

A new species of the genus *Heterarthrus* from India (Hymenoptera: Tenthredinidae)

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Abstract: *Heterarthrus indiana* spec. nov. is described from India, representing the first species of the genus found in this country. A key to the Oriental species of the genus is provided.

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Introduction

The genus *Heterarthrus* Stephens is a very distinct genus of the subfamily Heterarthrinae. It is characterised as follows. Antenna 10-15 segmented. Head flattened and dorsally markedly depressed between eyes; malar space 2x diameter of median ocellus; clypeus truncate, postgenal carina absent. Tarsal claw with the subapical tooth shorter than the apical one, acute basal lobe present. Epicnemium absent. Forewing with vein 2A+3A complete for its entire length and connected to 1A by an oblique crossvein. Hindwing with radial cell open; cells Rs and M absent; anal cell present.

The genus shows some primitive features and includes specialized leaf mining species (Benson, 1952; Smith, 1971). Of the ten described species six are known from the Oriental region (Benson, 1952). *Heterarthrus indiana* spec. nov. is described from India, representing the first species of the genus known from this country.

Heterarthrus indiana spec. nov. (fig. 1-4)

Type material

Holotype ♀, India, Himachal Pradesh, Siversar Lake (Jalouri Pass), 3000 m, 8.vi.1991, leg V. Vasu.

Paratype: 1 ♀, same data as holotype. Depository: Division of Entomology, Pusa National Collection, Indian Agricultural Research Institute, New Delhi, India.

Description

Female: Body length 4.5 mm. Colour: body black, yellowish white are: scape, pedicel more or less, clypeus except extreme base, labrum, mandible barring apex, supraclypeal area, broad inner orbits except upper 1/5, lower 1/4 of hind orbit; broad posterolateral and extreme posterodorsal margins of pronotum, tegula; transverse band on lower half of mesopleuron, deflexed lateral sides of tergites 2-8. Legs yellowish white; extreme apices of tibiae and entire tarsi ferruginous. Wings infumate, venation including costa, subcosta and stigma fuscous.

Head: Impunctate, shining; pubescence silvery, 0.5x scape length. Antenna 12 segmented, 1.8x head width, scape as long as its apical width, pedicel 0.75x its apical width, scape and pedicel as 3:2, segments 3 and 4 as 4:3; clypeus (fig. 1) truncate with rounded anterior margin, labrum (fig. 1) broader than long as 2:1 with truncate anterior margin; supraclypeal area roundly raised; supraantennal pit deep, ditch-like; LID:IDMO:EL = 1:1.5:1, POL:OCL:UOL:UCL = 1:0.5:1:0.75; malar space 3x diameter of median ocellus.; frontal area at level of eyes, supraantennal tubercles moderately developed and confluent with roundly raised similar frontal ridges, median fovea deep, ditch-like and clearly reaching median ocellus; post-, inter- and circumocellar furrows distinct, lateral furrows deep, pit-like and abruptly ending just before hypothetical

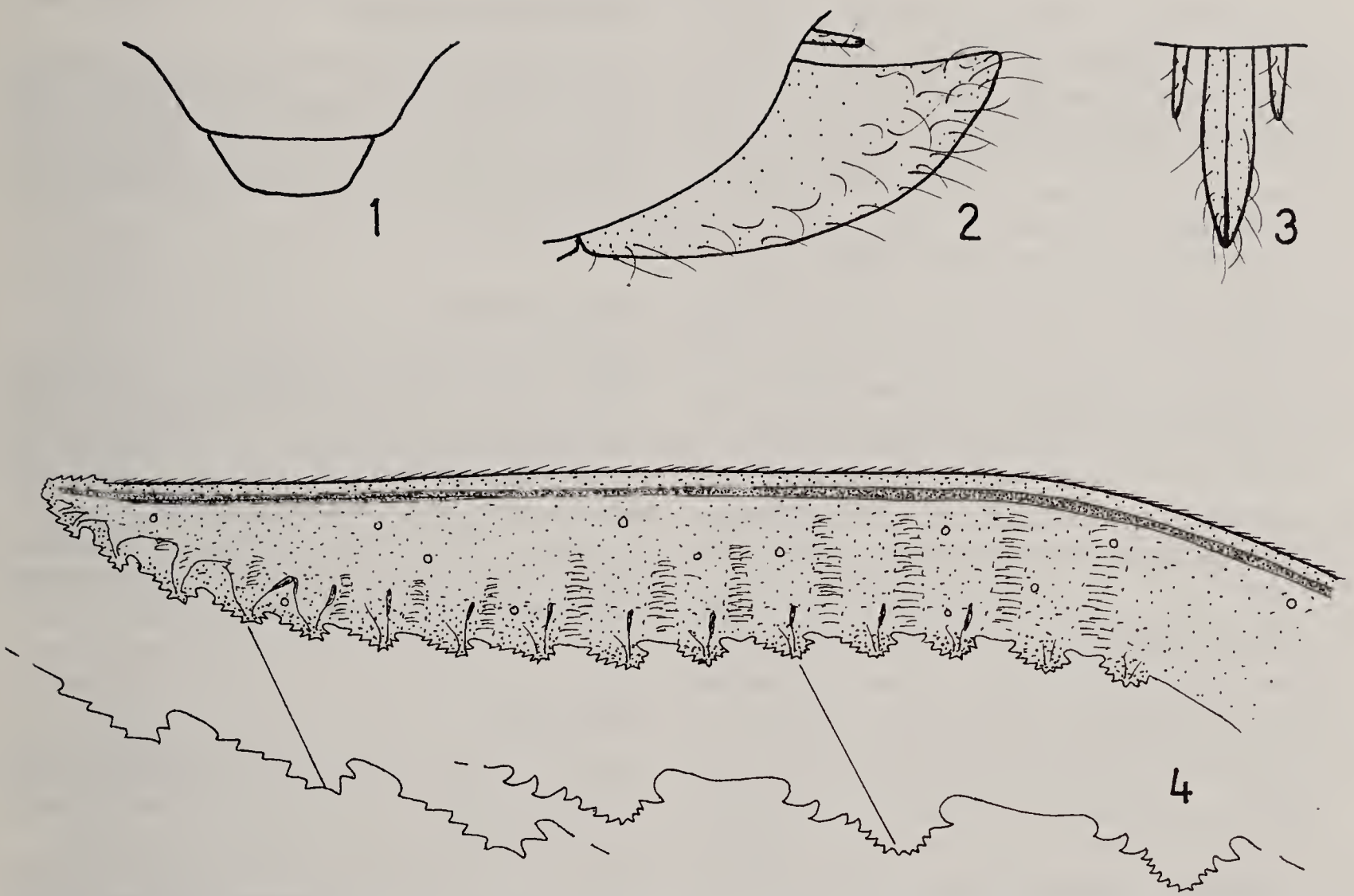


Fig. 1-4. *Heterarthrus indiana* spec. nov. 1, clypeus and labrum; 2, ovipositor sheath (lateral view); 3, ovipositor sheath (dorsal view); 4, lancet.

hind margin of head; postocellar area subconvex, broader than long 3:1, head narrowing behind eyes.

Thorax: Impunctate, shining; pubescence silvery, 0.5x scape length. Mesoscutellum subconvex, appendage ecarinate; metabasitarsus longer than following 3 joints combined as 4:3, IATS:MB:OATS:AWMT = 0.75:2:0.75:1.

Abdomen: Impunctate, shining; pubescence silvery, 0.5x scape length. Ovipositor sheath as in fig. 3 (dorsal view) and fig. 2 (lateral view); cerci not reaching hind margin of ovipositor sheath. Lancet (fig. 4) having 15 serrulae.

Male: Unknwon.

Etymology: The species is named after the country, India.

Distribution: India, Himachal Pradesh.

Diagnosis

On the basis of key characters, *Heterarthrus indiana* is very close to *H. birmana* Malaise and *H. ochropoda* (Klug) from which it can be

separated as follows: legs mainly yellowish white (black in *H. birmana* and *H. ochropoda*), length ratio of antennal segments 3 and 4 as 4:3 (2:1 in *H. birmana* and 3:2 in *H. ochropoda*), flagellum entirely black (underside pale in *H. ochropoda*), median fovea deep and reaches median ocellus (shallow in *H. birmana*) and lateral furrows pit-like (long and parallel in *H. ochropoda*).

Key to the Oriental species of *Heterarthrus* Stephens

- 1. Abdomen largely orange yellow beneath 2
- Underside of abdomen not orange yellow 3
- 2. EL:ML = 1:0.5 in female, 1:0.3 in male; mesopleura in male almost yellow; antenna 13-15 segmented; ovipositor sheath in dorsal aspect at most as wide as metabasitarsus and furnished with long lateral setae *H. microcephalus* (Klug)
- EL:ML = 1:0.2 in female, 1:0.12 in male;

- mesopleura in male almost black; antenna 11-14 segmented; ovipositor sheath in dorsal aspect narrower than metabasitarsus and only furnished with short lateral setae *H. vagans* (Fallen)
3. Abdomen of female entirely black, in male (if known) mostly whitish below; legs mainly black except some whitish spots 4
- Abdomen of female black with yellowish white spots on deflexed lateral sides of tergites 2-8, male unknown; legs mainly yellowish white except some ferruginous spots on tarsi and extreme apices of tibiae *H. indiana* spec. nov.
4. Antenna beyond segment 6 or 7 becomes narrower, length ratio of segments 3 and 4 as 2:1, flagellum entirely black; lateral furrows short, pit-like and diverging posteriorly, median fovea shallowly reaching median ocellus *H. birmana* Malaise
- Antenna uniformly thick, length ratio of segments 3 and 4 as 3:2, flagellum with underside pale; lateral furrows long, distinct and almost parallel, median fovea distinctly reaching median ocellus *H. ochropoda* (Klug)

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Abbreviations

AWMT = apical width of metatibia; EL = eye length; IATS = inner apical tibial spur; ICD = intercenchri distance; IDMO = interocular distance at the level of median ocellus; ITD = intertegular distance; LID = lower interocular distance; MB = metabasitarsus, ML = length of malar space; OATS = outer apical tibial spur, OCL = oculooccipital line; POL = postocellar line; UCL = oculooccipital line; UOL = oculoocellar line.

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