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A Study on behavioural variation of captive Indian Elephant (Elephus maximus) in Arulmighu Subramania Swamy Temple, Tiruchendur.

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Abstract: - Elephants are noble, largest land animals. As human population raise, the land of elephants is being cleared for agriculture and other kinds of development. When animals are effectively trapped on small areas of land, it also restricts the gene pool and usually results in shortage. Elephants are forced to do circus activities, play rituals, and begging. The irony of the most majestic animal! Project elephant (PE), a sponsored scheme, was launched in February 1992 to provide financial and technical support to major elephant bearing States in the country for protection of elephants, their habitats and corridors. It also seeks to address the issues of human-elephant conflict and welfare of domesticated elephants. Elephants are very tactile animals, using tactile communication in social groups to exhibit reassurance, affiliation, exploration, aggression, and play. This paper discusses the behavior variations of captive Indian Elephant and the finding of this study indicates that many aspects of captive elephant behavior are similar to those of specifics in the wild.

Keywords : **Elephants, project, captive behavior, communication.**

INTRODUCTION

Elephants are noble, largest land animals. As human population raise, the land of elephants is being cleared for agriculture and other kinds of development. When animals are effectively trapped on small areas of land, it also restricts the gene pool and usually results in shortage. Elephants are now a protected species. The average lifespan of an elephant is 65 years but may live up to eighty years. Elephants are the largest land mammals. Studies have shown that elephants form strong family bonds. Scientists believe that they have emotional lives much like humans. The deaths and disappearance of elephants, caused by the ivory and live export trades, result in sings of grief and depression in their relatives. The aim of this paper is to Study on behavioural variation of captive Indian Elephant (Elephus maximus) in Arulmighu Subramania Swamy Temple, Tiruchendur.

MATERIALS & METHODS:

Classification

Kingdom	-	Animalia
Phylam	-	Chordata
Sup Phylam	-	Vertebrate
Class	-	Mammals
Order	-	Proboscidae
Family	-	Elephant
Genus	-	Elephus
Species	-	maximus

Elephants are called pachyderms from the Greek ' pachy' meaning 'thick' and 'derma' meaning "skin". An elephant's skin is about one inch thick and is as sensitive as human skin-so sensitive in fact, that an elephant can sense a tiny fly landing on its thick skin. They can use their ears to help cool them down by fanning air over the large area of body. They actually walk on their tiptoes. The foot has a cushion-like pad, which helps support the weight is spread out evenly over its feet.

In this study, Devanai-female elephant, 20 years old, originally from Kerala, now at Arulmigu Subramania Swamy Temple, Tiruchendur was chosen. The elephant is maintained on concrete floor during our study period. Water is available round the clock. The female is allowed to drink 2 or 3 times per day during our study time.

As the elephant belong to Lord Arulmigu Subramania Swamy Temple, Tiruchendur, which is an important pilgrimage centre, it is obvious that the elephant is thronged by hundreds of devotees every day. Every day, while the elephant go for walking round the city, it sees cows, bulls, dog & pigs. The government has appointed 2 mahouts per elephant.The female animal was observed from the very close quarters from

9am to 4pm. For every 20 minutes the activity of the animal was noted down. Based on data statistical analysis was done.

RESULT

In the Present study, the physical behavior of the chosen animal was observed, such as ear shaking behaviour, tail movement behaviour, scratching of leg behaviour, trumpeting behaviour, playing behavior.

Ear shaking behavior:

During the observation period 02/01/18 to 11/01/18, the elephant had shaken its ears 2891 times and the average is 289.1 (with SD 56.57). On 02/03/18, it has shaken its ears 350 times (maximum), and on 3/01/18 it has shaken its ear 215 times (minimum). Because the temperature was high on 2/03/18, the ear shacking behaviour was maximum that is 350 times, other days the ear shacking behaviour was minimum as the temperature temperature was low.

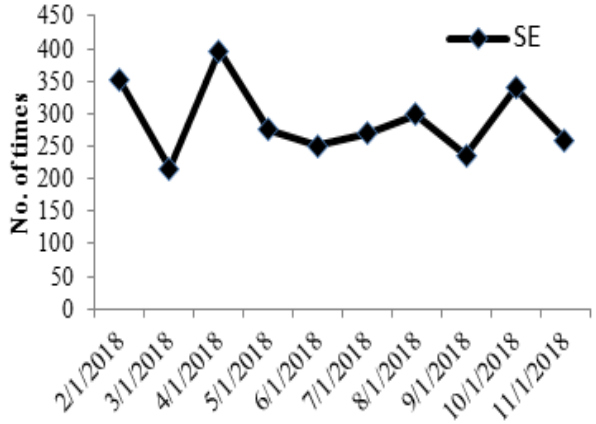

Fig. 1. Ear shacking behaviour captive elephant Elepus maximus

Tail movement behaviour

During the observation period 02/01/18 to 11/01/18 the elephant had moved its tail 2343 times and the average is 234.3 (with SD 66.23). On 04/01/18, it has moved its trunk 365 times (maximum) and on 6 /01/18 it has moved its ear 157 times (minimum). When sweet edible was given to the elephant the sweets attracted houseflies and because of this, elephant showed maximum tail movement that is 365 times.

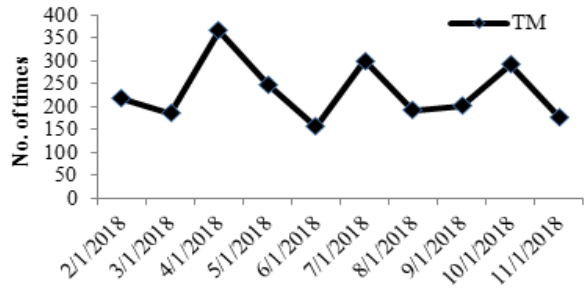

Fig.2. Tail movement behaviour of captive elephant Elephus maximus

Scratching of leg behaviour

During the observation period 02/01/18 to 11/01/18 the elephant had scratched its legs 89 times and the average is 8.9 (with SD 7.82). On 04/01/18, it had scratched its legs 32 times (maximum) and on 6/01/18 had scratched its legs 7 times. If there is a layer of moisture in the floor, because of the microbes and the elephant showed maximum scratching activity.

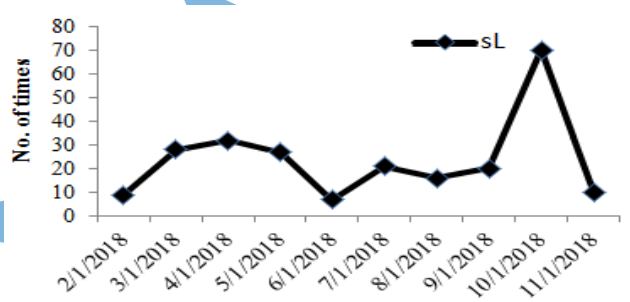

Fig. 3. Scratching of legs behaviour of captive elephant Elephus maximus

Trumpeting behaviour

During the observation period 02/01/18 to 11/01/18 the elephant had trumpeted 51 times and the average is 5.1 (with SD 2.13). On 08/01/18, it trumpeted 9 times (maximum) and on 03/01/18 it trumpeted 2 times (minimum). If the crowed was excess, and because of the excess noise the trumpeting behaviour was maximum.

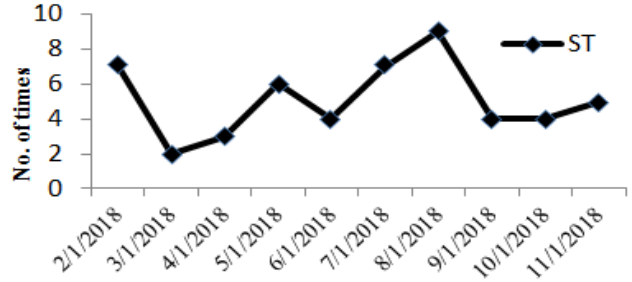

Fig.4. Trumpeting behaviour of captive ellephants Elephus maximus

Playing behaviour

During the observation period 02/01/18 to 11/01/18 the elephant played 65 times and the average is 6.5 (with SD 4.71).On 7/01/18 it played 16 times (maximum) and on 6/01/18 it played 1 time (minimum). When the elephant is given with its favorite food at that time the elephant showes playing behaviour.

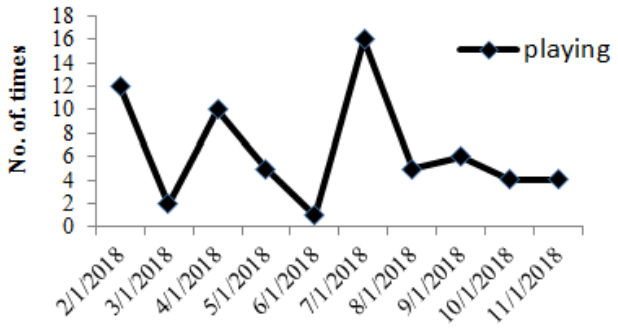

Fig. 5. Playing behaviour of captive elephant Elephus maximus

DISCUSSION

The finding of this study indicates that many aspects of captive elephant behavior are similar to those of con specifics in the wild. Size and temperament contributed to the social rank of the elephant in the matrilineal dominance hierarchy of wild female [1] [2] [3]. African elephants are highly social, and individual temperament is one of many factors that help to determine rank within matriarchal hierarchies in the wild [1] and captivity [4] [5](Schulte, 2000). However, contrary to evidence in wild elephants [1] [5]. More dominant captive females tended to exhibit cyclicity problems. The question now is, how do the social and environmental conditions of captivity contribute to ovarian inactivity, and is this a cause or effect relationship?. The observations which were revealed in the present study show the normal behavior of the temple elephant. Such observations are essential to know the aggressiveness of the animal behaviour in near future to known its cause and also to safe guard the people from the animal.

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