

# **HEALTH STATUS OF WATER BIRDS IN THE SOUTHERN DISTRICTS OF TAMILNADU**

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*Thesis submitted in partial fulfillment of  
the requirements for the degree of*

**MASTER OF VETERINARY SCIENCE**

**In**

**WILDLIFE SCIENCE**

*to the*

**TAMILNADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY  
CHENNAI**

**DEPARTMENT OF WILDLIFE SCIENCE**

**MADRAS VETERINARY COLLEGE**

**TAMILNADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY  
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## CERTIFICATE

This is to certify that the thesis entitled **"HEALTH STATUS OF WATER BIRDS IN THE SOUTHERN DISTRICTS OF TAMILNADU"** submitted in partial fulfillment of the requirement for the degree of **MASTER OF VETERINARY SCIENCE** in **WILDLIFE SCIENCE** to the **Tamil Nadu Veterinary and Animal Sciences University, Chennai**, is a record of bonafide research work carried out by **Dr. JEBA GILARY K.** under my supervision and guidance and that no part of this thesis has been submitted for the award for any 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.

Date : 29-6-2006


Place : Chennai

  
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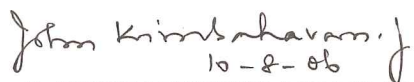
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## ABSTRACT

*Title* : **HEALTH STATUS OF WATER BIRDS  
IN THE SOUTHERN DISTRICT OF  
TAMILNADU**

*Name of the student* : **JEBA GILARY K.**

*Degree for which  
the thesis is submitted* : **Master of Veterinary Science in  
Wildlife Science**

*Year and University* : **2006, Tamilnadu Veterinary and  
Animal Sciences University**

Health status of water birds (Little Egret, Cattle Egret, Great Egret, Little cormorant, Great White Pelican, Open – billed stork, Painted stork and Spot billed duck) was studied in the three Southern districts, Kanyakumari Ramnad and Tirunelveli of Tamilnadu. The levels of seven heavy metals viz., Copper, Lead, Zinc, Cadmium, Cobalt, Manganese and Iron were estimated in the eggshells and Copper, Lead, Cadmium, Cobalt, Manganese, Magnesium, Iron, Zinc and Potassium were estimated in the water samples. The eggshells of resident water birds showed higher levels of heavy metals comparatively to the migratory water birds. The evidences of *Ascaris spp*, *Capillaria spp.*, *Spirurid spp.* and *Syngamus spp.* were identified in the droppings in addition to the findings of eggs of *Acanthocephalan spp.* and Oocysts of Coccidia. The eggshell thicknesses of all the eggshells were measured. The eggshell thicknesses of

other water birds were comparatively lower than that of the domestic duck. Bacteriological examination was carried out to determine the most probable number of coliforms in all the water samples collected. The wetlands had more contamination than the agricultural fields. The environmental threats were identified and suitable suggestions were presented for future adoption to conserve these water birds.

**Key words:**

Water birds, heavy metals, eggshell thickness, parasites.