Transportation of Giraffe by road Arignar Anna Zoological Park Experience

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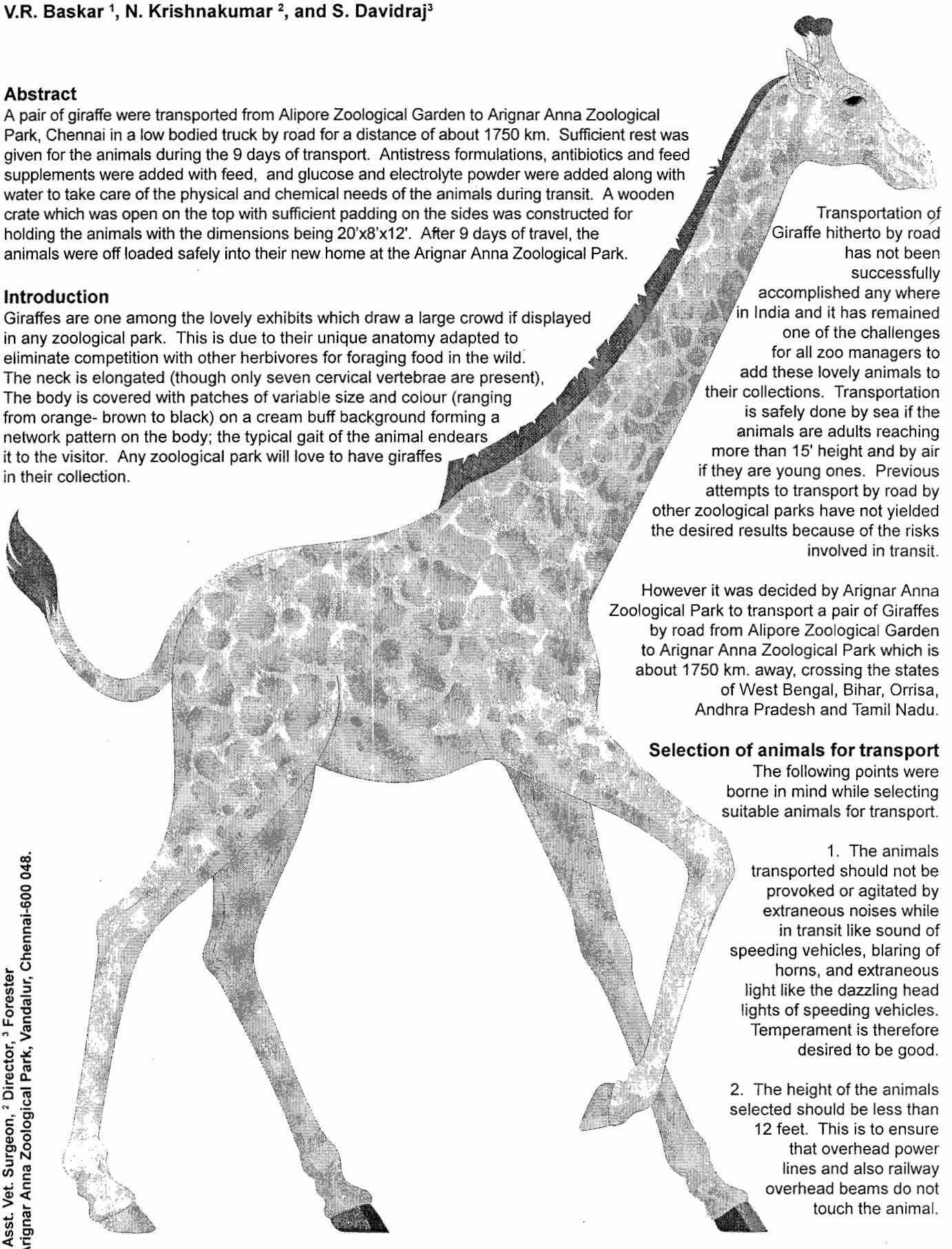
Abstract

A pair of giraffe were transported from Alipore Zoological Garden to Arignar Anna Zoological Park, Chennai in a low bodied truck by road for a distance of about 1750 km. Sufficient rest was given for the animals during the 9 days of transport. Antistress formulations, antibiotics and feed supplements were added with feed, and glucose and electrolyte powder were added along with water to take care of the physical and chemical needs of the animals during transit. A wooden crate which was open on the top with sufficient padding on the sides was constructed for holding the animals with the dimensions being 20'x8'x12'. After 9 days of travel, the animals were off loaded safely into their new home at the Arignar Anna Zoological Park.

Introduction

Giraffes are one among the lovely exhibits which draw a large crowd if displayed in any zoological park. This is due to their unique anatomy adapted to eliminate competition with other herbivores for foraging food in the wild. The neck is elongated (though only seven cervical vertebrae are present), The body is covered with patches of variable size and colour (ranging from orange- brown to black) on a cream buff background forming a network pattern on the body; the typical gait of the animal endears it to the visitor. Any zoological park will love to have giraffes in their collection.



Transportation of Giraffe hitherto by road has not been successfully accomplished any where in India and it has remained one of the challenges for all zoo managers to add these lovely animals to their collections. Transportation is safely done by sea if the animals are adults reaching more than 15' height and by air if they are young ones. Previous attempts to transport by road by other zoological parks have not yielded the desired results because of the risks involved in transit.

However it was decided by Arignar Anna Zoological Park to transport a pair of Giraffes by road from Alipore Zoological Garden to Arignar Anna Zoological Park which is about 1750 km. away, crossing the states of West Bengal, Bihar, Orrisa, Andhra Pradesh and Tamil Nadu.

Selection of animals for transport

The following points were borne in mind while selecting suitable animals for transport.

1. The animals transported should not be provoked or agitated by extraneous noises while in transit like sound of speeding vehicles, blaring of horns, and extraneous light like the dazzling head lights of speeding vehicles. Temperament is therefore desired to be good.

2. The height of the animals selected should be less than 12 feet. This is to ensure that overhead power lines and also railway overhead beams do not touch the animal.

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This height of 12 ft. is selected so that an allowance of 1 foot is given for the animal in case it stretches its neck. In India, over head power lines and railway beams are at 15ft. height.

3. The animals so selected should be compatible, with the presence of one animal reassuring for the other. Giraffes may be aggressive towards other giraffes (Mckenzi, 1993). But the mother - calf relationship, previously believed to be weak (Dagg & Forester, 1976; Foster, 1966; Innis 1958; Walker, 1968) is in fact strong and complex (Langman 1977; Nowak & Paradisio, 1983; Pratt & Anderson, 1979). Hence a mother with calf was selected for transportation.

In our case, the height of the female was 12 feet and of the male was 8 feet. The temperament of both were good, and they were used to visitors noises and disturbances.

Design of crate for transport

The crate designed for transport had the following essential pre requisites.

1. It did not block the vision of both animals.
2. It did not have any sharp edges.
3. It was strong enough to withstand road jerks.
4. It had sufficient space for the animal to move freely and comfortably.
5. It had soft padding on the inside walls to avoid bruises or cuts or any injuries while in transit.
6. It had provision for feeding and watering placed at convenient height for both animals. Exact height will obviously vary according to the height of the giraffes and so both water and feeder was kept at a height of 0.5 m. below the eye level of the smallest animal (Wallach, 1974).
7. The floor was soft.

In this case, a wooden crate with the dimension 20'x8'x8' was made with 5 runners each weighing around 200 kg. along the length and 4 runners along the width on the floor and 8 wooden pillars 8 feet high each along the length were used as side supports. Above the 8 feet height, another 4 feet chicken mesh was provided on wooden frame for ventilation. The frames were propped up with iron plates as additional reinforcement with the gap between each iron plate being 4' top to bottom on both sides. A feeder made of wood with dimensions 2 1/2' x1 1/2' x1 1/2' and a waterer to hold 20 liters water were fixed at 7 feet height because the male was 8 feet tall. Bedding material was provided with chopped paddy straw. The side walls were padded with high quality polythene on which layers of paddy straw and gunny bags were stitched so that sufficient cushioning effect was given. A small window was left to facilitate feeding and the crate was left open on top, so that the animals do not feel cramped, considering the height of the animal. Some bending of the neck is acceptable on short trips but not on long journey (Mckenzi, 1993). The crate was placed in the enclosure and feed and water were provided inside the crate. The animals got habituated to the crate after initial apprehension and after 10 days the gate of the crate was locked with the animals inside (10 to 14 -12-98). Four days were allowed for the animals to get used to the limited space inside the crate. They were able to see their counterparts nearby. The animals slowly started settling down. They were monitored continuously by keepers sent for the purpose. Animals were observed for feeding, perambulation, micturition, defecation and abnormalities if any.

The transport vehicle was a 26 feet long low bodied trailer with ten wheels with the rear wheels being smaller than the front ones which gives additional height for manouvering.

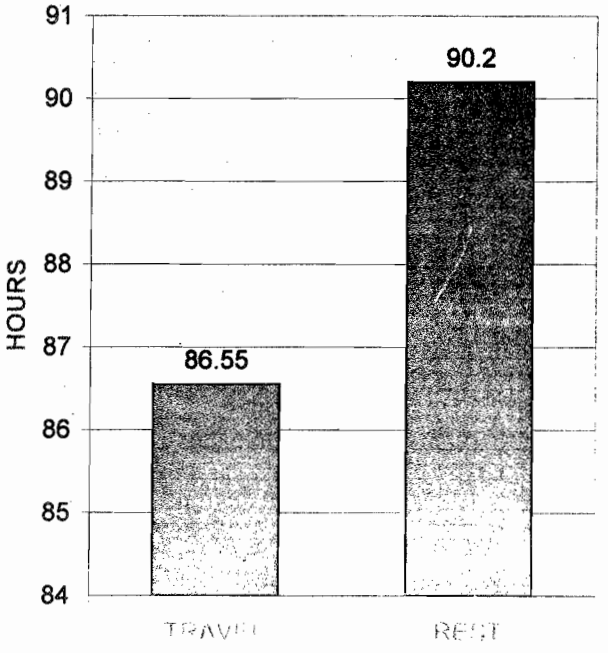
The crate was loaded with the help of a crane (10 tons capacity) with the animals behaving excellently. The temperament of the animals comes into play while loading. Giraffes are rarely aggressive towards humans. They can normaly be easily loaded and transported (Mckenzi, 1993). The keepers kept reassuring the animals with plentiful supply of bananas and calmed the animals down, while the crate was loaded on to the trailer.

Transportation

For successful transportation the speed of the vehicle is of utmost importance. The animals hitherto have not been subjected to any transportion and so it is very important that unnecessary braking and jolting and swerving have to be avoided as this may trigger off a series of physical and chemical reactions in the animals making the transportation difficult. A skillful driver will be able to take care of it if he is briefed thoroughly regarding the load he is carrying. The most crucial period for the animals are the first two days of travel when the animal tries to balance itself while in transit and getting used to the constant jolting and noises from other speeding vehicles and sudden flashes of the head lights from other vehicles.

Behaviour in transit

It is important to give sufficient rests for the animals. In our case we stared at 1.00 P.M. on 14-12-98 and drove till 12.45 A.M. and halted for the night. The animals were initially excited and they kept on perambulating till night halt. At 1.30 A.M. both were seen ruminating which was a good sign. At 4.00 A.M. on 15-12-98 both animals were standing, active and alert browsing the ficus leaves which were offered. (Sufficient moonlight was available and the animals could be seen). At 6.15 A.M on 15-12-98 the journey started again and they were fed at 7.15 A.M. Both animals started feeding almost immediately with the female guiding the male. Fresh ficus was given. The animals were monitored once every hour. At 11.15 A.M. both animals were sitting down with their necks upright and ruminating. The vehicle was stopped to give rest to the animals from 12.05 Noon to 3.45 P.M. Fresh feed and water given and the journey started at 4.00 P.M. Due to bad roads for a distance of about 4 km., to minimize the effect if constant jolting on bad roads through rest was given for the animals. Monitoring was done once every hour to ensure the condition of the animals. At 6.05 P.M. both were sitting and ruminating and this was observed till 7.45 P.M. Both were up at 8.00 P.M. active and alert. Again from 9.25 P.M. to 11.45 P.M. both sat down as they were probably tired after a long day. During this rest period, dinner was had and the vehicles parked. It was decided to make use of excellent weather conditions prevailing during nights as it was cool with night temperatures not exceeding 18 degree centigrade throughout in West Bengal, Orissa and Andhra Pradesh and comfortable for the animals giving sufficient rest 1 -1.5 hours for every 3 hours of driving. After resting for 2 hours, journey was resumed and after 3 hours it was decided to halt at 3.00 A.M. On 16-12-98 the vehicle halted till 6.00 A.M. The animals were fed again at 6.30 A.M. and journey started and went on till 11.45 A.M. with rests of 1 hour in between. The animals looked tired as it was mid-



Total Travel Time - 177.15 Hrs

day. Temperature was around 28° C in West Bengal, Orissa and Andhra Pradesh. Rest was given for the animals till 4.00 P.M. and the animals were lying down ruminating and perambulating. The same pattern of journey was adopted with afternoon halts from 11.00 A.M. to 4.00 P.M. and night halts from 1.00 A.M. TO 5.00 A.M. After every 3 hours of driving 1 - 1.5 hours rest was given for the animals and the journey continued. The speed of the vehicle did not exceed 25 km/hour.

The places of rest for the animals were chosen keeping the following in mind.

1. It should be away from a town / village to minimize stress by gazing public and other noises.
2. It should provide adequate shade for the animal both during forenoon and afternoon.
3. It should be next to a restaurant / motel for the crew to have lunch / dinner and rest.
4. It should be accessible to nearby market to buy feed items for the animals.

For the rest of the days, the same pattern was followed with the behaviour of the animals being more or less stereotyped with minor variations in between. The animals were comfortable through out the journey.

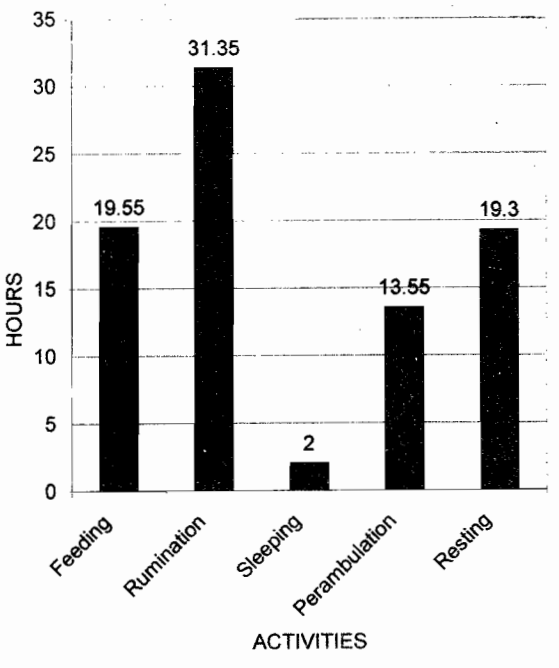
Feed Additives

Sufficient precautions were taken to minimize stress by providing feed additives like vitamin, mineral, combinations (Supplevit-m-sarabhai), Vitamin-E and Calcium along with the feed and antibiotic like tetracycline to take care of any bacterial complications like transit pneumonia. Electrolytes and Glucose-D were added along with water to correct electrolytic imbalances if any.

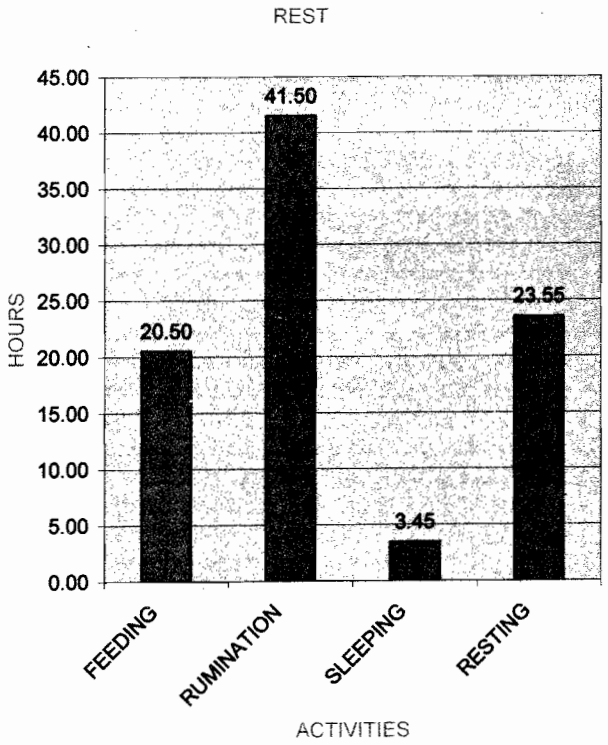
Hourly monitoring was done to ensure the health and behaviour of the animals throughout. The observed behaviours are documented with help of bar diagram. The time taken for the various behaviours are pooled into two groups like as the time spent on various behaviours during travel and during rest. The major behaviours observed during travel were feeding, rumination, sleeping, perambulating and resting and during rest were feeding, rumination, sleeping and resting. According to Leuthold (1978), Moss (1989) and Pellew (1984), giraffes are active in the hours following dawn and before dusk; and spend 16 to 20 hours a day feeding. The hot midday is spent ruminating and resting. Nocturnal behaviour depends on the amount of moon light. Giraffes sleep for short periods only, sit with their head resting on the rump. More usually they rest with their head up and often whilst standing. In our case, more or less the above said facts were observed. The respiratory rates during hot midday was 45 - 55 per min. and during cooler parts of the day around 40 - 44 per min.

After 9 days of travel, the journey ended at Arignar Anna Zoological Park at 7.15 A.M. on 22-12-98 with the animals weak and tired but active and alert. The enclosure was ready and the crate was off-loaded with a crane and the animals were released the next day on 23-12-98 into the enclosure.

They are now used to the new enclosure and their activity pattern is more or less the same as it was in transit excepting for the fact that they curiously gaze at the Zebras which are their neighbors at Arignar Anna Zoological Park.



Time spent for various activities during travel



Time spent for various activities during rest

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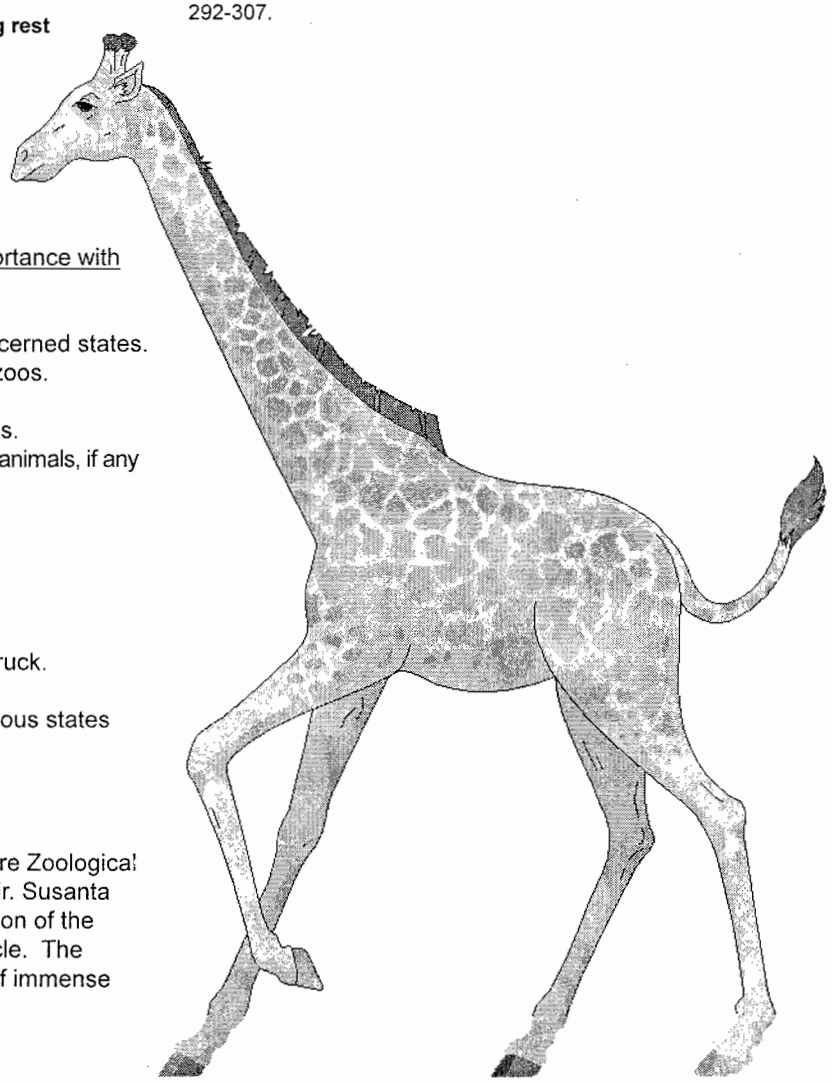

(A) The following documents are of utmost importance with respect to animals during transportation.

1. Permit from chief wildlife wardens of the concerned states.
2. No objection certificate from the concerned zoos.
3. Transit insurance for the animals.
4. Veterinary certificate for fitness of the animals.
5. History sheet / previous treatment records of the animals, if any
6. Diet chart for the animals.

(B) With respect to transporters

1. Fitness certificate for the vehicle
2. Lorry receipt and consignment note.
3. Letter of agreement from the owners of the truck.
4. All document regarding vehicle
5. Motor vehicle entry permits for entry into various states through which the vehicle passes.

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