

A REVISION OF THE GENUS *STEROPES* STEVEN, WITH A
PROPOSED NEW SUBFAMILY STEROPINAE OF THE
FAMILY ANTHICIDAE (COLEOPTERA)*

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The genus *Steropes* is a very interesting and primitive member of the flower beetle family Anthicidae. It has many characters which are intermediate between the subfamilies Anthicinae and Pedilinae and it could not be satisfactorily placed in them. I have, therefore, placed *Steropes* in a distinct subfamily. As the differences are not great, it is best to treat the three groups as subfamilies rather than consider each of them as families of Heteromera.

The new subfamily, Steropinae, has the following primitive features. Front coxal cavity open externally and internally. Mes-episterna meeting in front of mesosternum. Hind coxae nearly contiguous. Hind wing with radial and anal cells present. Parameres separate at apices in the aedeagus. Styli borne on second segment of coxites in the ovipositor.

In my opinion, these are the derivative characters: apical three antennal segments much elongated, neck narrow (i.e. less than half the width of head across tempora) and elytral spots present in the male (see Pl. 3, figs. 52-54).

The type-genus of Steropinae is *Steropes* Steven (tribe Steropini).

Genus *Steropes* Steven

Steropes Steven, 1806, p. 166; Castelnau, 1840, p. 260; Ferté-Sénectère, 1849, pp. 7-9; Redtenbacher, 1858, p. 635; Lacordaire, 1859, p. 580; Jacquelin du Val, 1863, p. 365; Mulsant and Rey, 1866, p. 47; Seidlitz, 1891, p. 146; Abdullah, 1965a, p. 252; 1965b, p. 13.

Blastanus Illiger, 1807, p. 334; Germar, 1831, p. 5.

Colour: brown. **Vestiture:** pubescence moderate; in females uniform, consisting of short, decumbent, yellowish white to light brown hairs, not entirely concealing surface below, a few longer and erect hairs also present along tempora and margins of pronotum; in males, elytron with a white to dark spot towards lateral margin in basal one-third region, consisting of small, fine, dense pubescence. **Punctures:** fine.

Head widest across eyes, narrower than pronotum at its widest part; tempora prominent; vertex without a median sulcus, broad; clypeus ridged at apex; eyes large, convex, coarsely-faceted, nearly entire (truncate below antennal insertions). Labrum entire. Mandible with molar lobe developed, protheca small, area of incisor lobe hairy, apex pointed and entire (fig. 43). Maxillary palp nearly filiform, apical (=fourth) segment very slightly swollen (fig. 13). Labial palp nearly filiform, apical (=third) segment weakly securiform. Antennae filiform; apical three (IX-XI) segments elongated, eleventh segment longest (figs. 1, 8, 12, 24, 33). Neck narrower than in Pedilini or Eurygeniini but thicker than in Macratriini or Anthicinae.

Thorax. Pronotum not constricted at apex or without an apical flange; roughly spherical, slightly longer than wide, widest subapically above middle; without a median sulcus. Front coxal cavity visibly (=externally) and internally open behind. Mes-episterna meeting in front of mesosternum. Wing with anal and radial cells closed. Legs with first tarsal segments on front tarsi swollen; tarsal claws appendiculate (fig. 9), appearing simple at low magnification; hind coxae with reduced internal keel (fig. 45). Met-endosternite with long anterolateral arms, distinct laminae and anterior tendons arising on arms (above point of fusion of lamina with arms) (fig. 44).

Abdomen. Seventh (=fifth visible) sternite entire and dorsally ridged in females.

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usually emarginate in males; seventh tergite entire in both sexes; in males, eighth sternite, eighth tergite and spiculum gastrale fused to form a compact, hollow structure (fig. 27) which houses aedeagus. Tegmen of male with parameres (=lateral lobes) separate, usually toothed at apices; basal-piece long (figs. 19, 28). Median lobe of male narrow and without prominent serrations at apex; median struts short, thick (figs. 20, 29). Ovipositor of female narrow, slender; styli borne on apices of apparently two-segmented coxites; sparsely, finely hairy (fig. 23).

Type of the genus: *Steropes caspius* Steven, 1806.

Remarks. This primitive genus of Anthicidae has many structural similarities with the most primitive genus of Meloidae, *Protomeloe* Abdullah and serves to connect the two families in a phylogenetic sense (Abdullah, 1965a).

KEY TO THE SPECIES OF *Steropes* STEVEN

1. Elytron with a white or dark spot towards the lateral margin in the basal one-third region consisting of small, fine, dense pubescence (Pl. 3, figs. 52, 54), males 2
- Elytron not spotted or pubescence uniform (Pl. 3, fig. 53), females 6
2. Eleventh antennal segment twice or more as long as tenth segment (fig. 1); minimum dorsal interocular distance much less than the width of labrum *S. caspius* Steven
- Eleventh antennal segment less than twice as long as tenth segment; minimum dorsal interocular distance nearly same as or not much less than the width of labrum 3
3. Lower margin of eighth tergite narrowly, deeply emarginate (figs. 17, 27) 4
- Lower margin of eighth tergite broadly emarginate (figs. 37, 48) 5
4. Parameres long and slender (figs. 18-19); pronotum usually black *S. latifrons* Sumakov
- Parameres short and thick (fig. 28); pronotum always rufous *S. obscurans* Pic
5. Upper margin of eighth tergite round (fig. 37); parameres comparatively slender (fig. 38) *S. pici* n.sp.
- Upper margin of eighth tergite nearly flat (fig. 48); parameres comparatively thick (fig. 49) *S. vonhayekae* n.sp.
6. Pronotum black; minimum dorsal interocular distance distinctly more than width of labrum *S. colasi* n.sp.
- Not with the above combination of characters 7
7. Seventh sternite with a dorsal, median hook-like structure, clearly visible in a dorsal view (figs. 21, 31) 8
- Not as above 9
8. Pronotum usually black; seventh sternite wide, more pointed at apex (fig. 21) *S. latifrons* Sumakov*
- Pronotum never black; seventh sternite narrow, less pointed at apex (fig. 31) *S. obscurans* Pic*
9. Seventh sternite with a basally emarginate transverse ridge visible in a dorsal view (figs. 6, 39, 41) 10
- Not as above (fig. 50); Iraq, near Persian Gulf *S. vonhayekae*, n.sp.
10. Pronotum rufous; seventh sternite as in fig. 6; Bukhara, Uzbekistan and Afghanistan *S. caspius* Steven*
- Pronotum black to rufous; seventh sternite as in fig. 39; Bulgaria, Yugoslavia *S. pici* n.sp.
- Pronotum dark brown; seventh sternite as in fig. 41; Nauplia, Greece *S. popei* n.sp.

* Females of these species could not be certainly identified except when in association with males.

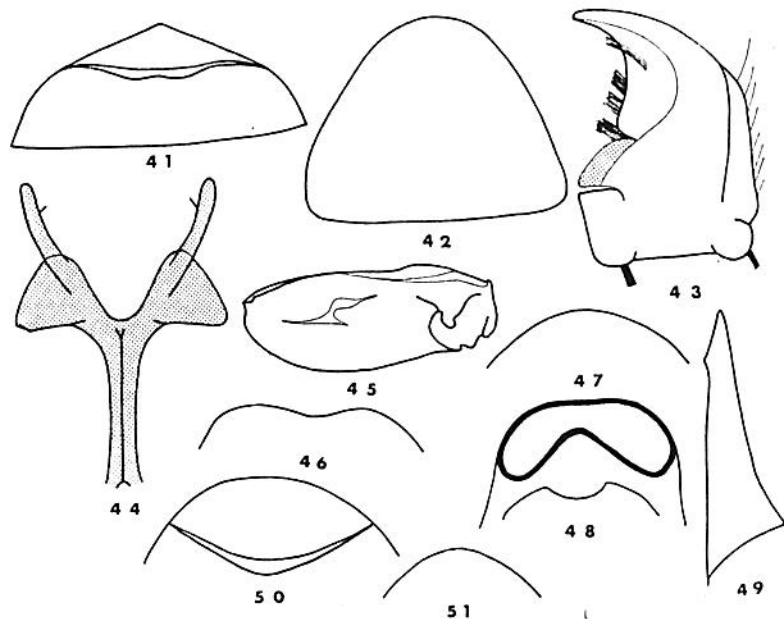
Steropes caspius Steven, *sensu stricto* (figs. 1-7; Pl. 3, fig. 52).

Steropes caspius Steven, 1806, p. 166; Pic, 1894, p. 93; Sumakov, 1908, pp. 133-134; Pic, 1911, pp. 21-22 (contains other references).

I have not examined the type of Steven and his original description is not good enough to distinguish the species. In associating the following

Head fuscous, but eyes light brown; antennae and mouth-parts dark brown; pronotum dark brown, blackish at places; elytra, legs and ventral surface dark brown. Antenna: length of segments X 0.42 mm. and XI 0.66 mm. Head: width across eyes 0.90 mm.; minimum dorsal interocular distance 0.43 mm.; width of labrum 0.33 mm. Seventh abdominal sternite with an emarginate transverse ridge visible in a dorsal view (fig. 41). Seventh tergite entire at apex (fig. 42).

Remarks. I have much pleasure in naming this species in honour of Mr. R. D. Pope of the British Museum (Natural History).



Figs. 41-42.—*Steropes popei*, n. sp., holotype, ♀: 41, seventh sternite, dorsal view; 42, seventh tergite.

Figs. 43-51.—*S. vonhayekae*, n. sp.: 43, mandible of ♂ (holotype); 44, metendosternite or furca of ♂, dorsal view (holotype); 45, hind coxa of ♂, showing the reduced internal keel (holotype); 46, apex of seventh sternite of ♂ (holotype); 47, apex of seventh tergite of ♂ (holotype); 48, apices of eighth sternite (basal) and eighth tergite of ♂, ventral view (holotype); 49, left paramere of ♂, ventral view; 50, apex of seventh sternite of ♀, dorsal view (allotype); 51, apex of seventh tergite of ♀ (allotype).

Steropes vonhayekae, n. sp. (figs. 43-51, Pl. 3, fig. 54)

Diagnosis. Males of this species could be distinguished from males of other species by the combination of the following characters: eleventh antennal segment less than twice as long as tenth segment, lower margin of eighth tergite broadly emarginate, upper margin nearly flat (fig. 48) and parameres thick and long (fig. 49). In the female, the seventh sternite is without a median hook-like structure and without basally emarginate transverse ridge visible in a dorsal view (fig. 50), and the pronotum is not black.

Holotype. Male (author's no. 648), Fao (=Faw A1, IRAQ) (D. Cumming), in the British Museum (Natural History).

Colour dark brown, becoming fuscous at places, but portion of head (clypeus, frons and vertex) black. Antenna: length of segments X 0.58 mm. and XI 0.92 mm. Head: width across eyes 0.92 mm.; minimum dorsal interocular distance 0.31 mm.; width of labrum 0.30 mm. Seventh abdominal sternite emarginate at apex (fig. 46). Seventh tergite entire at apex (fig. 47). Eighth sternite emarginate at apex (fig. 48). Eighth tergite with upper margin nearly flat, lower margin broadly emarginate (fig. 48). Parameres long and thick (fig. 49). Total length 5.5 mm.; maximum width 1.6 mm.

Allotype. Female (author's no. 649), Fao, in the British Museum (Natural History).

Lighter than the holotype; area of head between eyes fuscous to ferruginous. (Antennal segments X and XI missing). Head: width across eyes 1.03 mm.; minimum dorsal interocular distance 0.41 mm.; width of labrum 0.30 mm. Seventh abdominal sternite without a dorsal, median, hook-like structure; transverse ridge not basally emarginate (fig. 50). Seventh tergite entire at apex (fig. 51). Total length 6 mm.; maximum width 2.15 mm.

Paratypes. 11 designated, all in the British Museum (Natural History). Four males and one female with the above data on labels. One male and two females from Fao, the females were collected in April, 1891, and May, 1891, respectively by W. E. Cumming. One male and one female bear the locality label, 'PERSIAN GULF' and were collected by W. E. Cumming, the male on May 25, 1891, the female on May 19, 1891. Finally, a male collected by F. Bates, bears the locality label 'Mesopota'. (=IRAQ). Length varies from 5 to 6 mm. among males and from 5.5 to 6 mm. among females.

Remarks. I have much pleasure in naming this species in honour of Miss Christine M. F. von Hayek of the British Museum (Natural History).

ACKNOWLEDGMENTS

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February 8th, 1965.

THE IDENTITY OF *TRIXAGUS SERIATUS* BLAIR (COL., TRIXAGIDAE)

By COLIN JOHNSON, F.R.E.S.

This species has been a mystery ever since Blair described it in 1942 (*Ent. mon. Mag.*, **78**: 287-8), and, to the writer's knowledge it has not been encountered by subsequent coleopterists, neither does it appear to have been recognised on the continent. The type-locality, Oxshott, Surrey, is a well-worked locality and it seems strange that *T. seriatus* should have escaped further detection.

In view of this state of affairs, I took the opportunity of examining the type whilst I was in the British Museum (Nat. Hist.). After a careful examination and comparison with both British and continental material, I came to the conclusion that the specimen was no more than a pale coloured *carinifrons* (Bonv.). The paler colour was undoubtedly due to immaturity since the integument was not as hard as normal. A month or so previously, whilst working over some examples of the genus in the Manchester Museum, I found that *carinifrons* agreed quite well with Blair's description of *seriatus*. The discrepancies were mostly either dark or abraded specimens.

It would seem strange that so experienced a worker as Blair should fail to recognise *carinifrons*, but the most likely answer is that he was misled by the immature colouration and the 'mint' condition of the specimen. The British List may therefore be amended thus:

Trixagus carinifrons (Bonvouloir 1859)
seriatus Blair 1942.

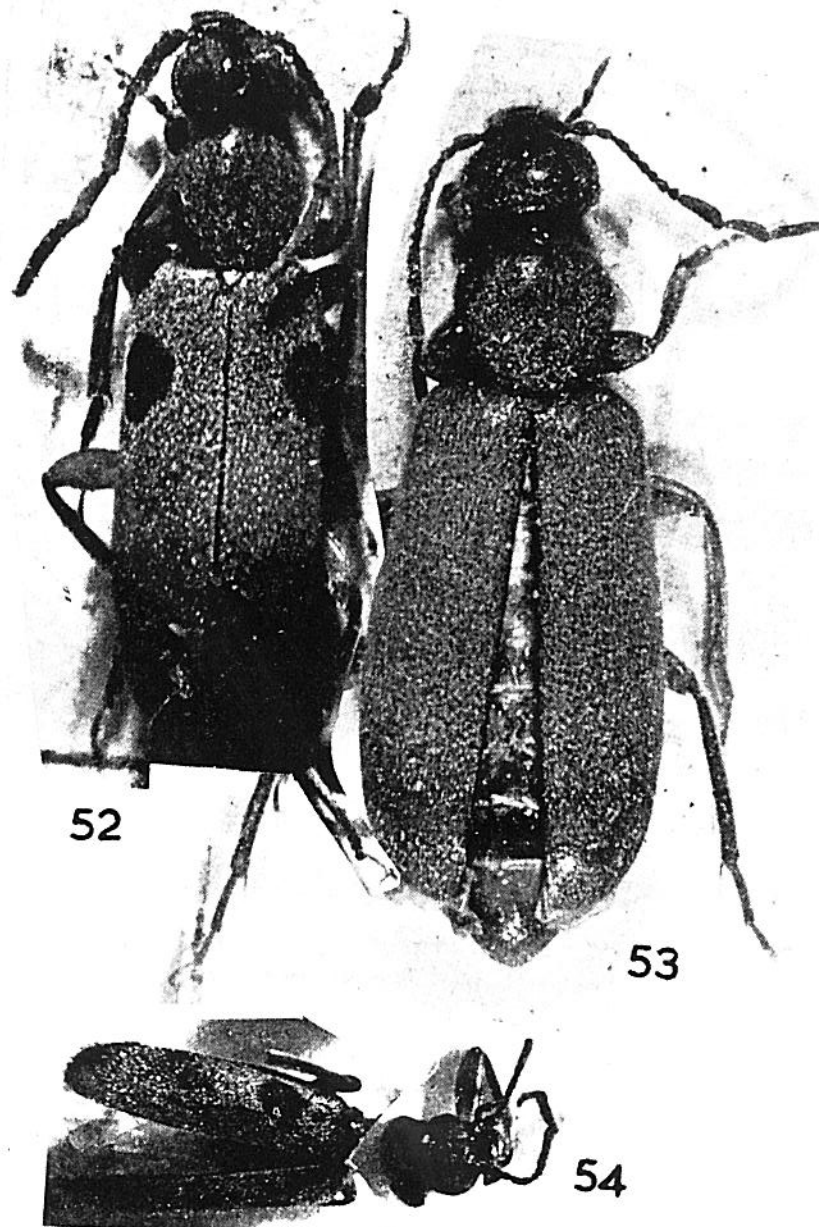
I would like to thank Mr. J. Balfour-Browne of the British Museum (Nat. Hist.) for facilities afforded in studying the material.

Department of Entomology, Manchester Museum.
February 20th, 1965.

Oxycera dives Löw (Dipt., Stratiomyidae) in *Inverness*.—On 22nd June, 1965, I took a specimen of the above species resting on a hazel leaf by Loch Ness. The exact locality is in a roadside glade of oak, hazel and rowan with bracken and heather about a hundred yards from and just above the shore of the lake, on the opposite side of the A 82 from the Port Clair Forest. The striking colouring of the fly attracted my attention and persuaded me to collect it, although I was not collecting seriously. Dr. Paul Freeman of the British Museum (Nat. Hist.) kindly identified the insect for me and I was pleased to find that I had guessed its genus correctly. He tells me that it was not previously represented in the British collection.—B. VERDCOURT, Spring Cottage, Kimbers Lane, Maidenhead, Berks.: August 18th, 1965.

(To face page 216)

(1966, *Ent. mon. Mag.*, **101** (1965): Pl. 3)



A REVISION OF THE GENUS *STEROPES* STEVEN
Figs. 52, 53, 54.