



**ORIGINAL ARTICLE**

**A New Species of Genus *Pseudocentron* grafella (Hymenoptera: Apoidea: Megachilidae) from India**

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**ABSTRACT**

A new species *Pseudocentron himachalensis* of genus *Pseudocentron* Grafella (Family: Megachilidae) has been described. The distinctive features of this species are: Integument- Black, tegulae- brown; femora of legs pale in colour. Punctures fine and dense, but less dense on abdominal terga. Pubescence- General body pubescence is pale. Basal tergum, legs, mesepi and metepisterna white. Scopa-white. Sternum 6 (a)- Surface slightly, transversely convex; punctate and setose across base, but chiefly smooth and bare apically. (b) Apical margin - to some degree truncate. (c) Apex with a dense fringe of short setae or scopa. Median length of clypeus is nearly equal to basal width, apical margin is with a median invagination; surface of subocellar area is slightly convex; surface of vertex is with little convexity

**Key words:** *Pseudocentron*, Hymenoptera, Megachilidae

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**INTRODUCTION**

Like the Megachiloides, this genus was also said to be chiefly of Neotropical in distribution. Some Indian species also varifies its characters and got their placement under it. The representative species are few with me. The following characters can categorise this recently upgraded (Mitchell, 1980) genus: Females with their sternum 6 bare, atleast over apical half, but with a subapical row of short bristles or hairs and a more or less, evident, bare apical lep.

**REVIEW LITERATURE**

Acentron Mitchell, 1934, p. 303. Type: *M. albitarsis* Cresson, 1872, p. 273. *Leptor achis* Mitchell, 1934, p. 201. Type: *M. petulans* Cresson, 1878, p. 127. *Melanosarus*, Mitchell, 1934, p. 303. Type: *M. xylocopoides* Smith, 1853, p. 189. *Moure ana* Mitchell, 1980. p. 56. Type: *M. anthidioides* Rodoszkowski, 1874, p. 147. *Leptor achina* Mitchell, 1980 (monotypic), p. 56. Type: *M. laeta* Smith, 1853, p. 186. *Grafella* Mitchell, 1980. p. 56. Type: *Pseudocentron* (*Grafella*) *Crotalariae*, Eric Schwimmer, 1980 (in same paper on page 82, of Mitchell).

**Genus *Pseudocentron* Subgenus *Grafella* Mitch.**

*Grafella* Mitchell, 1980. p. 56. Type: *Pseudocentron* (*Grafella*) *Crotalariae*, Eric Schwimmer, 1980 (in a generic Revision of the Megachiline Bees of the Western Hemisphere) on page 82 (Mitchell, 1980).

**METHODOLOGY**

The comparative study of morphological characters of this species with prior described species characters makes the way to differentiate and identify the species as a new species. The specific characters of the new species are: *Pseudocentron* (*Grafella*) *himachalensis* sp. nov.

**Female:** Total length- 356 lines (8.9 mm). Integument- Black, tegulae- brown; femora of legs pale in colour. Punctures fine and dense, but less dense on abdominal terga.

**Pubescence-** General body pubescence is pale. Basal tergum, legs, mesepi and metepisterna white. Scopa-white.

**Genitalia-** Quadrate plate- (a) Well developed & triangular. (b) Outer margin slightly straight. (c) Inner margin circular & constricted medially (d) Apically protuberent towards inner margin and articulates with the arm of sting bulb, through well-developed fulcral plate.

**Stylet-** Elongated, needle like with barbs & covered with membranous stylet sheath.

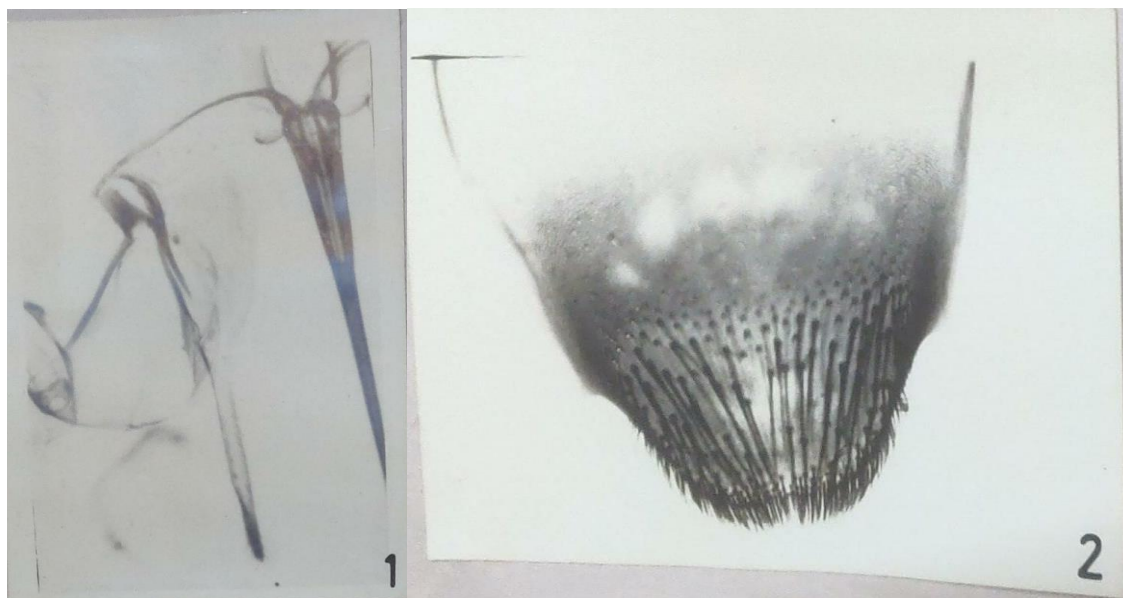
**Sting bulb-** (a) Elongated, narrow and funnel like. (b) near about half to that of stylet sheath. (c) Hooks are prominent and both are equidistant in basal to middle portion.

**Palp appendages-** (a) Elongated, narrow with a row of fine and short setae on inner margin; outer margin with few setae. (b) Apex narrowed with a constriction from the basal lobe and bears a fringe of fine and elongated setae.

**Sternum 6 (a)-** Surface slightly, transversely convex; punctate and setose across base, but chiefly smooth and bare apically. (b) Apical margin - to some degree truncate. (c) Apex with a dense fringe of short setae or scopa.

**MATERIAL EXAMINED:**

Holotype; Female, himachal Pradesh, October 1985 (VK) deposited at ZSI Calcutta. Paratype; one female at Deptt. of Zoology and Entomology, Agra College, Agra.



**Fig. 1&2:** Female *Pseudocentron* (*Grafella*) *himachalensis* sp. nov. (1. Genitalia and 2. Sternum 6)

**REMARKS/RESULTS**

This new species is close to *P. (Grafella) crotalariae* Eric Schw. However, *P. himachalensis* sp. nov. can be distinctly separated from *P. crotalariae* by: "median length of clypeus is nearly equal to basal width, apical margin is with a median invagination; surface of subocellar area is slightly convex; surface of vertex is with little convexity; genae with

white pubescence, width of surface is nearly uniform; lateral margins of hypostomal area are carinate; mandible- cutting edge is absent in second and third inter spaces of teeth; parapsidal lines inevident; mesepisterna with normal sized and dense punctures".

Male- Not known.

This specimen has been named after the state himachal Pradesh, from where it was collected.

#### **REFERENCES**

1. Mitchell T.B. (1980): A generic revision of the Megachiline bees of the Western Hemisphere. Contr. Deptt. Entomol. N.C. State Univ. 95 pp.
2. Smith F. (1853): Catalogue of hymenopterous insects in the collection of the British Museum. Part I London. 19 pp. Pls. 1-6.