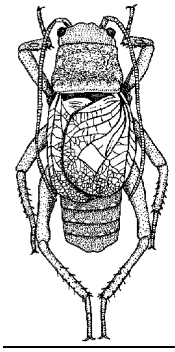

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PREDACEOUS BITING MIDGES OF THE GENUS *BEZZIA* KIEFFER (DIPTERA: CERATOPOGONIDAE) FROM INDIA

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Seven new species, *Bezzia ampla* Saha et Chaudhuri, **sp. n.**, *B. brevipennata* Saha et Chaudhuri, **sp. n.**, *B. clarivirga* Saha et Chaudhuri, **sp. n.**, *B. dilatara* Saha et Chaudhuri, **sp. n.**, *B. galera* Saha et Chaudhuri, **sp. n.**, *B. levifusca* Saha et Chaudhuri, **sp. n.**, and *B. similis* Saha et Chaudhuri, **sp. n.** are described from India. An original key for identification of all Indian species of the genus *Bezzia* is given.

KEY WORDS: Diptera, Ceratopogoninae, Ceratopogonidae, *Bezzia,* key, new species, India.

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Из Индии описаны семь новых видов: *Bezzia ampla* Saha et Chaudhuri, **sp. n.**, *B. brevipennata* Saha et Chaudhuri, **sp. n.**, *B. clarivirga* Saha et Chaudhuri, **sp. n.**, *B. dilatara* Saha et Chaudhuri, **sp. n.**, *B. galera* Saha et Chaudhuri, **sp. n.**, *B. levifusca* Saha et Chaudhuri, **sp. n.** и *B. similis* Saha et Chaudhuri, **sp. n.** Дана оригинальная определительная таблица индийских видов рода *Bezzia*.

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INTRODUCTION

The genus *Bezzia* Kieffer, 1899 is closely related to *Palpomyia* Meigen, 1818 in habit and genitalic structures (Meigen, 1818; Kieffer, 1899), but differs in coarse mandibular teeth; anterior tubercle and strong spines on the scutum; single radial cell, vein R_{2+3} absent; vein M near r-m; slender legs sometimes with numerous setae; short and nearly cordiform tarsomere IV; tarsomere V with or without batonnets; 1-5 pairs of sclerotized gland rods in the female abdomen; usually two and an occasional third rudimentary spermathecae; male genitalia inverted with prominent setose cerci; stout gonocoxite, well developed articulated gonostylus; varied but usually triangular aedeagus and parameres fused to an unpaired distal, usual rod like process.

The genus is represented by 281 world species including 14 Indian species namely: *B. analis* Kieffer, 1913, *B. armatipes* Kieffer, 1910, *B. bengalensis* Kieffer, 1913, *B. calcuttensis* Kieffer, 1913, *B. expedita* Sinha et Das Gupta, 2003, *B. flavescens* Kieffer, 1913, *B. fortigenitalis* Sinha et Das Gupta, 2003, *B. glaucivena* Sinha et Das Gupta, 2003, *B. kempi* Kieffer, 1913, *B. monotheca* Sinha et Das Gupta, 2003, *B. papillistyla* Sinha et Das Gupta, 2003, *B. propriostyla* Sinha et Das Gupta, 2003, *B. trispinosa* Kieffer, 1911, and *B. turbipes* Sinha et Das Gupta, 2003 (Kieffer, 1910, 1911, 1913,1922; Clastrier, 1958; Tokunaga, & Murachi, 1959; Tokunaga, 1963, 1966; Clastrier, 1966; Remm, 1974; Wirth & Grogan, 1983; Giles & Wirth, 1984; Spinelli & Wirth, 1991; Liu et al., 1996; Sinha et al., 2003; Sinha & Das Gupta, 2003; Borkent, 2007). Below seven new species of *Bezzia* are described from India.

METHODS AND TERMINOLOGY

Morphology and terminology used in describing the species mostly follow Chan & Linley (1988) and Sinha et al. (2003). Measurements (mm) of structural parts are presented as 'mean' followed by minimum and maximum values suffixed by 'n' within parentheses denoting the number of specimens examined during the study. The types keeping now in the Department of Zoology, University of Burdwan will eventually be deposited in the National Zoological Collections (NZC) at the Zoological Survey of India, Kalkata.

DESCRIPTIONS OF NEW SPECIES

Bezzia ampla **Saha et Chaudhuri, sp. n.**
Figs 1-9

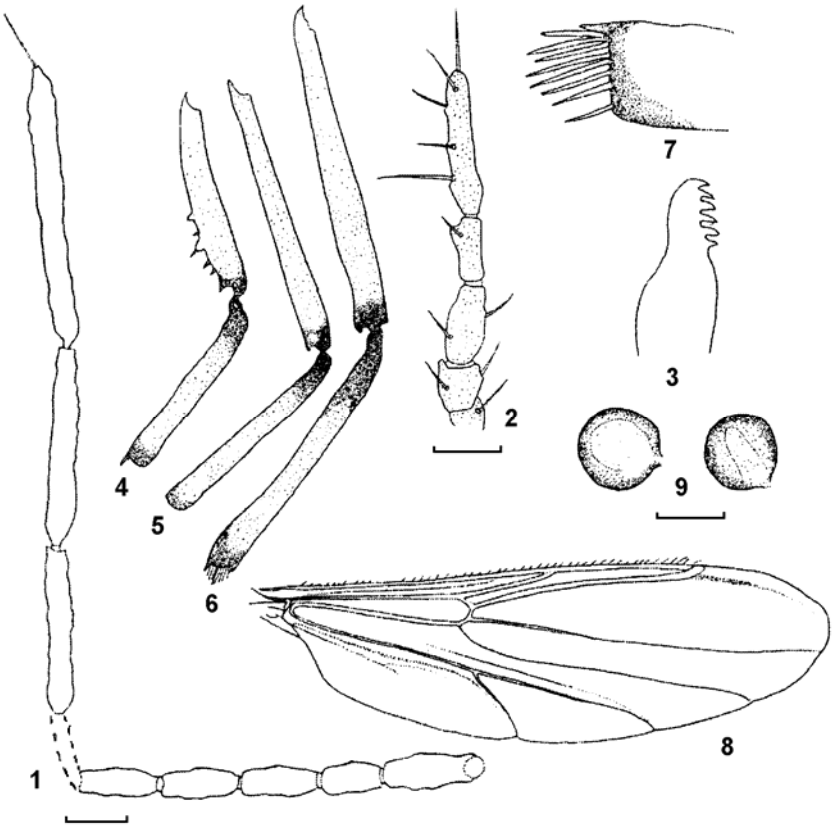
MATERIAL. Holotype – ♀, India: West Bengal: Darjeeling Government College, $27^0$03' N, 88^o 18' E, 25.V 2002 (Coll. U. Majumdar). Paratypes: 2♀, West Bengal, Jorebanglow, 27^o1' N, 87^o 52' E, 7 ♀, West Bengal, Tindharia, 29.X 2002 (Coll. U. Majumdar); 8 ♀, West Bengal, Kurseong, 28.IX 2002 (Coll. B. Khan).

FEMALE. Large bodied brown species.

Head. Vertex brown. Antennae brown, flagellomeres pale at base; length ratio of flagellomeres I-XIII 17:12:12:12:12:12:12:13:25.5:28:29.5:33:43, AR 1.55. Maxillary palpus slender, brown; palpomere III short, slender; palpomere V longest with long seta; length ratio of palpomeres I-V 7:11:14:12:24.5, PR 2.33. Mandible with 6 large teeth.

Thorax. Brown in colour, scutum with distinct anterior tubercle but without strong setae, scutellum with 6 long and a few small bristles.

Legs. Coxae brown, trochanters and femora light yellowish brown. Fore femora with 5-6 spines distad with dark brown apex, tibiae with dark brown basal and apical bands, hind femora brown with dark brown apex, tibia with broad basal and narrow dark brown apical bands, fore tarsomeres I-III yellow each with 2 bristles, IV cordiform, mid tarsomeres I-III with apical spur like bristles, claws simple, small and equal; length ratio of leg segments 38:16:6:3:3:4.5 in fore, 49:39:24:6:3:2:5 in mid, and 57:49:27:11:4:3:5 in hind legs. Hind tibial comb with 8 spines. TR of hind leg 2.45.



Figs. 1-9. *Bezzia ampla* sp. n. 1) antenna; 2) maxillary palpus; 3) mandible; 4-6) fore, mid and hind femora and tibiae; 7) hind tibial comb; 8) wing; 9) spermatheca. Scale bar – 0.05 mm.

Wing. Wing length 2.2 (2.1-2.3, n=7), wing breadth 0.77 (0.77-0.79, n=7) mm. Pale with brown anterior veins, C extending between the ends of M_2 and M_{3+4}, M_2 before r-m; costal length 1.72 mm, microtrichia well distributed on the wing surface. Haltere knob brown. CR 0.78.

Abdomen. Brown with distinct gland rods. Spemathecae rounded, sub equal, 0.1 x 0.062 and 0.091 x 0.057 mm with moderate neck.

MALE. Unknown.

ETYMOLOGY. The name "*ampla*" derives from its ample occurrence in the montane areas of the Himalayas.

DIAGNOSIS. The new species is similar to *B. armatipes* Kieffer, 1910 and *B. calcuttensis* Kieffer, 1913 in colour pattern of legs and structure of spermathecae. It also bears affinities with *B. vittata* Tokunaga, 1966 and *B. filiducta* Spinelli et Wirth, 1991 in flagellomeres, colour pattern and chaetotaxy of legs. The wing of the species appears closer to that of *B. niokoloensis* Clastrier, 1958. But the combination of characters like large size of the body, 5 large teeth of the mandible, longest palpomere V, anterior scutal tubercle, cordiform fore tarsomere IV, hind tibial comb with 8 spines, distinct gland rods of abdomen, shape and subequal spermathecae distinguish it from other species of *Bezzia.*

***Bezzia brevipennata* Saha et Chaudhuri, sp. n.**
Figs 10-17

MATERIAL: Holotype – ♀, India: West Bengal: Palla road, 23 °4"N, 26 °67" E, 21.IV 2002 (Coll. S. Nandi). Paratypes: 3♀, the same data as holotype.

FEMALE. Small dark brown species.

Head. Antenna brown, flagellomeres pale at the base, III-VIII oval to round, IX-XIII slender; length ratio of flagellomeres I-XIII 9:4:4:5:5:5:5:6:9:9:9: 3:16, AR 1.3. Maxillary palpus slender, brown; palpomere III longest and oval, palpomere V short and stout with 3 long apical setae; length ratio of palpomeres I-V 4:5.5:8:6:6, PR 2. Mandible with 9 coarse teeth.

Thorax. Scutum with dense and strong setae, anterior tubercle absent, scutellum with 4 long and a few small bristles.

Legs. Fore femora dark brown with lighter apical area bearing 2 preapical spines, tibiae brown with dark brown apex, fore tarsomeres I-IV pale yellow, tarsomere V brown, mid and hind femora and tibia brown with dark brown apices, mid tarsomeres I-III each with 2 spines, claws simple, small and equal; length ratio of legs 19.5:17:8:4:3:2:4 in fore, 24:20:11.5:5:3:2:4 in mid, and 26:22:14:6:3:2:4 in hind legs. Hind tibial comb with 5 spines. TR of hind leg 2.33.

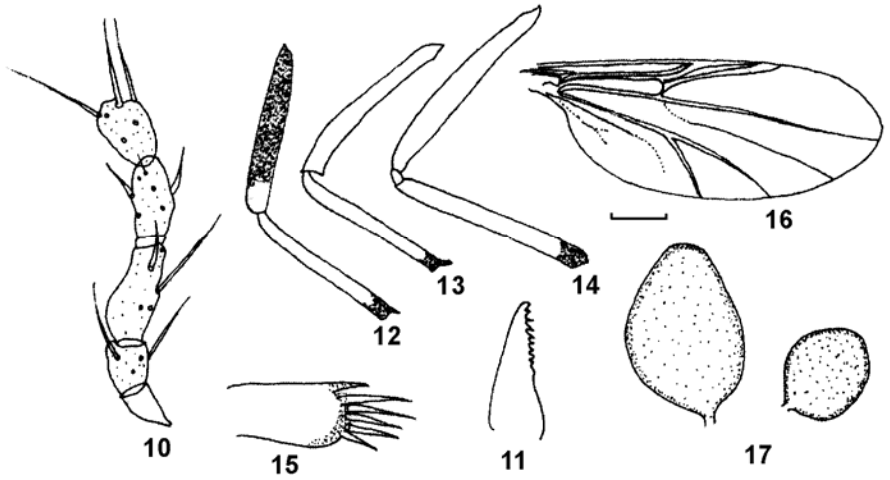
Wing. Wing length 0.76 mm and wing breadth 0.46 mm. Small grayish white wing with light brown anterior veins, C extending between tips of vein M_2 and M_{3+4}, M_2 below r-m, second anal vein bifurcated, costal length 0.66 mm, microtrichia distributed over the wing surface. CR 0.66.

Abdomen. Dark brown with distinct gland rods. Spermathecae weakly sclerotized, unequal, 0.082 X 0.048 and 0.048 X 0.034 mm with short neck.

MALE. Unknown.

ETYMOLOGY. The name "*brevipennata"* derives from the small wing.

DIAGNOSIS. This species closely resembles *B. bengalensis* Kieffer, 1913 in coloration and chaetotaxy of the legs. The wing and spermathecae are similar to those of *B. setosinotum* Wirth et Grogan, 1983 and *B. adamsi* Tokunaga et Murachi, 1959. Such characters of new species as 9 teeth of the mandible, absence of tubercle and scutellar setae, colour pattern of the mid and hind femora and tibiae, 5 spines of hind tibial comb, small wing, distinct gland rods and unequal, weakly sclerotized spermathecae distinguished it from all other Indian species of genus *Bezzia*.



Figs. 10-17. *Bezzia brevipennata* sp. n. 10) maxillary palpus; 11) mandible; 12-14) fore, mid and hind femora and tibiae; 15) hind tibial comb; 16) wing; 17) spermatheca. Scale bar – 0.1 mm.

***Bezzia clarivirga* Saha et Chaudhuri, sp. n.**
Figs 18-23

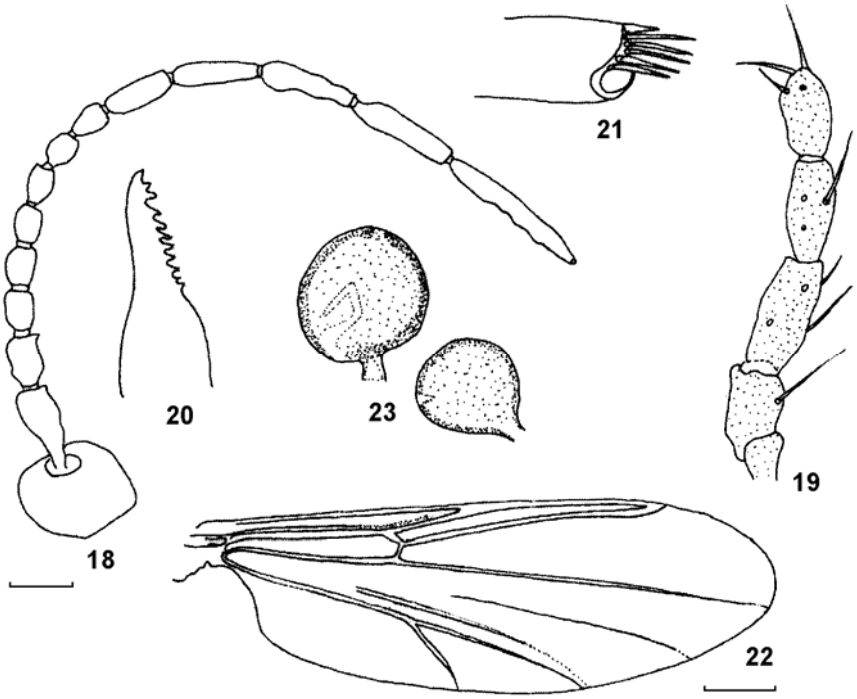
MATERIAL: Holotype – ♀, India: Jharkhand, Dehri-on-sone, 24° 55' N, 84°1' E, 8.X 1998 (Coll. S. Chatterjee). Paratypes: 4♀, West Bengal: Sitarampur, 17°21' N, 78°13 E, 12.X 2003 (Coll. N. Saha); 4♀, West Bengal: Waria, 23° 26' N, 87° 15' E, 15.X 2003 (Coll. B. Khan); 2♀, West Bengal: Durgapur, 23°26' N, 87°17' E, 12.IX 2002 (Coll. S. Nandi).

FEMALE. Medium sized dark brown in colour.

Head**.** Vertex, frons, clypeus and mouth parts brown. Antenna brown, bases of flagellomeres pale at the base, III–IX oval to sub-cylindrical, length ratio of flagellomeres I-XIII 13:9:7:7:7:7:7:12:14.5:16:17:21, AR 1.25 (1.25-1.27, n=4). Maxillary palpus stout and brown, palpomere III long and elongated, V smaller with 3 long apical setae, length ratio of palpomeres I-V 5:7:9:6:6, PR 2.25. Mandible with 9 large teeth and 2 small teeth.

Thorax. Dark brown, scutum with anterior tubercle and scattered setae, scutellum with 4 long and a few small bristles.

Legs. Coxae and trochanters brown. Femora and tibiae uniformly yellowish brown with brown apices, tarsomeres I-IV uniformly yellowish brown with brown apex, fore femur with 1 pre apical ventral spine, V brown, mid tarsomere I-III each with 2 bristles, length ratio 23:20.5:9.5:5:3:2:5 in fore, 30:26:15:6.5:4:2.5:5 in mid and 34:30:17:7:4:2:5 in hind legs. Hind tibial comb with 5 spines, claws simple, large and equal. TR of hind leg 2.42.



Figs. 18-23. *Bezzia clarivirga* sp. n. 18) antenna; 19) maxillary palpus; 20) mandible; 21) hind tibial comb; 22) wing; 23) spermatheca. Scale bar – 0.05 mm.

Wing. Wing 1.54 mm (1.52-1.54, n=6), wing breadth 0.55 (0.55-0.57, n=6) mm. White with yellow anterior veins, C extending to the tip of M_2, M_2 arising below r-m cross vein, costal length 1.2 mm, microtrichia dense on the surface. Haltere knob brown. CR 0.78 (0.74-0.80, n=4).

Abdomen. Dark brown with indistinct gland rods. Spermathecae rounded, unequal, 0.057 x 0.043 and 0.043 x 0.033 mm, with prominent neck.

MALE. Unknown.

ETYMOLOGY. The name "*clarivirga*" derives from the indistinct gland rod of the abdomen.

DIAGNOSIS. This species is similar to *B. kitaokai* Tokunaga, 1963 in colour of thorax, legs, and spermathecae; and to *B. zonatipes* Tokunaga, 1966 in chaetotaxy of fore femora, wing pattern and haltere knob. The combination of characters, i.e. small size, colour and chaetotaxy of the flagellomeres, palpomere III, 10 teeth of mandible, distinct anterior tubercle, 4 scutellar setae, white wing possessing dense microtrichia, setae of tarsomere, 5 spines of hind tibial comb, the indistinct gland rod and structure of unequal spermathecae distinguish the new species from all others in the genus *Bezzia* in India.

***Bezzia dilatara* Saha et Chaudhuri, sp. n.**
Figs 24-34

MATERIAL.. Holotype – ♂, India: Jharkhand: Maithon, 23° 46' N, 86°49' E, 31.V 1999 (Coll. N. Saha). Paratypes: 5♂, 3♀, West Bengal: Burdwan, 23°25' N, 87° 85' E, 23.X 2000, (Coll. P. K. Chaudhuri); 4♀, West Bengal: Panagarh, Agricultural Farm, 87°26' N, 23 ° 27'E, 30.VI 2000 (Coll. A. Mazumdar); 2♂, Jharkhand: Konar Forest, 22°18'N, 86°15'E, 27.VI 2001 (Coll. S. Nandi); 4♂, 5♀, West Bengal: Calcutta, 22°34'N, 88°21'E, 18.VII 2005 (Coll. P. K. Chaudhuri).

MALE. Dark brown in colour.

Head. Antenna brown, flagellomeres pale at the base; length ratio of flagellomeres I-XIII 5:2:2:2:2:4:4:4.5:5.5:6.8, AR 1.14. Maxillary palpus brown, slender, palpomere III elongated, slightly swollen medially with a sensory pit, V short with 3 apical setae; length ratio of palpomeres I-V 6:7:11:9:8, PR 2.49. Mandible with 10 teeth, last two smaller.

Thorax. Scutum without anterior tubercle and with strong spines, scutellum with 7 long and many small bristles.

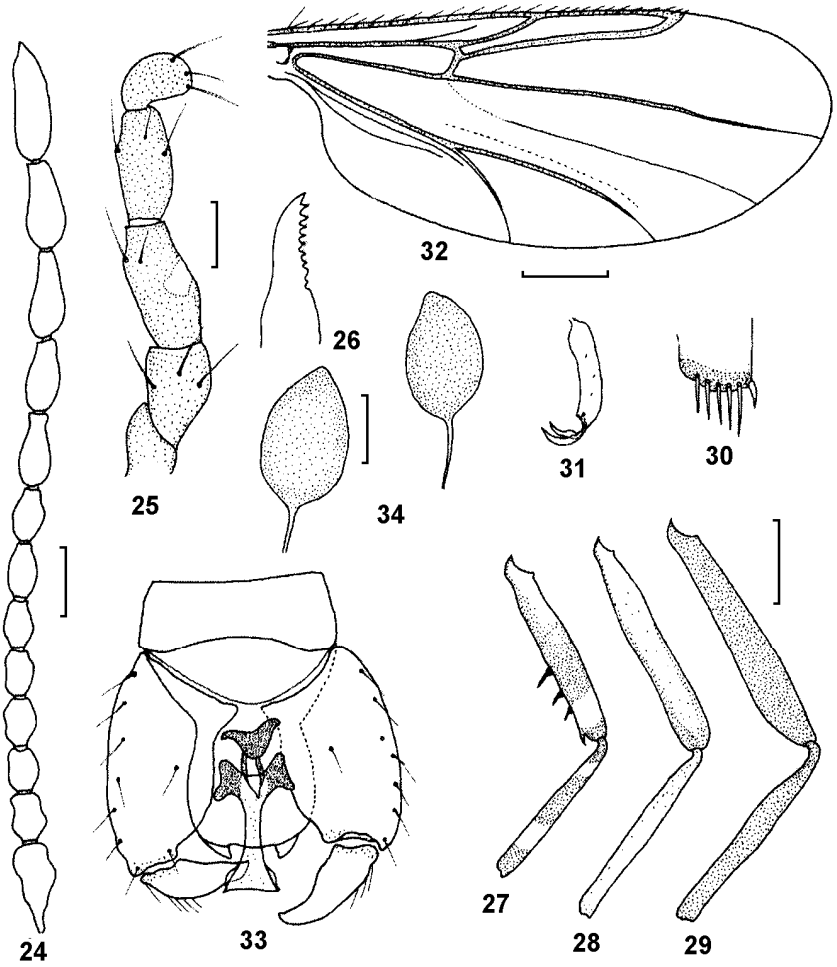
Legs. Fore femora with dark brown middle broad band, dark brown apex, and pale areas at base and sub apex. Fore femora with 3 stout spines distad, mid femora light brown with brown apex, hind femora and tibia dark brown, fore tibia with dark brown basal, broad middle and apical bands, mid tibia light brown with little brown at the base, tarsomeres I-IV light yellow, V brown, small. Hind tibial comb with 5 spines, claw simple.TR of hind leg 2.3.

Wing. Wing length 1.06 mm and wing breadth 0.34 mm. Grayish white with light yellow anterior veins, C extending to the tip of M_{3+4}, M_2 arises below r-m cross vein. Haltere dark brown. CR 0.72.

Abdomen. Dark brown. Genitalia – Fig. 33. Tergite IX narrowed, with middle cleft closer bearing a short apicolateral process. Sternite IX broad with moderate caudomedian excavation. Gonocoxite stout, elongated, gonostylus dagger like, aedeagus short, basal arms little recurved, distal part narrowed down to rounded tip, parameres with highly sclerotized distal part, basal arm expanded to slender rod with inflated end.

FEMALE. Similar to male with usual sexual differences. Wing length 1.09 and wing breadth 0.46 mm. Tergites and sternites slightly darker than those of male, gland rods distinctly visible. Spermathecae sub equal, lotus like, 0.096 x 0.063 and 0.088 x 0.058 mm, with long narrow neck.

ETYMOLOGY. The name "*dilatara"* originates from the expanded basal arm of the paramere.



Figs. 24-34. *Bezzia dilatara* sp. n. 24) antenna; 25) maxillary palpus; 26) mandible; 27-29) fore, mid and hind femora and tibiae; 30) hind tibial comb; 31) claw; 32) wing; 33) male genitalia; 34) spermatheca. Scale bar – 0.05 mm.

DIAGNOSIS. The species resembles *B. fortigenitalis* Sinha et Das Gupta, 2003 in colour pattern of legs and structure of genitalia. The genitalic features and the aedeagus in particular appears closer to *B. papillistyla* Sinha et Das Gupta, 2003 and *B. micronyx* Kieffer, 1922. The wing and fore femur of *B. venusula* (Williston, 1896) resembles the new species, but the following combination of characters distinguishes *B. dilatara* sp. n. from all other species of the genus: dark brown vertex; frons and clypeus, nature of 10 mandibular teeth; scutellar setae; colour pattern of legs, wing and haltere; stout gonocoxite, short swollen gonostylus narrowed down apex and distinctive aedeagus and paramere.

***Bezzia galera* Saha et Chaudhuri, sp. n.**
Figs 35-45

MATERIAL. Holotype – ♂, India: Jharkhand: Maithon, 31.V 1999 (Coll. N. Saha). Paratypes: 5♂, West Bengal: Burdwan, 23.X 2000 (Coll. P. K. Chaudhuri); 2♂, Panagarh Agriculture Farm, 30.VI 2000 (Coll. A. Mazumdar).

MALE. Moderate sized dark brown species.

Head. Antenna brown with well developed plume, flagellomeres III-XI sub globular, XIII-XV sub cylindrical with irregular dark and light brown area, XV pointed, length ratio of flagellomeres I-XIII 6:5:5:5:5:5:3:3:4.5:5.2:6:8, AR 0.76. Maxillary palpus brown to dark brown, palpomere III swollen medially, V with 3 apical setae; length ratio of palpomeres I-V 2:4:5:2:4, PR 1.5.

Thorax. Brown in colour. Scutum convex, profusely setose, scutellum and post scutellum light brown with 7 large and a few smaller bristles .

Legs. Pale brown. Fore femora and tibiae pale, without ventral spine, mid femora dark brown basal half with brown apices, mid tibia brown, hind femora with basal half pale and distal half dark brown, hind tibia dark brown, tarsomeres I-IV pale brown, V dark brown. Hind tibial comb with 5 sub equal spines and a small spur, claws simple. TR of hind leg 2.0.

Wing. Wing length 1.09 mm (1.07-1.09, n=5), wing breadth 0.42 (0.42-0.44, n=5) mm. Grayish with anterior veins yellowish brown and pale posterior veins; C extending to the tip of Cu_1 and M_{3+4}, sparse marginal macrotrichia, microtrichia dense on the surface. Haltere brown with dark brown knob. CR 0.71.

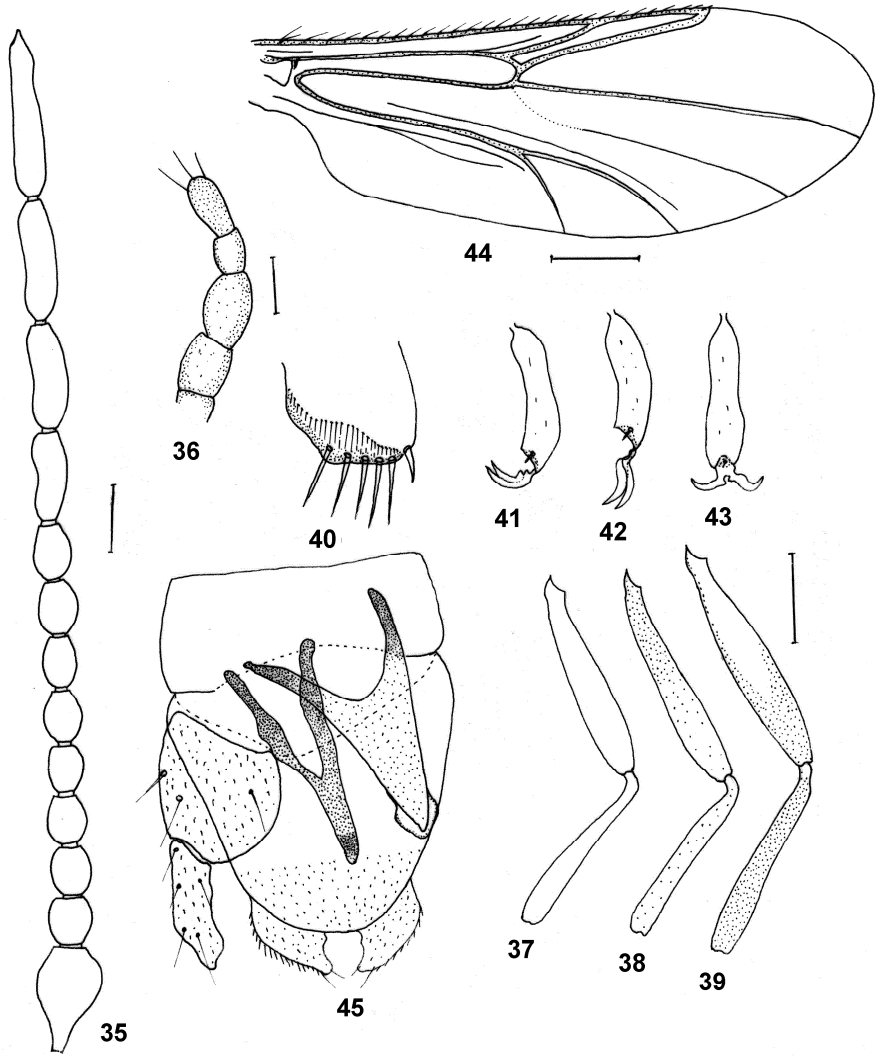
Abdomen. Brown with long setae on the tergites. Genitalia – Fig. 45. Tergite IX broad, narrowed with well developed apicolateral process, sternite IX broad with deep caudomedial excavation, gonocoxite short and stout, gonostylus short slender, aedeagus with anterior concavity, basal arms slender long heavily sclerotized, distal part less sclerotized bearing a cap like tip, parameres heavily sclerotized and fused with long arms.

FEMALE. Unknown.

ETYMOLOGY. The name "*galera*" derives from the cap like tip of the aedeagus.

DIAGNOSIS. The new species shows affinity with *B. murina* Kieffer, 1922 in morphological details, and more or less with *B. papillistyla* Sinha et Das Gupta, 2003

in the configuration of aedegaus. It also appears nearer to *B. pilosella* Remm, 1974, *B. chelistyla* Wirth et Grogan, 1983, *B. nigrialula* Tokunaga et Murachi, 1959, and *B. nigrofaciata* Tokunaga et Murachi, 1959 in male genitalia and the aedeagus and paramere in particular, but structure of flagellomeres, 7 scutellar setae the colour pattern of legs and dark hind tibiae, presence of macrotrichia in the wing margin,



Figs. 35-45. *Bezzia galera* sp. n. 35) antenna; 36) maxillary palpus; 37-39) fore, mid and hind femora and tibiae; 40) hind tibial comb; 41-43) fore, mid and hind claws; 44) wing; 45) male genitalia. Scale bar – 0.02 mm.

short and broad goncoxite, slender gonostylus, slender long heavily sclerotized basal arm of aedeagus with cap like tip and heavily sclerotized paramere are quite different from other known *Bezzia* species.

***Bezzia levifusca* Saha et Chaudhuri, sp. n.**
Figs 46-57

MATERIAL. Holotype – ♀, India: Jharkhand: Maithon, 23.VIII 1999 (Coll. N. Saha). Paratypes: 10♀, the same data as holotype; 3♀, West Bengal: Asansol, 23° 4′ N, 87°01′ E, 12.II 2002 (Coll. M. Ghosh); 2♀, Burdwan, 22.VIII 2000 (Coll. P. K. Chaudhuri).

FEMALE. Dark brown.

Head. Vertex dark brown. Antenna brown, flagellomeres light yellowish at the base, III suboval, IV-X oval, XI-XV sub cylindrical; length ratio of flagellomeres I-XIII 4:3:2.3:2:2.4:2:5:4.5:5.5:6:7, AR 1.16. Maxillary palpus light brown slender, palpomere III somewhat swollen medially and bearing a sensory pit, V short with 4 apical setae; length ratio of palpomeres I-V 5:9:11:11:9, PR 1.58. Mandible with 8 large and 2 small teeth.

Thorax. Yellowish brown, scutum smooth, bare with prominent dark anterior tubercle; scutellum with 4 long and a few small bristles.

Legs. Femora and tibiae uniformly yellow with pale apices, fore femora with 1 preapical ventral spine, tarsomeres IV-V yellow at the base and the rest brown, Hind tibial comb with 5 unequal spines, claws simple, large and equal. TR of hind leg 2.4.

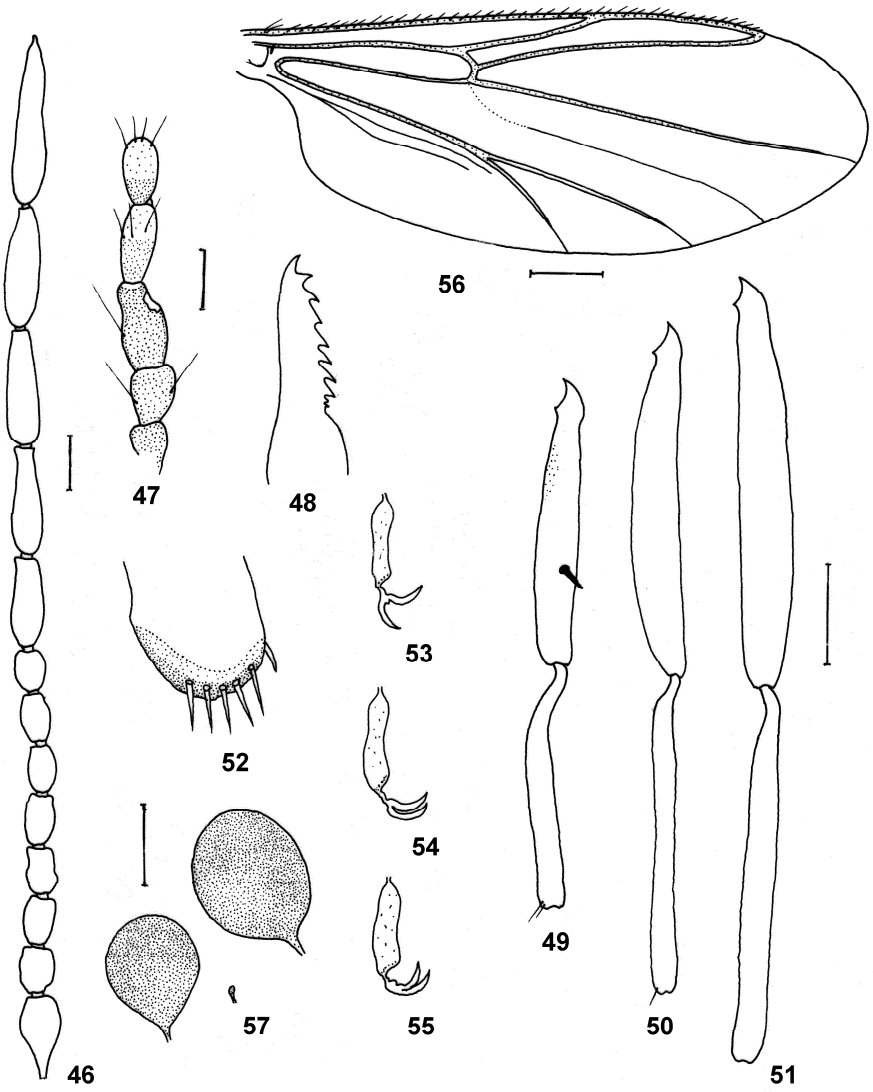
Wing. Wing length 1.35 (1.31-1.37, n=8) mm, wing breadth 0.51 (0.50-0.53, n=8) mm. Grayish with yellow anterior veins; C extending to the tip of Cu_1 and M_{3+4}; M_2 arising below r-m cross vein, microtrichiae dense on the wing surface. CR 0.76.

Abdomen. Light yellow, gland rods distinct.. Spermathecae sub equal, oval, highly sclerotized 0.077 x 0.058 and 0.058 x 0.049 mm with short neck and a third rudimentary spermatheca.

MALE.. Unknown.

ETYMOLOGY. The name "*levifusca"* originates from the smooth bare scutum.

DIAGNOSIS.The species looks similar to *B. monotheca* Sinha et Das Gupta in colour of legs and presence of a preapical spine on fore femur. The structure of spermathecae appears to those of *B. inflatifemora* Tokunaga, 1966 and *B. kempi* Kieffer, 1913. It draws affinities with *B. fontana* Liu, Yan et Liu, 1996 and *B. hainana* Liu, Yan et Liu, 1996 in respect to colour of legs, thorax and abdomen. The combination of characters such as the mandible with 7 large and 2 small teeth, smooth and bare scutum, 4 large and a few smaller scutellar setae, uniform colour of legs with a preapical spines in fore femur, macrotrichia on wing margin, distinct gland rod and the rudimentary spermathecae seem sufficient features to propose it as a new species of *Bezzia*.



Figs. 46-57. *Bezzia levifusca* sp. n. 46) antenna; 47) maxillary palpus; 48) mandible; 49-51) fore, mid and hind femora and tibiae; 52) hind tibial comb; 53-55) fore, mid and hind claws; 56) wing; 57) spermatheca. Scale bar – 0.02 mm.

***Bezzia similis* Saha et Chaudhuri, sp. n.**
Figs 58-68

MATERIAL. Holotype – ♂, India: Jharkhand: Maithon Fish Farm, 28.VI 2002 (Coll. U. Majumdar). Paratypes: 3♂, the same data as holotype; 2♂, Asansol, 3.VI 2002 (Coll. U. Majumdar).

MALE. Brown to dark brown in collour.

Head. Dark brown. Antenna pale to brown with well developed plume, flagellomeres III-XI sub cylindrical, IX-XIII cylindrical; length ratio of flagellomeres I-XIII 6:3:3:2.5:2.5:2.5:3.3:4.5:5:5.6:7, AR 1.38. Maxillary palpus brown, palpomere III long with a sensory pit, palpomere V with 5 apical setae; length ratio of palpomeres I-V 4:5:9:8:7, PR 2.25. Mandible with 8 teeth.

Thorax. Brown in colour. Scutum with anterior tubercle and numerous bristles, post scutellum brown.

Legs. Pale to brown in colour. Fore femora pale with a brownish streak at margin and 3 ventral spines, fore tibia with a broad middle and dark brown apical bands, mid tibia with dark broad middle band and dark apex, hind femora brown with a broad dark brown apical band, hind tibia with dark brown apex, tarsomeres I-IV light yellow, V brown. Hind tibial comb with 5 equal spines, fore, mid, and hind claws simple, equal. TR of hind leg 2.26.

Wing. Wing length 1.09 (1.08-1.11, n=5) mm, wing breadth 0.37 (n=5) mm. Wing light brown with anterior vein light yellowish brown rests pale, C ends at the middle; microtrichia well distributed on the wing membrane. CR 0.63.

Abdomen. Dark brown with long tergite setae. Genitalia – Fig. 68. Tergite IX elongated, with irregular margin and slender apicolateral process, gonocoxite elongate, gonostylus short, slender and little bent inward with hooked tip, aedeagus small with two narrow basal rod like processes, base produced into two very short and divergent process, parameres fused with broad basal part followed by hyaline slender narrowed apex.

FEMALE. Unknown.

ETYMOLOGY. The name "*similis*" originates from morphological similarities to *B . macronyx* Kieffer, 1922.

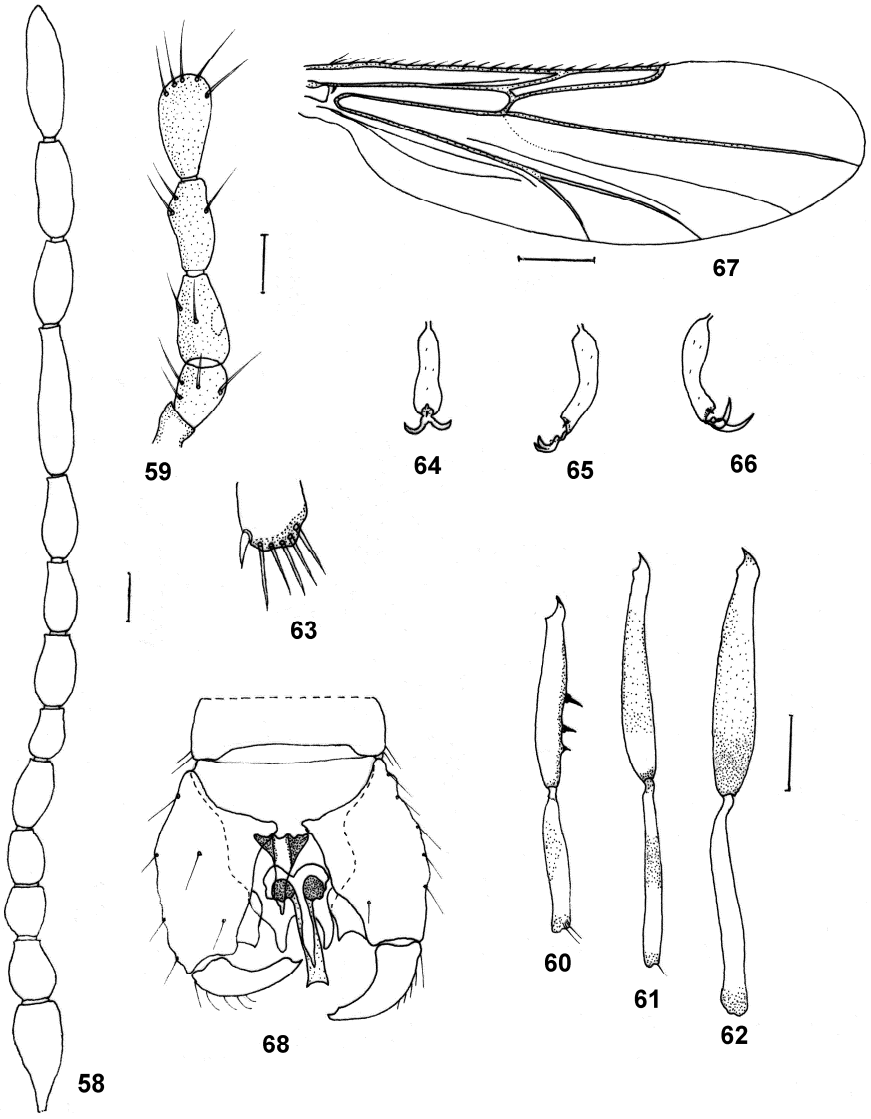
DIAGNOSIS. New species resembles *B. macronyx* in several features, but its dark brown flagellomeres, chaetotaxy of scutum, colour pattern of femora and tibia, 5 equal spines of the hind tibial comb, and the structures of male genitalia such as elongate gonocoxite, short slender bent dististyle with hooked tip, small aedeagus with two narrow basal rod like processes, and fused parameres with flat basal part and hyaline slender curved tip differ from all known Indian species of *Bezzia*.

Key to the Indian species of the genus *Bezzia*

1. Wing with dark markings ……..……..…. 2
– Wing without such marking ……..…. 3

2. Maxillary palp short and pale; femora and tibiae uniformly brown; hind tibial comb of 4 spines ……..…….…….……. ***B. papillistyla***

– Maxillary palp long, dark brown; femora and tibiae with altenate dark and pale bands; hind tibial comb of 6 spines ….……..…… ***B. glaucivena***



Figs. 58-68. *Bezzia similis* sp. n. 46) antenna; 58) antenna; 59) maxillary palpus; 60-62) fore, mid and hind femora and tibiae; 63) hind tibial comb; 64-66) fore, mid and hind claws; 67) wing; 68) male genitalia. Scale bar – 0.02 mm.

3. Femur unarmed ……..…….……..…… 4
– Femur armed with short, shout, ventral spines ……..……... 7
4. Thorax brown to brownish; maxillay palp short; legs brown in colour…..…….. ……. ***B. galera***
– Thorax not like above; maxillary palp usual; legs dark coloured ……. 5
5. R_{4+5} usually over 2 x length of R_1 ……..…… 6
– R_{4+5} almost as long as R_1 ……..…….. ***B. calcuttensis***
6. Body dark brown, R_{4+5} almost 2.5 x length of R_1 ……..…… ***B. bengalensis***
– Body greyish; $R_{4+5,}$ not longer than 2 x length of R_1 …… ***B. flavescens***
7. Fore femora armed with one short, stout, ventral spine …… 8
– Fore femora armed with more than one short, stout, ventral spines ……..….. 10
8. Single spermatheca; wing with R_{4+5} equals 4 x length of R_1 …….... ***B. monotheca***
– More than one spermatheca; R_{4+5} less than 4 x length of of R_1 …… 9
9. Small midge; femur and tibia brown at the apices ……..…….. ***B. clarivirga***
– Large midge; femur and tibia yellow ……..…… ***B. levifusca***
10. Fore femur with 2-4 short,stout ventral spines ……..…… 13
– Fore femur with more than 4 short, stout, ventral spines ……..…… 11
11. Fore femur with 5-8 lateral spines ……... 12
– Fore femur with more than 8 lateral spines ……...…… ***B. maculifemorata***
12. Antenna brown; fore femur with dark brown bands …….. ***B. ampla***
– Antenna yellow; fore femur with white apical bands …….. ***B. turbipes***
13. Fore femur with 2-3 short, stout, ventral spines …… 14
– Fore femur with 4 short, stout, ventral ……... ***B. kempi***
14. Distal five flagellomeres equal; haltere dark brown ……. 15
– Distal five flagelloemeres long, haltere usual ……... 16
15. Fore femur with 2 short spines ……. ***B. trispinosa***
– Fore femur with 3 lateral ventral spines …….. ***B. macronyx***
16. Maxillary palp alveolated; base of M_2 distinct ……... ***B. fortigenitalis***
– Maxillary palp with no alveolation; base of M_2 vague ……. 17
17. Thorax brown to dark brown …… 18
– Thorax intensely dark ……..... 19
18. Fore femora with 3 short and stout ventral spines; hind tibial comb of 5 spines; scutellar bristles 7 unequal ……...…….. ***B. dilatara***
– Fore femora with 2 short and stout, ventral spines; hind tibial comb of 6-7 spines; scutellar bristles 6 stout,equal ……..……... ***B. expedita***
19. Leg banding simple with femora setaceous in proximal half and tibiae; dark brown with pale apical bands ……... ***B. armatipes***
– Leg banding not as above …… 20
20. Haltere-knob brown to dark brown ……... 21
– Haltere-knob black ……... ***B. propriostyla***
21. Flagellomere II longer than III; tarsomeres with strong spinules …….. ***B. analis***
– Flagellomere II usual; tarsomeres without such pinules ……... 22
22. Mid and hind tibiae adorned with pale and dark bands …… ***B. similis***
– Mid and hind tibiae unadorned, uniformly brown ……..… ***B. brevipennata***

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