

# THE BIRTH OF A *LYCAON PICTUS* L. IN THE ZOOLOGICAL GARDEN OF WARSZAWA

BY

DR. J. ZABINSKI

Warszawa

It is notorious that the lycaon, the negro evil of plains, while by no means a declining race in Africa, has always been rare in Zoological Gardens. The reasons of this are twofold and closely interrelated. The animal presented some difficulties to rearing, readily perished and withal was not subject to reproduction in captivity and so there were no new born animals available for exchange between Zoological Gardens.

Causes for the non resistance of lycaons under conditions of Europe are to be found less in climate differences between Europe and Africa — for the habitat of these plain animals to the South reaches far beyond the tropic of Capricorn — and so lycaons should not be excessively susceptible to the European climate and especially to temperature changes like are tropical apes, chimpanzees and gorillas. We do not mean that it is possible particularly in east central Europe to risk the keeping of lycaons in winter without heated housing, yet, the final statement in the matter could be not issued until Zoological Gardens design housing accomodations adequate for this kind of animal from biologic point of view.

A cage typical of an average 19th century Zoological Garden could be biologically adequate for small birds, monkeys of medium and small size i.e. for tree dwellers while for cats (Carnivora) a cage is even in principle and shape an antibiological housing place. Large cats adapted themselves quite well to the cage enclosure, lions and tigers because naturally lazy and tree dwelling cats, leopards, pumas or lynxes because making use of all levels of the cage. While other carnivora, earth surface dwellers, lycaons, cheetahs, servals submit to a cage enclosure with difficulty since the lack of possibility of motion is seemingly the major reason to consider them so difficult to keep in Zoological Gardens as motion is a peculiarity of the behaviour of their kind.

HAGENBECK'S method providing large runs for animals substancially im-

proved the spacial treatment of most attractive animals in Zoological Gardens. Still Zoological Gardens followed the major principle of pleasing the public and being guided by their fancy rather than heeding the "fancies" or rather the needs of animals kept in captivity. Notwithstanding the trend to spacial enhancement of Zoological Gardens initiated by HAGENBECK's revolution Zoological Gardens are still deficient in space.

It is not to be wondered at that under these conditions showy animals, lions, tigers, bears, giraffes and larger antelopes, get luxurious enclosures while animals of smaller size which are lost out of sight in larger enclosures have to be contented with square cages biologically inadequate and occasioning their early death.

I must quote from memory data concerning the breeding of some lycaons in the Warszawa Zoological Garden during the three last prewar years and the case of a female having born twice cubs as a report on the matter prepared for 'Der Zoologische Garten' in May 1939 could not be sent to Leipzig for political reasons and afterwards the manuscript of this report along with all records of the Warszawa Zoological Garden got ruined by Germans after the seizure of Warszawa. Nevertheless, as in the history of Zoological Gardens there seems to be only one recorded case of a lycaon born in a Zoological Garden, notably about 1925 in the Wroclaw Zoo from a female arrived as in-cub it appears that data obtained from our Zoo could at any rate be of interest to technicians.

As far as I remember I got the two first lycaons in late 1936, probably in August or September. They were young, I suppose not more than yearlings and both males. Having had no experience with these animals I placed them in the same housing as other carnivora, where they had at the disposal an inside cage of  $3.5 \times 2.5$  and a little larger outside run cage. Preparing for lycaons adequate housing arrangement had to be postponed till late spring as during winter I intended to get acquainted with breeding and feeding conditions suitable for the animals.

They got horse meat, moreover, I often substituted slaughter house offals by calf embryos which I got in rather large quantity from the city slaughter house. I soon introduced morning meals of thin grits boiled with broth and an addition of potatoes, carrots, fat and even green vegetables. Lycaons ate eagerly and much and during two first months of breeding they showed no signs of particular trouble. Yet, in early November with the coming of late autumn distempers and colds both animals fell ill, simultaneously, with symptoms of typical cold with profuse discharge from the nose, apathy, lack of appetite and peculiar bristling of hair. The animals were too wild to try tormenting them with catching and measuring the temperature, yet, all exterior symptoms showed it to be above normal. Since lions' house was a temporary wood building inadequately heated it was difficult to keep there a uniform

temperature, it varied from 10 to 18 centigrades above zero, so oscillating over 8 centigrades. Moreover, to avoid ammoniate exhalations for diseased animals I moved lycaons to the monkeys' house where the temperature was steadily kept at 20 centigrades with oscillation of 2 centigrades, while animals enclosure was reduced to a small cage without exterior run.

During more than 4 weeks up till Christmas there was no improvement in the health of lycaons. They ate little, grew lean and weakened visibly. Veterinary treatment had no effect, yet, I have not permitted to use any drastic measures like inoculations and medicine given by force. New symptoms were added to the forementioned: a lasting diarrhea provoking a further weakening of animals which led to such a state that they could hardly rise from their litter and if they were raised by force they made only few staggering steps.

Having given up all hopes of maintaining lycaons alive I took decision to revert to drastic and rather risky means. Animals harnessed with usual dog's braces were led on leashes for a walk in the garden in spite of an outdoor temperature of 2 centigrades above zero and spots of melting snow on the ground. Out of the cage, where the temperature was of 20 centi. lycaons stayed for some 15 minutes in the hall at the temperature of 10 centi. A breath of fresh air obviously enlivened lycaons. I watched them at close quarters all the time while the attendant holding the leash was ordered not to lead them forcibly but to allow to be led by them. I saw the first most characteristic sign when they turned to a mire puddle of liquid horse excretions with melted snow and greedily licked the muck and stopped only long enough to find another similar puddle where they drunk to satiety.

It is worth noting that they passed by other puddles of clear water showing no interest in them. Then they went to the end of the Garden and stopped at the dust heap fighting over a dug out bone. The first walk lasted some half hour.

In the evening the animals ate their meat with more appetite. Next morning they seemed more animated and above all the diarrhea stopped instantaneously, excretions were still not quite solid and sticky but not liquid as before.

Since then animals were taken for daily walks and stayed longer every day: one hour and then two hours.

The behaviour of animals was more or less similar, the improvement of health conditions was rapidly progressing. The third day after the first walk excretions were of normal consistency, animals showed the former vividness and savageness.

Walks on leashes presented more and more difficulty. I prepared a compound about 40 m long and 10 m wide encircled by a moat with low concrete rocks. So animals could use at will the dry stony ground or the turf. Some water from melted snow collected in the concrete moat. A shelter of 4 × 4 m size was heated to the temperature of 18 centigrades above zero. To this

enclosure lycaons were transported together with two Dane bitches, 8 months of age, to keep them company and to experiment cross breeding. Animals got used to one another, were on friendly terms, yet, during 4 months of common life, they showed no sign of sexual interest. All the time there were no symptoms of disease, appetite, behaviour and excretions were normal.

In late April 1937 the Zoo animals were subject to a severe fit of mouth and foot disease. We lost then 6 lion cubs, 2 black panthers, 1 leopard. The disease affected young animals only. Both Danes fell ill despite isolation and after a week both lycaons passed within 3 days.

New lycaons, this time a female and a male, were bought at the same firm Gräber the same year in July. They were brought to the same compound and fed according the established pattern. In October there were noted instances of covering. On January 3, 1938, the female bore 3 blind cubs after for 2 weeks being separated from the male behind a compact board partition with a chink secured to peep in.

Three weeks before the end of the gestation period the diet of the female underwent modifications as far as a quarter to half a liter of milk was added to grits. Milk was also given to her all the duration of the nursing period i.e. some 3 months. Immediately after the birth the cubs showed already tri-coloured hair covering peculiar for lycaons, but most distinct were white and brownish grey spots, while most characteristic tawny brown spots are rather indistinct in cubs and are plainly seen only since 4 months of age. Like in all Canidae cub's ears are flabby small and hanging; only when already 3 months old their ears stand upright.

Despite the nursing of cubs performed as usually in Carnivora one of them, visibly weaker, thrived remarkably worse than its brother and sister. Nevertheless I decided to leave it at its mother's and to risk its life rather than provoke the desistance of the mother from nursing the cubs in case she was alarmed by any medical treatment. The lean cub died at the age of 6 weeks, while others thrived quite well. In late March on sunny days I let them out on the run withal I brought in the male, which showed no hostile intentions toward the cubs. It is opportune to draw attention to some peculiarities of games of old and young and among young. Somersaults, faddlings usual with all Carnivora were intermingled with mutual biting sometimes so severe that playmates bled profusely from deep but easily healed wounds. I shall take up this matter once more.

In copulation and mating periods, however, lycaons do not demonstrate pretences of hatred, the way of meeting the mate with gaping jaws and croaking and biting fits shown by the female and the male of *Hyaena striata*.

The next 3 cubs litter occurred in late November 1938. The litter was less successful than the previous one. It is true the female lay in the lodge and made no hostile or even unconcern demonstrations towards cubs, licked them

now and then and it seemed the cubs sucked the mother, but perhaps she had no milk or for some other reason out of 3 cubs only one survived in the course of two days. I took the survivor to be nursed by a bitch.

I had an experienced bitch which had already nursed lions and hyenas without apparent difficulties. This time, however, the dog showed a distinct unwillingness. Despite the usual treatment preceding the bringing in of a strange suckling, the taking away of her own cubs, holding back of food, the usually obedient bitch growled at the stranger and twice tried to seize him with her teeth provoking a large inflation on the suckling's head, which receded after some 7 days.

The lycaon cub was not too lean, sucked the foster mother eagerly and was apparently active and lively despite the bitch not facilitating the sucking procedure. She has not even touched the lycaon with her tongue while she carefully licked her own puppy and had previously licked steadily nursed hyenas and lions without demonstrations of disgust.

So to induce the lycaon cub for discharging urine and excretions we had to rub its belly and groin with a sponge or a moist finger.

The lycaon thrived well and after 4 weeks ran over the whole study room fooling with its foster brother. Still sucking the bitch the lycaon began to feed from the dog's dish greedily seizing the meat but withal consuming some grits.

When 3 months old it was completely separated from the bitch and thrived at considerable rate. Weight data were taken every 10 days but are unluckily lost. The cub stood about 30 cm high at the shoulder and its diet consisted of 0.75 kg raw meat and about 1 liter of thin grits with meat.

The lycaon was kept all the time in my study room, which got filled with a peculiar unusually pungent lycaon smell.

Making observations I noted two facts worth mentioning:

1. The extraordinary greediness of lycaons when being given food. Despite lack of rivals the lycaon consumed food with exceeding covetousness taking a menacing attitude as soon as a hand was stretched out to the dish.
2. Besides I could note the excessive endurance of the oesophagus of the animal when the cub broke a glass funnel and swallowed 4 large sharp edged pieces of glass of some 50 g. The pieces passed along the oesophagus within 24 hours, provoking apathy of the animal and lack of appetite, which lasted only when the glass pieces were in and withdrew immediately with the discharging of pieces with excretions; no other disease symptoms were manifest.

Moreover, I could observe in my lycaon a thoroughly doglike affection for her master. Up to 6 months I attended her myself only since this age I gave her over to the care of an attendant while not bringing her together with other lycaons on the run. I tried to apply the training method used for dogs i.e. the

lycaon was fastened to a chain with a ring sliding along a wire while she was taken for walks on a leash twice daily. Despite this practice she never got used to the leash, to keep her going was a trying experience, she pull at the leash vigorously hauling and tearing out in all directions. Yet, towards me she showed an unrelenting affection and even 50 paces distant she pulled off in my direction, if let loose she rushed to me peculiarly wagging her tail and twisting her hindquarters while making water, a symptom of joy in bitches. She manifested her contentment in a peculiar way above described, biting my feet and seizing with teeth my stroking hand which she pretended to chew with lasting manifestations of frantic rejoicing showed also by squeaking.

The animal was killed during the siege of Warszawa in September 1939 preventing my completing observations on lycaons.