Welfare Status of Elephant Satya Geetha

Assessment of the Welfare Status of Captive Elephant Satyageetha, Puttaparthy Sai Baba Ashram, Andhra Pradesh, Southern India

Suparna Ganguly, Sujata S.R, Ramesh Belagere and Surendra Varma

Elephants in Captivity: CUPA/ANCF- Occasional Report No.17

Compassion Unlimited Plus Action

ANCF
ASIAN NATURE CONSERVATION FOUNDATION

Welfare Status of Elephant Satya Geetha

Assessment of the Welfare Status of Captive Elephant Satya Geetha, Puttaparthy Sai Baba Ashram, Andhra Pradesh, Southern India

Suparna Ganguly[1a], Sujata S.R[1b], Ramesh Belagere[2] and Surendra Varma[3]

Elephants in Captivity: CUPA/ANCF- Occasional Report No.17

1a: President, 1b: Researcher, Compassion Unlimited Plus Action (CUPA), Veterinary College Campus, Hebbal, Bangalore 560 024, & Wildlife Rescue & Rehabilitation Centre (WRRC), Bannerghatta Biological Park, Bangalore – 560083, Karnataka; 2: Volunteer, Kengeri Satellite Town Bangalore 3: Research Scientist, Asian Nature Conservation Foundation, Innovation Centre, Indian Institute of Science, Bangalore - 560 012, Karnataka.

Published by
Compassion Unlimited Plus Action (CUPA)
Veterinary College Campus,
Hebbal, Bangalore 560 024
www.cupabangalore.org

In collaboration with
Asian Nature Conservation Foundation (ANCF)
Innovation Centre,
Indian Institute of Science,
Bangalore 560 012
www.asiannature.org

Title: Assessment of the welfare status of captive elephant Satyageetha, Puttaparthy Sai Baba Ashram, Andhra Pradesh, southern India

Authors: Suparna Ganguly, Sujata S.R, Ramesh Belagere and Surendra Varma.

Suggested citation: Ganguly .S, Sujata. S. R, Belagere. R and Varma .S. (2011). Assessment of the Welfare Status of CaptiveCelephant SatyaGeetha, Puttaparthy Sai Baba Ashram, Andra Pradesh, Southern India. Elephants in captivity: CUPA/ANCF-Occasional Report No.17. Compassion Unlimited Plus Action (CUPA), Bangalore, India

To order a copy of this book, please write to

Compassion Unlimited Plus Action (CUPA),
Veterinary College Campus, Hebbal,
Bangalore 560 024
Email: cupablr@gmail.com

OR

Publications Officer,
Asian Nature Conservation Foundation (ANCF)
Innovation Centre,
Indian Institute of Science,
Bangalore 560 012
Email: publications@asiannature.org

Table of Content

Preface

The appraisal of 8 year old female elephant, Satya Geetha, in Puttaparthy, Anantpur District in Andhra Pradesh was directed by the AWBI vide letter dated 20.09.11. The elephant had been acquired from the Sonepur Mela in Bihar. Her ownership certificate and papers were not available. The authorities, within the limitations and administrative pressures of a busy ashram were making an effort to manage the keeping of a wild animal like an elephant. The needs of a young elephant in captivity and the subsequent management that it entails are challenging, which is amplified in urban limited surroundings, like a city ashram.

The lack of manpower resources has been deeply experienced by the authorities, who in spite of their efforts have not been able to locate suitably trained and experienced mahouts for the animal. This also reflects on the common problem of the lack of trained manpower in this particular field, which greatly and negatively impacts on the keeping of elephants in captivity in India.

Acknowledgement

We would like to thank the Secretary of the Sathya Sai Trust for being supportive and helpful in the execution of this appraisal. In equal measure, the goodwill, frankness and simplicity of Shri Pedda Reddy, the caregiver for the elephant Satya Geetha, helped greatly in understanding the working conditions and his devotion to the elephant.

As always, our colleagues and members of the Captive Elephant Research Team (CERT) have been the core of support and encouragement for this project as for many critical captive elephant issues, all over India.

Introduction

Puttaparthi is an ashram town situated in Anantpur district of Andhra Pradesh. Sathya Sai Ashram, which is the religious center here, is home to an 8 year old female Asian elephant. The ashram previously maintained a female elephant, upon whose death this elephant was brought. Conditions provided for an elephant in captivity may vary depending on long established traditions/ interest in and knowledge of elephant keeping by its owners.

Objective

The female elephant maintained by the ashram was observed, along with interview of relevant personnel, in order to:

- Assess its welfare status in terms of captive conditions experienced by it— both physical as well as biological

Method

Captivity imposes a number of features which are decided by the people who own/ run the system. Hence, the elephant is exposed to each of these features— which may or may not besimilar to those experienced by its wild counterparts. As elephants have not been domesticated in the sense of being selectively bred for their traits (Lair, 1997), the wild environment and its deviation observed in captivity has been considered. In captivity, the features of the wild may differ in extent and/or kind and this has been reviewed under different parameters: physical/ social/ physiological and health. Each of these has been compared to the conditions seen in the wild. The greater the deviation from wild conditions, the poorer is the welfare status of the elephant. This deviation has been quantified by rating each of the parameters using a scale developed by a team of experts.

The rating method

A rating scale from zero (unsuitable conditions) to ten (suitable conditions) was used to assess the welfare status of captive elephants. Experts (both wild and captive elephant specialists, wildlife veterinary experts, managers from protected areas, those having both wild and captive elephants and other wildlife, members of welfare organisations and elephant handlers) were invited to assess the welfare based on welfare parameters and their significance through an exclusive workshop conducted on the subject (Varma, 2008; Varma, et al., 2008; Varma and Prasad, 2008). Experts rated a total of 114 welfare parameters covering major aspects of captivity

- The experts, based on their concept of the importance of a particular parameter to an elephant, developed rating for each parameter. For example mean expert rating of 8.0 (SE= 0.5, n=29; n= number of responses) for a parameter 'floor' and 9.0 (SE=0.4, n=31) was arrived for 'source of water' from the ratings suggested by each expert.
- A mean rating for each parameter, across all the participating experts, has been used as the Experts' Rating (E-R) which represents the importance attached to a parameter.
- Elephants were visited on the ground; data for each parameter was collected by direct observations or with the interviews of people associated the animal. Ratings were assigned to each parameter for each elephant and Mean Rating (M-R) was calculated for a given parameter by averaging across the observed elephants. Thus the Mean

Rating (M-R) denotes welfare status of existing conditions on the ground for the particular parameter.

- For example, if an elephant is exposed only to natural flooring, the animal receives a M-R of 8 and for entirely unnatural flooring the value is 0; if an animal is exposed to both natural and unnatural flooring, the value is 4 (as 8+0/2= 8/2= 4). If an elephant is exposed to a natural water source, such as a river, it receives a value of 9; if the source of water is large lakes or reservoirs, it gets 4.5. A value of 3.5 is assigned for small water bodies like tanks and ponds. Tap water (running) gets 2.5 and if only buckets, pots, and tankers are in use, then the allocated value is 0.5.
- In this investigation, variables which represent a common feature of the captive condition have been grouped to form a parameter. For example, the variables shelter type, shelter size, floor type in the shelter; all represent different aspects of the physical space provided to the elephant. Hence, they are grouped together to form the parameter "Shelter" and each constituent variable is a sub-parameter. In this investigation, the E-R for a parameter (say, shelter) represents the mean of E-Rs across all related sub-parameters. M-R is also based on similar lines.
- E-R and M-R for each of the regimes represent the average across related parameters observed for the regime. For instance, E-R / M-R for a parameter "shelter" represents the average of related parameters (termed sub-parameters) such as type, flooring, size, and shade availability.
- Results have been presented comparing E-R and M-R as a means of comparing the extent of deviation present in the parameters observed. The difference between E-R and M-R (expressed as percentage) indicates deviations from the prescribed norm.
- N represents number of individuals; N* represents number of sub-parameters.

Result

Satya Geetha is an 8 year old female Asian elephant maintained by the Sathya Sai Ashram in Puttaparthi. She is the only elephant with the ashram.

Welfare status

Source

Disruption of existing social relationships caused by translocation can be traumatic for elephants (Bradshaw, 2004). When elephants are purchased or gifted across ownerships, not only do they experience change in social relationships, they may also experience changed daily routines.

- The elephant was purchased from Sonepur Mela, Bihar at the age of 4 years

MR was 1.5 with a deviation of 75% from ER.

Shelter

Elephants in their natural habitat experience varied landscape as they move about foraging and engaging in species-typical activities. In captivity, the habitat is completely determined by people, which at times may be composed of alien features. High temperatures can be injurious when the elephant is exposed to direct sunlight (Kurt and Garai, 2007).

- The elephant was maintained in a temporary shelter made of concrete floor and roof (Figure 1)
- The enclosure was walled to a height of 5ft. from the floor, there was a gap all around between this height and the roof
- The permanent shelter was similar to the temporary shelter, was being renovated and was smaller the temporary shelter
- Roof shade was available, but elephant could not move more than the length of its chain to access shade or sunlight
- Quality of hygiene was poor: during observation, elephant defecated once and urinated once. And the urine was not cleaned for next four hours (till the last observation during the visit)

Figure 1: temporary shelter provided

M-R was 1.8 (SE= 1.7, N*= 5) implying a deviation of 78% from E-R for this parameter (Figures 2a and b).

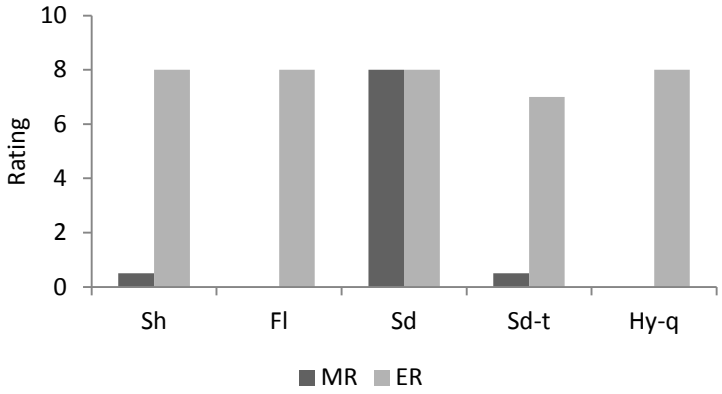
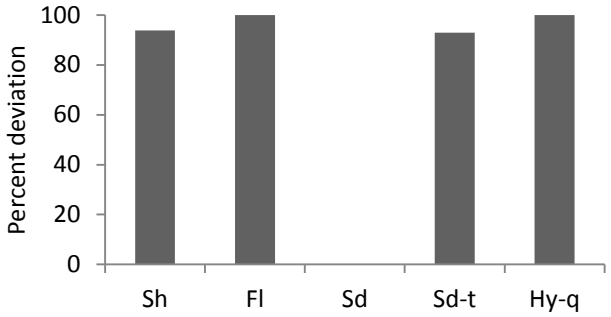


Figure 2a: Comparison of E-R and M-R for shelter sub-parameters



Sh: Shelter type Fl: Flooring Sd: Shade availability Sd-t: Shade type
Hy-q: Quality of hygiene

Figure 2b: Percent deviation from E-R for shelter sub-parameters

Water

Studies on wild elephants have reported elephant activity to include periods of drinking water/ bathing (McKay, 1973). In confined enclosures, with minimal human contact, without mud/sand baths African elephants showed greater levels of behavioural indicators of stress (Stead, 2000).

- Elephant was bathed twice/day, in the morning and evening
- Plastic brush was used to scrub the elephant while bathing
- Animal was allowed to drink water from a tap once during mid day and was given water in a bucket once after feeding (Figure 3)

Figure 3: Water provided through bucket

M-R was 2.4 (SE= 1.4, N*= 5) with a deviation of 70% from E-R (Figures 4a and b).

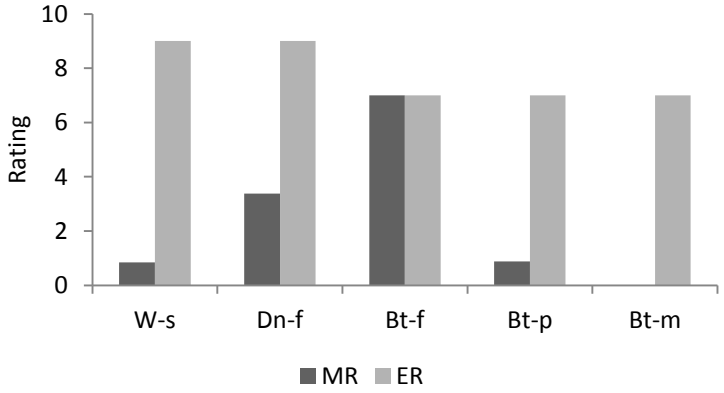
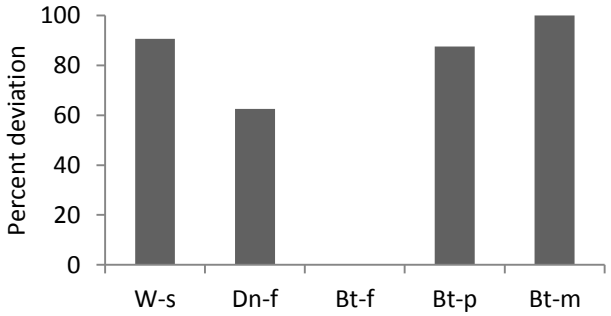


Figure 4a: Comparison of E-R and M-R for water sub-parameters



W-s: Perennial source of running water Dn-f: Frequency of drinking water Bt-f: Bath frequncy / day
Bt-p: Bathing place Bt-m: Bathing material

Figure 4b: Percent deviation from E-R for water sub-parameters

Sleep
In the wild, place of sleep is decided by use of suitable substrates such as soil/ grass. This is limited or absent in captivity due to presence of man-made substrates.

- For the elephant, shelter and sleeping place were the same, implying exposure to concrete substrate

MR was 0.5 for this single parameter, showing a deviation of 94% from ER.

Social interaction
Social deprivation for elephants, especially in the growing age, can lead to retarded growth (Kurt, 2009).

- The elephant was maintained in social isolation

M-R was 0.0 indicating complete divergence from E-R.

Chaining
Studies have increased frequency of stereotypy among chained elephants (Gruber, et al., 2000); chaining limits the few opportunities available for captive elephants to express species-specific behaviours.

- The hind legs were tied to a permanent iron structure using a chain less than 10m long (Figure 5)
- Spikes were not used; plain type of chain was tied to the leg
- The elephant did not co-operate with the care taker for chaining and showed resistance.
- No free-ranging opportunity was allowed


Figure 5: Status of chaining; note hind legs are tied to permanent iron stucture

MR was 2.0 (SE= 1.4, N*= 3) implying a deviation of 75% from ER (Figures 6a and b).

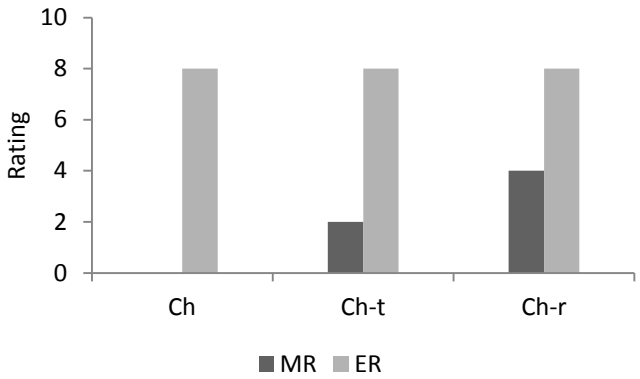


Figure 6a: Comparison of E-R and M-R for chaining sub-parameters

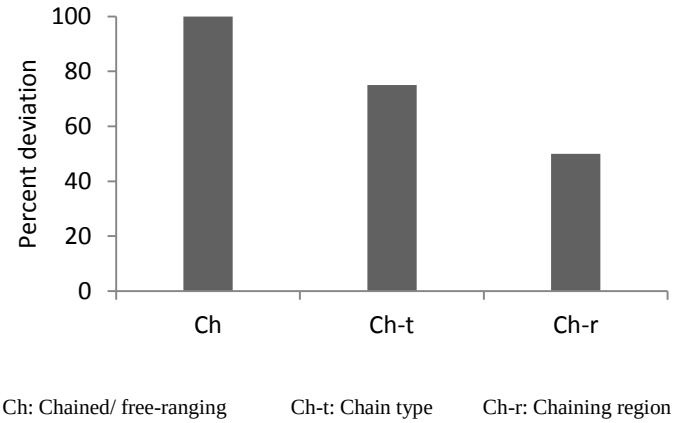


Figure 6b: Percent deviation from E-R for chaining sub-parameters

Behaviour

Stereotypy is considered by some to alleviate poor welfare status of an animal, but it can without doubt affect normal functioning of the individual.

- The elephant exhibited stereotypy

MR was 0.0 showing complete divergence for this feature.

Work type

Absence of work in captivity may have two sides to it: for an elephant with "nothing-to-do" it may be a form of psychological stimulation. On the other hand, it could also prove to stressful leading to poor welfare.

- The elephant was not used for any work

MR was 8.0 showing no deviation from ER.

Food

Numerous observations in the wild have reported the wide variety of plants eaten by elephants (Sukumar, 1991; McKay, 1973). Foraging forms a major activity for wild elephants (Poole and Granli, 2009); this is conspicuously absent in most captive elephants, thus restricting opportunities to express species-typical behaviours.

- Free-ranging foraging opportunity was not allowed; only stall feed was given
- Stall feed was rice, ragi, coconut leaves, plantain, sugarcane, wheat, milk
- Mineral mix was given

M-R was 3.8 (SE= 2.8, N*= 3) with a deviation of 57% from E-R (Figures 7a and b).

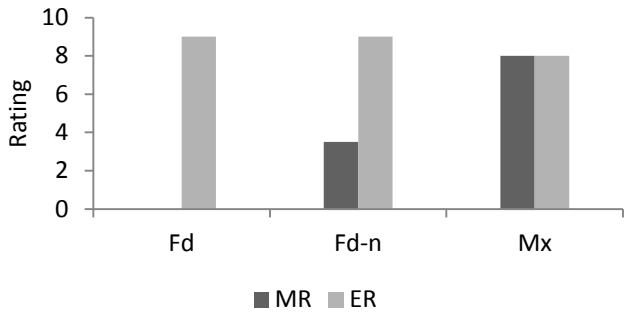


Figure 7a: Comparison of E-R and M-R for food sub-parameters

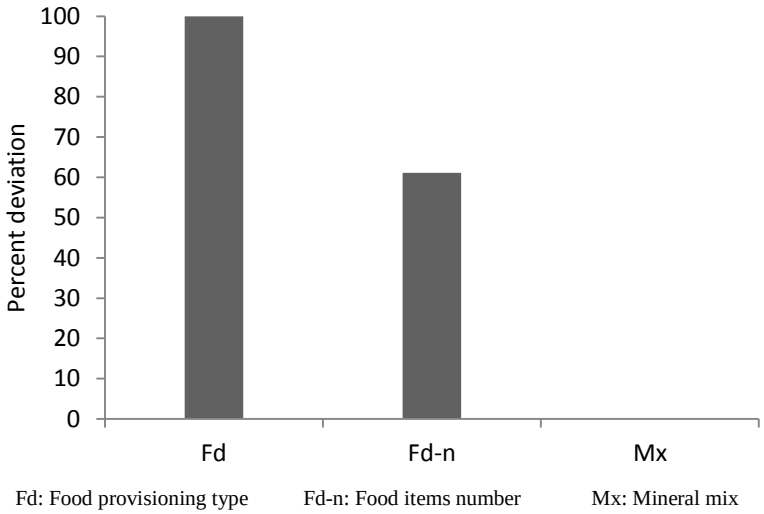


Figure 7b: Percent deviation from E-R for food sub-parameters

Health status and veterinary care

Persistent exposure to hard substrates/ excessive food with little exercise are some features experienced by captive elephants which predisposes them to diseases.

- Uneven wear and tear, and cracks were observed on the foot-pad
- Other problems were indigestion, gastric issues
- De-worming was done
- Weight was said to be monitored

MR was 6.4 (SE= 1.9, N*= 3) with a deviation of 20% from ER (Figures 8a and b).

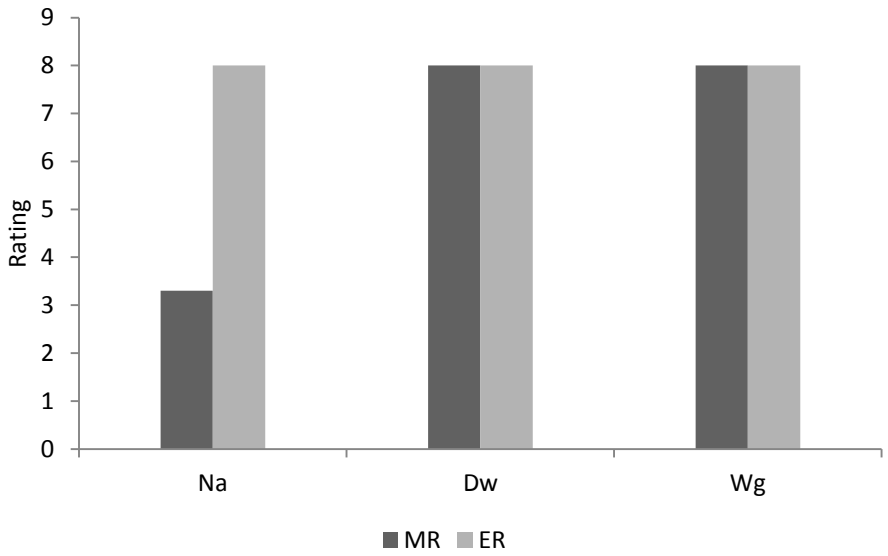


Figure 8a: Comparison of E-R and M-R for health status sub-parameters

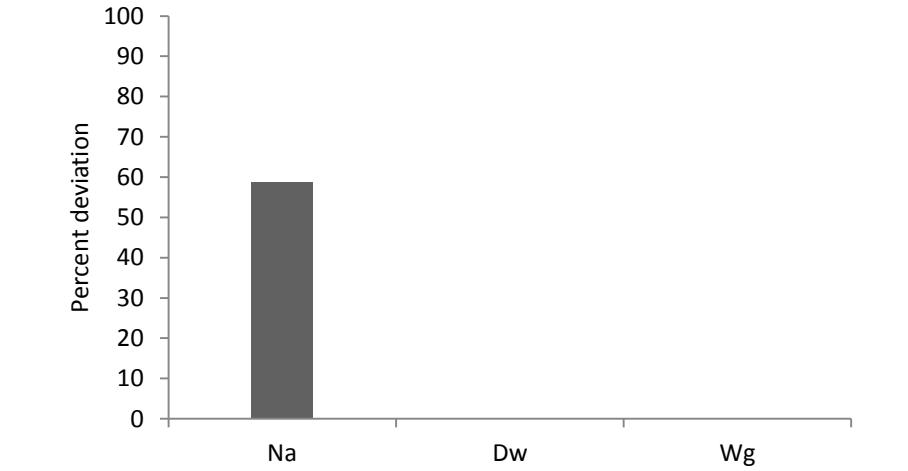


Figure 8b: Percent deviation from E-R for health status sub-parameters

- A veterinary doctor was available for consultation
- The doctor was called occasionally

MR was 9.0 for veterinary care availability showing no deviation from ER.
MR was 1.0 for visit frequency with a deviation of 89% from ER.

Rating for welfare

Overall rating, considering all parameters together, was 3.0 (SE= 0.7, N*= 26) showing a deviation of 63% from norms prescribed by experts. Figure 10 gives the distribution of

percent deviation for observed parameters. The graph clearly shows an increasing tendency from the class of 41-50%. Most frequent (18 of a total of 26 parameters) were those which showed 100% deviation from ER (Figure 9).

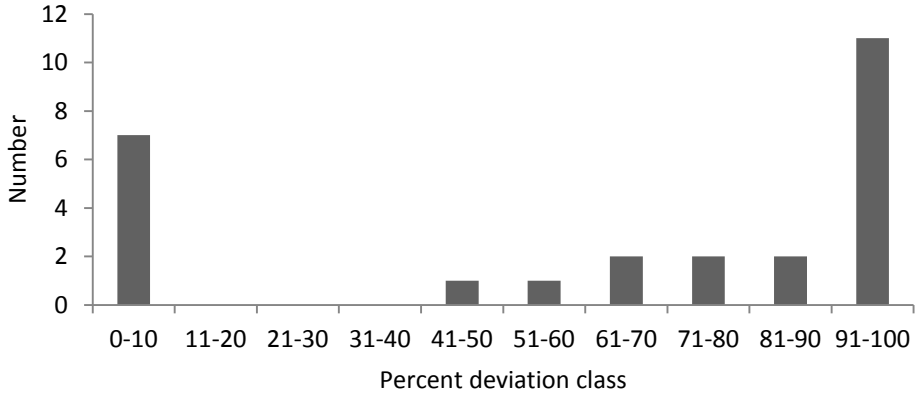


Figure 9: Distribution of percent deviation across all observed parameters

Mahout/ cawadi status

The elephant had no mahout or kavadi. Instead, a canteen manager (Figure 10) was assigned the additional responsibility of taking care of this animal. However, he had taken care of the previous elephant, Sai Geeta who passed away at 54 years. He has been a lifetime volunteer at the Ashram.

The caretaker had experience as a mahout, but his advancing age and responsibilities of the honorary duties as an Ashram devotee meant that he is not full time with the elephant and kept visiting the elephant three times a day. Mahout carried bill hook and cane but did not use it much. The elephant seemed to understand the mahout's verbal communications easily.

Figure 10: Canteen manager act as mahout

Discussion

The rating method has been designed in a way in which welfare status and near-natural environment are positively correlated, i.e., greater the opportunity for elephants to express species-typical behaviours better is its welfare.

The elephant, Satya Geeta, in Puttaparthi showed an overall deviation of 63% from norms prescribed as acceptable by experts. This deviation was arrived at by considering 26 different parameters, a sampling of nearly 30% of a possible 90 parameters related to elephants. Most of the observed parameters showed deviations greater than 50% from prescribed norms. With availability of greater information on more number of parameters, the rating may change. The present sampling of parameters covers all aspects of captivity except for reproductive status and opportunity to walk. Reproductive status is not directly relevant now as the elephant is sexually immature.

Three aspects of captivity that impinged on all other features were: social isolation, lack of freedom of movement and alien physical conditions. Each of these is important individually and also because of its inter-related effect on the elephant's life. The combination of a hard substrate and limited access to water, no social relationships and severely restricted movement can prove to be physically and psychologically challenging; the elephant appeared to be obese[1] and exhibited stereotypy. Added to this, the elephant's handler was not available all the time to interact with his animal leaving it further deprived of interaction (elephant vocalizations were noticed by the observers at high intensity) implying positive interaction between handler and elephant (Buckley, pers. comm.) and perhaps a need for interaction shown by the elephant.

Recommendations

- One option would be to remove the elephant from the present situation to a location where natural substrate, greater freedom of movement and elephants for interaction are available.
- The other option would be make use of the resources available with the Ashram and set up a care-center for elephants wherein near natural conditions— area of at least 10hectares of natural vegetation, presence of water sources (stream/lake/ pond), opportunity to forage and interact with other captive elephants (at least 5-6), less interference from people, bare minimum of chaining (only for veterinary procedures) — may improve the elephant's health and mental state.

Reference:

1. Carol Buckley, The Elephant Sanctuary, Hohenwald, Tennessee, U.S.A.
2. Gruber, T.M., Friend, T.H., Gardner, J.M., Packard, J.M., Beaver, B. and Bushong, D. (2000). Variation in stereotypic behaviour related to restraint in circus elephants. Zoo Biology **19**: 209-221.
3. Kurt, F. (2009), Physical and social development in captive born and orphaned Asian elephants of the Pinnewala elephant orphanage (Sri Lanka), in: The captive Asian elephant conservation, biology, diseases, management, training and work, Proceedings of the International Workshop on Captive Elephant Management, 25 to 28 October 2002, Thrissur, Kerala, India (Ajitkumar, G., Abraham, D., Cheeran, J.V., and Chandrasekharan, K., eds.), Published by the Elephant Welfare Association, Thrissur, Kerala, India, pp: 31-36.
4. Kurt, F. and Garai, M.E. (2007). The Asian elephant in captivity—a field study. Foundation books, Cambridge University press, New Delhi.
5. Lair, R.C. (1997). Gone Astray - The Care and Management of the Asian Elephant in Domesticity. FAO Regional Office for Asia and the Pacific, Bangkok, Thailand.
6. McKay, G.M. (1973). Behavior and Ecology of the Asiatic Elephant in Southeastern Ceylon. Smithsonian Institution Press, City of Washington.
7. Poole, J. and Granli, P. (2009). Mind and Movement: Meeting the Interests of Elephants. In: An elephant in the room: the science and well being of elephants in captivity, (Forthman, D.L., Kane, F. L., Hancocks, D., and Waldau, P.F. eds.) Center for Animals and Public Policy, Cummings School of Veterinary Medicine, Tufts University

[1] See appendix 1

8. Stead, SK 2000, The assessment of stress in captive juvenile African elephants (Loxodonta Africana), MSc dissertation, University of Pretoria, Pretoria, accessed online at: http://upetd.up.ac.za/thesis/available/etd-11092005-142633
9. Sukumar, R. (1991). Ecology. In: Eltringham, S.K. (ed.), The Illustrated encyclopaedia of elephants, Salamander Books, U.K. pp.78–101
10. Varma, S. (2008). Identifying and defining welfare parameters for captive elephants and their mahouts in India, In: Welfare and management of elephants in Captivity: Proceedings of a Workshop on Welfare Parameters and their Significance for Captive Elephants and their Mahouts in India. (Varma, S. and Prasad, D., Eds.), A joint publication of Project Elephant, Ministry of Environment and Forests (MoEF), Government of India, Compassion Unlimited Plus Action (CUPA) and Asian Nature Conservation Foundation (ANCF), Bangalore, India.
11. Varma, S. and Prasad, D. (2008) Welfare and management of elephants in captivity—insights and recommendations, In: Welfare and management of elephants in Captivity: Proceedings of a Workshop on Welfare Parameters and their Significance for Captive Elephants and their Mahouts in India. (Varma, S. and Prasad, D., Eds.), A joint publication of Project Elephant, Ministry of Environment and Forests (MoEF), Government of India, Compassion Unlimited Plus Action (CUPA) and Asian Nature Conservation Foundation (ANCF), Bangalore, India.
12. Varma, S., Sujatha S.R., van de Brand, J., Ganguly, S. and Shiela R., (2008) Draft concept note on welfare parameters and their significance for captive elephants and their mahouts in India, In: Welfare and management of elephants in Captivity: Proceedings of a Workshop on Welfare Parameters and their Significance for Captive Elephants and their Mahouts in India. (Varma, S. and Prasad, D., Eds.), A joint publication of Project Elephant, Ministry of Environment and Forests (MoEF), Government of India, Compassion Unlimited Plus Action (CUPA) and Asian Nature Conservation Foundation (ANCF), Bangalore, India.

Appendix 1:

Observations recorded at site:

- The elephant seemed to be obese
- Interaction of the animal with visitors was nil.
- Mahout never used any standard commands to control the elephant and spoke to the animal in Telugu. There was good relationship with the mahout. She seemed much attached to him.
- The elephant was extremely talkative and made communicating sounds once in every three minutes on an average.
- The elephant showed very less interest in eating cooked food. And also showed resistance while feeding. The animal had to be fed forcibly on few occasions.
- The elephant was observed to eat mud frequently. This was a habit which was in the animal right from her day one in ashram (as per the caretaker's statement). This could be one of bad or deviant habits, developed due to forced separation from family at an early age and some unknown psychological distress.
- The mineral mix given to the animal seemed incorrect.

This investigation aimed to assess the welfare status of 8 year old female elephant, Satya Geetha, in Puttaparthy, Anantpur District in Andhra Pradesh. As elephants have not been domesticated in the sense of being selectively bred for their traits, the wild environment and its deviation observed in captivity has been considered for this investigation.

Compassion Unlimited Plus Action

ANCF
ASIAN NATURE CONSERVATION FOUNDATION