

**PREPONDERANCE OF PARASITES IN ELEPHANTS
AND ITS CONTROL IN CAPTIVE ELEPHANTS**
(Elephas maximus)

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for the degree of

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to the

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Chennai**

**DEPARTMENT OF WILDLIFE SCIENCE
MADRAS VETERINARY COLLEGE
TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY
CHENNAI-600 007
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CERTIFICATE


This is to certify that the thesis entitled "PREPONDERANCE OF PARASITES IN ELEPHANTS AND ITS CONTROL IN CAPTIVE ELEPHANTS (*Elephas maximus*)" submitted in partial fulfillment of the requirements for the degree of MASTER OF VETERINARY SCIENCE in WILDLIFE SCIENCE to TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY, CHENNAI is a record of bonafide research work carried out by by **Dr.P.KATHIRAVAN** under my supervision and guidance and that no part of this thesis has been submitted for the award of other degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journal or magazine.

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Place : Chennai


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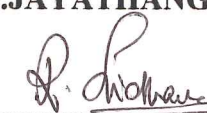
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ABSTRACT

- Title** : PREPONDERANCE OF PARASITES IN
ELEPHANTS AND ITS CONTROL IN
CAPTIVE ELEPHANTS (*Elephas maximus*)
- Name of the student** : P. KATHIRAVAN
- Degree for which thesis is submitted** : M.V.Sc., (WILDLIFE SCIENCE)
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The 'elephant-man-conflict' areas subjected in this study programme, comprised of the places located around the Eastern Ghats regions (Sathyamangalam – Erode forest divisions) and similarly, the captive elephants investigated in this study were located at Selaiyur, Thirukadaiyur, Thiruvannamalai, Sriperumbudur, Kumbakonam, Kancheepuram, Thiruvudaimaruthur, Trichy, Tanjore and Madurai temples of Tamil Nadu state.

Thirty five numbers of dung samples in total (15 numbers from 'elephant-man-conflict' areas and 20 numbers from various temples of Tamil Nadu state) were subjected to the systematic parasitological examination.

All the dung samples which were obtained from different 'elephant-man-conflict' areas, in this study revealed evidences of internal parasites like Strongyles, *Strongyloides* sp. and mixed parasitic prevalences comprising of Strongyles and *Strongyloides* sp.

Out of the twenty dung samples obtained from captive elephants, evidence of internal parasites like Strongyles, *Strongyloides* sp. and mixed parasitic prevalence of Strongyles and *Strongyloides* sp. were observed in 85% of the dung samples.

Egg per gram (EPG) of dung samples were assessed for Strongyles, *Strongyloides* sp. and mixed parasitic prevalences comprising of Strongyles and *Strongyloides* sp., before and after the treatment with fenbendazole at the rate of 5mg per kg body weight. Similarly, EPG of dung samples were also assessed for Strongyles, *Strongyloides* sp. and mixed parasitic prevalence of Strongyles and *Strongyloides* sp. before and after the treatment with extract prepared from fresh leaves of naturally grown *Aloe vera*. Both fenbendazole and *Aloe vera* were found to be useful against helminthiasis in captive elephants.

The management measures which could be adopted both in free-ranging elephants (which might get associated in conflict with human beings) and in elephants reared in various temples of Tamil Nadu state were recommended.

KEYWORDS: Temple elephants- elephant- man conflict areas- endoparasitic fauna-fenbendazole- *Aloe vera*