

13. *Centruroides bicolor*. (Tab. VII. figg. 5, 5 a, ♂.)

Centrurus bicolor, Pocock, Ann. & Mag. Nat. Hist. (7) i. p. 388 (1898)¹; Kraepelin, Das Tierr., Scorpiones et Pedipalpi, p. 93 (1899)².

Colour alike in the two sexes; carapace and upperside of abdomen mostly black, yellowish-brown in parts, the last tergite yellowish-brown with black keels; sterna yellowish-brown, blackish on the margins (and in the middle in the female); tail darkening posteriorly, its first four segments deep ochre-yellow, paler than the pale areas on the trunk, the granules on the keels black, the inferior keels more diffused with black; fifth segment with its sides and under surface blackish; vesicle blackish, red above like the upperside of the fifth segment; mandibles infuscate; chelæ yellow for the most part, a blackish spot at the tip of the brachium, the hand deep reddish-brown with black keels, fingers blackish with pale tips; legs a rich yellow like the humerus and brachium, with the maxillary processes of first and second pairs apically infuscate; pectines pale. *Carapace* and *terga* granular, as in *C. gracilis*; *sterna* also as in that species, but the third more thickly pitted mesially, and the fourth and fifth finely and closely granular mesially as well as laterally, the second and third also very weakly granular mesially. *Tail* and *chelæ* practically as in *C. gracilis*. In the male the caudal keels are smoother than in *C. gracilis*, those on the fifth segment being almost entirely smooth, and the vesicle is more globular and more uniformly sloped on each side of the aculeus. *Pectinal teeth* 26–28, ♀; 28–29, ♂.

Measurements in mm.—♀. Total length 109, carapace 10; tail 63, second segment 9.5, fifth 11.8. ♂. Total length 120, carapace 11; tail 82, second segment 13, fifth 15.

Hab. COSTA RICA, Pozo Azul de Pirris, Atlantic slope (*Zeledon*¹), Santo Domingo de Golfo Dulce, in the straw of old roofs (*Pittier*¹), Carillo (*Underwood*); PANAMA, Chiriqui.

14. *Centruroides limbatus*. (Tab. VIII. figg. 1, 1 a, ♂.)

Centrurus limbatus, Pocock, Ann. & Mag. Nat. Hist. (7) i. p. 387 (1898)¹; Kraepelin, Das Tierr., Scorpiones et Pedipalpi, p. 92 (1899)².

Allied to the foregoing, but strikingly different in colour; carapace and *terga* yellow or reddish with black margins, ocular tubercle black, chelicerae yellow at base, infuscate apically; first four segments of tail uniformly yellow, with granules on keels darker, fifth segment and vesicle deep blackish-brown; sterna entirely yellow, with blackish side margins, and in female clouded with black mesially; legs entirely yellow, including apices of maxillary processes; chelæ entirely yellow, except the digits, which are black with pale tips. Granules on *trunk*, *tail*, and *chelæ* much finer than in *C. bicolor*; sterna granularly coriaceous as in that species. *Pectinal teeth* 22–23, ♀; 25, ♂.

Measurements in mm.—Total length 100, carapace 9; tail 70, second segment 11, fifth 12.5. Another specimen (♂) measures 125 mm. The only known female of this species is young, and measures 66 mm. in total length.

Hab. COSTA RICA, Sirires in Talamanca (*Pittier*¹), Sipurio in Talamanca (*Cherrie*).

15. *Centruroides nigrimanus*.

? *Scorpio* (*Atræus*) *edwardsii*, Gervais, Arch. Mus. Paris, iv. p. 217 (in note) (1844)¹.

Centrurus nigrimanus, Pocock, Ann. & Mag. Nat. Hist. (7) i. p. 388 (1898)²; Kraepelin, Das Tierr., Scorpiones et Pedipalpi, p. 93 (1899)³.

♂. Resembling the male of *C. bicolor* in colour, but more coarsely and closely granular above, the fifth caudal segment having its crests very distinctly granular, and its interstices also granular, whereas in *C. bicolor* this segment is almost entirely smooth throughout; vesicle very different in form from that of *C. bicolor*, being strongly compressed antero-posteriorly, its height equal to the width of the humerus (in *C. bicolor* its height is considerably greater than the width of the humerus), flat behind, parallel-sided, and laterally pitted, the aculeus more abruptly bent backwards from the base, and the subaculear tooth very