



## A new species of *Trichogramma* (Hymenoptera: Trichogrammatidae) from Anantnag, Jammu & Kashmir, India

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**ABSTRACT:** A new species of *Trichogramma* Westwood, viz., *Trichogramma kashmirica* sp. nov., parasitic on unidentified dipterous eggs on paddy, is described and illustrated from Srinagar, Jammu & Kashmir, India.

**KEY WORDS:** New species, Trichogrammatidae, *Trichogramma kashmirica* sp. nov.

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During our investigations on the species of *Trichogramma* Westwood (Hymenoptera: Trichogrammatidae) in India, a species of *Trichogramma* was reared by the second author from the eggs of an unidentified dipteran on paddy at Shalimar Campus, Srinagar, Jammu & Kashmir, India. On closer examination by the first author, the material was found to be a new species and is described in this paper. The holotype and paratypes of the present study are deposited in the collections of Project Directorate of Biological Control (PDBC), Bangalore, and National Pusa Collection (NPC), IARI, New Delhi.

*Trichogramma kashmirica* sp. nov. (Figs. 1-7)

### Male

Length 0.52 mm (0.40-0.57; N-16). Width across head 0.20 mm (0.18-0.22; N-16). Head dull ochreous yellow; antenna ochreous; ocelli carmine;

eyes deep carmine with lighter border. Pronotum, mesonotum, parapsides, scutellum dark chestnut. Propodeum dark chestnut. Abdomen (metasoma) with anterior two tergites dull ochreous yellow; middle two tergites dark chestnut suffused with dull ochreous posteriormost tergites; legs ochreous except for basal dark chestnut hind coxa.

### Antenna

Flagellum having 43 (41-50; N-8) short and nearly cylindrical hairs, longest 1.5 x (1.43-1.64; N-12) maximum width of flagellum. Flagellum 1.74 x 1.50-1.97; N-15) as long as scape. Basal segment distinct (Fig. 4).

### Thorax

Fore wing (Fig. 2) slightly more than half as wide as long, with fringe setae somewhat longer, longest on tornus, 0.15 x (0.13-0.16; N-12) width of

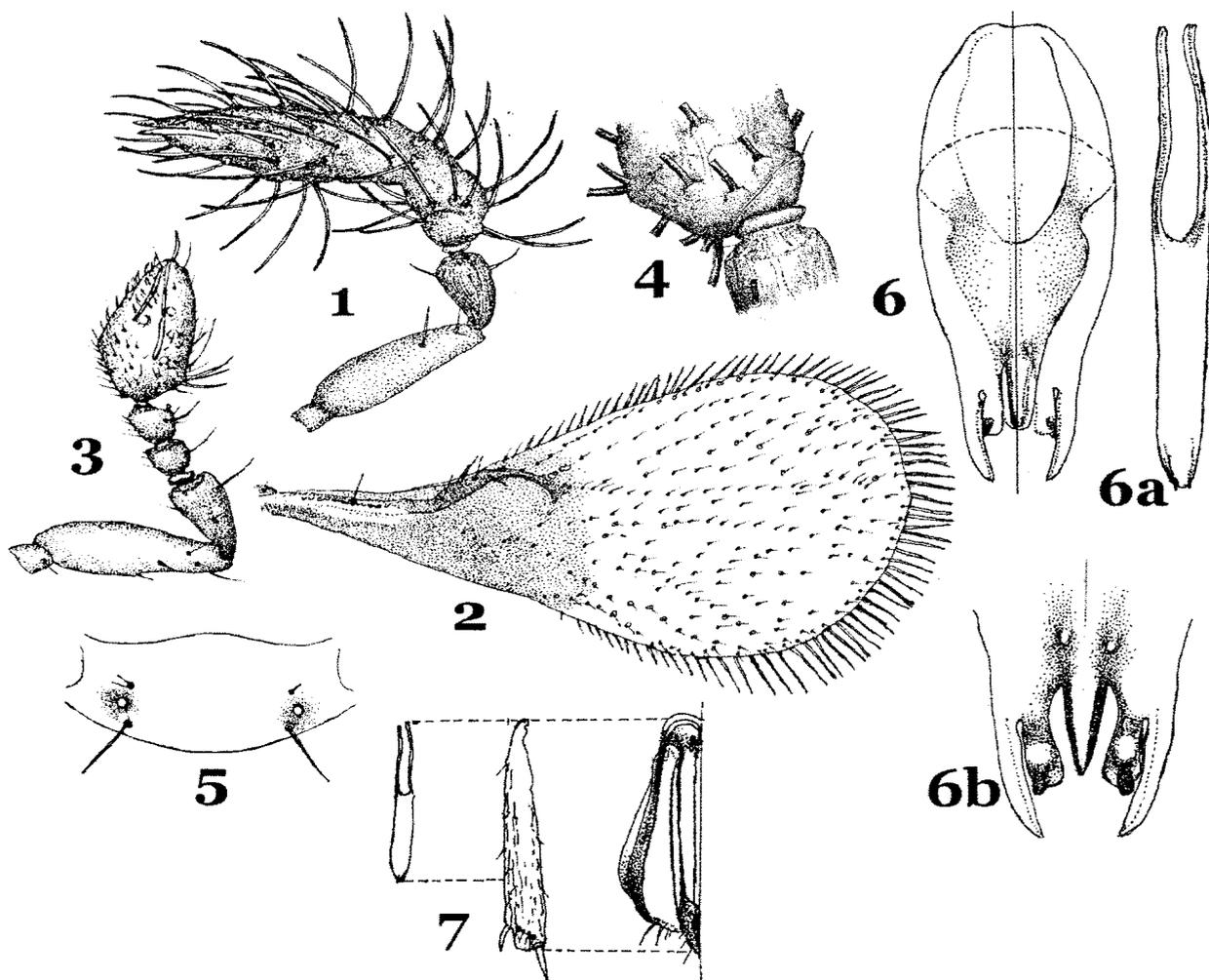


Fig. 1- 7. *Trichogramma kashmirica* sp. n.: 1. Male antenna; 2. Fore wing, male; 3. Female antenna; 4. Basal semi-segment of flagellum, male; 5. Scutellum, male; 6a-b. Male genitalia: 6. Genital capsule, 6a. Aedeagus; 6b. Enlarged view of terminal region; 7. Relative lengths of aedeagus, hind tibia and ovipositor

disc. Hind fringe longest,  $1.5 \times (1.33-1.75; N-12)$  as long as fringe on forewing tornus. Scutellum (Fig. 5) with two pairs of bristles, anterior ones small, about a fifth of longer posterior ones and a pair of round, distinct sensillae, situated between bristles.

### Genitalia

Dorsal expansion of gonobase (DEG) with moderate notches at somewhat rounded base, about  $0.75 \times (0.64-0.82; N-11)$  width of genitalia, with rounded apex, reaching level of chelate structures (CS). Chelate structures reaching  $0.91 (0.87-0.94;$

$N-13)$  level of gonoforceps (GF). Median ventral projection (MVP) sharp, reaching slightly below level of CS with usual pair of tubercles behind base, followed by a median ridge (not 'a pair of carina' as used to be reported in earlier publications), running to about half of genital capsule anteriorly. Aedeagus (Fig. 6a) as long as apodemes, together about  $0.75 \times (0.69-0.81; N-12)$  length of hind tibia (Fig. 7).

### Female

Length (head to tip of ovipositor) 0.54 mm

(0.50-0.60; N-16); width 0.20 mm (0.19-0.21; N-15). Colour same as in male except for lighter abdomen. Antenna (Fig. 3) with club 0.80x (0.74-0.84; N-12) as long as scape. Fore wing with fringe on tornus 0.16x (0.14-0.19; N-15) of wing width. Hind wing fringe 1.4x (1.20-1.5; N-15) as long as that on fore wing tornus. Ovipositor 1.004x (0.96-1.12; N-12) as long as hind tibia. Scutellum with setae and sensillae as in male.

**Holotype:** 1♂ mounted on slide using phenol-balsam mixture. Ex: Eggs of unidentified scioomyzid on paddy leaf. Anantnag, Jammu & Kashmir, India. Coll: Jamal Ahmad, 25.03.2006 (PDBC). **Paratypes:** 1♂ & 1♀ with same data as holotype (PDBC; NPC).

#### ETYMOLOGY

This species is named after the Indian State of Jammu & Kashmir, from where the species was found.

#### REMARKS

*Trichogramma kashmirica* is a dark coloured

species, next only to *T. japonicum* (Ashmead) in darkness. The male genitalia resemble that of *T. minutum* Riley, but its colour, short antennal hairs and relative length of ovipositor to hind tibia make it totally different from the latter and also the other species of the *minutum* group (Nagarkatti and Nagaraja, 1978).

#### ACKNOWLEDGEMENTS

We are highly grateful to Dr. R. J. Rabindra, Director, Project Directorate of Biological Control, for his keen interest and encouragement and Dr. J. Poorani and Dr. S. Ramani, Senior Scientists of PDBC for their cooperation. This work was carried out under the Network Project on Insect Biosystematics funded by the Indian Council of Agricultural Research.

#### REFERENCE

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(Received: 26.03.2007; Revised: 28.07.2007; Accepted: 08.08.2007)