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SOME NEW SPECIES AND NEW RECORDS OF DUST MITES FROM KOLKATA, INDIA

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INTRODUCTION

This paper deals with description of two new species belonging to genera *Mediolata* Canestrini (Family : Stigmaeidae) and *Chelacaropsis* Baker (Family : Cheyletidae) along with another four species occurring in dust from Kolkata metropolis. The occurrence of these species are being recorded here for the first time from dust. All the measurements given here in the text are in microns. The holotype of the new species described here are presently in the collection of Entomology Research Unit, Calcutta University, which in due course will be deposited in the Zoological Survey of India, Kolkata. The entire collection was made by the senior author.

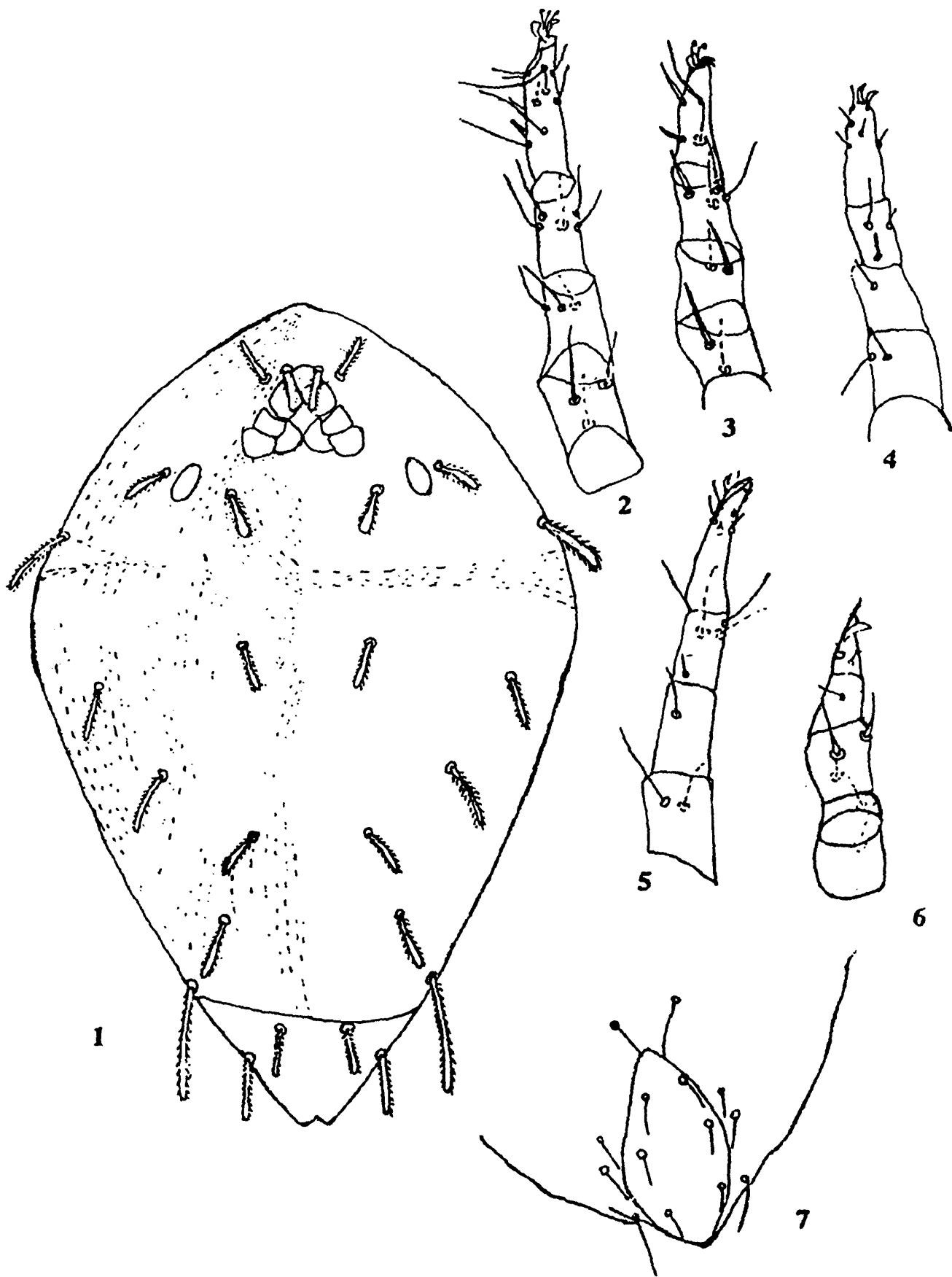
Family 1. STIGMAEIDAE Oudemans

Genus 1. *Mediolata* Canestrini

1. *Mediolata serrata* sp. nov.

(Figs. 1-7)

Female : Body measures 540 long (from tip of the chelicerae upto posterior tip of the body), 300 wide (maximum width). Chelicerae prominent, fixed digit ensheathing stylets, free. Rostrum conical, rostral setae as figured. Palp 4 segmented, setae on different palp segments as figured, tibial claw shorter than tarsus, palp tarsus cylindrical, trifold terminal tarsal sensillum present as usual. Idiosoma with 2 plates, with transverse striations in between two plates. Propodosomal plate with 4 pairs of setae measuring ae–32, be–40, ce–25, de–40, all propodosomal setae thick, serrate marginally as figured. Post ocular body longer than wide. The ratios of propodosomal setae : ae/ae–ae = 0.71, be/be–be = 0.5, ce/ce–ce = 2.9. Humeral setae he = 44 long. Hysterosomal plate



Figs. 1-7. : *Mediolata serrata* sp. nov. [Female]; 1. Dorsal surface; 2. Terminal segments of Leg I; 3. Terminal segments of leg II; 4. Terminal segments of leg III; 5. Terminal segments of leg IV; 6. Terminal segments of palp; 7. Opisthosomal region.

with 6 pairs of setae measuring : $a = 40$, $b = 40$, $c = 44$, $la = 32$, $lm = 40$, $li = 60$, other posterodorsal setae measure $e = 36$, $le = 44$. The ratios of hysterosomal setae : $a/a-a = 0.3$, $b/b-b = 0.2$, $c/c-c = 0.47$. Hysterosomal striation as figured. Ventrally, opisthosomal region as figured, Paragenital setae measure $pg_1 = 36$, $pg_2 = 29$, $pg_3 = 36$. Genital setae 3 pairs, all almost of same length, never reach bases of the following setae. Leg chaetotaxy as figured. All tarsi end in a pair of claws and empodium with tenent hairs.

Male : Not known.

Holotype : FEMALE : INDIA : West Bengal, Kolkata, ex. floor dust, 15.09.2003.

Remarks : This species is very close to *Mediolata simplex* Wood, 1967 but differs from that in having dorsal idiosomal setae a , b , c much shorter and those do not touch the bases of the following setae; ae , be , ce also being shorter as compared to those of *M. simplex*. Besides, both the species differ in relative ratios of dorsal idiosomal setae, in leg chaetotaxy and in reticulation pattern of dorsum. This new species is also close to *Mediolata granaria* Gonzalez-Rodriguez, 1965 but can be distinguished from that by absence of notch in propodosomal plate of the new species and humeral setae he not present on platelet as in *M. granaria*. In addition, both the species differ in relative ratios of dorsal idiosomal plate.

Genus 2. *Cheylostigmaeus* Willmann

2. *Cheylostigmaeus* sp.

Material examined : 1 Female, Kolkata, Sealdah, ex. house dust, 23.11.2003.

Remarks : Due to damaged condition of the specimen, this could not be identified upto species level. Earlier, only one species of this genus was recorded from birds' nests in West Bengal (Gupta and Paul, 1985).

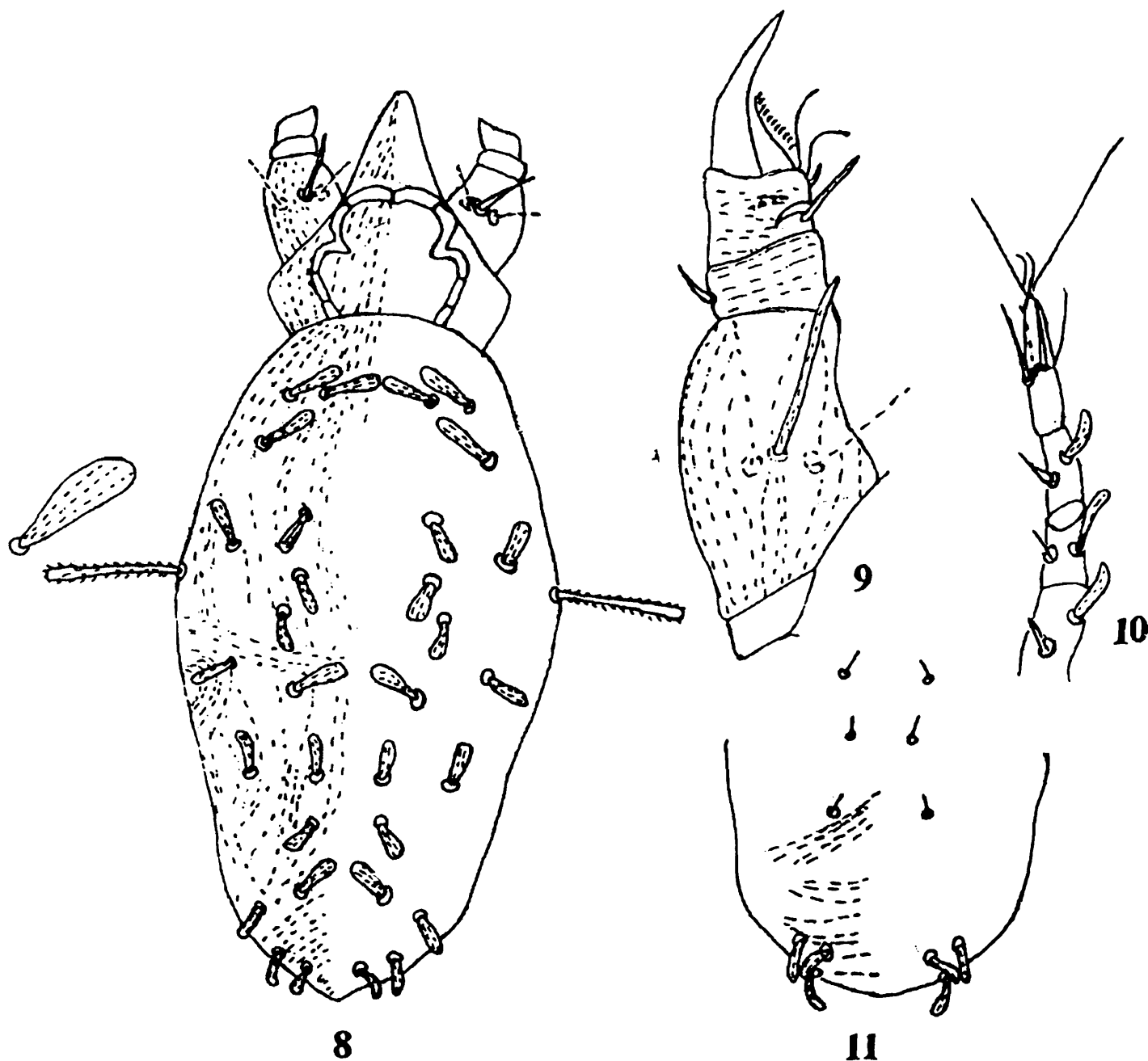
Family 2. CHEYLETIDAE Leach

Genus 3. *Chelacaropsis* Baker

3. *Chelacaropsis neomoorei* sp. nov.

(Figs. 8-11)

Female : Body 520 long (from tip of gnathosoma upto posterior tip of body), 188 wide (maximum width). Propodosoma with longitudinal striation, with 7 pairs of setae, measuring 22–24 long, shaped as figured, tip spatulate. Rostrum longitudinally striated. Peritreme 5 segmented. Ventral region of gnathosoma with 1 pair of setae, present medially, 1 pair at the tip, humeral seta—40 long, apparently pubescent. Hysterosoma without shield, with longitudinal striations



Figs. 8-11. : *Chelacaropsis neomoorei* sp. nov. [Female]; 8. Dorsal surface; 9. palp; 10. Terminal segments of leg I; 11. Opisthosomal region.

anteromedially, irregular striation laterally and roundish transverse striations posteriorly, with 9 pairs of setae, almost of same length as those present on propodosomal region. Ventrally, hysterosoma with 3-4 pairs of setae. Palp femur with 1 strong seta exceeding length of segment present dorsally and 2 setae present ventrally; palp tibial claw 28 long, longer than segment, palp tarsus with 1 comb-like and 2 sickle-like setae, comb-like setae with 10-14 combs; tibial claw without basal teeth. Legs measure I-204, II-90, III-90, IV-204, tarsus I with 2 long setae, larger one -60 long, smaller one -52 long; claw 1 paired, guard seta-32, trochanter and femur each with 1 spatulate serrate seta. Leg chaetotaxy as given in next page :

Leg	Femur	Genu	Tibia	Tarsus
I	2	2	2+1 solenidion	5+1 solenidion
II	2	1	1	5+1 solenidion
III	2	2	1	5
IV	2	2	1	5

Male : Unknown.

Holotype : FEMALE : INDIA : West Bengal, Kolkata, ex. house dust, 23.10.2003.

Remarks : This new species differs from the only known species of this genus, *viz. Chelacaropsis moorei* Baker (1949) in lacking small platelets carrying the dorsal idiosomal setae as in *C. moorei*, peritreme only 5 segmented (against 7 segmented in *C. moorei*), by having venter of rostrum with 2 setae in *C. neomoorei*, palpal claw lacking teeth (4 teeth present in *C. moorei*), propodosomal and hysterosomal regions having 6 and 8 pairs of setae respectively (7 and 6 pairs of setae respectively present in *C. moorei*) and in having sensory seta on tarsus I almost as long as the segment.

Family 3. TARSONEMIDAE Kramer

Genus 4. *Fungitarsonemus* Cromroy

4. *Fungitarsonemus* sp.

Material examined : 1 Female, Kolkata metropolis, Gorabazar, ex. house dust. 15.12.2003.

Remarks : The specimen was in badly damaged condition and therefore specific identification was not possible. This is the first record as regards occurrence of this genus from India and is being recorded for the first time on house dust in the world.

Family 4. PHYTOSEIIDAE Berlese

Genus 5. *Typhlodromus* Scheuten

5. *Typhlodromus* sp.

Material examined : 1 Female, Kolkata metropolis, Durganagar, ex. house dust, 23.10.2003.

Remarks : This is the first record of phytoseiid mite in house dust. However its occurrence appears to be accidental because it is more prevalent on plants, stored products, litter etc.

Family 5. RAPHIGNATHIDAE Kramer

Genus 6. *Raphignathus* Koch6. *Raphignathus* sp.

Material examined : 1 Female, Kolkata, Durganagar, ex. house dust. 11.08.2003.

Remarks : The species of this genus was earlier recorded from house dust.

SUMMARY

Two new species, viz. *Mediolata serrata* sp. nov. and *Chelacaropsis neomoorei* sp. nov. are described. In addition, another four unidentified species viz. *Cheylostigmaeus* sp., *Fungitarsonemus* sp., *Typhlodromus* sp. and *Raphignathus* sp. are recorded here for the first time from house dust.

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