

FOUR NEW SPECIES OF *ASTENUS* STEPH. (COLEOPTERA :  
STAPHYLINIDAE : PAEDERINAE) FROM EASTERN INDIA

D. N. BISWAS AND T. SEN GUPTA  
*Zoological Survey of India,*  
*Calcutta*

ABSTRACT

*Astenus asitus*, sp. nov., *Astenus bisalicus*, sp. nov., *Astenus tanicus*, sp. nov., *Astenus jhopus* sp. nov. are described and *Astenus indicus* (Kraatz) is recorded for the first time from West Bengal, Sikkim and Uttar Pradesh.

The paper presents the descriptions of four new species of *Astenus* which are collected by us from Darjeeling District (West Bengal), Sikkim and Gorakhpur District (Uttar Pradesh) under the leadership of Dr T. Sen Gupta and Shri S. K. Saha respectively.

The genus *Astenus* Steph. can easily be separated from the related genera of the tribe Paederini by its head being oblong, labrum emarginate in the middle and fundus with two small teeth.

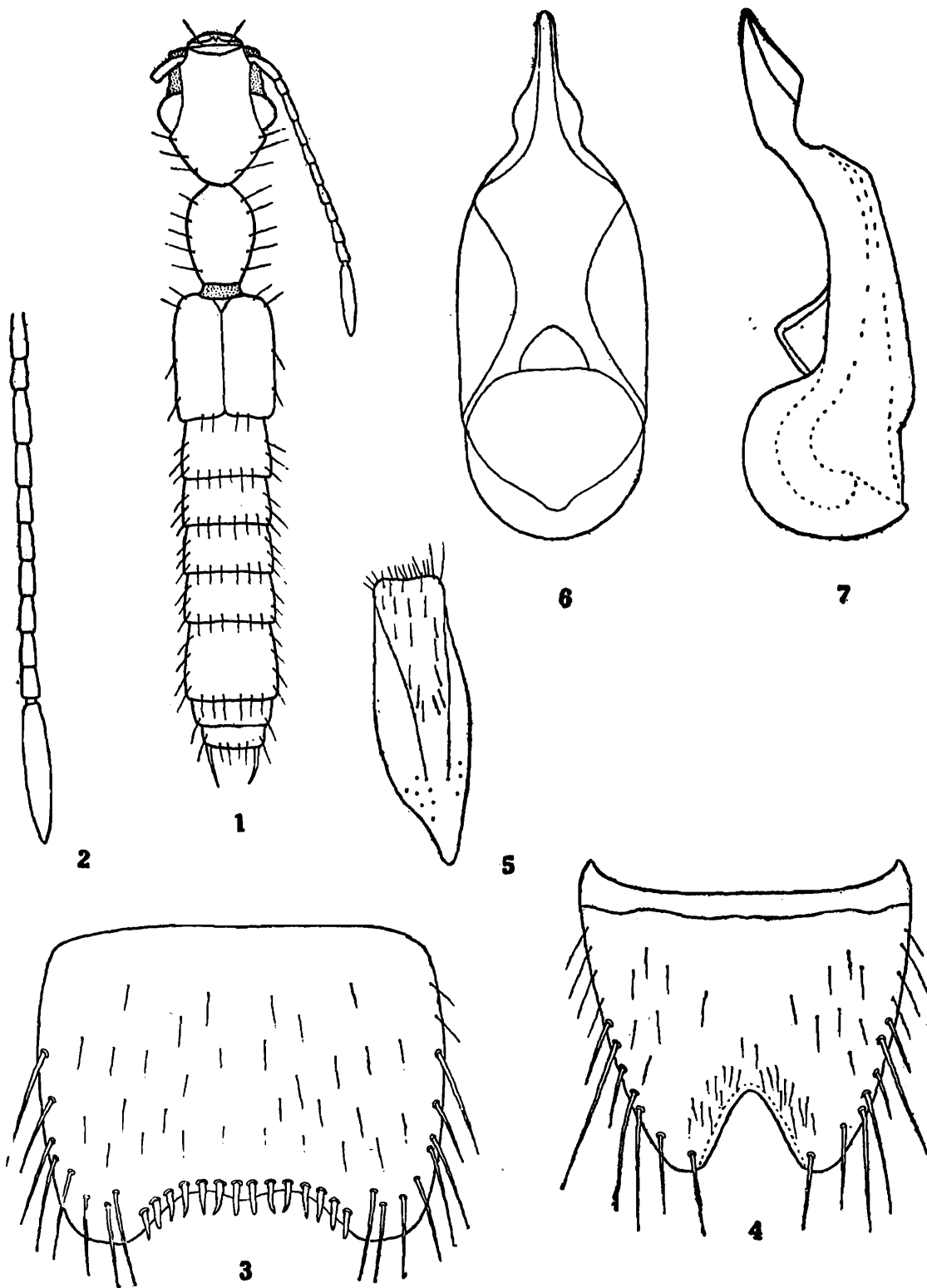
Cameron (1931) dealt with 30 species under the genus *Astenus*, of which 26 species are from the present territory of India and he (1943) added another 3 species from Darjeeling District (West Bengal) and Kashmir. Since then, the present study is first attempt to the knowledge of *Astenus* from India.

1. *Astenus asitus*, sp. nov.  
( Figs. 1-7 )

This is a unique species and differs from all other Indian species of the genus *Astenus* by its antennal segment 11 about 4 times longer than segment 10.

General appearance elongate, narrow, black, shining, antennae (except segment 11 infusate), palpi, mandibles and legs yellowish, body covered with dense gray pubescence mixed with some erect long black setae.

Head longer than broad, vertex distinctly convex and transversely impressed before eyes, post-ocular region rather straight and distinctly narrowed towards base, dorsal surface of head covered with reticulate-umblicate punctures, each puncture armed with a short seta. Eyes moderately large. Antennae (Fig. 2) longer than head and thorax combined and slender, scape long, pedicel short, segment 3 twice as long as pedicel, segment 4 slightly longer than segment 5, segments 5-9 equal, segment 10 slightly shorter than segment 9, segment 11 markedly long and about 4 times as long as segment 10. Prothorax oval, longer than broad, distinctly narrower than head, lateral margin rounded, slightly narrowed posteriorly, and armed with five long black setae, sculpture on pronotum similar as on head. Elytra slightly longer than prothorax, as broad as head, and parallel-sided, covered with densely and coarsely



Figs. 1-7. 1. Dorsal view of *Astenus asitus*, sp. nov., 2. Antennae, 3. sternite 5, dorsal view, 4. Sternite 6, dorsal view, 5. Sternite 7, dorsal view, 6. Aedeagus, ventral view, 7. Aedeagus, lateral view.

setiferous punctures. Abdomen parallel sided, segments 1-4 densely and coarsely punctured at the base and rest of the segments sparingly punctured. Sternite 6 (Fig. 4) of abdomen of male broadly and triangularly excised and its apex rounded and sides bordered; posterior margin of sternite 5 (Fig. 3) broadly emarginate and armed with fourteen long, black, pointed spines. Sternite 7 and aedeagus as figured (Figs. 5, 6 & 7).

*Holotype* : ♂, INDIA : SIKKIM ; Rangpo, 23. ii. 1979, D. N. Biswas Collection ; *Paratypes* 2 ♂ ♂, 1 ♂, Collection data same as holotype, 1 ♂, WEST BENGAL : Darjeeling District, Sevoke, 29. xii. 1980, D. N. Biswas collection.

All the materials are deposited in the Zoological Survey of India, Calcutta.

*Measurements of holotype* : Total length 4.20 mm ; width of head across the eyes 0.60 mm ; width of prothorax 0.50 mm and length of prothorax 0.70 mm ; width of elytra 0.70 mm and length of elytra 0.80 mm.

*Distribution* : INDIA : WEST BENGAL and SIKKIM.

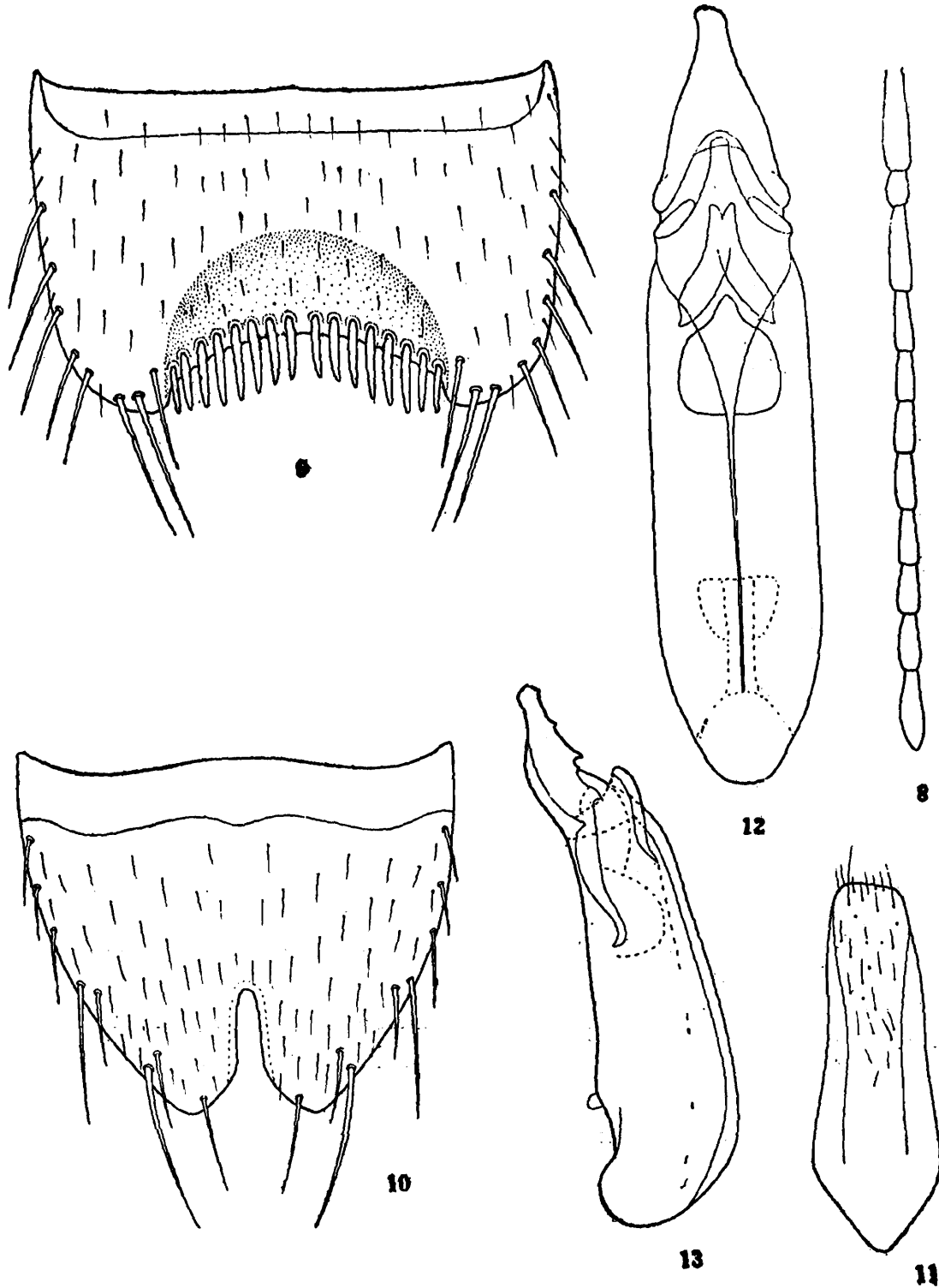
## 2. *Astenus bisalicus*, sp. nov. ( Figs. 8-13 )

This species is closely related to *Astenus biplagiatus* (Motschulsky) but differs from the latter species by its legs being yellowish, posterior margins of abdominal segments testaceous, posterior margin of abdominal sternite 6 of male with parallel-sided excision similar to *biplagiatus* but its sides bordered, posterior margin of abdominal sternite 5 of male deeply emarginate and armed with two markedly long black additional setae and front of emargination superficially impressed.

General appearance large and robust, black, shining, each elytron with a small oblong red patch at apex near suture, posterior margin of abdomen testaceous, antennae, palpi and legs yellowish.

Head large and distinctly widened in front of eyes, anterior part of vertex broadly and transversely impressed, temples rather straight in front and somewhat rounded at base, dorsal surface of head reticulate-umblicate punctured. Clypeus smooth. Eyes moderately large and not prominent. Antennae (Fig. 8) long and slender, scape distinctly long, pedicel short, segment 3 about two and half times longer than pedicel, segment 4 slightly longer than segment 5, segments 5-10 equal, segment 11 slightly longer than segment 10. Prothorax narrow and oval, anterior angles broadly rounded, parallel-sided, posterior margin slightly narrower than anterior margin, puncturations finer than that of head, lateral margins with four long black setae. Elytra slightly longer than prothorax, as broad as head, lateral margins parallel-sided and armed with some long black setae, dorsal surface densely and coarsely punctured. Abdominal segments 1-2 densely and coarsely punctured, rest rather finely punctured. Posterior margin of abdominal sternite 6 (Fig. 10) of male narrowly excised, excision almost parallel-sided, its sides bordered and apex rounded; posterior half of sternite 5 (Fig. 9) of male superficially impressed and its margin broadly and deeply emarginate, emargination armed with sixteen black spines and at each side of emargination with three distinct long black setae, of which inner one is slightly shorter. Sternite 7 and aedeagus as figured (Figs. 11, 12 and 13).

*Holotype* : ♂, INDIA : WEST BENGAL : Dar-



Figs. 8-13. 8. Antennae of *Astenus bisalicus*, sp. nov., 9. Sternite 5, dorsal view, 10. Sternite 6, dorsal view, 11. Sternite 7, dorsal view, 12. Aedeagus, ventral view, 13. Aedeagus, lateral view.

jeeling District, Tung, 28 km. from Tindharia, 25. iii. 1978. *D. N. Biswas* Collection. *Paratypes* : 2 ♀ ♀ , 1 ♀ , WEST BENGAL : Darjeeling District, Sevoke, 33 km. from Sukna, 10. iv. 1978, *D. N. Biswas* collection, 1 ♀ , Darjeeling District, Rangtong, 8 km. from Sukna, 13. iv. 1978, *D. N. Biswas* collection. Ex. Leaf litter.

All the materials are deposited in the Zoological Survey of India, Calcutta.

*Measurements of holotype* : Total length 7.65 mm ; width of head across the eyes 1.00 mm ; width of prothorax 0.85 mm and length of prothorax 1.15 mm ; width of elytra 1.05 mm and length of elytra 1.25 mm.

*Distribution* . : INDIA : WEST BENGAL.

### 3. *Astenus jhopus*, sp. nov. ( Figs. 14-19 )

This species is closely related to *Astenus indicus* (Kraatz) but can be easily separated from the latter by new species being distinctly narrower and larger than *indicus*, its abdominal segments 5-7 completely black, lateral margins of prothorax with four long black setae, antennal segment 3 distinctly longer than pedicel, the excision on posterior margin of abdominal sternite 6 of male characteristic (Fig. 16), posterior margin of abdominal sternite 5 (Fig. 15) of male broadly emarginate at middle, in front of emargination a broad impression extending nearly to the anterior margin of segment, half of impressed area from posterior margin devoid of any setae.

General appearance narrow, shining, pale-yellow, abdominal segments 5-7 black, antennae, palpi and legs yellow.

Head slightly longer than broad, vertex

convex, post-ocular region broadly rounded at base, dorsal surface of head covered with densely and finely setiferous punctures, basal part of head with some long black setae. Eyes moderately large and prominent. Antennae (Fig. 14) short and slender, scape elongate, pedicel short, segment 3 distinctly longer than pedicel, segments 4-10 equal, segment 11 slightly longer than segment 10. Prothorax slightly longer than broad and narrower than head, lateral margins rounded and narrowed posteriorly, puncturations coarser than that of on head. Elytra slightly longer than prothorax and as broad as head, humeral angles with two long black setae, surface densely and distinctly punctured. Abdominal segments 1-4 densely and coarsely punctured, rest finely and superficially punctured. Sternite 7 and aedeagus as figured (Figs. 17, 18 & 19).

*Holotype* : ♂ , INDIA : SIKKIM : Mansong, 35 km. from Rangpo, 24. ii. 1979, *D. N. Biswas* collection ; *Paratypes* : 15 examples, 1 ♂ , 2 ♀ ♀ , collection data same as holotype, 6 ♂ ♂ , 6 ♀ ♀ , SIKKIM : Singtam, 12 km. from Rangpo, 24. xii. 1980, *D. N. Biswas* collection. Ex. Beating the bush.

All the materials are deposited in the Zoological Survey of India, Calcutta.

*Measurements of holotype* : Total length 3.60 mm ; width of head across the eyes 0.50 mm ; width of prothorax 0.40 mm and length of prothorax 0.60 mm ; width of elytra 0.50 mm and length of elytra 0.60 mm.

*Distribution* : INDIA : SIKKIM.

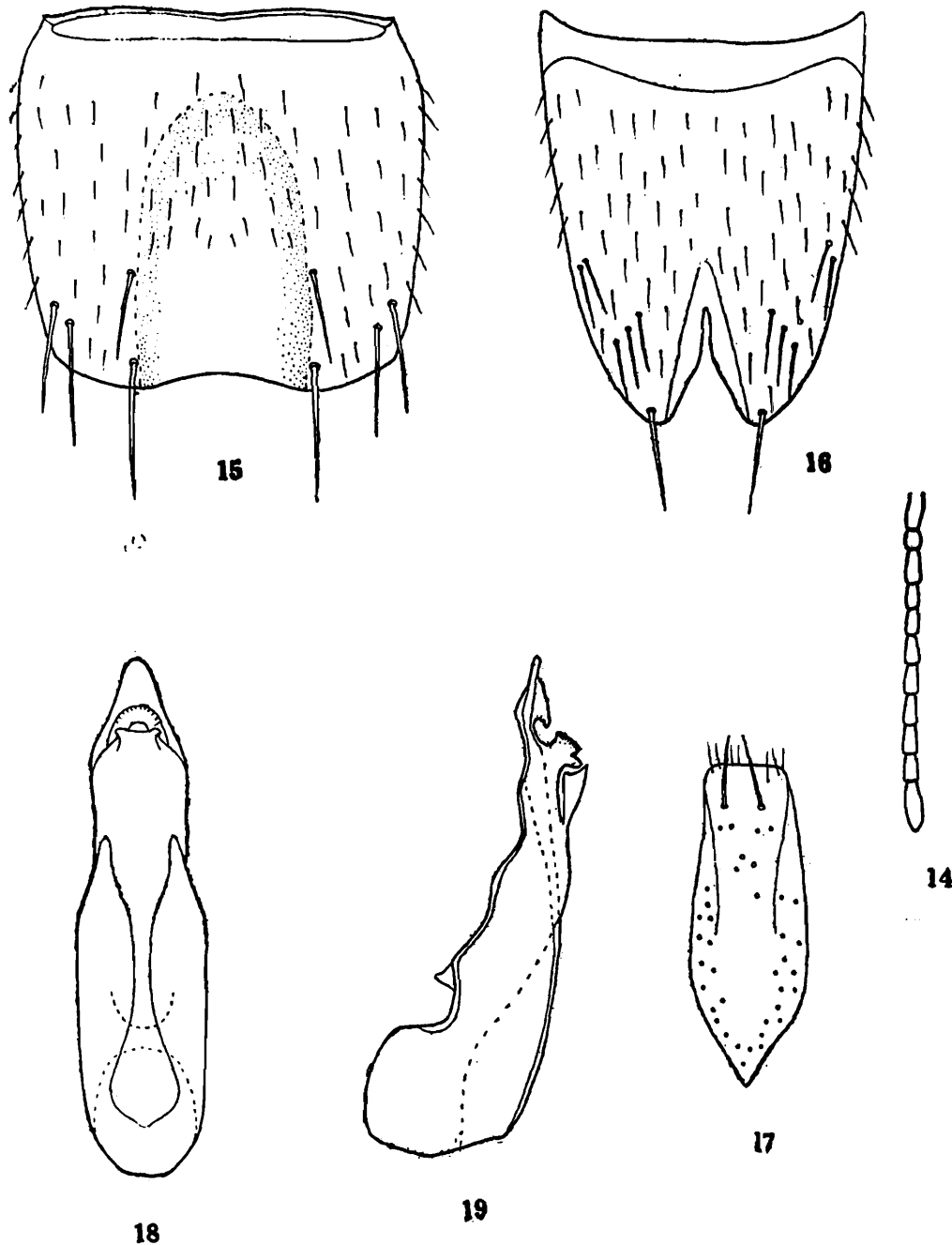
### 4. *Astenus tanicus*, sp. nov. ( Figs. 20-25 )

This species is closely related to *Astenus kraatzi* Bernhauer but can easily be separated from the latter species by its sutural line of

elytra being black, elytra distinctly longer and broader than prothorax; abdominal segments 7 and 8 black, excision of posterior margin of sternite 6 (Fig. 22) of abdomen of male broadly triangular and its apex rounded, posterior margin of sternite 5 (Fig. 21) of abdomen of male armed with closely situated

sixteen short slender spines on each side of the middle line and median portion devoid of any spine, in front of emargination a narrow impression extending nearly to the anterior margin of the segment.

General appearance narrow, shining, reddish, elytra yellowish, a black median spot

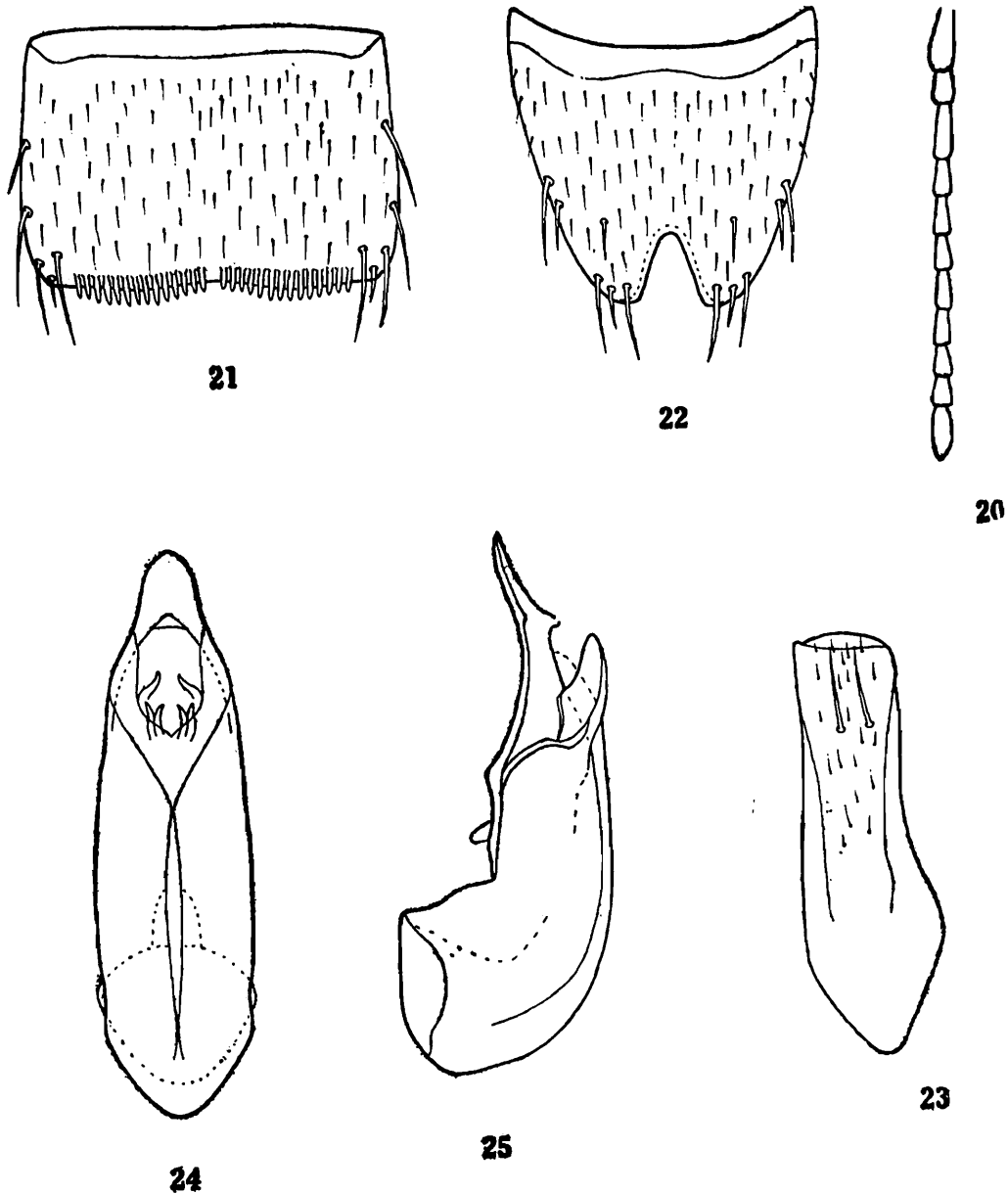


Figs. 14-19. 14. Antennae of *Astenus jhopus*, sp nov., 15. Sternite 5, dorsal view, 16. Sternite 6, dorsal view, 17. Sternite 7, dorsal view, 18. Aedeagus, ventral view, 19. Aedeagus, lateral view.

present on each elytron which extending to the epipleura, abdominal segments 7 and 8 black, antennae, palpi and legs yellowish.

Head subquadrate, broader than thorax, convex, post-ocular region broadly rounded at base, dorsal surface of head finely reticulate-umblicately punctured. Eyes moderately large. Antennae (Fig. 20) rather short and

slender, scape moderately long, pedicel short, segment 3 one and half times longer than pedicel, segments 4-8 equal, segments 9-10 slightly shorter than segment 8, segment 11 slightly longer than segment 10. Prothorax slightly longer than broad, its anterior portion broad and distinctly narrowed posteriorly, sculpture similar to that of on head. Elytra slightly longer than prothorax, surface



Figs. 20-25. 20. Antennae of *Astenus tanicus*, sp. nov., 21. Sternite 5, dorsal view, 22. Sternite 6, dorsal view, 23. Sternite 7, dorsal view, 24. Aedeagus, ventral view, 25. Aedeagus, lateral view.

rather densely and distinctly punctured. Abdomen densely and finely punctured. Sternite 7 and aedeagus as figured (Figs. 23, 24 & 25).

*Holotype* : ♂, INDIA : UTTAR PRADESH : Gorakhpur District, Singraha Falls, 22. xii. 1979, *T. Sen Gupta* collection ; *Paratype* : 1 ♂, Gorakhpur District : Nautanawa, 31. xii. 1979, *T. Sen Gupta* collection. Ex. Under heap of dry grasses.

All the materials are deposited in the Zoological Survey of India, Calcutta.

*Measurements of holotype* : Total length 3.80 mm ; width of head across the eyes 0.60 mm ; width of prothorax 0.50 mm and length of prothorax 0.60 mm ; width of elytra 0.60 mm and length of elytra 0.70 mm.

*Distribution* : INDIA : UTTAR PRADESH.

### 5. *Astenus indicus* (Kraatz) (Figs. 26-31)

*Sunius indicus* Kraatz, 1859, *Arch. Naturgesch.*, 25 (1) : 148 ; *Sunius oculatus* Sharp, 1874, *Trans. ent. Soc. Lond.*, : 72 ; *Sunius pallidulus* Wollaston, 1864, *A Catalogue of the Coleopterous Insects from the Canaries in the Collection of the British Museum*, 8 : 648 ; *Astenus indicus* : Cameron, 1931, *The Fauna of British India, including Ceylon and Burma, Coleoptera : Staphylinidae*, 2 : 1-257, 94 figs, 1-2 plates.

This species can be recognised by the following characters : form narrow, elongate, parallel, yellowish red, post-ocular region of head broadly rounded at base, antennal (Fig. 26) segment 3 slightly longer than pedicel,

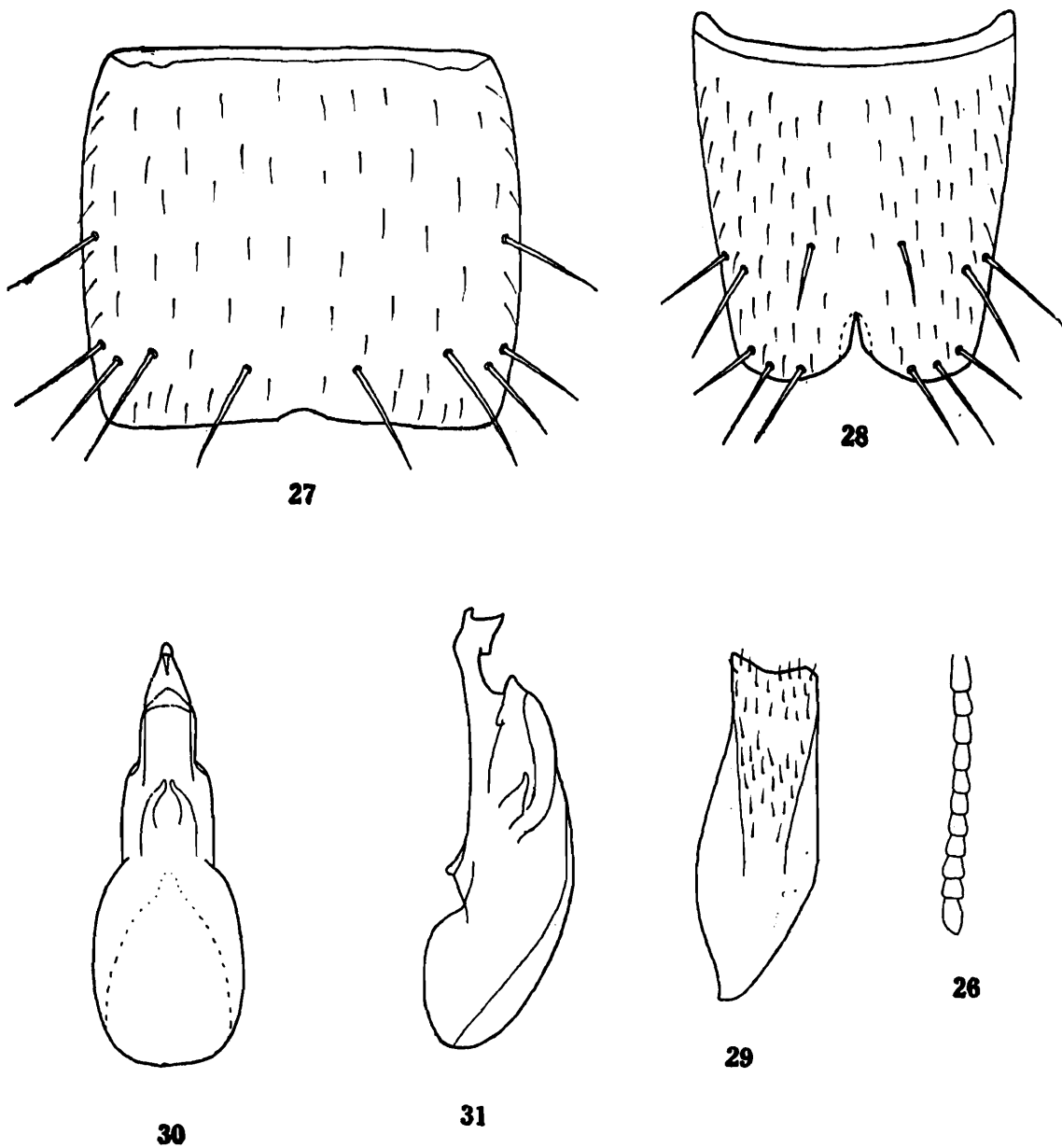
prothorax slightly wider in front and lateral margin with five long black setae, and abdominal segment 7 black. Posterior margin (Fig. 28) of sternite 6 of abdomen of male acute, excision, triangular, externally bounded by a narrow groove ; posterior margin of sternite 5 (Fig. 27) of abdomen of male feebly emarginate at middle. Sternite 7 and aedeagus as figured (Figs. 29, 30 & 31).

*Specimens examined* : 8 exs., INDIA : SIKKIM : Rangpo, 23. ii. 1979, 1 ex., *D. N. Biswas*, collection ; SIKKIM : Mansong, 35 km. from Rangpo, 24. ii. 1979, 1 ex., *D. N. Biswas* collection ; Phungla, 25 km. from Rangpo, 26. ii. 1979, 1 ex., *D. N. Biswas* collection ; WEST BENGAL : Darjeeling District, Teesta Bazar, 27. ii. 1979, 1 ex., *D. N. Biswas* collection ; Nadia District : Suravisthan, Badkulla, 10 km. from Krishnagar, 16. v. 1978, 1 ex., *D. N. Biswas* collection ; Ex. at light ; UTTAR PRADESH : Gorakhpur District, Nichlaul, 21. xii. 1979, 1 ex., *T. Sen Gupta* collection ; Gorakhpur District : Monderoha, 25. xii. 1979, 1 ex., *T. Sen Gupta* collection. Ex. Beating the bush.

This species is recorded here for the first time from West Bengal, Sikkim and Uttar Pradesh.

*Distribution* : INDIA : MAHARASHTRA (Bombay), WEST BENGAL, SIKKIM and UTTAR PRADESH ; SRILANKA ; BURMA. Widely distributed in the Oriental Region, also in the Mediterranean, Canaries, East and West Africa,





Figs. 26-31. 26. Antennae of *Astenus indicus* (Kraatz), 27. Sternite 5, dorsal view, 28. Sternite 6, dorsal view, 29. Sternite 7, dorsal view, 30. Aedeagus, ventral view, 31. Aedeagus, lateral view.

ACKNOWLEDGMENT

We are grateful to Dr. B. K. Tikader, Director, Zoological Survey of India for providing necessary facilities.

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*including Ceylon and Burma. Coleoptera : Staphylinidae*, Taylor and Francis, London. 2 : 1-257, 94 figs., 1-2 plates.

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