

TWO NEW RECORDS OF GENUS *ONTHOPHAGUS* LATREILLE, 1802 (COLEOPTERA: SCARABAEIDAE) FROM MADHYA PRADESH, INDIA

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The genus *Onthophagus* is the predominant genus of the family Scarabaeidae. The present paper deals with new records of two species of the genus *Onthophagus* viz. *O. spinifex* Fabricius, 1781 and *O. hindu* Arrow, 1931 from Madhya Pradesh.

Key words : New records, *Onthophagus spinifex* Fabricius and *O. hindu* Arrow, Madhya Pradesh.

INTRODUCTION

The genus *Onthophagus* is the predominant genus under the subfamily Scarabaeinae and family Scarabaeidae (Latreille, 1802). Majority of the species of genus *Onthophagus* are dung feeders and few are also carrion feeder. The genus is worldwide in distribution with almost 1400 species distributed in different geographical regions of the world and in the series of *Fauna of British India, including Ceylon and Burma* (Lamellicornia : Coprinae), 17 species are included from Madhya Pradesh (Arrow, 1931). Subsequently, Chandra and Ahirwar (2007) reported 23 species of *Onthophagus* from Madhya Pradesh and Chhattisgarh. While working on the unidentified collection from Madhya Pradesh, two new records viz. *Onthophagus spinifex* Fabricius, 1781 and *Onthophagus hindu* Arrow, 1931 are identified. The details of references, material examined and distribution records of the species along with full taxonomic account are provided. Many more species of this genus are expected to be reported from central India, if more intensive surveys of unexplored areas are being undertaken.

MATERIALS AND METHODS

Specimens examined were collected by the scientific team of Zoological Survey of India, Jabalpur from Pench Tiger Reserve and Kanha Tiger Reserve in 2001 and from Veerangana Durgavati Wildlife Sanctuary in 2010. Beetle sampling was done using light trap which usually consists of a light source and a big white sheet, hung between the two trees, with the light placed in front of it. Beetles attracted to the lamp were collected from the sheet with in killing bottle containing benzene vapors. Collected beetles were kept in insect envelopes with proper habitat and locality data. After that they were further processed in the lab and pinned for permanent preservation. The specimens were carefully examined under stereomicroscope and classified and identified up to species level by available taxonomic literature and reference collection.

SYSTEMATIC ACCOUNT AND DESCRIPTION

Order: COLEOPTERA Linnaeus, 1758
Suborder: POLYPHAGA Emery, 1886
Family: SCARABAEIDAE Latreille, 1802
Subfamily: SCARABAEINAE Latreille, 1802
Tribe: ONTHOPHAGINI Burmeister, 1846

Genus *Onthophagus* Latreille, 1802

1802. *Onthophagus* Latreille, *Hist. Nat. Crust. Et. Ins.*, 3 : 141.

1931. *Onthophagus*, Arrow, *Fauna of British India, including Ceylon and Burma* (Lamellicornia : Coprinae) 3 : 159-162

Type specimen : *Scarabaeus taurus* Linnaeus (Europe)

Onthophagus spinifex Fabricius, 1781

1781. *Scarabaeus spinifex* Fabricius, *Spec. Ins.* I : 29.

1931. *Onthophagus spinifex*, Arrow, *Fauna of British India, including Ceylon and Burma* (Lamellicornia : Coprinae) 3 : 200-201.

Material examined : Madhya Pradesh, Seoni, Pench Tiger Reserve, Baghdev, 27.vii.2001(ex.1) Coll. M.L. Koshta & Party; Mandla, Kanha Tiger Reserve, Kisli R. H., 14.ix.2003(ex.1), Coll. M. Limje & Party.

Description : Body, dark blue and dark metallic, with legs and lower surface black; head, antennae, and tarsi reddish and clothed above and beneath with yellowish hair and setae. Head broad and semicircular with the clypeus coarsely rugose and separated from the forehead by a curved carina. Male possessing, a well developed long slender horn with flattened base that originate between the eyes upon forehead and extends beyond the middle of the body. Pronotum moderately stubbed with small granules at the sides, very smooth and shining in the middle. Lateral granules change into a separate punctures near the middle and base. A very slight longitudinal groove present in the middle of the base. The front angles of the prothorax produced and rather sharp, the lateral margins nearly straight in front and very feebly sinuate behind. The hind angles obsolete and with the base rounded. Elytra finely striate with the intervals flat, not shining but finely and irregularly punctured. Front tibia tetra-dentate. Pygidium strongly and closely punctured and with very fine clothing of hairs present at extremity.

Measurements : Total length: 9.0mm, Total width: 5.5mm, Head size: 1.5mm, Pronotum size: 4.0mm, Elytra size: 3.5mm, Horn size: 5.5mm.

Distribution : India: Bihar, Haryana, Madhya Pradesh (Mandla and Seoni), Maharashtra, West Bengal and South India, **Elsewhere**: Sri Lanka.

Onthophagus hindu Arrow, 1931

1931. *Onthophagus hindu*, Arrow, *Fauna of British India, including Ceylon and Burma* (Lamellicornia : Coprinae) 3 : 289.

1963. *Onthophagus hindu*, Balthasar, *Monographie der Scarabaeidae und Aphodiidae der Palaearktischen und Orientalischen Region* (Coleoptera : Lamellicornia), 2 : 381.

Material examined : Madhya Pradesh, Damoh, Veerangana Durgavati Wildlife Sanctuary, Bhaisaghat, 08.ix.2010 (ex.6), Coll. K. Chandra & Party.

Description : Body oval and black with foot-stalk of the antennae and the scanty hair present upon the lower surface and legs, dark red. Upper surface opaque, except the posterior part of the head and anterior part of the pronotum in the male and with hair.

Head broad with the sides rounded in front of eyes. Clypeus strongly punctured and reflexed in front, bilobed and separated from the smooth and feebly punctured fore head by a transverse carina. Forehead little bit elevated at inner margin of each eye and in the middle. A short pointed horn present on posterior margin of fore head. Pronotum smooth and shining but finely and closely punctured with the front angles not sharp and the sides rounded in front, sinuated behind and base gently rounded; slightly hollowed in front and almost vertical in front of the middle. Elytra finely striate with the intervals flat and minutely punctured. A minute tubercle present upon the elytral suture just behind the base. Pygidium opaque but minutely and sparsely punctured. Fine scattered punctures present on metasternal shield larger and closer at the sides and front of the shield. Front tibia short and tetra-dentate with terminal spur very short and quadrate.

Measurements : Total length: 8.5mm, Total width: 5.0mm, Head size: 1.5mm, Pronotum size: 3.0mm, Elytra size: 4.0mm, Horn size: 1.0mm.

Distribution : India : Madhya Pradesh (Damoh), Maharashtra and South India.

Remarks : Male can be easily distinguished by short and quadrate front tibial spur with that of female's long, sharp and slender one. This species is carrion feeder.

RESULTS AND DISCUSSION

In this paper, two new records viz. *Onthophagus spinifex* Fabricius, 1781 and *Onthophagus hindu* Arrow, 1931 are reported from Madhya Pradesh. The identification of the species of this particular genus i.e. *Onthophagus* mainly rely upon the sculpture of pronotum, clypeus shape, size of eyes, and the form of hind tibia. *O. spinifex* Fabricius, 1781 possess partially granulated pronotum while in *O. hindu* Arrow, 1931, the pronotum is distinctly punctured.

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