lemur fulvus

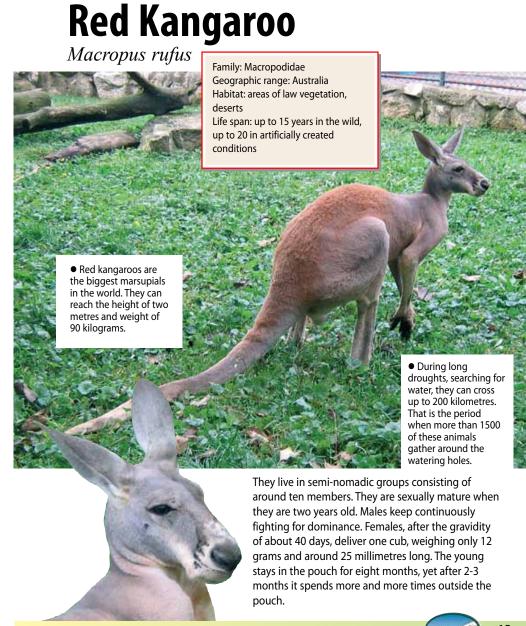
They live in not so big groups. These animals are active at daytime, but sometimes also at night. Females are of brown colours, males can also be gray. They move on all fours through treetops and cross from one tree to another by skilled, long jumps. Their mating season is in June and July. Gravidity lasts around 120 days. Females deliver one cub, which

spends the first three weeks hanging on the mother's stomach, later it rides on her back until it becomes independent.

Family: Lemuridae Geographic range: Madagascar Habitat: Jungle Life span: 20-25 years CITES: Appendix I

• The word lemur comes from Latin and means ghost, apparition. Due to their appearance and unusual sounds, ancient Romans used to consider that the souls of their ancestors resided in lemurs, and the belief was accepted by the indigenous people as well.

PHOTO: JOVO MAMULA



Red-necked Wallaby

Macropus rufogriseus

Family: Macropodidae Geographic range: Australia Habitat: Rainforests, eucalyptus forests, chaparral Life span: Up to 12 years They live alone, but when searching for food, they gather in small groups. They are mostly active at night, while during the day they usually rest in thick vegetation. They mate throughout the whole year. Gravidity lasts around a month. Females deliver one cub, which stays in the pouch until it develops completely.



PHOTO: JOVO MAMULA

 During heat waves, they lower their body temperature by licking their paws and forearms. • Soon after giving birth, the female mates again, but the embryo stays in the state of delayed implantation until the previous young leaves the pouch. This happens with all wallaby species, Eastern grey and red kangaroos.

Parma Wallaby

Macropus parma



Family: Macropodidae Geographic range: east of Australia, New Zealand Habitat: Rainforests, chaparral Life span: Up to 12 years

They live alone. They are mostly active during the night. They can skilfully disguise in thick vegetation. The mating period is usually from January to May. Gravidity lasts about a month. Females deliver one young, which immediately goes into the pouch and stays there until fully developed, whereas it becomes independent after about ten months.

• It had been considered for a long time that Parma wallaby was extinct. In the sixties of XX century in New Zealand, however, a huge colony of these animals representing offspring of specimen brought in the late XIX century from New South Wales was discovered. Parma wallabies were then being reproduced in Australia again.

PHOTO: JOVO MAMULA





HIPPOPOTAMUSES

Hippopotamus amphibius

Family: Hippopotamidae Geographic range: Africa, south from Sahara Habitat: Rivers, streams, lakes, marshes

and swamps

Life span: Up to 30 years in the wild, up to 50 in artificially created conditions CITES: Appendix II



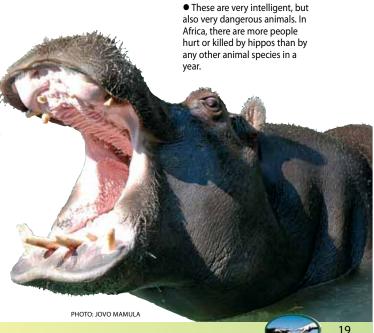
They live in large groups, which can number up to 100 members. Males defend the territory and are often very aggressive even to their own offspring. They spend most of the day in water, because the sun has a seriously negative effect on them, and at night they come out on land to graze. They can stay under water continuously for fivesix minutes. Mating and birth-giving are done in water. Gravidity lasts 210-240 days. Females deliver one young, weighing around 45 kilograms, which sucks under water.





• The weight of the skin and the subcutaneous adipose tissue of these animals can be up to 500 kilos.

 Lower canines of hippos, which remind of elephant tusks, grow their entire life. They can be longer than 50 centimetres and weigh about two and a half kilos. Like ivory, they are used for production of decorative objects.





CAPYBARAS

Harbour Seal

Phoca vitulina

They usually live in groups. They are active during the day. Seals dive deep and can stay under water up to 20 minutes. They are extremely fast swimmers. Mating season is from July to October. Gravidity lasts 9-11 months. In May or June females deliver one young, weighing up to 10 kilos. It sucks for around six weeks, and it becomes independent after its eighth week of life.

Family: Phocidae Geographic range: Northern part of Atlantic, North, Baltic and Black Habitat: Sea shores, sandbars, rocks, islands Life span: 15-20 years



PHOTO: JOVO MAMULA

Capybara *Hydrochaeris hydrochaeris*

Family: Hydrochaeridae Geographic range: South America Habitat: Forested wetlands, marshes, river banks Life span: About 10 years in the wild



PHOTO: JOVO MAMULA

They live in groups of about 20 members. A group usually consists of a dominant male, several adult females, their younglings and several subordinate males. They are mostly active in the morning and in the evening. Their adipose tissue and webbed membranes enable their good navigation in water. While swimming, they are only their nostrils, eyes and ears above the water. They mate throughout the whole year. Gravidity lasts 149-156 days. Females deliver four younglings once a year. They are capable of grazing as soon as they are born, and they also suck until they turn four months.





Crested Porcupine

Hystrix cristata

- During the night they can cross even up to 15 kilometres.
- If they get upset, they rattle their spikes as a threat.



Geographic range: Southern Europe, southwards from Sahara and Gabon in Africa Habitat: Forests, savannas, dry and rocky areas, deserts Life span: 15-20 years CITES: Appendix III

They live alone. During the day they hide in long dens underground and gaps between rocks, and at night they search for food. Gravidity lasts 49-56 days. Females deliver up to four younglings, once or twice a year. The young are mobile instantly; they suck up to fifty days, and become independent after two months. They grow until they turn two years. Strong and long spikes are used to defend from enemies.

Albino Hedgehog

Erinaceus albiventris

• The hedgehog has more than 6000 spikes. Apart from its use to defend from enemies, they are also used for collecting leaves.





They live mostly alone or in couples, rarely in smaller groups consisting of one dominant male and several females. During the night they are more active than at daytime. They dig holes in lands with bushes, under the rocks and close to the trees. In case of immediate danger, a hedgehog curls up and protects its stomach and other soft parts with the skin covered in spikes. After the gravidity that lasts 30-40 days, females deliver 3-10 offsprings.





European Pine Martens move very fast and skilfully on trees, and

are able to catch even the most skilled squirrel.

Martes martes

Family: Mustelidae Geographic range: Europe, western and central Asia Habitat: Forests, wetland, parks Life span: 7-8 years in the wild, 15-17 in artificially created conditions



They live alone. They are active mostly at night, but sometimes they also hunt during the day. These animals can climb and jump very well. They reside on trees, in abandoned bird nests or squirrel cavities. They mate from June to August. Gravidity lasts 260-305 days, including the dormant period of the foetus. Females deliver 3-5 cubs that are at first deaf, blind and toothless. They get their sight after five weeks.

Oriental Short-clawed Otter Family: Mystelidae

Aonyx cinerea

Geographic range: South Asia Habitat: Floodplains, rivers, coastal streams, freshwater lakes Life span: About 15 years CITES: Appendix II

They live in groups consisting of about ten members, and within it they get into pairs who are strongly bond. Females often deliver two cubs, up to the maximum six, and both parents look after them.

 Unlike other otter species, fish is not a significant food item for them.





BADGERS

Striped Skunk

Mephitis mephitis

• Skunks are known by their unpleasant smell released from the glands under their tail.



PHOTO: ZORAN RAJIĆ

They are nocturnal animals. Adult males go solitary over the summer, and over the winter he groups with several females. They mate in February and in March. Gravidity lasts two months. Females deliver 4-10 younglings.

Family: Mustelidae Geographic range: most part of Canada and USA Habitat: Forests, forest and field edges, plough land Life span: About 10 years

European Badger Meles meles

Family: Mustelidae Geographic range: Europe (except in the north), most part of Asia Habitat: Forests, meadows, fields Life span: About 15 years



PHOTO: JOVO MAMULA

They live alone or in smaller groups. They are active at dusk and at night. They make long passages underground to their dens. At the end of the autumn they prepare for hibernation. They mate from March to August. Gravidity lasts 7-8 weeks. Females deliver up to four younglings, that get their sight after 4-5 weeks and suck for about two months, and they stay with their parents until they turn eight months.





Northern Raccoon

Procyon lotor

They live alone. They are active during the night, while they spend daytime sleeping in their hideout. They can climb and swim well. During the winter there can be up to 4-5 of them in the same hideout. In that period they spend their fat supply, but they don't fall into hibernation. They mate in January and February. Gravidity lasts around two months. Females deliver 2-4 blind and toothless cubs. They get their sight after two-three weeks, and they suck until they turn two months.

• Raccoons are omnivorous. They eat fish, eggs, fruit and vegetables, grains and various berries. Before eating, they dip their food into water and rub it with their front paws as if they were washing it.

Family: Procyonidae Geographic range: Southern parts of North America Habitat: Forests, swamps, prairies, Life span: 15-20 years



PHOTO: VUK BOJOVIĆ

White-nosed Coati

Nasua narica



PHOTO: JOVO MAMULA

USA Habitat: Thick forests, chaparral Life span: About 14 years CITES: Appendix III

Ecuador, Mexico, south parts of

• They happen to breastfeed not only their own, but also other younglings.

They live in groups of up to 20 members. They are active during the day. They normally reside on land, but are also skilled on trees. Males are in charge of defending the territory. They mate in February or March. Gravidity lasts about two and a half months. Since it happens that males kill the young, females leave the herd some twenty days before the delivery. Then they build a separate nest there they deliver 2-7 blind cubs, weighing up to 180 grams. The young can see when they are eleven days old, and they suck until they are four months old.





Musang Paradoxurus hermaphroditus

• There are two more denominations of a mustang: Asian Palm Civet and Toddy Cat.

They mostly live alone. They are active during the night. Musangs are good at climbing trees. They have extraordinary developed sense of smell. After the period of gravidity that lasts for 70 days, females deliver up to three cubs.



Geographic range: South and Southeast Asia Habitat: Forests, bushes Life span: About 10 years

Genet

Genetta genetta



They live alone or in pairs. They are active at night, spending the day resting in hidden places. They are good at climbing trees. After the period of gravidity which lasts 70 days, females deliver up to three cubs.





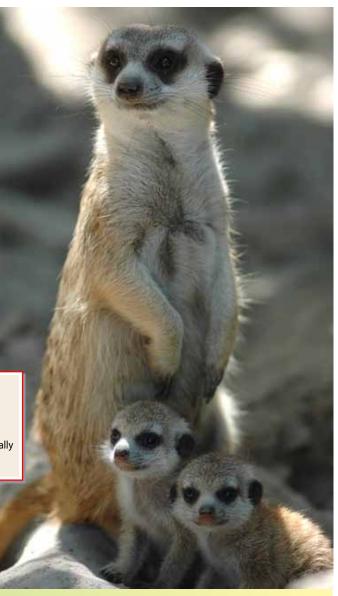
Meerkat

Suricata suricatta

They are active during the day. They are good at climbing trees. Meerkats are very sociable – the dominant pair gathers a group of 10 to 50 members around them. They dig underground dens similar to labyrinths. They become capable of reproduction when they turn one year. After the period of gravidity which lasts around 11 weeks, females deliver 2-5 cubs, breastfeeding them for the first two months. Both parents participate in bringing up the young, and they are also helped by other members of the group.

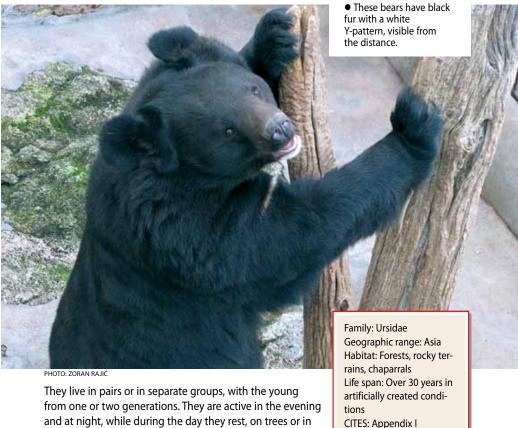
Family: Herpestidae Geographic range: South of Africa Habitat: Savannas, forests, semideserts, bushes Life span: Up to 15 years in artificially created conditions

• Meerkats often stand on their hind legs completely upright, observing the surroundings and searching for food.



Asian Black Bear

Selenarctos thibetanus ussuricus



and at night, while during the day they rest, on trees or in caves. They spend the summers at the altitude of about 3000 metres, and in winter they go to lower areas. Females usually deliver two cubs, after the gravidity which lasts up to eight months. The young are usually born from December to March, they weigh around 300 grams, suck for

six months, and stay with the mother for two-three years.

• These animals make nests in treetops. In northern regions, they also hibernate.



Brown Bear

Ursus arctos arctos

CITES: Appendix II • Bears are omnivorous, even if they mostly eat plants.

They live alone or in family groups. They are the most active in the evening and at night. They make their dens in caves or under the layers of branches. They sleep over the winter. Once a year, after the gravidity of about eight months, females deliver up to three cubs, weighing 350-880 grams. They become completely independent when they turn two years.

• Young bears, if found in danger, run to high trees. Their mother defends them bravely from the attacker, who is often their father or any other adult male.

PHOTO: JOVO MAMULA

Family: Ursidae

Europe

tundras

Geographic range: Mountainous regions of

Habitat: Hardly accessible

Life span: 20-35 years

mountain areas, thick forests,

Grey wolf
Canis lupus lupus



They live alone or in herds. They are the most active during the night. They hunt in groups made of up to 40 members, while at the same time expressing an admiring speed, strength and ruse. They mate once a year, mostly in January or February. Gravidity lasts around two months. Females deliver 4-6 cubs, who get their sight after two weeks, suck until day 35, and become independent when they turn nine months.



Arctic wolf

Canis lupus arctos

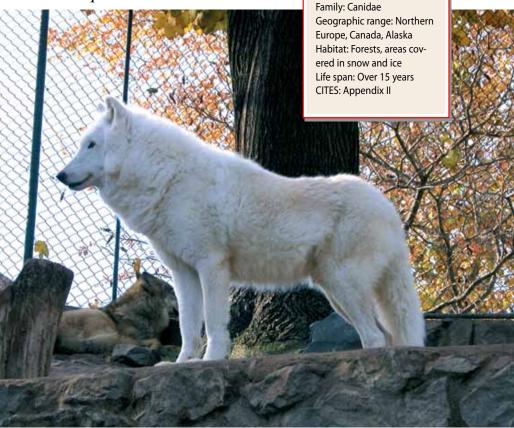


PHOTO: VUK BOJOVIĆ

In some countries wolves are extinct, which led to degeneration of many animal species, game, above all, due to their excessive reproduction. The attempts made in that kind of environment to reproduce the wolves again in the wild, have given very few results.

• As a result of adapting to the environment, these animals have completely white, long hair and much bigger paws than gray wolves, covered with fur from below as well.

Silver fox

Vulpes vulpes fulva

Family: Canidae Geographic range: North America Habitat: Forests and mountains Life span: Up to 14 years CITES: Appendix II



Outside the mating season, these foxes live mostly alone. They are the most active during the night. After gravidity,

sight after two weeks. The young suck for a month, and

become completely independent after three-four months.

grey fox. The colour of the fur varies from silver to almost

completely black.

This subspecies was created by crossing the red fox and the

lasting about 53 days, females deliver 4-8 cubs, who get the

ФОТОГРАФИЯ: ЗОРАН РАИЧ

- They are in danger of overcatching, due to their attractive fur.
- These foxes are capable of climbing up trees.





PHOTO: JOVO MAMULA

Fennec fox

Vulpes zerda

Family: Canidae Geographic range: North and northeast Africa, Middle East Habitat: sand deserts Life span: About 10 years



They are very sociable. They are active during the night. The young often continue living with their parents, in which way they form smaller herds. After gravidity period that lasts around two months, females deliver up to four cubs who suck until they turn 70 days.

• These are the smallest animals in the Canidae family.

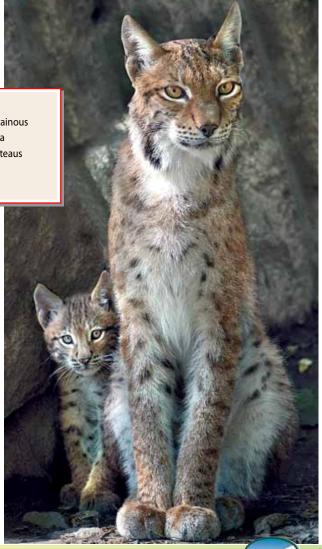
Eurasian lynx

Lynx lynx

• Lynx is the biggest European cat. It is capable of catching a deer.

Family: Felidae Geographic range: Mountainous regions of Europe and Asia Habitat: Forests, rocky plateaus Life span: 16-18 years CITES: Appendix II

They live alone. They are active during daytime and at night. They have an excellent sense of smell. When they hunt, they follow their victim for hours and wait for it in an ambush. In May or June, after gravidity that lasts somewhat more than two months, females deliver 2-4 cubs. The young are blind for the first two weeks, and they stay with their mother until they turn one year.



Jungle cat

Felis chaus

• In Himalayas, these animals have been spotted even at an altitude of 2400 metres.

Family: Felidae Geographic range: The Nile delta, south and central Asia Habitat: Banks of swamps and marshes, tropical rainforests Life span: About 14 years



PHOTO: ZORAN RAJIĆ

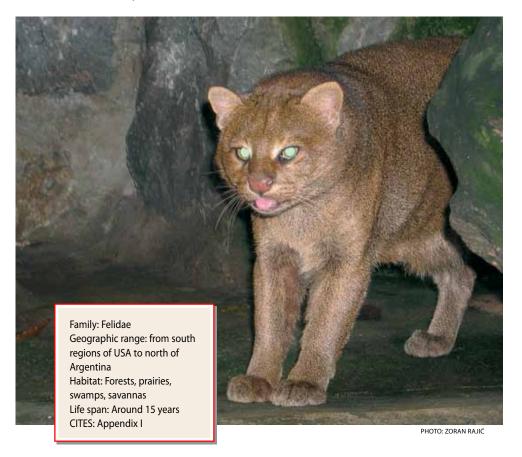
They live alone. They are active both during daytime and at night. They are good at swimming, hunting and catching fish. They make their shelters in dense reed or use abandoned dens of other animals. They reach their sexual maturity when they are two years old. They mate throughout the whole year. Females, after the gravidity of about two months, deliver 3-6 cubs.

Jaguarondi

Herpailurus yaguarondi

• Unlike other, smaller cats from South America, which have 36 chromosomes, jaguarondi has 38, same as puma and jaguar.

They live alone. They are active both during the day and at night. They are skilled at climbing trees. They hide in high grass and caves. They often reside near flowing water and they are very good at catching fish. They mate from September to November. After gravidity lasting 70-80 days, females deliver up to four cubs, who suck for 30 days and become independent after 15 months.







CATS

Puma

Felis concolor

• The young are born with spots that disappear at the end of the first year of their life. • There are two more denominations for pumas: mountain lion and cougar.

• Pumas can jump up to six metres in the distance.



PHOTO: ZORAN RAJIĆ

They live alone. They are active both during the day and at night. Pumas sneak to their prey silently, throw it to the ground using their paws and grab its neck with their teeth. After the gravidity of three months, females deliver 2-4 cubs. They are able to see after two weeks, they suck for the first 4-5 weeks, and they stay with their mothers for one year and a half. Females do not let males approach the offsprings, since there is a danger that males might eat them.

Family: Felidae Geographic range: most part of America Habitat: Forest edges, fields of grass, mountain slopes Life span: About 18 years CITES: Appendix I

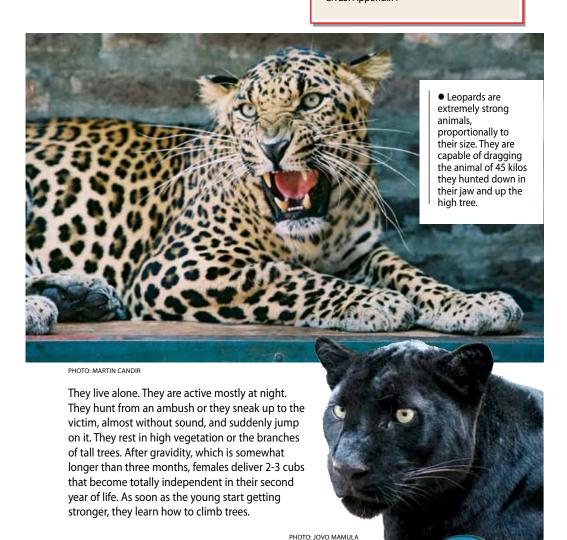
Leopard

Panthera pardus

Family: Felidae Geographic range: Africa, except northern parts

Habitat: Jungles, mountainous regions

Life span: About 20 years CITES: Appendix I



Cheetah

Acinonyx jubatus

created conditions
CITES: Appendix I

Family: Felidae

Habitat: Savannas, thicket

Geographic range: Africa, western Asia

Life span: Around 20 years in artificially

PHOTO: JOVO MAMULA

They live alone, yet outside the mating season, males sometimes gather in smaller groups. They are excellent hunters and the fastest runners among animals. They are able to reach the speed of 120 kilometres per hour in the short run. However, if after 300 they did not catch the animal they were after, they give up. After gravidity which is around three months long, females usually deliver up to five, and maximum nine cubs, that become totally independent when they turn two.

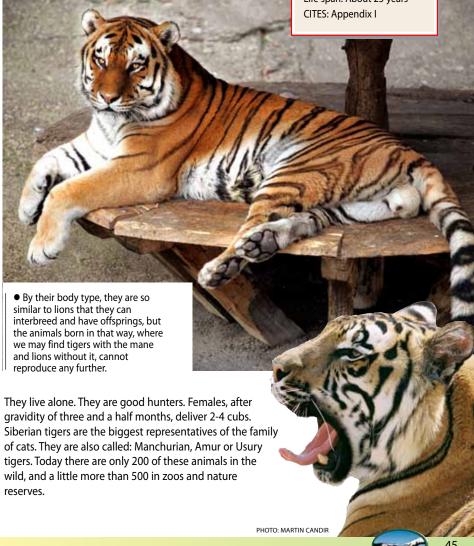
- They are easily tamed and used for hunting. In Egypt they used to use them for that purpose even 5000 years ago, and later also in Asia, and even in Europe.
- Unlike most cats, cheetahs cannot retract their claws entirely.

Siberian Tiger

Panthera tigris altaica

PHOTO: JOVO MAMULA

Family: Felidae Geographic range: Siberia, northern China, Korea Habitat: Swamps, forests, Siberian plains Life span: About 25 years CITES: Appendix I



CATS

Bengal Tiger Panthera tigris tigris

Family: Felidae Geographic range: Most parts of Habitat: Rainforests, rocky terrains, swamps Life span: About 25 years CITES: Appendix I

They live alone. They can hunt well both at night and during the day. They are skilled at sneaking on the prey, in order to, once they are close enough, run after it at high speed. Gravidity lasts about three and a half months. Females choose hidden places to deliver 2-4 cubs. For the first fifteen day, little tigers are blind. The mother takes care of them all alone. Then after three months she starts teaching them how to hunt.



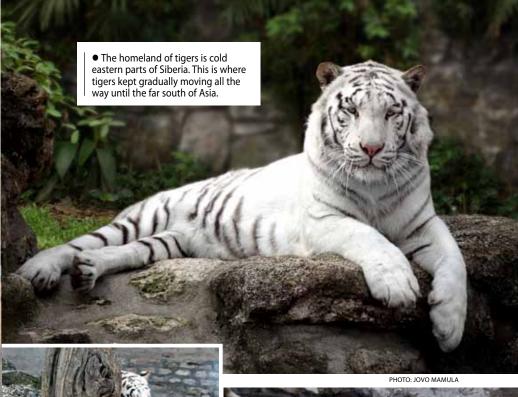




PHOTO: ZORAN RAJIĆ



African Lion

Panthera leo

 Because of its magnificent mane, lion has often been called the king of animals.

• For a short time, they can run after their prey at speed higher than 50 kilometres per hour.

 Although lionesses have the main role, adult males feed themselves before females.

Family: Felidae Geographic range: Central and southern parts of Africa Habitat: Savannas, swamps, semideserts Life span: About 25 years CITES: Appendix II



PHOTO: JOVO MAMULA

• For a lioness to become pregnant, she has to mate about 2000 times.



They live in herds consisting of one or more adult males, several females and their young. They hunt in groups. Several members isolate the prey and chase it towards the others waiting in an ambush. They attack the prey only when it gets as close as 30 metres. They reside at an altitude of up to 3000 metres. After gravidity, which lasts about three and a half months, females deliver 2-5 cubs that get their sight after two weeks, suck up to two and a half months, and become independent when they are older than one year. Young males, as soon as they become sexually mature, are expelled from the herd. They are obliged to, once they are strong enough, fight a leader of another lion herd and take his place. Females stay in the same family. It has never happened that a female changes one herd for another.

PHOTO: JOVO MAMULA

• It often happens that the chased prey escapes. According to some observations, in only 20 per cent of the cases the hunt ends successfully.



PHOTO: ZORAN RAJIĆ

Asian Elephant

Elephas maximus

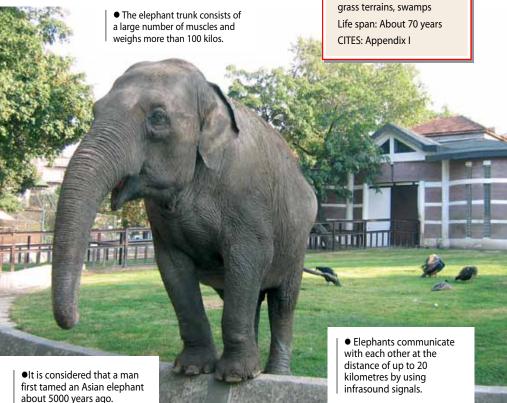


PHOTO: ZORAN RAJIĆ

Females together with the young form a group within the herd, whereas males stay aside. Females give birth every three or four years. Gravidity lasts up to 22 months. They often deliver one cub, weighing up to 100 kilos and about one metre tall. Elephants grow rapidly for the first fifteen years, and then this process, somewhat more slowly, continues until the rest of their life.

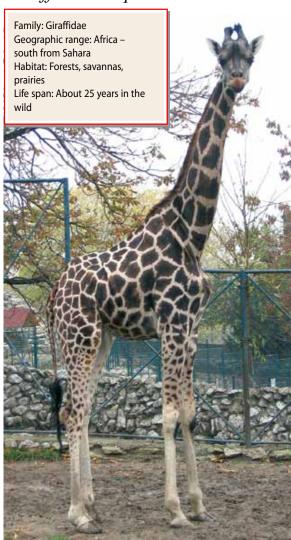
 Asian elephant gets to weigh five tons. He takes the third place among terrestrial mammals by weight (after African elephant and white rhinoceros).

Family: Elephantidae Geographic range: Asia

Habitat: Humid rainforests,

Rothschild Giraffe

Giraffa camelopardalis rothschildi



• These animals are considered to be dumb, but it is also established that, when they get scared, they release some kind of voices that look like silent gurgle.

They live in herds numbering up to 40 members. They defend from their attackers by kicking them, and in that way they can even kill a lion. They can reach the running speed of 50 kilometres per hour. On average, they dedicate less than two hours a day to sleep, whereas they feed themselves even up to 20 hours a day. Their favourite food is acacia leaves, which they take with their supple tongue, skilfully avoiding dangerous thorns. They are able to resist without water for a long time. Gravidity lasts for about 14 months. Females deliver one young, up to 180 centimetres tall and weighing 50 kilos.

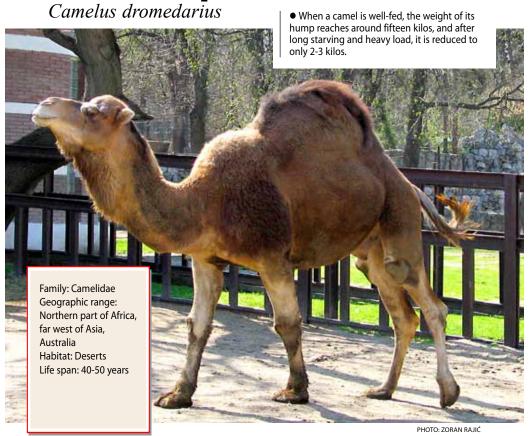
• Giraffes are the tallest animals in the world and the only mammals born with horns. Although their neck is very long, they, as well as other mammals, have only seven cervical vertebrae.







One-hump Camel



The homeland of one-humped camels is Africa. Those living in the deserts of Australia are descendants of the transferred samples that in the meantime went wild. When properly fed and given water, these animals can resist without water for a long time. A riding camel can cross up to 140 kilometres per day. They mate from January to April. Gravidity lasts 385/440 days. Females deliver one young, weighing up to 40 kilos. It sucks until it turns one year.

Two-hump Camel

Camelus bactrianus

They live in groups that contain one male and several females. They are thought to have started being tamed by humans more than 3500 years ago. Today they are almost extinct in the wild. They are well-adjusted to the life in a desert. They mate in February. After the gravidity of 13 months, females deliver one young that sucks for around 16 months.

Camelus bactrianus Family: Camelidae Geographic range: Asia Habitat: Grass terrains, deserts, semi-deserts Life span: 40-50 years

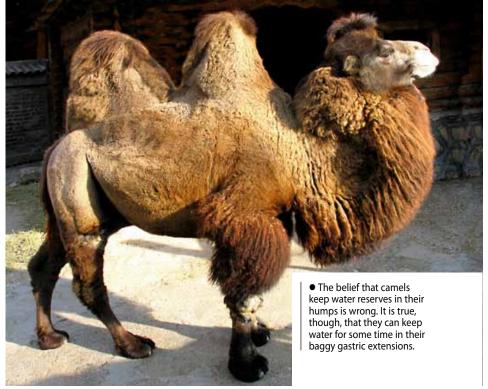


PHOTO: ZORAN RAJIĆ





Llama

Lama glama

Habitat: Deserts, mountainous regions, mild grass terrains Life span: 15-20 years • The blood of these animals contains more erythrocytes than the

Family: Camelidae

Geographic range: Peru, Bolivia, Argentina

• Llamas are able to. at very high speed and on a very steep path, carry load weighing about fifty

blood of any other mammal.

> They live in groups, at altitudes of between 2200 and 3800 metres. They are very sociable. They are well adjusted to life in high mountains, where the air is so diluted. They can move very fast, since they lift their front and hind leg from the same side of the body at the same time. They mate throughout the whole year. Gravidity lasts about a year. Females deliver one young, weighing up to 13 kilos. It gets up immediately, and after an hour already approaches the mother in other to suck.

European Deer

• The horns of the European deer can be up to 120 centimetres long.

Cervus elaphus hippelaphus

Females and their young live in herds, and males form smaller groups. They are the most active at dusk. When the mating season starts, males fight each other, trying to conquer the largest number of females in that way. The battles are preceded by a powerful roar. They mate from August to October. In May or June of the following year, females deliver up to two cubs, which suck for 3-4 months.

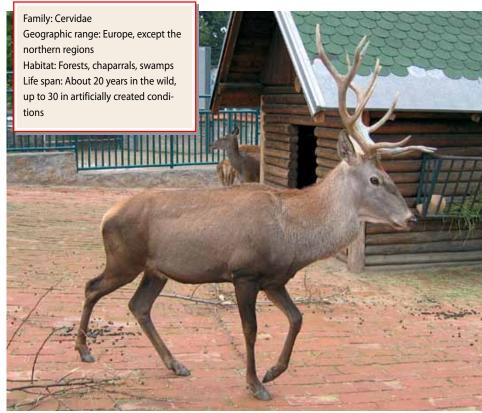


PHOTO: ZORAN RAJIĆ



Siberian Ibex

two years. Gravidity lasts 155-180 days. Females

deliver up to two younglings.

Capra sibirica Family: Bovidae Geographic range: Central Asia Habitat: Cliffs, rocky terrains, pastures Life span: About 16 years PHOTO: ZORAN RAJIĆ They form family herds, within which the mothers with their young are separated into a special group. They are active during the day. They reside at altitudes up to 5000 metres. In winter they go down to lower regions. They jump skilfully and climb rocky terrains and steep cliffs. They become sexually mature after

Himalayan Tahr
Hemitragus jemlahicus

Family: Bovidae Geographic range: Himalayas Habitat: Rocks, hardly accessible mountainous regions Life span: 10 years in the wild, up to 20 in artificially created conditions



They live in herds of 15-80 members. Older males live alone. They skilfully move along rocky terrains. They mate from October to January. Gravidity lasts seven months. Females deliver one young that sucks for six months and stays with the mother for two years.



Family: Boyidae

Geographic range: Northern

Habitat: mountainous, hardly

Rocky Mountain Goat

Oreamnos americanus

• The age of these animals can be determined by the number of rings on their horns. • Males fight for dominance by standing next to each other and stabbing each other with sharp horns, until the weaker one does not give up.

Family: Bovidae Geographic range: Western Canada. North-east USA Habitat: Rocky Mountains Life span: UP to 20 years Males live alone, except during the mating season. Females, together with their young, form small groups. These animals are active from the evening until the morning. They are excellent climbers. They mate from November to January. Gravidity lasts 150-180 days. Females deliver up to three cubs at hardly accessible locations. They are threatened to become prey of pumas or lynxes, and it also happens that they fall from high places and get hurt or killed, in the attempt to follow the adults. They stay with the mother until their second year.



PHOTO: ZORAN RAJIĆ

Barbary Sheep

Ammotragus lervia



PHOTO: ZORAN RAJIĆ

Females with the young usually live in herds, while males go solitary until the mating season. Barbary sheep are active in the morning and in the evening. During the day, they hide in rocky areas. They live at an altitude of 3700 metres. They can resist a lot of time without water. They usually mate from September to November. They can deliver two younglings per year. Gravidity lasts 160 days. Females deliver one young, which is immediately capable of moving along the rocky terrain.

• This is an only African wild sheep not obtained from crossbreeding of

between sheep and





other species.

Mouflon

Ovis aries musimon

Family: Bovidae
Geographic range: Central and south Europe
Habitat: Rocky areas, mountain pastures, forests
Life span: 15-20 years

The come from Mediterranean islands, where they were transferred from into other parts of the world. They live in herds of 10-30 members. Older males act as leaders. They are the most active at dusk and at night. They mate in October and November. Gravidity lasts about five months. Females deliver up to two younglings that suck until they are six months old.



PHOTO: ZORAN RAJIĆ

Blackhead Sheep

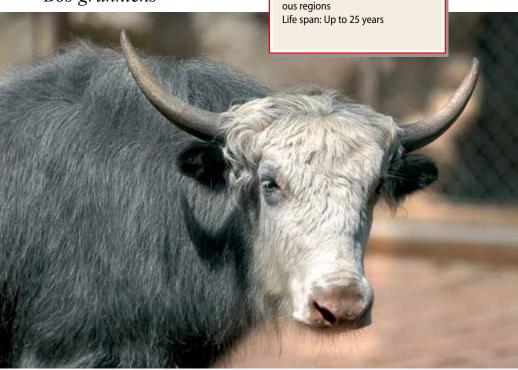
Ovis aries domestica Family: Bovidae Geographic range: Africa Habitat: Semi-deserts Life span: About 15 years They belong to fat-tailed race of African sheep. They originate from blackhead fattailed Persian sheep, brought into the Republic of South Africa in 1971. Their body is not covered in wool but in hair, that moults. Their strong body type enables them to survive in desert conditions, where they cross vast distances in search for food. Females usually deliver one young, rarely two.

YAKS

BISONS

Yak

Bos grunniens



Family: Bovidae

Geographic range: Tibet, Himalayas

Habitat: Plateaus, rough mountain-

PHOTO: JOVO MAMULA

Females, together with the young, form herds numbering up to 200 animals. Adult males join them during mate season. Males spend the rest of the year in groups consisted of about ten members or alone. They reside at altitudes of up to 6000 metres. They are able to reproduce when they turn six. Gravidity lasts 258 days. In June, females deliver one young which sucks until it is one year old. Young females stay in the herd, and males leave it after three years.

- Horn length of a female yak can reach half a metre, and of a male yak it can reach the whole metre.
- Yak is considered to have been first tamed about 2000 years ago.

American Bison bison

They live in herds moving from place to place. Their running speed can be more than 50 kilometres per hour. Females and the young are often isolated into separate groups. During mating season males fight for dominance in the herd. After gravidity, lasting 270-300 days, females deliver one young.

• At the beginning of XIX century there were several million bisons in the prairies. Unfortunately today there are so few of them, that they are threatened to be extinct. White settlers were mercilessly killing them for fun, and professional hunters for fur and delicious tongue.

Family: Bovidae Geographic range: North America Habitat: Today only in nature reserves Life span: About 20 years





Eland Antelope

Taurotragus oryx



They live in herds of 10-70 members. However, in times of migrations and big droughts, a herd can get three times larger. They are active in the morning and at sunset, while the hottest part of the day is spent resting in the shadow. During mating season male fights are often. Gravidity lasts 250-270 days. Females deliver one young, sucking for six months, and it stays with the mother until it is one year old.

• They are the biggest antelopes. In the short run, they can reach the speed of 70 kilometres per

Family: Bovidae

parts of Africa

Geographic range:

Eastern and southern

Dorcas Gazelle

Gazella dorcas



Family: Bovidae Geographic range: Northern Africa, Israel Habitat: Desert edges, savannas Life span: Over 10 years in artificially created conditions

> They mostly live in pairs, and when the conditions are especially good, with plenty of water and vegetation, they form herds of one male and several females with the young. They are mostly active at night. After gravidity of six months, females deliver one young, which sucks until he is three months old.

• This gazelle can spend the entire life without drinking water – all the necessary liquid it finds in the plants it used as food.





Grant's Zebra

Equus burchellii Granti

• As there are no two men with the same fingerprints, so there are no two zebra with identical combination of patterns. • Zebras can be interbred with horses or donkeys, but animals born in that way cannot reproduce any further.

They live in large herds or in groups which consist of one male, 6-7 females and their younglings. During the periods of drought, they cross several hundreds of kilometres in search for food. They mate throughout the whole year. Gravidity lasts around 11 months. Females deliver one young. It stands up jut several minutes after its birth, and after 45 minutes it can always run.



HOTO: MARTIN CANDIR

• It will remain unclear for ever whether zebra is black or white. African people consider it to be a black animal with white stripes, while the rest of the world claims its body is white and stripes black.

Family: Equidae Geographic range: Southern Africa Habitat: Prairies, savannas, semideserts, mountainous regions Life span: 20-25 years





GREAT RUNNERS

African Ostrich



They are resident birds. They form family flocks with a male, four-five females and their young ones. They are the biggest birds in the world. They are not able to fly yet, running short runs, they can reach the speed of about seventy kilometres per hour, with up to four metre long paces. They are able to change the direction abruptly while running. Eggs of ostrich weigh about one kilo and a half. Every sexually mature female in the group lays 12 eggs in the common nest, and a male sits on them. Sometimes, during cold seasons, females also participate in brooding. The incubation period lasts about 45 days. A male takes care of the young and he only lets one female, his favourite, to help him with it.

Emu

Dromaius novaehollandiae

• During the brood, males use up to thirty kilos of his body weight.

Outside the mating season they live gathered in small flocks, made of one male and several females. They usually lead a nomadic lifestyle. These are the biggest birds in Australia, and second biggest in the world. Their running speed reaches 50 kilometres per hour. They like to be close to water. During the reproduction period, from the beginning of April to the end of June, females usually lay 9-11 dark green eggs, which a

PHOTO: ZORAN RAJIĆ

male broods. The incubation period lasts 56-60 days. The young become completely independent after eight months. Adult females are heavier than males and they can weigh 45 kilos.

Family: Dromaiidae Geographic range: Australia Habitat: Rainforests, plains rich in water and vegetation Life span: 5-10 years in the wild, up to 40 in artificially created conditions



GREAT RUNNERS

Double-wattled cCssowary

Casuarius casuarius bicarunculatus



• They are able to reach the running speed of 45 kilometres per hour, even with obstacles. The bony excrescent on their head and hard feathers at the end of their wings are what protects them from injuries when passing through dense foliage.

They are resident birds. They live alone. They are the most active early in the morning and in the evening. When in danger, they run or fight by kicking, since they have long claws similar to daggers. The mating season starts at the beginning of July and ends at the end of September. Females mate with several males and give each male a nest with maximum eight eggs. Males brood for a month and a half, and then they look after the young until they turn nine months.

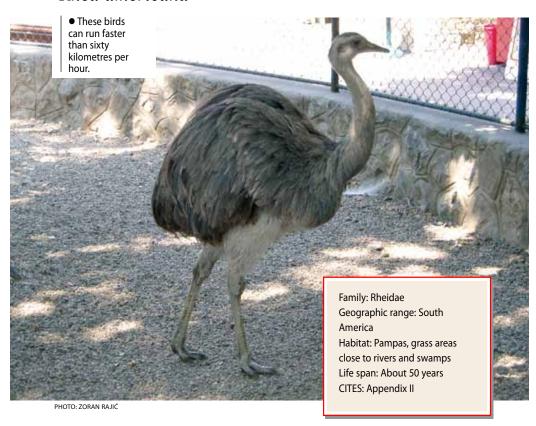
Family: Casuarliidae Geographic range: New Guinea, north-east part of Australia Habitat: Rainforests, swamps, river valleys Life span: About 60 years

PHOTO: IOVO MAMULA

Nandu

Rhea americana

 Nandu is the closest species to ostrich.



They are resident birds. During the mating season they live in flocks made of a male and five-six females, and then they even gather to larger groups. Older males retreat from the flock and live alone. These are the biggest American birds. They try to escape the enemy by running or finding a suitable hideout. If they are big enough, they confront the attacker, showing great bravery. A male prepares the nest where several females will lay eggs, often 12-30 of them, but sometimes it also happens that the nest contain 60 eggs. The incubation period is 38-42 days. It is exclusively a male that broods. Upon their hatching, he takes care of them for a least six more weeks.



VULTURES

Andean Condor

Vultur gryphus



They live alone or in pairs. They reside at an altitude of 5500 metres. They are the biggest flying birds. A male is more attractive and bigger than a female. They have excellent eyesight. Despite their size, they are not

clumsy. They are able to glide through the air for long. In search for food, they may go as far as 200 kilometres from their nest. They become able to reproduce when they are between six and eight years old. Females lay one egg every second year. The incubation period lasts 54-60 days. The young separate from their parents when they are two years old.

 Condors mostly eat carrion, but sometimes also eggs or nestlings

Life span: 25-30 years in the wild, up to

75 years in artificially created conditions

CITES: Appendix I

Although hunting them

has been banned, people

still hunt them for fun and

Griffon Vulture

• These birds eat

the remains of dead

animals and that is

why they are called

the scavengers of

nature.

PHOTO: RADE PRELIĆ

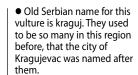
Gyps fulvus Family: Accipitridae Geographic range: Africa, southern Europe, south-east Asia Habitat: Mountain passes and gorges with poor vegetation Life span: Up to 40 years

CITES: Appendix II

• There is a feeding place for griffon vultures on the river

Uvac, near Nova Varoš in Serbia. There is one of their colonies in Trešnjica canyon, near Ljubovija.

They usually live in large groups, and nest in pairs that stay together their entire lives. When they fly up to the sky, they can glide for hours using warm air flows. They place nests on high, hardly accessible mountain cliffs. Females lav one egg, which both parents brood in turns for 48-54 days. The young become independent at the end of their fourth month.









Hooded Vulture

Necrosyrtes monachus

Family: Accipitridae

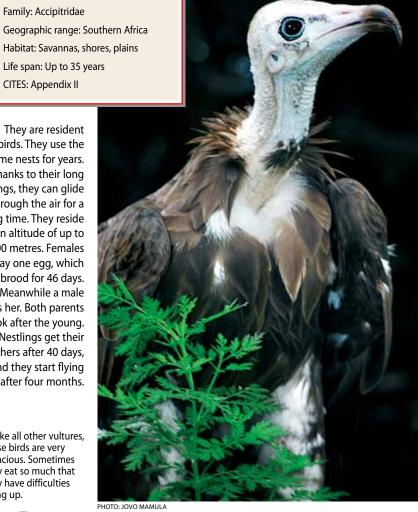
Habitat: Savannas, shores, plains

Life span: Up to 35 years

CITES: Appendix II

They are resident birds. They use the same nests for years. Thanks to their long wings, they can glide through the air for a long time. They reside at an altitude of up to 1800 metres. Females lay one egg, which they brood for 46 days. Meanwhile a male feeds her. Both parents look after the young. Nestlings get their feathers after 40 days, and they start flying after four months.





Egyptian Vulture

Neophron percnopterus



Europe, southern Asia, northern and central Africa

Habitat: rocky terrains, prairies, semi-deserts

Life span: Over 30 years CITES: Appendix II

• They break eggs of big birds by throwing stones at them.

They are partial migrants. At dawn they fly away to search for vultures. They eat nestlings and eggs of other birds, stealing from their nests. Egyptian vultures from colder regions spend the winter in central Africa and India. Females lay two eggs that both parents brood in turns for 42 days. The young become independent three months after hatching.





Бородач

Gypaetus barbatus

• It is estimated that in Europe there only about ninety pairs of bearded vultures left.



Family: Accipitridae

regions of Africa

Geographic range: southern

Europe, central Asia, mountainous

Habitat: high rocky mountains

They are resident birds. They live alone or in pairs that stay together all their lives. The denomination bearded vulture comes from long black bristles that form a beard-like tuft under its beak. They are excellent fliers. They glide through the air using uprising currents. In search for food, they go as far as 20 kilometres from their nest. They nest once a year, at the end of January or beginning of February. Females lay one or two eggs, which both parents brood, in turns, for two months. The young stay in the nest for less than four months. A large number of the young does not survive the first year of life.

 Sometimes they eat turtles, birds and smaller mammals, but mostly bones and bone marrow of dead animals. There is where another name for the bearded vulture comes from ossifrage.

White-tailed Eagle

Haliaeetus albicilla

 They lurk their prey, standing on a cliff from where they attack when the moment in right.

They live in pairs and stay together all their lives. They are partial migrants. In regions where winters are mild, they do not leave their territory. They nest once a year, from February till May. They build big nests on high trees or cliffs from branches and undergrowth, and lining them with moss and grass. Females lay one or two eggs which both parents brood in turns for 45 days, and then they look after the young together. Nestlings leave the nest after three months. A large number of the young does not survive the winter.

Family: Accipitridae Geographic range: Parts of Greenland, Europe, northern and central Asia Habitat: Near big lakes and marshes, seashores, rocky terrains Life span: Up to 25 years in the wild, over 40 in artificially created conditions

CITES: Appendix I







Steller's Sea Eagle

Haliaeetus pelagicus



They are partial migrants. They live alone. They hunt by nose-diving towards the prey or, standing on an ice berg, catching the fish from the water. Females lay up to three eggs at the beginning of April. The incubation lasts up to 40 days. The young hatch in mid May, and get their feathers at the beginning of September.

• On average, the young hatch only from half of the eggs, and out of those, nearly one third dies.

PHOTO: JOVO MAMULA

Golden Eagle

Aquila chrysaetos

They are partial migrants. They live in pairs that stay together their entire lives. The pair usually goes hunting together. They catch the prey flying low, with their strong and sharp claws. They nest in the period March-April. In the nest, made on hardly accessible rock or tall tree, females lay two eggs, brooding up to 45 days. The young leave the nest after 80 days. Basically, only the older and the stronger nestling survives, since it throws the other one out of the nest.

> Family: Accipitridae Geographic range: All continents, except Australia and South America Habitat: Mountain ranges, cliffs, canyons, rocky terrains Life span: 18 years in the wild, over 40 in artificially created conditions

CITES: Appendix II

 In Caucasus region and around, golden eagles are used for hunting.

• These eagles, during the nose dive, can reach the speed of 130 kilometres per hour.







Saker Falcon

Falco cherrug



Family: Falconidae Geographic range: South-east Europe, southern Siberia, Altai Mountains, Mongolia, northern China Habitat: Plains, prairies, highlands Life span: About 20 years CITES: Appendix II

They are partial migrants. They are good hunters and capable of hunting down animals much larger than themselves. They nest in April and May. Females lay up to five eggs and brood tem for about a month. Both parents look after the young, which become independent after a month and a half.

• While attacking the prey, saker falcon reaches the speed of more than 300 kilometres per hour.

PHOTO: JOVO MAMULA

Red-footed Falcon

Falco vespertinus

They are partial migrants. They live in groups. They spend the winter in savannas in southern Africa. Ritual flights precede mating, during which males go in circles while singing. They nest in May or June, sometimes in colonies with more than ten nests. Females lay 4-5 eggs, which she broods for four weeks, and then she takes care about the young. The nestlings become independent after 28 days.

> Males are blue, and females are brown.

Family: Falconidae Geographic range: Eastern Europe, central and eastern parts of Asia Habitat: Bright forests, prairies, nearby villages Life span: About 20 years CITES: Appendix II

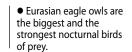


PHOTO: JOVO MAMULA



Eurasian Eagle Owl Bubo

Family: Strigidae
Geographic range: Europe and
Asia, except for the northern areas
Habitat: Thick forests, gorges,
ruins, passes, cliffs, deserts
Life span: 28-35 years
CITES: Appendix II



• Nests of these birds have been noticed even at an altitude of 4500 metres.

They are resident birds. They hunt from early dusk. They also attack other birds of prey, even those bigger than themselves. They nest from March to May, once a year. Females lay 2-4 eggs and broods them for 34-37 days. The young leave their nest after two months.

• Eyeballs of owls are very big, but not mobile. However, owls can move their whole head under the 180 degree angle, so that they have an excellent view on the terrain.



Marabou

PHOTO: JOVO MAMULA

Leptoptilos crumeniferus



Family: Ciconiidae Geographic range: Tropical and subtropical regions of Africa Habitat: Swamps, lake and river banks, savannas, semi-deserts Life span: Up to 20 years in the wild, some years longer in artificially created conditions CITES: Appendix III

• By inflating the "bag" on their neck, they show different feelings.

They are resident birds. They live in flocks. They fly slowly, using air currents for going up to bigger heights. They nest in colonies made of 20-60 pairs. Females lay 3-5 eggs which both parents, in turns, brood for 36 days. The young get their feathers entirely at the end of their fourth month.

 Due to their unusual look, marabous are called undertaker birds.





White Stork

Ciconia ciconia

Family: Ciconiidae Geographic range: most parts of Europe and Africa, certain parts of Asia Habitat: Swamps, areas close to rivers, streams and marshes Life span: Up to 26 years



They are migratory birds. They live in pairs that stay together all their lives. The fly slowly, using warm air currents to go higher up. They nest once a year, in the period April-May. Females lay 3-5 eggs, which both brood for a month, taking turns. Both male and female take care of the young, which leave their nest after two months.

They communicate by rattling their beak and specific movements.

PHOTO: ZORAN RAJIĆ

Black Stork

Ciconia nigra

 Black storks also nest in our region.

They are migratory birds. They pass the winter in central and southern Africa. They live in groups, except during the mating season. They nest once a year, in the period April-May. They make their nests on tall trees or on cliffs. Females lay up to five eggs, which both parents, in turns, brood for a bit longer than a month. The young are completely independent after 70



Family: Ciconiidae Geographic range: Europe, Asia, central and southern Africa Habitat: Wetland forests, mountainous regions Life span: Over 20 years CITES: Appendix II





Great White Egret

Casmerodius albus

Family: Ardeidae Geographic range: North and South America, southern Europe, Africa southward from Sahara, Asia and Australia Habitat: Swamps, lake and river banks Life span: Over 22 years

> They are partial migrants. They hunt separately, getting close to the prey carefully. They vehemently defend their territory from intruders. In winter they gather in a flock of 50 members maximum. They nest once a year, from April to June. Females lay 2-5 eggs, which both parents, in turns, brood for about 25 days. They take care of the young together, which become independent after some forty days.



• These are the biggest of all herons. Their wings span can reach 1,75 centimetres.

PHOTO: ZORAN RAJIĆ

Grey Heron Ardea cinerea

Family: Ardeidae Geographic range: Europe, Mediterranean, most parts of Africa, Asia all the way to Japan Habitat: Swamps, areas near rivers, lakes and big marshes Life span: Over 25 years



PHOTO: JOVO MAMULA

They are partial migrants. They live in flocks. Males defend the territory during mating season. They nest once a year, from February to September. Females lay 3-5 eggs, which both parents, in turns, brood for a month. They take care of the young together, which become independent after two months.

• Thanks to their strong beak and speed, the grey heron, apart from fish and frogs, easily catches smaller mammals, birds and snakes.





SPOONBILLS

Eurasian Spoonbill Platalea leucorodia

shores covered in willows and reed
Life span: Over 28 years
CITES: Appendix II

PHOTO: IOVO MAMIII A

They are migratory birds. They usually reside in shallow water. They got their name because of the beak that is wider at the top so it reminds of a spoon. They sometimes glide, and for taking off they can use warm air currents. They nest in colonies, once a year, from April to May. Females lay 3-5 eggs, which both parents, in turns, brood for 25 days, and then they look after the young together. The young become independent at the end of the second month of their life.

• Spoonbills eat swinging their beak in the mud underwater, collecting all things edible there.

Family: Threskiomithidae Geographic range: South-

east Europe, central and

Habitat: Areas rich in water,

southern Asia

Roseate Spoonbill

Ajaia ajaja

greyish beak with dark spots.

They often reside and eat in the company of herons, ibises and other birds. They form pairs in the mating season. They nest in colonies, once a year. Males provide material for females, out of which they make a strong and deep nest. Females lay 2-4 eggs, which both parents, in turns, brood for 22-24 days. Then they both take care of the young together. They young get their feathers after five weeks, and become completely independent at the end of their second month.





Common Crane

Grus grus



Family: Gruidae Geographic range: Europe, Asia, northern Africa Habitat: Prairies, marshes, swamps Life span: Over 15 years

> They are migratory birds. They usually pass the winter in northern Africa. They are active both during the day and at night. They live in large flocks, except in spring, when formed pairs isolate, leaving only young, sexually immature birds in the flock. They make their nests in the bushes and reeds. Females lay 2-5 eggs. The incubation period lasts for about a month. Both parents look after the offsprings.

 A flock of cranes sometimes, in the period of moulting, consists of several thousand birds.

Black-crowned Crane

Balearica pavonina

Family: Gruidae Geographic range: Africa southward from Sahara Habitat: Savannas, swamps, marshes Life span: Over 15 years



• Feathers and the head of the blackcrowned crane are used in traditional medicine of some African people.

They are resident birds. They live in large flocks, except during the mating season, when formed pairs isolate and each one of them defends their own territory. They make their nests in the bushes. Females lay 2-5 eggs. The incubation period lasts for about a month. Both parents take care about the offsprings.





IBISES

HORNBILLS

Scarlet Ibis

Eudocimus ruber

of South America Habitat: Swamps, lagoons, river banks Life span: Up to 20 years in the wild, PHOTO: 7ORAN RAJIĆ up to 30 in artificially created conditions CITES: Appendix II

• In Ancient Egypt,

one type of ibis was

considered a sacred

PHOTO: JOVO MAMULA

Family: Threskiomithidae

Geographic range: Tropical regions

• At the river Orinoco once was spotted a colony of about 10000 scarlet ibises.

They are resident birds. They live in large colonies within which, during mating season, they form pairs. They make nests in trees close to water. They eat digging with their beak through the mud, collecting tiny invertebrates, insects and water plants. Females lay up to five eggs. The incubation period lasts about three weeks. The young become independent two and a half months after hatching.

 Hornbills have long eyelashes, so their eye reminds of that of a mammal.

Family: Bucerotidae

ward from Sahara

Habitat: Savannas

Leadbeater's Ground Hornbill Bucorvus leadbeateri

• They are unique among birds for their first two cervical vertebrae being joined.

They are resident birds. They live in pairs and flocks made of eight members. These birds are very careful and, when needed, determinedly defending their territory. They spend most of the time on the ground, and resting on trees. They nest in hollow stumps and tree trunks. Females lay two eggs that she broods for a month and a half. Only the dominant pair reproduces, while other, younger members help in collecting food and defending the nest.







Channel-billed Toucan

Ramphastos vitellinus

• The voice of toucans can be heard in the forest from 750 metres distance.

> Family: Ramphastidae Geographic range: Venezuela, Suriname, Guyana, northern Brazil Habitat: Mountain and hill forests, savannas Life span: 20-25 years CITES: Appendix II

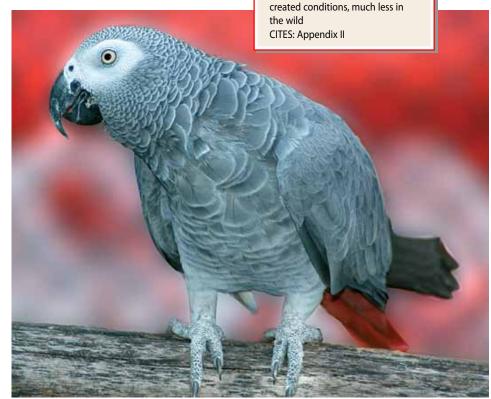
They live in flocks consisted of ten members. They reside in areas of an altitude of 3000 metres. This is one of the smaller toucan types. They nest in cavities, high up the trees. Females lay up to four eggs which both parents, in turns, brood for 16 days. The young are independent fifty days after hatching.



PHOTO: DRAGAN BOSNIĆ

Grey Parrot *Psittacus erithacus*

Family: Psittacidae Geographic range: Equatorial part of Africa Habitat: Mangrove forests, rainforests, savannas, plantations Life span: 60-80 years in artificially



They are resident birds. Outside the nesting season they live in flocks. Females lay 2-5 eggs, within the intervals of three days. The incubation lasts about a month. The young become independent after two and a half months.

• They are very intelligent. They can imitate different sounds better than any other parrot type, and they pronounce quite clearly the words they learn.



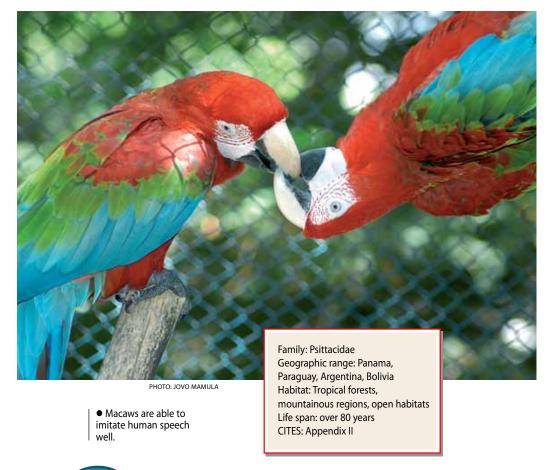


PARROTS

Green-winged Macaw

Ara chloroptera

They are resident birds. They live in pairs which stay together their entire lives, and outside the mating season they are in family groups or smaller flocks. Sometimes they also join other types of macaws. They nest in tree cavities or cracks in rocks. Females lay 2-4 eggs, which she broods for four weeks.



Blue-and-yellow Macaw Ara ararauna

Family: Psittacidae Geographic range: Panama, Paraguay, Bolivia, southern Brazil Habitat: forests close to water, swamps, savannas Life span: Over 80 years CITES: Appendix II





PARROTS

Palm Cockatoo

Probosciger aterrimus

PHOTO: JOVO MAMULA

• Palm cockatoos can glide, using air currents. They are a rare type of parrots that use branches as

• They are considered one of the biggest cockatoos. They are threatened to be extinct due to hunting and rainforest destruction.

Family: Psittacidae Geographic range: New Guinea, northeast Australia Habitat: Tropical rainforests Life span: More than 100 years in artificially created conditions CITES: Appendix I

> They live alone or in pairs. Sometimes they gather in flocks of seven members, but they eat and rest separately. They do not abandon the chosen territory. They often reside on trees, although they sometimes eat fruit and other products fallen off the trees. They use the same nest for years. Females lay one of two eggs, which, in turns, both parents brood for 30 days. Newborn offsprings are completely featherless and they require intensive parental care. They stay in the nest for almost four months.

• The Belgrade Zoo is one of the few zoos in the world where palm cockatoos are being successfully reproduced.

Goffin's Cockatoo

Cacatua goffini



Family: Psittacidae Geographic range: Tenimber islands in Indonesia Habitat: Forested areas, tropical rainforests Life span: About 80 years CITES: Appendix I

• Goffin's cockatoo is one of the smallest cockatoos.

They live in flocks of 20 members. Formed pairs are very stable, even though males can be often aggressive towards females. Females lay up to three eggs in tree cavities. The incubation lasts for four weeks. The nestlings are independent after three months.

• This endangered species of parrot is also being successfully reproduced in the Belgrade Zoo.







PARROTS

White-crested Cockatoo

Cacatua alba

Family: Psittacidae Geographic range: Maluku islands Habitat: Tropical rainforests Life span: Over 60 years CITES: Appendix II

They are resident birds. They live in pairs. During their search for food, they gather in small flocks. They are excellent fliers. They nest in tree cavities. Females lay two or three eggs, which both parents, in turns, brood for four weeks. Then they take care of the young together, and the young leave the nest after two-three months.



PHOTO: JOVO MAMULA



Family: Psittacidae Geographic range: Eastern parts of Australia Habitat: Forest, savannas, semideserts





PHOTO: MARTIN CANDIR

They live in pairs or small flocks. They are the most active early in the morning and in the evening. They nest from July to January. Females lay two or three eggs which both parents, in turns, brood for 30 days. The young get their feathers and leave the nest after two months, and they stay with their parents for six months.

• They have a very beautiful crest where colours are interwoven in harmony, from red, via pink, orange and yellow, to white at the very top.

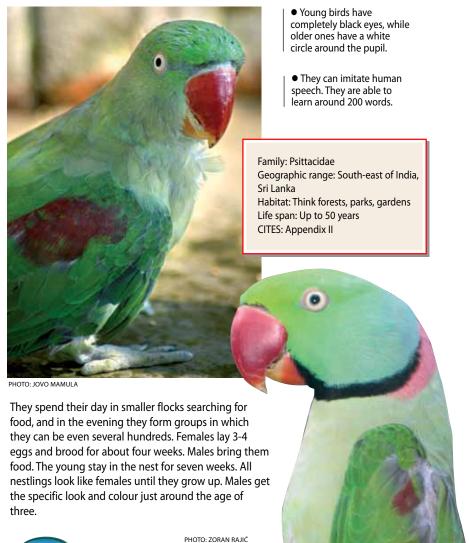
• They can be tamed and taught to imitate human speech, but unless they are pleased with everything they want, then they become aggressive.





Alexandrine Parakeet

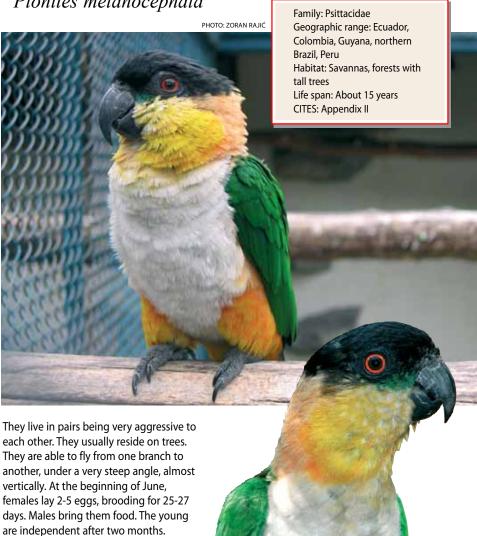
Psittacula eupatria



Black-headed Caique

PHOTO: JOVO MAMUL

Pionites melanocephala



Blue-fronted Amazon

Amazona aestiva

They are resident birds. They live in small flocks. During the mating season they form pairs. They are very noisy at flying. If they feel themselves in danger, they hide and warm other animals by a strong shrieking sound. They nest at the end of November. Females lay three eggs, brooding for 30 days. Both parents look after the young, which leave the nest after two months.



Patagonian Conure Cyanoliseus patagonus

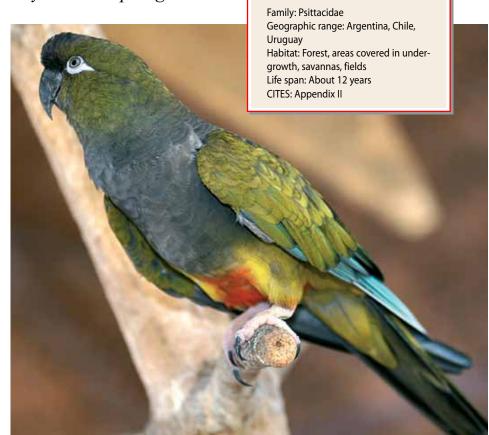


PHOTO: JOVO MAMULA

They are partial migrants. Outside the nesting season they live in flocks of up to 40 members. They nest in colonies, from December to March. Females lay 2-4 eggs, brooding 24-26 days. Both parents take care of the young, which get independent after two months.





Eclectus Parrot

Eclectus roratus



PHOTO: JOVO MAMULA

They are resident birds. They live in pairs or small flocks. They rest on trees. Their strong wings enable them a stable, but not exactly fast flight, gliding from time to time. They reside in places where the altitude is up to 1700 metres. They nest from September to December. Females lay two white eggs, brooding for four weeks. Males bring them food. The young stay in the nest for two months, and they separate from their parents completely just before the next nesting season.

 Males are green and females are red, so scientists used to, for a very long time, erroneously consider them different species.

Mute Swan

Cygnus olor

 This is the biggest European bird that can fly. Males can weigh up to 20 kilos.



They are resident birds. They live in groups, except in the mating season. The nesting pair vehemently defends its territory. Male and females stay together their entire life and every year they make a nest on the same territory. They nest once a year, from March to June. Females lay 5-8 eggs, brooding for about 5 weeks. Meanwhile, males are keeping guard. Both parents take care about the young, which become independent 120-150 days after hatching.

 Swans are extraordinary fliers and swimmers, but on land they are slow and clumsy.

Life span: Up to 20 years in the wild,

over 50 in artificially created

conditions





Black Swan

Cygnus atratus



They live in groups. They usually eat at dusk. They are not particularly bond to one territory. A pair stays together their whole life. They nest in June or July, in colonies. Male and female make the nest together, in the form of a hill, from grass and reeds, on the shore. Females lay 4-10 eggs, which both parents, in turns, brood for 5-6 weeks. The young spend the first year of

• On hatching, little swans are light grey. As they grow up, their feathers gradually go black.

Family: Anatidae

Geographic range: Australia,

New Zealand, Tasmania

PHOTO: IOVO MAMULA

Black-necked Swan

Cygnus melancoryphus



PHOTO: DRAGAN BOSNIĆ

They are very friendly, except during mating season (when they can be extremely aggressive). When the winter is coming in the South hemisphere, they migrate to Brazil and Paraguay. They make nests from fallen feathers, branches and leaves. Females lay 4-6 eggs. Both parents take care of the nest and the young.

• The number of these birds has decreased rapidly in the last decades, due to industrial pollution of rivers and lakes.



their lives with parents.



Hawaiian Goose

Branta sandwicensis



PHOTO: ZORAN RAJIĆ

They live in flocks. They form pairs during the mating season. Each pair defends its own territory. They nest from November to January. Females lay 3-6 eggs and brood for about a month. Males keep guard nearby. Both parents raise the young, which are completely feathered after twelve weeks.

• These geese were just about to be extinct. They have survived, though, only thanks to reproducing and zoos.

Family: Anatidae

origin, grass areas

Life span: About 20 years

Geographic range: Hawaii Islands Habitat: Rocky terrain of volcanic

> • There is another denomination of the Hawaiian goose: Nene.

Cackling Canada Goose Branta Canadensis minima



They are migrants. They live in large flocks. They gather in areas where there is enough food throughout the year. They nest once a year, in April or in May, when they stay on the chosen territory all the time. Females lay 2-9 eggs, which they brood for 30 days. Meanwhile, males keep the guard. The young are mobile right after hatching, and they become independent after 2 months.

Geographic range: North America, eastern Asia, northern Europe Habitat: River deltas, lakes, swamps,

Life span: Up to 24 years in the wild, up to 42 in artificially created conditions

CITES: Appendix I

PHOTO: ZORAN RAJIĆ





Red-breasted Goose Branta ruficollis

• They often make their nests close to habitats of grey falcons, since they confront potential attackers.



PHOTO: MARTIN CANDIR

They are migratory birds. They live in large flocks. They nest in July, once a year. Females lay 5-9 eggs and brood them for 23-25 days. If they are obliged to leave the nest, they cover the eggs with fluff and grass. Both parents raise the young, which get their feathers after a month.

Geographic range: From northern Siberia to the Black sea, Greece, Turkey Habitat: Tundras, swamps, marshes, river and lake banks, seashores Life span: Around 20 years CITES: Appendix II

Cape Barren Goose Cereopsis novaehollandiae

Family: Anatidae Geographic range: Southern Australia, Tasmania Habitat: Areas covered with grass, seashore, salty swamps Life span: Over 25 years



PHOTO: ZORAN RAJIĆ

They are resident birds. They live in large flocks, and form pairs during mating season. They usually set off in search for food at dawn, and come back to the shelter after the sunset. They nest in May and June. Females lay 3-6 eggs and broods them for about five weeks. Both parents take care of the young, which get all of their feathers two and a half months after hatching.





Andean Goose

Chloephaga melanoptera

 They live almost exclusively on land. They enter the water only if in danger.



They live in flocks, and the nesting period is spent in pairs. They reside in places with the altitude of 3300 metres. They are active during the day. Females lay 6-10 eggs and brood them for about a month. Meanwhile, males keep the guard. Both parents raise the young, which get all their feathers after 90 days.

Family: Anatidae Geographic range: Central Peru, Argentina Habitat: Wetland surrounded by grass, pastures Life span: Over 20 years

PHOTO: ZORAN RAJIĆ

Magellan Goose

Chloephaga picta

 Males have white feathers on their head and chest, while females have them in chestnut colour.

Family: Anatidae Geographic range: Falkland Islands, central Argentina Habitat: Areas covered with grass, coastal swamps Life span: Over 20 years They are migratory birds. They live in large flocks. They gather in places where there is enough food throughout the year. During the mating season they form pairs and each pair defends their own territory. They nest once a year, in April or May. Females lay 4-6 eggs, brooding for about a month. Meanwhile, males keep the guard. The young become independent two months after hatching.



PHOTO: ZORAN RAJIĆ



Mandarin Duck Aix galericulata

• Although Mandarin ducks are known for their habit to often change partners, the Chinese used to practice a wedding custom where they would give a pair of these birds to the newly wedded.



PHOTO: 70RAN RAJIĆ

Geographic range: Far east of Asia, south-east Siberia Habitat: Lakes, swamps, islands Life span: 5-6 years in the wild, up to 15 in artificially created conditions

They are partial migrants. They live in flocks, except during the mating season. During migrations, they fly over 800 kilometres a day. They nest from April to June. Females lay 9-12 eggs in tree cavities. They brood for about a month and then they raise the young all by themselves; and the young get their feathers after 45 days.

Carolina Duck

Aix sponsa

Family: Anatidae Geographic range: Most parts of USA, southern Canada, Cuba Habitat: Lakes, marshes, swamps, deciduous forests, islands Life span: 10-15 years in artificially created conditions

They are partial migrants. They live in flocks, and spend the nesting season in pairs. They are keen on being on trees. They are on the ground and in the water. They nest from the end of October till February. Females lay 6-8 eggs in tree cavities, and brood for about a month. They young get all their feathers two months after hatching.



PHOTO: MARTIN CANDIR



Ruddy Shelduck

Tadorna ferruginea

Family: Anatidae Geographic range: Europe, central and southern Asia, northern Asia, Ethiopia Habitat: Shallow lakes, marshes, swamps Life span: Up to 15 years

• Some pairs defend their territory throughout the whole year.

They are partial migrants. They live in flocks, and in the mating season they form pairs which defend their territory. Male and female stay together their entire life. They nest once a year. Females lay 8-16 eggs, brooding for about a month. The young become independent two months after hatching.



PHOTO: JOVO MAMULA

Himalayan Monal Lophophorus impejanus

eggs, brooding for up to 28 days.

Family: Phasianidae Geographic range: South side of the Himalaya

Habitat: Forests, areas with low vegetation,

mountain plateaus

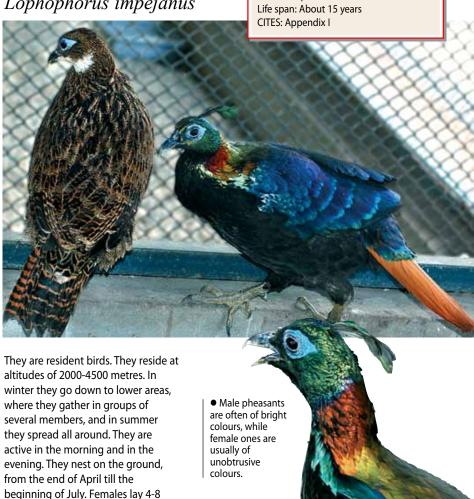


PHOTO: JOVO MAMULA

They are resident

birds. They

which they sometimes form

usually live in

groups of 10-30 members, within

permanent pairs. They reside at altitudes of 2500-4000 metres. They nest once a year, from April to June. Females usually lay 5-8 eggs, brooding for 24-28 days.

Temminck's Tragopan Tragopan temminckii

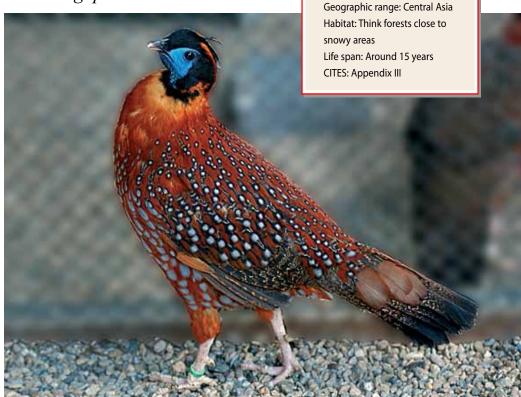


PHOTO: JOVO MAMULA

They live in pairs. They are active during the day. They nest from April to June, twice a year. Females lay 2-6 eggs. The incubation period lasts 25-28 days. Both parents participate in raising the young.

Unlike other pheasants, tragopans prefer to make the nest on a tree than on the ground.

Family: Phasianidae

Blue-Eared Pheasant

Crossoptilon auritum



PHOTO: JOVO MAMULA



mountainous regions with low

Life span: About 15 years

vegetation

Vulturine Guineafowl

Acryllium vulturinum

Family: Numididae Geographic range: Eastern Africa (Somalia, Ethiopia, Kenya) Habitat: Prairies, seaside areas, forest edges Life span: About 15 years



PHOTO: JOVO MAMULA

They are resident birds. They live in small groups. Only around the watering holes you can see large flocks. They reside at an altitude of 2700 metres. When in danger, they usually run, even though they can fly. They form pairs during the nesting season. Females lay 6-15 eggs. The incubation period lasts for about 30 days.

• They are very different by their looks from other members of this family. Their head looks like the one of a vulture, and the feathers on the neck are light blue.

Victoria Crowned Pigeon

 This is the biggest of all pigeon species.

Goura Victoria

They are resident birds. They live in flocks. They are active in the morning and in the afternoon. They mostly reside on land, walking slowly and eating fallen leaves. They fly hard and slowly, even when in danger. The pair stays together their whole life. The male chooses the spot and builds the nest. The female lays one egg that both parents, in turns, brood for four weeks. The young are born featherless, helpless and they survive thanks to the intense parental care. They get their feathers after four weeks, and become independent after 12-13 weeks.



Family: Columbidae Geographic range: North-east of New Guinea Habitat: Tropical rainforests, areas covered with bushes Life span: Around 15 years CITES: Appendix II





TURACOS

Hartlaub's Turaco Tauraco hartlaubi



PHOTO: JOVO MAMULA

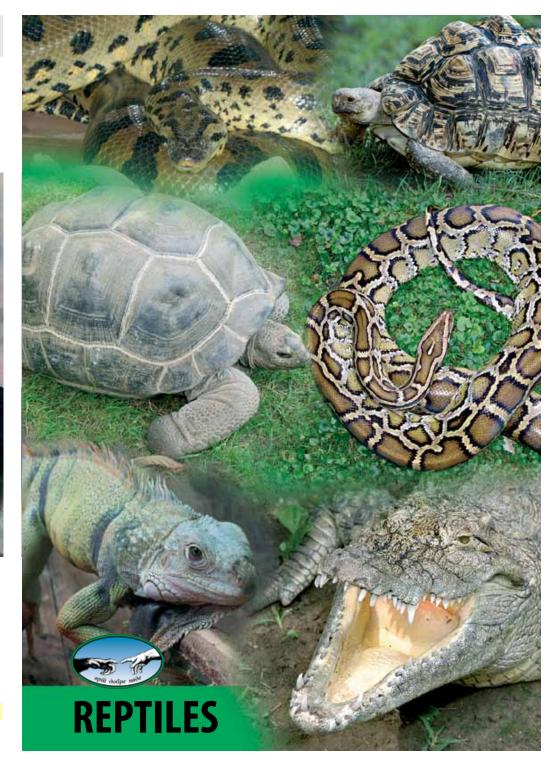
They are resident birds. They live in pairs. On courting, males strut before females and bring them food. They run fast and are good at climbing trees, thanks to the specific order of their toes. They nest twice a year, from April to January. Females lay two eggs. The incubation period lasts 16-20 days. The young are helpless after hatching, so they stay in the nest for a month more.

• Turacos, unique among the vertebrates, have a red pigment called turacine, with copper, and a red pigment, turacoverdine.

Family: Musophagidae

Habitat: Rainforests, forests, mountainous regions, parks,

Geographic range: Kenya, Tanzania,



SNAKES

Green **Anaconda**

Eunectes murinus

flows, swamps, marshes Life span: Up to 30 in artificially created conditions CITES: Appendix II • A six-metre-long anaconda weighs

Family: Boidae

Orinoco rivers

Geographic range: Tropical regions of

South America, basins of Amazon and

Habitat: Tropical rainforests, slow river

PHOTO: ZORAN RAJIĆ

more than a tenmetre-long python.

> They are the most massive, but not the largest snakes in the world. They live alone or in smaller groups. They are active at night. They are good swimmers. They kill their prey by clenching it. Despite their great appetite, they are able to survive without food for a long time. If a habitat dries out, they bury themselves in the mud. After the gravidity which lasts six or more months, depending on the temperature, females deliver 20-40 offsprings. Already after a couple of hours, the young enter the water by themselves and are able to take care of themselves.

These snakes grow all their life.

Boa Constrictor

Boa constrictor

They live alone, except during the mating season. They usually hunt at dusk and at night, but sometimes they search for prey even during the day. In warmer regions of South America, these constrictors are active throughout the entire year, while in colder regions, such as Peru and Argentina, for example, they spend longer periods curled up in abandoned habitats of other animals. Five to seven months after the successful mating, females deliver 20-60 offsprings.

Family: Boidae Geographic range: Central and South America Habitat: Rainforests Life span: Up to 30 years CITES: Appendix II

> Young snakes of this species are very active and keen on climbing trees, while adults spend more time on the ground.





SNAKES

Rainbow Boa

Epicrates cenchria

Family: Boidae

Geographic range: Central and South America Habitat: Wetland covered with grass and leaves, river and lake banks

Life span: Up to 25 years in artificially created



PHOTO: ZORAN RAJIĆ

These constrictors are usually active at night. They are good at climbing trees and rocks. They eat smaller rodents and birds; they kill them by clenching. Females deliver around thirty offsprings.

Burmese Python Python molurus

Family: Boidae Geographic range: Southern Asia: Pakistan, India, Sri Lanka, southern China Habitat: Wetland forests, rocky terrains close to water Life span: Up to 40 years

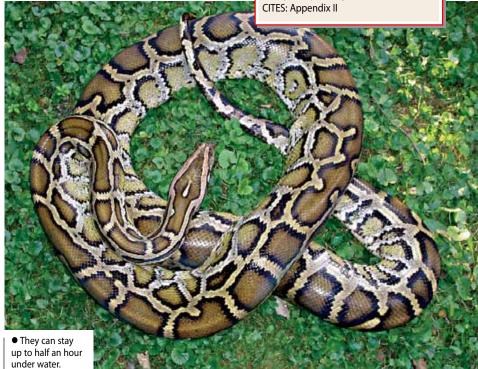


PHOTO: ZORAN RAJIĆ

They are nocturnal animals, likely to lead a solitary life. During the day they enjoy the sun or hide in caves, and at night they are on trees or in water, lurking they prey, and killing it by clenching. Females, depending on the age and health, lay 60-100 eggs, which she warms up and protects with her body. During the incubation period, which lasts 60-80 days, she often drinks only water.

- These pythons can be 4 to 4.5 metres long.
- In artificially created conditions, we can also find albino samples, known as golden pythons.





Kingsnake Lampropeltis getula



• There are around ten subspecies of kingsnakes.

They live solitary lives. They belong to constrictors which are active both during the day and at night. Females lay 12-25 eggs in the holes she makes underground, or under the roots of an old stump. The young are around 30 centimetres long upon birth, and as adults, they grow to be 1-1,5 metre long.

Family: Colubridae Geographic range: Southern parts of North America, north of Mexico Habitat: Prairies, semi-deserts, swamps Life span: Up to 25 years in artificially created conditions





PHOTO: ZORAN RAJIĆ

• These constrictors are

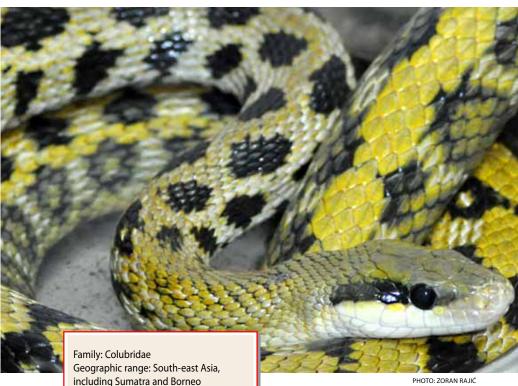
resistant to bites of some

sometimes even eat them.

venomous vipers. They

Taiwan Beauty Snake

Elaphe taeniura friesi



• Taiwan beauty snake is very popular among snake breeders, because it adapts very well to artificial conditions of life and it is easily tamed.

Habitat: Grass areas, jungles, caves and

Life span: Up to 25 years in artificially

rocky terrains close to rivers

created conditions

These snakes are excellent hunters. They climb trees and rocks. They are active both during the day and at night. Females lay 9-20 eggs whose incubation period lasts around two months. The young grow very fast and reach full maturity when they are 18 months old.





SNAKES

SNAKES

Western Diamondback Rattlesnake Crotalus atrox

PHOTO: ZORAN RAJIC

Family: Viperidae
Geographic range: South-west parts of
USA – from California to Arkansas,
northern part of Mexico
Habitat: Semi-deserts and deserts, grass

bite is fatal for animals and humans. They got their name due to their characteristic rattling as a warning, which they produce with the squamous excrescent at the end of their tail. In the summer, they spend the day being still, only to start hunting at dunk. They live alone, but during cold periods they gather in groups of around 30 snakes, which hidden in tunnels underground or cracks in rocks, fall into brumation.

They mate in spring. After gravidity, which lasts about five months, females deliver up to 25 offsprings.

• These snakes do not have the rattle right upon birth. It is formed later, from the loose, interconnected rings of hard skin, left after changing their skin.

Tropical Rattlesnake

Crotalus durissus

Family: Viperidae Geographic range: Most parts of South America (except Chile and Ecuador) Habitat: Grass areas, tropical savannas Life span: Up to 20 years in



These are dangerous venomous vipers. Their bite provokes paralysis of muscles, and temporary, even permanent, blindness. They are mostly active at night. They are not so mobile, and they wait for their prey in ambush. Females deliver about 20 live offsprings.

name of this snake species in Mayan

language is the "neckbreaker"







Timber Rattlesnake

Crotalus horridus

PHOTO: ZORAN RAJIĆ



They are dangerous venomous vipers, whose bite is fatal for animals and humans. In summer, pregnant females enjoy sunbathing in open rocky areas, while other females, as well as males, stay in the shadow of trees. Females deliver around 20 offsprings.

• Although less aggressive than other rattlesnakes, this snake, due to its size, fangs length and amount of venom it injects into a victim's body, belongs to the most dangerous kind of North American venomous vipers.

Life span: Over 20 years in

artificially created conditions

rocky terrains

Sahara Sand Viper

Family: Viperidae Geographic range: Sahara Habitat: Desert Life span: About 17 years

Cerastes vipera

They are venomous vipers, active at night. They lurk their prey hidden in the sand. They mate in April and May. In July or August, females lay 8-24 eggs. The young hatch after 4-7 weeks. An adult Sahara sand viper can be up to 60 centimetres long.

• When it gets upset, this snake curls up and, rubbing the scales, produces a specifically sharp sound.



PHOTO: BRANKO STEVANOVIĆ





African Bitis arietans **Puff Adder**



PHOTO: ZORAN RAJIĆ

They are venomous vipers, mostly active at night. They are excellent climbers and swimmers. They usually hunt by waiting for the prey in an ambush and attacking at extraordinary speed – regarding that, the African ruff adder belongs to the fastest snakes in the world. Females deliver up to 80 offsprings (world record is held by a viper from a zoo in Czech Republic – 150 offsprings).

Geographic range: Africa Habitat: Almost all terrain types, except deserts and tropical rainforests Life span: Over 20 years in artificially created conditions

• Most people who die from snake bites in Africa, die exactly from the venom of these snakes.

West African Gaboon Viper

Bitis gabonica rhinoceros

They are venomous vipers, active mostly at night. They move very little, and slowly, waiting for their prey in an ambush. Unlike many other venomous vipers, they are not very aggressive, so it has happened before that they did not bite humans when being in direct contact. Their venom is not one of the strongest snake venoms but, considering the amount of it injected in a victim's body, the bite is usually lethal for humans. Before the discoveries of America and Australia, the West African gaboon viper was considered the most lethal viper in the world. Females deliver 50-60 offsprings, around 30 centimetres long.

- This is the most massive venomous viper.
- It has the longest fangs among venomous vipers – they can be six centimetres long.

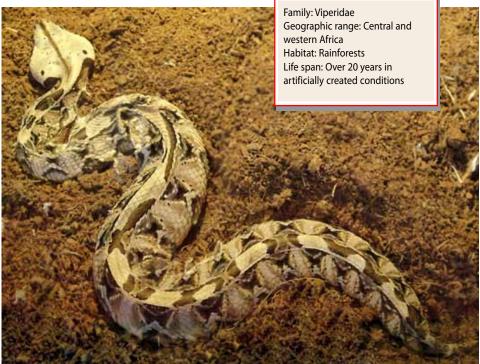


PHOTO: VUK BOJOVIĆ





SNAKES

Horned Viper

 They also reside at an altitude of 2500 metres.

Vipera ammodytes

• These are the most dangerous snakes in our region.



PHOTO: ZORAN RAJIĆ

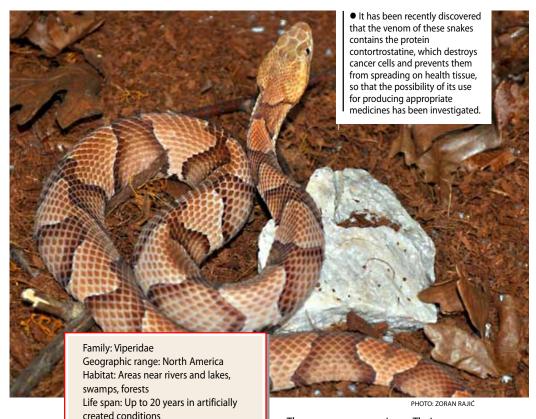
Family: Viperidae Geographic range: South and south-east Europe, south-west Asia Habitat: Mountain ranges, dry, rocky terrains covered in bushes, meadows, forests Life span: Around 15 years

They are mostly active at night. These venomous vipers are good climbers. They like the heat. They do not tend to change their habitat. They have "little horns" at the top of their muzzle. Females deliver up to 12 offsprings. An adult horned viper can be even one metre long.

Copperhead Snake

Agkistrodon contortrix

• These pit vipers got their name for their pits with thermoreceptors which help these snakes to register even the slightest change in temperature. The pits are placed near the nostrils.



They are venomous vipers. Their behaviour largely depends on

weather conditions: in summertime they are more active at night. As well as other "pit vipers" (such as rattlesnakes), they move very little and usually wait for their prey in an ambush. Their bite is less lethal for humans than bites of other North American vipers. Females deliver up to 20 offsprings.





LIZARDS

Monocled Cobra

Naja kaouthia

• For this cobra, which owes its name to the characteristic pattern on the back, there is only one danger in the wild, mongoose – it is the only one that can grab cobra on its neck quickly and avoid cobra's bite.



They are venomous vipers. They are mostly active during the day. Females lay 25-40 eggs. The incubation lasts for about 2 months. The young are active right upon hatching and they can give lethal bites. They reach full maturity at the age of three.

Green Iguana

Iguana iguana

Family: Iguanidae Geographic range: Central America, the Caribbean, most parts of South America Habitat: Tropical rainforests, close to rivers and streams Life span: Up to 15 years

CITES: Appendix II

They live alone or in smaller groups. They are active during the day. Thanks to its light green colour, they successfully hide in treetops. Adult iguanas are herbivores but the young also eat tiny invertebrates. Once a year females lay 25-60 eggs in a hole, made in the ground or sand, which is then closed and disguised. The incubation lasts three months. They can be two metres long and weighing up to four kilos.



PHOTO: ZORAN RAJIĆ



White-throated **Monitor**

Varanus albigularis

Life span: Over 10 years in artificially created conditions CITES: Appendix II

• There is a widely-spread belief in Uganda that the blood of these animals cures AIDS.

They are the largest among African lizards, and the second largest (Nile monitors are larger, but also lighter than white-throated). They dig holes in the ground and hide under the rocks. They often occupy holes dug by other animals. They move fast and climb well. They have a very strong bite. When hunting, as well as when fighting, they use their tail which gives heavy blows. Females lay 20-60 eggs. The incubation period lasts about 4 months.

Family: Varanidae

Africa

Geographic range: Southern

Habitat: Savannas, areas with

low vegetation, river banks

Nile Monitor

Varanus niloticus

• Monitors are the favourite species among the lizard fans, even though they are extremely unsuitable for keeping in house conditions: they can be very aggressive, both to other animals and to people. They bite is poisonous.



PHOTO: ZORAN RAJIĆ

Geographic range: Most parts of Africa (almost all areas rich in water and vegetation) Habitat: Savannas, forests, river and

lake banks

Life span: Over 10 years in artificially created conditions

CITES: Appendix II

They like sunbathing on tree trunks and rocks. They are very strong and able to move fast and climb, skilfully using their claws and tail. Females lay 20-60 eggs. The incubation lasts up to 100 days.





Spiny-tailed Lizard

Uromastyx acanthinura

Family: Agamidae

• The colour of the body of these lizards depends on the temperature of the surrounding. During cold periods, when they hibernate, these lizards are often grey or light brown; when the body activity is increased, it turns into red, orange, yellow or green colour.



Nile Crocodile

Crocodylus niloticus

• The Nile crocodiles can be around 4-4,5 metres long, hardly ever longer than that.



They live alone or in small groups. They are good hunters. They sneak up to the prey in silence, grab it and drag into the water. They defend their territory from intruders, especially during the mating season. Females lay 25-95 eggs in deep holes and covered them with sand. The incubation period lasts up to 100 days, after which the mother opens the nest and carries the young to the water in her mouth.

• Out of all the reptiles, crocodiles are genetically closest to birds.

marshes

Life span: 70-100 years

CITES: Appendix I

American Alligator

swamps Alligator mississippiensis Life span: Over 50 years CITES: Appendix II They live alone, sometimes in groups. They can drag a deer, or even a cow, into the water and drown it. They dig holes, sometimes very deep ones, which they use as shelters. They mate in April and May. Females lay 25-60 eggs in the nest on the bank, covering it with branches and leaves, making a mound up to one metre high. The young develop thanks to the warmth produced by decaying of leaves that the mother left on top of the nest. The incubation lasts for 60-90 days. • These animals can be even 4,5 metres long. • The oldest resident of the Belgrade Zoo is the American alligator Muja that has been here even since its opening, which means that he is not more than 75 years old.

Family: Alligatoridae

of USA

Geographic range: South-east part

Habitat: Lakes, rivers, marshes,

PHOTO: ZORAN RAJIĆ

Leopard Tortoise

Geochelone pardalis

They are active throughout the whole year. They do not stand moist and cold. They like the sun, but they avoid excessive heat. Females lay up to 30 eggs in a hole that she later covers. The incubation can be longer than three months, depending on the temperature. When they hatch, the young are up to five centimetres long. They represent an easy prey for vultures until their shells do not form and become harder.

- The record sample of this species was weighing 47 kilos and its shell was more than 67 centimetres long.
- It is dangerous to feed them with meat products, because it leads to development disorders and can cause various diseases.

Family: Testudinidae Geographic range: Central and eastern Africa Habitat: Deserts, semi-deserts, savannas Life span: Up to 150 years CITES: Appendix II





TORTOISES

Hermann's Tortoise

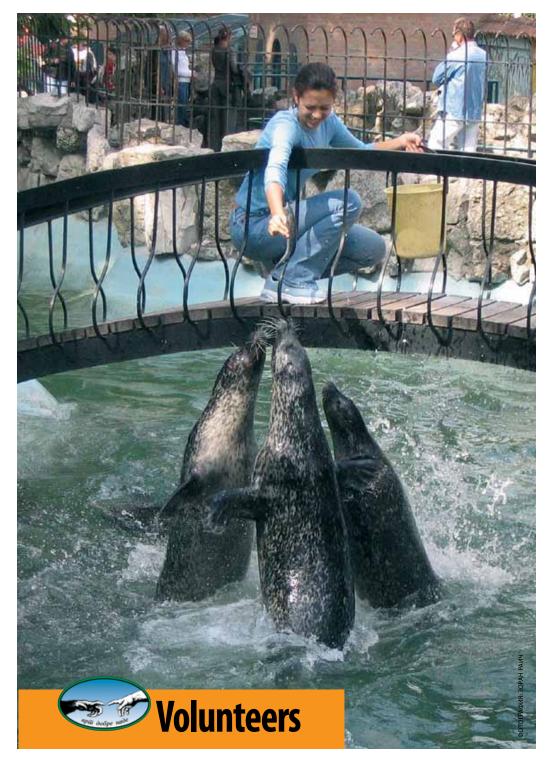
Testudo hermanni

Family: Testudinidae Geographic range: Southern Europe Habitat: Forests, plains, dry and sandy areas, vineyards Life span: Up to 100 years CITES: Appendix II



These tortoises are very active from spring to autumn. In October, hidden under ground and leaves, they hibernate. They wake up in March. At the end of spring, females lay 4-5 eggs in the hole dug in the ground. Young tortoises hatch at the beginning of August.

• It is believed that the blood of this long-living animal cures people from the most serious illnesses. Due to this pitiful fallacy, Hermann's tortoises are in danger of overcatching.





VOLUNTEERS





It would all be a lot harder without you. Thank you for your cooperation!



PHOTO: ZORAN RAJIĆ

VOLUNTEERS











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ФОТОГРАФИЯ: ГРА ПИМИР ВИШНИ

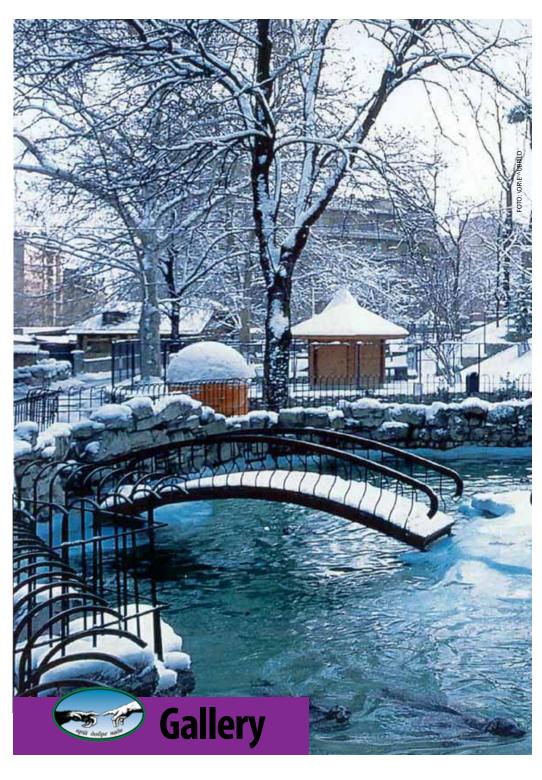












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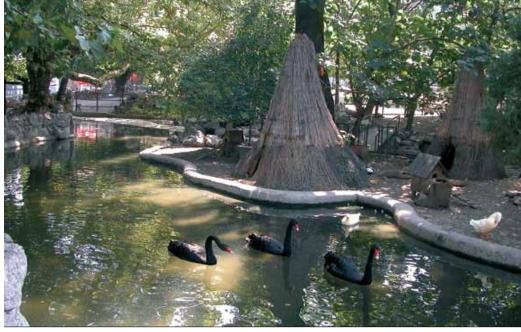


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GALLERY

GALLERY



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Editors

Mr Vukosav-Vuk Bojović Branko Stevanović Dragan Latinović Zoran Rajić

Chief Editor Mr Vukosav-Vuk Bojović

> *Proofreading* Vesna R. Radović

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