

Two new species of *Anisotaxonus* Saini & Vasu, 1998 from India (Hymenoptera: Symphyta: Tenthredinidae: Allantinae)

Два новых вида пилильщиков рода *Anisotaxonus* Saini & Vasu, 1998 из Индии (Hymenoptera: Symphyta: Tenthredinidae: Allantinae)

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KEY WORDS: new species, *Anisotaxonus*, Hymenoptera, Allantinae, India.

КЛЮЧЕВЫЕ СЛОВА: новые виды, *Anisotaxonus*, Hymenoptera, Allantinae, Индия.

ABSTRACT. To the previously recorded three species of genus *Anisotaxonus* Saini & Vasu, 1998, two species are added new. Described and illustrated as new to science are: *A. garhwali* sp.n., and *A. khasiana* sp.n. A key to the species of this genus is provided.

РЕЗЮМЕ. К ранее известным трём видам рода *Anisotaxonus* Saini & Vasu, 1998 добавлено ещё два. Описаны как новые для науки и иллюстрированы *A. garhwali* sp.n. и *A. khasiana* sp.n. Дан ключ для определения видов рода.

Introduction

Saini & Vasu [1998] erected a genus *Anisotaxonus* from India based on three new species. Of which *A. brunneus* was taken as its type species. The members of this genus are characterized by: Antennal segment 3 shorter than 4, scape longer than pedicel, postgenal carina absent, mesopleuron impunctate, claw with a subapical tooth, and with or without basal lobe; forewing with vein M and Rs+M meet Sc+R at or close to same point, anal crossvein oblique; hindwing with one closed middle cell, and anellan cell petiolate.

The members of this genus are described throughout the Himalayan belt, mainly more concentrated throughout North-eastern region. Their flight period is very short extending over premonsoon period (*i.e.* May–June) only, since with the onset of first shower the adults disappear. These insects have predelection for broad leathery leafy vegetation growing under huge trees, and like humid places with filtered sunlight. The host plants remain unknown.

The present text deals with the addition of two new species to science from India. These species are described and illustrated on a uniform systematic pattern with the presentation of key to the known species. The colour pattern of abdomen and of antenna, and absence of basal lobe in tarsal claw set these new species far

apart from *A. brunneus* Saini & Vasu, but bring close to rest of the species *i.e.* *A. assamensis* Saini & Vasu and *A. sessaensis* Saini & Vasu. The characters distinguishing these new species and previously known species are: abdomen black above or with faint brownish yellow spots on some middle tergites in new ones (abdomen with some middle tergites entirely yellow in already known species), and malar space distinctly longer than diameter of median ocellus in new ones (at most 1x diameter of median ocellus in already known species).

The type material is housed at Zoological Museum of Moscow State University, Moscow, Russia.

Abbreviations used in text are: EL — eye length, FR — frontal ridge, IATS — inner apical tibial spur, ICD — inter-cenchi distance, IDMO — interocular distance at level of median ocellus, ITD — intertegular distance, LID — lower interocular distance, MB — metabasitarsus, MF — median fovea, OATS — outer apical tibial spur, OCL — ocelloccipital line, OOL — oculoocellar line, POL — postocellar line.

KEY TO SPECIES OF *ANISOTAXONUS* SAINI & VASU

1. Abdomen with at least some tergites black; tarsal claw without basal lobe; antenna unicoloured, entirely black 2
— Abdomen entirely brownish yellow; tarsal claw with distinct basal lobe; antenna bicolour with golden yellow tip
..... *A. brunneus* Saini & Vasu
2. Abdomen with some middle segments entirely golden yellow; malar space at most 1x diameter of median ocellus 3
— Abdomen black above or with faint brownish yellow spots on some middle tergites; malar space longer than diameter of median ocellus 4
3. Abdomen with segments 3–4 entirely golden yellow; malar space 1x diameter of median ocellus; postocellar area as long as wide; metatibia golden *A. sessaensis* Saini & Vasu
— Abdomen with segments 3–5 entirely golden yellow; malar space 0.75x diameter of median ocellus; postocellar area wider than long; metatibia ferruginous
..... *A. assamensis* Saini & Vasu
4. Abdomen entirely black above; malar space 1.75x diameter of median ocellus; postocellar area wider than long as 3:2; metabasitarsus equal to following 3 joints combined; clypeus

- narrowly incised upto 1/3 of its length
 *A. garhwali* sp.n.
 — Abdomen with tergites 3–4 brownish yellow; malar space 1.25x diameter of median ocellus; postocellar area wider than long as 2:1; metabasitarsus longer than following 3 joints combined; clypeus subtriangularly incised upto 1/2 of its length *A. khasiana* sp.n.

Anisotaxonus garhwali sp.n.

Figs 1, 3, 5, 7, 8, 10, 12.

MATERIAL EXAMINED. Holotype: ♀, Uttar Pradesh, Sonprayag, 1700 m, 14 vi 1997, Coll. V. Vasu. Paratype: ♂ with same data as holotype.

DESCRIPTION. Female. Colour: Body black, yellowish white are: clypeus, labrum, mandible barring apex, supraclypeal area, inner orbit except under 1/5, lower 1/5 of hind orbit, malar space, stripe lateral to temple; extreme narrow posterodorsal and lower 1/2 of anteroventral margins, tegula, anteromedial triangular spot on mesoscutellum, broad transverse stripe on lower 1/3 of mesopleuron, metasternum, lower 1/2 of metepisternum; deflexed lateral sides of all tergites, all sternites entirely; coxae, trochanters and femora of all legs; tibiae and tarsi of front four legs having outer aspects striped with light brownish to darkly infuscated tinge; apical 1/3 of metatibia and following tarsi dark brownish to fuscous. Wing hyaline; venation including costa, subcosta and stigma fuscous.

Structure: Length 5.5mm. Antenna long, 3x head width, apical segments not compressed; scape 1.25x its apical width, pedicel 1.25x its apical width, segments 3 and 4 as 5:6; clypeus (Fig. 1) narrowly circularly incised upto 1/3 of its length, labrum broader than long as 2:1 with rounded anterior margin, malar space 1.75x diameter of median ocellus, lower margin of eye below level of antennal sockets; LID:IDMO:EL = 3:3.5:2; supraclypeal area roundly raised, supraantennal pit shallow, oval with median protuberance; frontal area slightly above level of eyes, supraantennal tubercles moderate and confluent with almost similar frontal ridges, median fovea (Fig. 1) deeply canalculated and shallowly reaching median ocellus; postocellar furrow distinct, inter- and circumocellar furrows shallow; lateral furrows sunken and ending abruptly just before hypothetical hind margin of head, postocellar area convex, broader than long as 3:2, head parallel behind eyes; POL:OCL:OOL = 1:1.7:1.7; mesoscutellum subconvex, its appendage ecarinate, ICD:ITD = 1:4, tarsal claw (Fig. 7) subapical tooth shorter than apical one and the distance between two tips greater than length of subapical one, basal lobe absent; metabasitarsus equal to following 3 joints combined; IATS:MB:OATS = 1:3.5:0.75. Lancet (Fig. 12) having 11 serrulae. Ovipositor sheath as in Fig. 3.

Sculpture: Head with scattered, fine punctation, surface shining; mesonotum with dense, fine, distinct punctation, surface shining; mesoscutellum with large, shallow, scattered punctation on posterior border; mesoscutellar appendage impunctate; mesopleuron and mesosternum impunctate, shining with general oily luster; abdomen impunctate, faintly cross-striated, surface subshining.

Pubescence: Golden 0.2x scape length.

Male: Length 5mm. Similar to female excepting complete hind orbit and mesosternum yellowish white; all femora with infuscated inner dorsolateral stripe, and sternites 5–7 ferruginous. Genitalia: Penis valve (Fig. 8), gonoforceps (Fig. 10).

DISTRIBUTION. India: Uttar Pradesh.

DIAGNOSIS. *Anisotaxonus garhwali* can be separated from its allied species *A. khasiana* as: abdomen entirely black above (with tergites 3–4 brownish yellow in latter), malar space 1.75x diameter of median ocellus (1.25x in latter), postocellar area broader than long as 3:2 (2:1 in latter), metabasitarsus equal to following 3 joints combined (longer in latter), and clypeus narrowly incised upto 1/3 of its length (subtriangularly incised upto 1/2 of its length in latter). The characters keeping it far apart from rest of the species of this genus are discussed elsewhere in the text.

ETYMOLOGY. Species name is taken as a noun in genitive from the type locality.

Anisotaxonus khasiana sp.n.

Figs 2, 4, 6, 9, 11, 13.

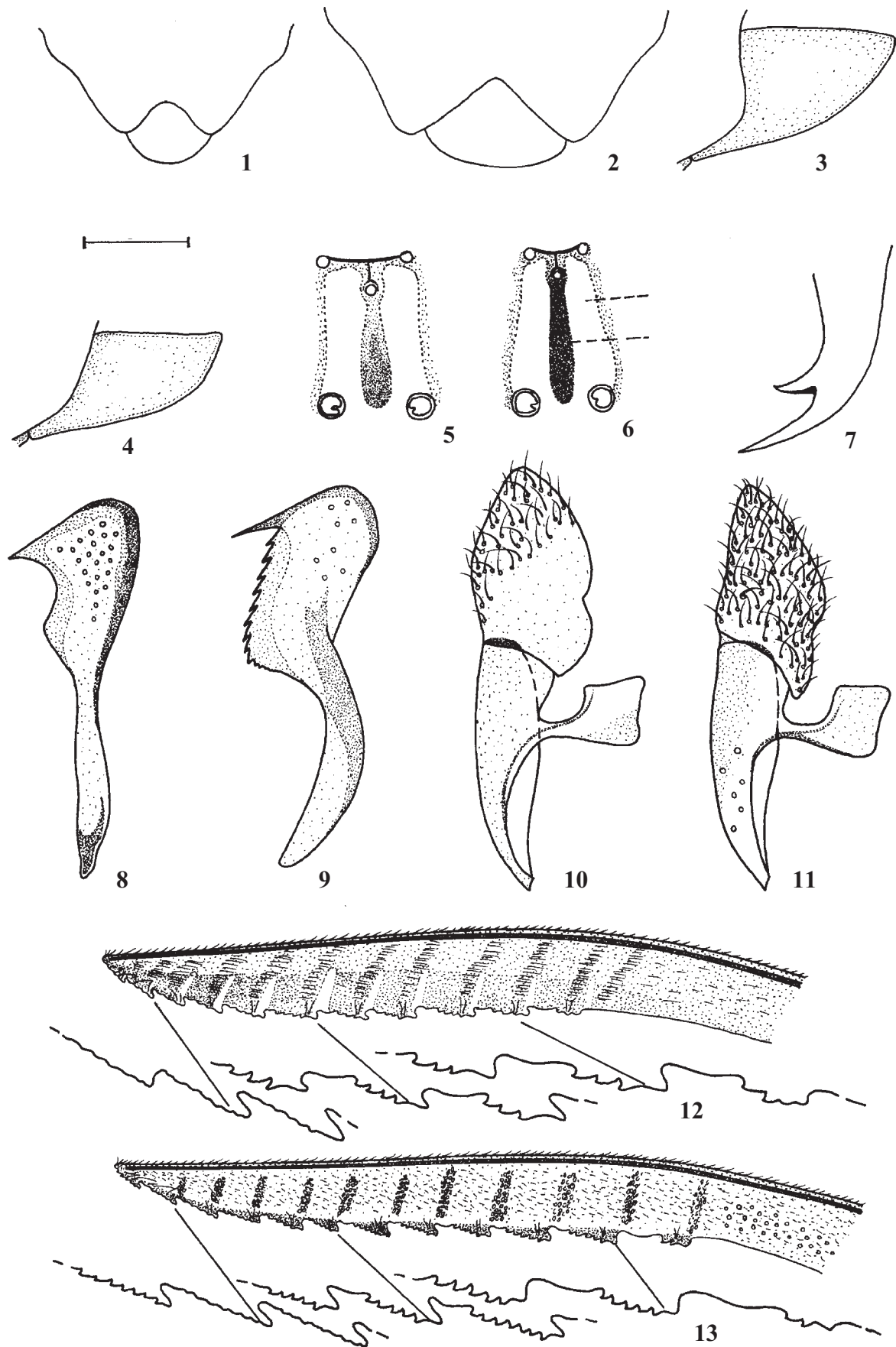
MATERIAL EXAMINED. Holotype: ♀, Meghalaya, Cheerapunji, 1400 m, 29 vi 1997, Coll. V. Vasu. Paratypes: 2 ♂♂ with same data as holotype.

DESCRIPTION. Female. Colour: Body black, yellowish white are: clypeus except extreme base, labrum, mandible except tip, supraclypeal area, streak on lower 3/4 of inner inner orbit interrupted in middle, upper 1/2 of malar space touching eye, stripe lateral to temple; extreme posterodorsal margin of pronotum, anteromedial spot on mesoscutellum, transverse band on lower 1/3 of mesopleuron, metasternum, metepisternum; posteromedial deltoid spot and posterior margin of tergite 2, tergites 3–4 also with brownish tinge; all legs except tarsi of front four legs including metabasitarsus posteriorly striped with light brownish tinge and remaining fuscous metatarsi. Wing hyaline; venation including costa, subcosta and stigma fuscous.

Structure: Length 5.5mm. Antenna long, 3x head width, flagellum not compressed; scape 1.25x its apical width, pedicel 1.25x its apical width, segments 3 and 4 as 4:5; clypeus (Fig. 2) subtriangularly incised upto 1/2 of its length, labrum broader than long as 2:1 with rounded anterior margin, malar space 1.25x diameter of median ocellus, lower margin of eye below level of antennal sockets; LID:IDMO:EL = 3:3.5:2; supraclypeal area roundly raised, supraantennal pit shallow, elongated with median protuberance; frontal area slightly above level of eyes, supraantennal tubercles moderate and confluent with almost similar frontal ridges, median fovea (Fig. 6) deep ditch-like and clearly reaching median ocellus; post-, inter- and circumocellar furrows distinct; lateral furrows sunken and ending abruptly just at hypothetical hind margin of head, postocellar area convex, broader than long as 2:1, head parallel behind eyes; POL:OCL:OOL = 1:1:1.5; mesoscutellum almost flat, its appendage ecarinate, ICD:ITD = 1:5, tarsal claw (Fig. 7) subapical tooth shorter than apical one and the distance between two tips greater than length of subapical one, basal lobe absent; metabasitarsus subequal to following 3 joints combined as 8:7; IATS:MB:OATS = 1:3:0.75. Lancet (Fig. 13) having 12 serrulae. Ovipositor sheath as in fig. 4.

Figs 1–12. *Anisotaxonus* spp.: 1, 3, 5, 7, 8, 10, 12 — *A. garhwali* sp.n.; 2, 4, 6, 9, 11, 13 — *A. khasiana* sp.n. 1–2 — clypeus & labrum; 3–4 — ovipositor sheath; 5–6 — front view of frontal area; 7 — tarsal claw; 8–11 — male genitalia, penis valve (8–9), gonoforceps (10–11); 12–13 — female genitalia, lancet. Scale: 0.34 mm (1–4), 0.25 mm (5–6), 0.11 mm (7), 0.30 mm (8–11), 0.20 mm (12–13).

Рис. 1–12. *Anisotaxonus* spp.: 1, 3, 5, 7, 8, 10, 12 — *A. garhwali* sp.n.; 2, 4, 6, 9, 11, 13 — *A. khasiana* sp.n. 1–2 — наличник и верхняя губа; 3–4 — створка яйцеклада; 5–6 — фронтальная область, вид спереди; 7 — коготок лапки; 8–11 — гениталии самца, вальва пениса (8–9), гонофорцеисы (10–11); 12–13 — гениталии самки, пилка. Масштаб: 0,34 мм (1–4), 0,25 мм (5–6), 0,11 мм (7), 0,30 мм (8–11), 0,20 мм (12–13).



Sculpture: Head with dense, inconspicuous, distinct punctation, surface shining; mesonotum with dense, minute, shallow punctation, surface shining; mesoscutellum with shallow, scattered punctation on posterior half; mesoscutellar appendage impunctate; mesopleuron and mesosternum impunctate, shining with general oily luster; abdomen impunctate, subshining.

Pubescence: Mixed golden and fuscous, 0.2x scape length.

Male: Length 5mm. Similar to female excepting 3–4 black with pale medial deltoid streak and narrow posterior margins. Genitalia: Penis valve (Fig. 9), gonoforceps (Fig. 11).

DISTRIBUTION. India: Meghalaya.

DIAGNOSIS. The characters distinguishing *A. khasiana* and its allied species *A. garhwali* are discussed under the latter, while those, separating it from rest of recorded species of this genus are considered elsewhere in the text.

ETYMOLOGY. Species name is derived from its type locality.

ACKNOWLEDGEMENTS. The author is highly thankful to Dr. D. R. Smith, U. S. Department of Agriculture, Washington, D. C., for his valuable suggestions and to Dr. M. S. Saini, Department of Zoology, Punjabi University, Patiala-147002, India for critically going through the manuscript.

Reference

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