

## RESEARCH NOTE

### THE IDENTITY OF *TITYUS MACRURUS* KOCH (ARACHNIDA, SCORPIONIDA, BUTHIDAE)

The scorpion *Tityus macrurus* Koch, 1845, was described on the basis of one male and one female from México. At the time this species was described the genus *Tityus* Koch was poorly characterized, and Koch assigned numerous species to it. Since then, the genus *Tityus* has been restricted to species found only in South America and southern Central America, and *T. macrurus* has been assigned to the genus *Centruroides* Marx, found mostly in North America, Central America, and the Caribbean islands. The position of the species within this genus, however, has not been clear. While Thorell (1876) indicated that *T. macrurus* is a junior synonym of *Centruroides biaculeatus* (Lucas) [= *Centruroides gracilis* (Latreille)] and Kraepelin (1899) listed the species as a synonym of *C. gracilis*, Pocock (1902), Hoffmann (1932), Moreno (1939), and Mello-Leitão (1945) referred *T. macrurus* to the synonymy of *Centruroides margaritatus* (Gervais). Both *C. gracilis* and *C. margaritatus* occur in México, and since the placement of *T. macrurus* within the genus *Centruroides* is uncertain, we examined the male type of *T. macrurus* to determine its identity.

The type of *Tityus macrurus* is definitely a species of the genus *Centruroides* and is very closely related to the species occurring in coastal Veracruz described and identified by Hoffmann (1932) as *C. gracilis*. However, as pointed out by one of us (Wagner, 1977), the name *Centruroides gracilis* is currently applied to a poorly understood complex of species and subspecies from a wide geographic area (Florida and Texas in the USA, México, Central America, the Caribbean Islands, and northern South America to Ecuador). The examination of the type specimens of all species (12) and subspecies (4) referred to the synonymy of *C. gracilis*, as well as those of closely related taxa of doubtful validity, is an essential step in the clarification of this taxonomic problem. Therefore, since the true identity of *C. gracilis* remains to be determined, we only tentatively assign *T. macrurus* as a junior subjective synonym of it. Below we provide a brief description of the type specimen of *T. macrurus*, and refer the reader to Hoffmann's excellent description if more detail is desired.

**Descriptive notes.**—Subadult male type, pinned and poorly preserved, in Zoologisches Museum of Humboldt-Universität zu Berlin. Agrees closely with Hoffmann's (1932) description of *C. gracilis* from the coastal region of the state of Veracruz, México (based on published description, and examination of specimens from that region). Postabdomen 7.1 times longer than carapace; pedipalp chela reddish brown, lighter than femur and tibia; sternite VII infuscate; pectinal tooth count 29-30; pedipalp chela fixed finger with nine rows of granules.

Measurements (in mm): Total length 74.5; carapace length 7.0, anterior width 3.9, posterior width 6.8; mesosoma length 18.4; metasoma length 49.7, segment I 6.5 (length) by 3.1 (width), II 7.7 by 3.2, III 8.6 by 3.0, IV 9.3 by 2.9, V 9.9 by 3.0, telson length 7.1, vesicle 5.0 by 2.5 by 2.3 (depth), aculeus length 2.7; pedipalp length 27.9, femur 7.1

We thank Dr. M. Moritz (Humboldt-Universität, Berlin) for the loan of the male type of *Tityus macrurus*. The junior author thanks the Graduate School, Texas Tech University, for support in the form of a Summer Fellowship.

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