



The Musth, the vicious and the rogue elephants – a review

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The elephants that are the largest terrestrial animals to have co-existed with man have been objects of considerable awe, inspiration and reverence. The extreme physical power coupled with the most highly developed manoeuvrability of their trunk make these huge animals very powerful creatures capable of causing severe changes in the vicinity including problems to property and life of man.

Such encounters are occasionally prevalent and because of the lack of knowledge with reference to the reason for the same, misinterpreted as the natural destructive tendency or as consequence of the condition known as 'Musth'. The information relating to elephants contain certain reference to Musth and very few records regarding the behavioural aspects of elephants.

Both the African and Asian elephants have been existing in close contact with man as captive elephants used for variety of purposes ranging from work animals to ceremonial creatures. Historically the first instances of using elephants as captive animal relate to that of Hannibal utilizing the African elephants for war over the Alps some 1200 years ago and contemporary usage of Asian elephants by Indian Emperors for the same purpose even though the Hindu Epics like Ramayana and Mahabharatha believed to be depicting life about 6000 years ago include several instances of human use

of elephants. However the most common and conspicuous use of elephants has been that of utilizing them in forest areas and timber yards for logging purposes. This has been most widely prevalent in countries rich in timber trees like Burma, Srilanka, Thailand, Malaysia and India, even though these "living cranes" have been very much replaced by trucks particularly during the past four to five decades. Because of the unique position of being work animal and the most enchanting creature coveted for pageantry and ceremony, the elephant comes closest to be the most valued animal in Co-existence with man.

It is quite intriguing that such a revered animal remains mostly understudied even now so that the various sorts of tantrums displayed by elephants become all mistakingly attributed to the phenomenon of Musth.

Behaviourally the elephants could be categorized into three types with relevance to the tantrums, namely those in Musth, those having vices and those that have become Rogues. This categorization is based on detailed analysis of the ethology of elephants both in free-living state and in captivity. Conclusions have been drawn to constitute sufficient basis for further research on the ethology of elephants with regard to the demonstration of behavioural problems.

The African and Asian elephants of both sexes possess a pair of myoepithelial sub-cutaneous glands in the temporal region midway between the earhole and the outer canthus of the eye known as the "Musth glands" which mean glands responsible for the condition of "Musth". These glands have long been considered to be connected with the reproductive function of the animals. The pattern of appearance of musth in African elephant is considered to be quite different from the Asiatic elephant. There are references to the extent that musth glands become functionally active during breeding season only but MC Gaughy (1963), Eisunburg *et al.* (1971), Krishnan (1971) and Sykes (1971) State that these glands have extra reproductional functions also. Sykes (op.cit) reported that the temporal gland secretion or temporin serves in individual as well as herd identification as also for marking the territory. This view seems to be most acceptable in lieu of the glands being the most frequently contacted organ when elephants come in contact with other elephants and also because they smear the Musth gland secretions on trees as though marking them as their territory bandstands.

Some elephants in 'Musth' exhibit dullness/tranquility, even though certain individuals show unruliness occasionally. It has been noted that captive

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elephants under regular systematic managerial care including sufficient exercise seldom exhibit unruliness during Musth. On the contrary, some elephants in Musth assume a more tranquil attitude permitting even handling by strangers. Short *et al.* (1977) did not find any evidence to suggest that the size or activity of musth gland was in any way related to reproductive activity. Musth usually occurs in over-pampered well-nourished elephants having less exercise. In the light of the above observations, musth is reckonable as a communication facet in the social behaviour of elephants demonstrable as seasonal migratory movements having attendant implication that such assemblage may also help the reproductive/mating process.

It is a well known fact that animals under constraint of restraint and thus denied ample facilities of space, movement and congenial management gradually develop certain vicious perversions or vices which adversely affect their health and habits. The many instances of such perversions in various domesticated animals are almost fully studied and remedial measures for the same prescribed. Though captive elephants are also liable to develop vices, the same has only been poorly studied. Pythal (1970) reported that Roaring, Jibbing, Bolting and stampeding are the common vices of elephants. Some of these vices are quiet serious perversions liable to cause damage to life and property and can easily be misjudged as 'Musth'. However, vices persist till successfully corrected by appropriate managerial measures. Vicious elephants are very occasionally problem animals making room for wide varieties of tortures and consequent complications of management. Many captive elephants under the ownership of rather less affluent owners or under the care of dishonest mahouts possess vices, the type of vices varying with the differences in the managerial regimes. A systematic study on the causes for development of vices and remedial measures for the same have to be taken up.

Rogues are individuals, which are intentional destroyers or killers. They routinely take vengeance for the harm inflicted on them and the method of vengeance differs depending on the causes for the development of rogueness. Among free-living elephants rogueness is very rare because they do not become subject to any intentional harms. However, combat between tuskers for mate or territory may lead to development of rogueness in repeatedly driven out combatants subjected to painful injuries. Free-living elephants subjected to gun or leg snares or arrow shots and having bullets or arrow heads retained in the body or animals having persistent painful wounds usually turn out to be rogues. Douglas-Hamilton and Hamilton (1975) has mentioned the case of the Torone sisters-four adult cows-as the only rogues he encountered among the nearly 400 elephants subjected to study by him in the Maniyara camp. The sisters were so notorious that visitors to the area were quiet apprehensive of them. Moreover all of them were having

a common goal of attacking vehicles. Roguiness in elephants have been compared to man-eating behaviour in tigers and to be variable like the designed, intentional and confirmed states of maneatingness. (Choudhary, 1982). However instances of rogueness among free living elephants is scanty and limited to occasional cases of injuries inflicted by man or fellow creatures.

Captivity seems to be a much more favourable ground for the development of rogueness in elephants even though most workers have failed to note this fact. Elephants are very much capable of comprehension and learning so that they are liable to unmistakingly react to particular instances and individuals. This high sense of learning make them prone to great degree of development of rogueness and even minor misdeeds repeated will be reacted to by not only resentment but vengeance and destructive attitude. It is this peculiar innate behavioural capacity that results in the frequent incidences of unruliness, destructive tantrums and even man-animal conflicts ultimately leading to death of persons particularly the mahouts. The most pertinent point in this context is that almost all incidences of rogueness are mistaken for Musth situations, so that Musth which is a normal physiological phenomenon as pointed out earlier is invariably misinterpreted as a dangerous and unruly tantrum.

The musth elephant and vicious elephant happen to be amenable to remedial managerial procedures while the rogue elephants are not amendable to such remedies. In the case of rogue elephants, restraint by physical and chemical methods could be of some value but they pose real severe problems with regard to tractability, performance and handling. This does not mean that corrective procedures are totally useless. Correction of rogueness is possible to a very large extent by continuing efforts for proper handling and nursing which may gradually make the animal free of torematation and ensure it the satisfaction deserved. It is a well known fact that many unruly elephants, most of which are rogues, submit themselves to the endearing commands and treatments by lovable owners and respectable mahouts.

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