# Taxonomic Studies on Dung Beetles (Coleoptera: Scarabaeidae: Coprinae) of Dhanusha District, Nepal

# THESIS

Submitted to the Central Department of Zoology, Institute of Science and Technology, Tribhuvan University, Kathmandu, Nepal for the degree of Doctor of Philosophy in Zoology

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#### CERTIFICATE

This is to certify that **Mr. Shyam Prasad Mahto** worked under my supervision and guidance for the Ph.D. degree on the problem entitled "**Taxonomic Studies on Dung Beetles (Coleoptera: Scarabaeidae: Coprinae) of Dhanusha District, Nepal**". This is his original work and not submitted in any journals of other publication or for awarding any other degree.

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#### ABSTRACT

The present paper deals with 45 species of 12 genera of Coprinae under Scarabaeidae from Dhanusha district of Nepal. A check-list of 104 species under 17 genera of dung beetles is presented from Nepal. Out of 45 species, 40 species under 12 genera are recorded for the first time from Dhanusha district. One genus, Chironitis Lansberge is recorded for the first time from Nepal. Sixteen species under seven genera (Gymnopleurus parvus Macl., Catharsius birmanensis L., C. capucinus F., Copris magicus Har., C. sinicus Hope, C. repertus Walk., Phalops divisus Wied., Onthophagus tarandus F., O. sternalis Arrow, O. atropolitus d' Orb., O. armatus Bl., O. purpurascens Bouc., O. mopsus F., O. duporti Bouc., Onitis philemon F., and Chironitis indicus Lansb) are recorded for the first time from Nepal,. Out of total 17 genera, the genus Onthophagus Latr. appears to be the most predominant in Nepal being represented by 51 species, while some of the genera Scarabaeus L., Gymnopleurus Illg., Sisyphus Latr., Heliocopris Burm., Phalops Er., and Drepanocerus Kirby appear to be extremely uncommon, each being represented by only few species. Detailed descriptions of the genera, species and keys for identifications have been given in the text along with suitable illustrations.

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# LIST OF ABBREVIATIONS

ab.	:	abdominal sternite
Aed.	:	aedeagus
ant.	:	antenna
Bl.	:	Blanchard
Bouc.	:	Boucomont
Burm.	:	Burmeister
C.	:	clypeus
C.cav.	:	coxal cavity
cl.	:	club
cox.	:	соха
d' Orb.	:	Orbigny
e.	:	elytron
End.	:	Endophallus
Er.	:	Erichson
F.	:	Fabricius
Fairm.	:	Fairmaire
fem.	:	femur
Gebl.	:	Gebler
Germ.	:	Germar
Har.	:	Harold
Illig.	:	Illiger
L.	:	Linnaeus
1.	:	labium
Lansb.	:	Lansberge
Latr.	:	Latreille
lp.	:	labial palpus
lr.	:	labrum
m.	:	mandible
Macl.	:	Mac Leay
me	:	mentum
Motsch.	:	Motschulsky
mp.	:	maxillary palpus
mp.	:	mesothoracic epimeron
msh.	:	metasternal shield
mst.	:	mesosternum

mtep.	:	metathoracic episternum
mtst.	:	metasternum
mx.	:	maxilla
oc.l.	:	ocular lobe
Oliv	:	Olivier
Orf	:	Orifice
Pb.	:	Phallobase
Per.	:	Peringuey
pg.	:	pygidium
Pm.	:	Parameres
prn.	:	pronotum
pst.	:	prosternum
Quens	:	Quenstedt
Redt.	:	Redtenbacher
sc.	:	scape
Serv.	:	Serveille
sp.	:	tibial spur
tar.	:	tarsus
tib.	:	tibia
tr.	:	trochanter
Walk.	:	Walker
Wied.	:	Wiedemann
Wulf.	:	Wulfen

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Map 1 Map of Dhanusha district showing the nine study sites

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