

**GASTROINTESTINAL HELMINTH PARASITES OF CAPTIVE
GHARIAL (*Gavialis gangeticus*) HATCHLINGS AT CHITWAN
NATIONAL PARK, NEPAL**



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A thesis submitted in partial fulfillment of the requirements for the award of the degree of Master of Science in Zoology with special paper Parasitology

Submitted to

Central Department of Zoology

Institute of Science and Technology

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Kirtipur, Kathmandu

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DECLARATION

I hereby declare that the work presented in this thesis has been done by myself, and has not been submitted elsewhere for the award of any degree. All sources of information have been specifically acknowledged by reference to the author(s) or institution(s).

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RECOMMENDATIONS

This is to recommend that the thesis entitled "**Gastrointestinal Helminth Parasites of Captive Gharial (*Gavialis gangeticus*) Hatchlings at Chitwan National Park, Nepal**" has been carried out by Prakash Mani Kumal for the partial fulfillment of Master's Degree of Science in Zoology with special paper Parasitology. This is his original work and has been carried out under my supervision. To the best of my knowledge, this work has not been submitted for any other degree in any institutions.

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On the recommendation of supervisor "**Dr. Mahendra Maharjan**" this thesis submitted by Prakash Mani Kumal entitled "**Gastrointestinal Helminth Parasites of Captive Gharial (*Gavialis gangeticus*) Hatchlings at Chitwan National Park, Nepal**" is approved for the examination and submitted to the Tribhuvan University in partial fulfillment of the requirements for Master's Degree of Science in Zoology with special paper Parasitology.

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LIST OF ABBREVIATIONS

Abbreviated form	Details of abbreviations
°C	Celsius
µm	Micrometer
Aug	August
cm	Centimeter
Dec	December
DNPWC	Department of National Park and Wildlife Conservations
FAO	Food and Agriculture Organization
GBC	Gharial Breeding Center
IUCN	International Union for Conservation of Nature
m	Meter
Jul	July
m	Meter
mm	Millimeter
Nov	November
Oct	October
RCNP	Royal Chitwan National Park
Sept	September
UNDP	United Nation Development Project
WHO	World Health Organization
ZnSo4	Zinc Sulphate

ABSTRACT

Gastrointestinal helminth parasites of captive gharial *Gavialis gangeticus* hatchlings were studied for six month from July to December of the year 2012. Direct sample collections were done in gharial breeding center at kasara, Chitwan National Park. A total of 85 death gharial hatchlings in frozen condition were collected using sterile plastic and were transported to the veterinary lab camped at buffer zone of Chitwan National Park nearby Sauraha. The death gharial hatchlings were dissected and various visceral organs were separated and were preserved in the normal saline for the parasitological investigations. Out of 85 samples examined 40 samples were positive contributing 47.06% as prevalence rate of gastrointestinal helminth parasites. During the study, three new helminth parasites were reported from the death gharial hatchlings; Pentastomid (*Sebekia* sp.), Capillarioids and Ascaridoids. These are the newly reported helminth parasites from Nepal. The death hatchlings were found to be infected with different types of helminth parasites such as Pentastomid (41.17%), Ascaridoids (7.05%), Capillarioids (1.175%), *Proctocaecum gairhei* (3.52%) and *Exotidendrium* sp. (36.47%). Month wise prevalence of helminth parasites were compared and in the month of December highest prevalence of helminth parasites were found; Pentastomid (100%) and *Exotidendrium* sp. (100%) and *Proctocaecum gairhei* (75%) and the lowest prevalence in the month July; Pentastomid (4%), Capillarioids (4%) and *Exotidendrium* sp. (8%).