

Cases of animal escapes from zoos (Subject of area: Zoo animals)

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**ABSTRACT**

*The zoo area, zoo park, menagerie or simply the zoo is a series of spaces with constructed facilities, in which the animals are allowed to reproduce. We set the following goal: study the cases of animal escapes from Bulgarian zoos. The research was conducted within the territory of the zoo in the city of Stara Zagora for the period from 20 May 2005 to 20 February 2015. Escapes of animals beyond the enclosures occur in all zoos for various reasons. The Stara Zagora zoo is no exception. This case made it clear to us that the animals take advantage of the imperfections of the enclosures. This is proof of the active thought processes in animals and the way the mistakes done by people while placing the fences can be taken advantage of.*

**Key words:** Zoo animals, Escape.

## INTRODUCTION

One of the main problems of contemporary society is the issue of the future preservation of life on our planet. As a result of the fast flourishing of civilization, the ecological balance within nature was disrupted, creating a number of economic and social problems before humanity (**Ivanova, 2014**).

Positive attitude towards nature should be taught from early childhood and one of the ways to do this is by visiting zoos (**Vlaeva, 2015**), which is in accordance with Directive 1999/22/EC by the EU dated 19 March 1999 (For the increase of the role of zoos in the preservation of species and their educational function) (**European coalition by the Born Free Foundation, 2011**).

The zoo area, zoo park, menagerie or simply the zoo is a series of spaces with constructed facilities (the animals are confined within enclosures and displayed to the public), in which the animals are allowed to reproduce (**Pandzhurova, 2014**).

According to the statistics of the World Association of Zoos and Aquariums (WAZA), as of 2015 there are more than 1300 zoos in the world, as well as numerous mini-zoos and hundreds of private collections (**World Association of Zoos and Aquariums, 2000**). They have been built over different periods and have different purpose and area. At zoos, visitors have the opportunity to see some of the most interesting animals on the planet within an environment close to their natural habitat (**Vlaeva, 2015**).

At the same time, in more than 77% of the zoos there have been reports of major animal escapes, with 50% of the escapes being categorized as dangerous. In 70% of the cases, there was an injured or killed employee due to the contact between men and animals. In 27% of the escapes there were reports of injured or killed civilians as a result of such a contact (**Mihaylov, 2015**).

In Zanesville, Ohio, the police has shot nearly 50 wild animals (including 18 rare Bengal tigers and 17 lions) after the owner of the Maxingham animal park opened all the cages and committed suicide (**Jarman et al., 2011**).

Two escape attempts have been reported by the San Francisco zoo for the four-year-old Siberian tigress named Tatyana. During the first accident, one of the animal's caretakers was bitten on the hands during feeding. During the second accident, one man was killed and two other were wounded after Tatyana jumped over the protective fence, before the policemen could intervene and shoot the tigress (**Piller and Reiterman, 2007**).

On April 11, 2014, chimpanzees escaped from their cage at the Kansas City Zoo. One of them used a tree log leaned against the wall as a ladder, in order to go over the fence (**Almasy, 2014**).

Dramatic shots were recorded during the escape of five chimpanzees that used the tree branches as a ladder. The primates mingle with 2500 tourists at the Hanover Zoo and caused terror and panic. Before the visitors could be evacuated, one five-year-old girl and an elderly man were hurt (**Hall, 2012**).

A sleeping guard was the cause for the escape three rhinoceroses through the main entrance of the Gan Safari Park in Tel Aviv, Israel (**Macfarlane, 2015**).

At the Los Angeles zoo, there were escapes of zebras, chimpanzees, kangaroos and antelopes. The Los Angeles Times reported that, within a period of half a decade, at least 35 animals had escaped from the zoo, including the scandalous gorilla Evelyn. For this period Evelyn escaped from her enclosure four or five times. She used various escape "techniques" - once by climbing onto the back of another gorilla and from there - onto the enclosure wall. In another case, she used a ladder of vines that grew on the wall, in order to get out of the exposition yard (**Sanburn, 2013**).

Three wolves were shot after an escape from their enclosure due to a fallen fence at the Colchester zoo, Essex. The wolves were shot by the caretakers after an eight-hour hunt, which included armed policemen and a helicopter (**Molloy, 2013**).

In the mid-1960's, a decision was taken in Bulgaria for the construction of zoos and animal parks in various cities throughout the country. Bulgarian zoos have been built before 1989, using outdated concepts, which necessitated reconstructions and renovations of the facilities or the construction of new habitats for the animals, according to a statement by the Ministry of the Environment and Waters. The zoos in Plovdiv, Kyustendil, Karnobat and Ruse were closed down due to the lack of adequate conditions for keeping animals. Some zoos succeeded, through the efforts of their

staff, in achieving good results, despite the lack of funds. An example for this is the Stara Zagora zoo, which offers relatively good habitats for lions, lynxes, jackals and wolves. In Pazardzhik, there are very good habitats for the cloven hoof animals, while in Sofia there is a high-level educational center (Pandzhurova, 2014).

The dangers of animal escapes from zoos to society and the lack of systematic information for such cases in Bulgaria urged us to conduct a study, in which we set the following goal: study the cases of animal escapes from Bulgarian zoos.

#### **MATERIAL AND METHODS**

##### **Material:**

The study was conducted within the territory of the zoo in the city of Stara Zagora for the period from 20 May 2005 to 20 February 2015. Used materials included personal archives, zoo specialists' opinions, and publications from the available references.

##### **Methods:**

1. Method of interviewing officials.
2. Photographic method – photographic documentation of sites within the zoo.

#### **RESULTS AND DISCUSSION**

Escapes of animals beyond the enclosures occur in all zoos for various reasons (Dragiev, 2014). The Stara Zagora zoo is no exception. In the spring of 2005, the she-wolf Gergana escaped from her cage. The new wolf cage has an area of 260 m<sup>2</sup>, which is fully sufficient in accordance with the requirements of Regulation No. 6 of the MEW. A roof was not planned while constructing the enclosure, and the height of the fence was 220 cm. Above it, there were three rows of barbed wire with a height of 50 cm. After being moved to the new cage, the wolves Gergana and Mars spent nearly three months inside without incidents.

During the second half of August 2005, at about 16 hours, a caretaker reported to the zoo Director that the she-wolf was outside the enclosure and waling around it. The visitors were evacuated outside the territory of the zoo and access was restricted. The enclosure was immediately inspected for a breach in the fence or a hole beneath the foundation, yet none were found. The male wolf had remained inside the cage while the female walked around its northern side. An attempt was made to sedate the she-wolf, yet the critical distance was about 50 m and this did not allow for an efficient shot with the Vario pneumatic pistol.

When an attempt was made to shorten the distance, the she-wolf would retreat into the thick shrubbery around the cage. The she-wolf's movements around the cage indicated that she was keeping close to her territory. Actions that could have driven the she-wolf away from the zoo were to be avoided at all costs. After the male wolf was sedated and placed within a transport cage, the enclosure's door was opened. It was tied with a 50-meter-long rope and a caretaker was to shut it with the rope after the she-wolf entered the enclosure. About ten minutes later, the she-wolf, which had retreated during the actions taken to sedate the male wolf, showed up. She had raised her head, sniffed the air for a few seconds, and then carefully entered the enclosure through the opened door. The door was then shut behind her. The caretakers then went in to release the male wolf and remove the transport cage. While they were taking the transport cage out, the she-wolf ran to the northeastern corner of the cage and jumped at a height of about a meter and a half, with her legs touching the netting of the fence. Instead of falling down (the anatomical specifics of wolves do not give them an advantage while climbing, supporting their backs against the upright net), Gergana showed her head above the net. Her back, resting against the dividing net, gave her support, and the toes were inserted between the openings in the net. For a strong animal like her, it was not a problem to force her way up along the net with her legs and overcome its height. The barbed wire above the net did not deter her in any way. Her head passed between the two rows of barbed wire, followed by the shoulders, which was injured as well. The she-wolf landed outside the cage fence and disappeared into the shrubs.

Afterwards, the still sedated Mars was inserted into the transport cage, the enclosure door was opened and we awaited the she-wolf appearance once again. She was considerably more cautious, yet entered the cage again. The problem was the fence's height, yet there was no way to secure the cage at

that time. A decision was taken to sedate the she-wolf and move the animals to their old cage (Fig. 1), until the necessary repairs were conducted on the new enclosure (Fig. 2).



**Fig. 1.** The wolves old cage, which has a roof.



**Fig. 2.** The new wolf cage that the she-wolf escaped from.

The Director of the zoo shot a tranquilizing dart into the she-wolf's thigh. She immediately grabbed it with her teeth and pulled it out of her limb. It took six to ten minutes before the sedation agent Zoletil started working. The she-wolf rushed once again towards the fence and this time overcame it from the opposite corner of the enclosure. She literally jumped from the fence onto two of the caretakers who were standing around the cage in order to keep her inside until the sedative would have its full effect. Her teeth clacked in the air as the caretakers attempted to catch her, she landed and ran towards the forest. It became dark. The male wolf was left within the transport cage, and the enclosure door was left open so that the she-wolf would go inside. An examination of the dart revealed that only half of the anesthetic had been injected. Falling asleep had been unlikely. Considering the dangerous situation of a wild animal leaving the boundaries of the zoo, and her unpredictable reactions when encountering people within an urban environment, three mobile hunter teams were formed. It was decided that the animal would be shot if it turned out that sedating her was impossible and that she posed a threat. All three teams were equipped with a pneumatic pistol and pre-made remote darts. After nearly a whole night of fruitless searching for the she-wolf within the area of the zoo, the hunt was stopped at 05:30 the next day.

Early the next morning, two men reported at the zoo gate that they had seen a wolf at the bus yard. Talking to the revealed that a wolf had been seen above the stadium. They were certain it was a



wolf, since they were regular zoo visitors and knew the she-wolf well. As they told about their sighting, they reached the site where they had seen her. The she-wolf was lying calmly on the cypress leaf turf, about a meter from the road threshold. The shot was taken from the car's open window, in order to avoid scaring her away.

It was important to track her down after the shot because it would have been hard to find her in the bushes. After about three hundred meters in the forest, she started showing signs that the sedative was working. She fell on the asphalt-covered alleyway leading to the hut (Fig. 3).



**Fig. 3.** The sedated she-wolf.

Following this incident, the height of the wolf cage fence was increased by 1 meter. It is now 2.70 m high, with an internal wire enclosure. The cage's corners were additionally secured with a net protruding 1 meter inward.

This case made it clear to us that the animals take advantage of the imperfections of the enclosures. The insufficient height of the fence allowed the she-wolf to overcome it, as in the case with the escaped chimpanzees in Kansas City and Hanover. This is proof of the active thought processes in animals and the way the mistakes done by people while placing the fences can be taken advantage of.

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