

goods required in these remote towns are produced in the southern regions of Brazil where *Tityus serrulatus* is present.

This case of transportation by human agency is an isolated one. There should be no chance of permanent introduction of *Tityus serrulatus* into Amazonia, since it is only successful in modified environments and is selected negatively against the local species of the equatorial forest (Lourenço & Cloudsley-Thompson, 1996; Lourenço *et al.*, 1996).

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more, one for the new extant Pseudochactidae, another for the fossil Palaeopisthacanthidae. The last included information on Cretaceous taxa, most of which have been described by Wilson Lourenço. Despite this, high-level scorpion phylogeny and taxonomy are still basically unresolved, and the division of extant family groups is not yet settled. It is, however, to be hoped that this work will, for many years, serve the basic needs of taxonomists working on Scorpiones. Worth mentioning is that, following the example of the redoubtable Pierre Bonnet who summarised the rules 'De la nomenclature en sciences naturelles' in his '*Essai poétique*' (1948), Victor Fet concludes his own joint publication with 'An essay on scorpion'—in light-hearted verse written in the style of W. S. Gilbert.

Whilst on the subject of scorpions, it may be useful to add that, during the early 1960s, I worked, among other things, on the reproduction of the 'Omdurman scorpion' as *Leiurus quinquestriatus* (Buthidae) was called in Khartoum. Faysal Abushama was one of my research students in those days, and the same species formed the subject of his thesis. Neither of us was able to determine the sex of our specimens except by watching their reproductive behaviour or by dissecting them. A few years ago, the problem was solved for me by Wilson Lourenço, who pointed out that, in buthids, the male pectines are always larger than those of the female. Moreover, they usually overlap in their internal portions whereas the female pectines never overlap.

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## Scorpion Taxonomy

by John Cloudsley-Thompson

Michael E. Sologlad and Victor Fet are to be congratulated on their latest publication: 'High-level Systematics and Phylogeny of the Extant Scorpions: (Scorpiones: Orthosterni)'. *Euscorpium. Occasional Publications in Scorpology*, No. 11, December 2003, 175 pp. This huge, comprehensive work on the taxonomy of all modern groups of scorpions includes a considerable amount of detailed character analysis. Many of these characters, such as tarsal spination, biogeography and cladistics, are described for the first time. Especially important is the analysis of a newly discovered relict genus, *Pseudochactas* from Central Asia. *P. ovchinnikovi* Gromov is most probably a Tethys relict. It is separated into its own family, superfamily and parvorder. It possesses a set of paired ventral median carinae on metasomal segment V, which is unique among recent scorpions so far described. One of the main issues for extant scorpion phylogeny has been its 'rooting' within fossil taxa. Many earlier authors had no reservations about deriving extant scorpions from Palaeozoic taxa. Some even derived present day genera from more than one fossil ancestor! Recent work by Sologlad & Fet, incorporated here, has been elaboration of the orthobothriotaxy of Max Vachon's three trichobothrial 'types' and the identification of two

With very best wishes  
from  
John