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## The pseudoscorpion subgenus *Chthonius* (*Sigmodactylus*) Hadži, 1930: type fixation and consequent synonymy with *Pseudochthonius* Balzan, 1892 (Chelonethi, Chthoniidae)

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### Summary

*Chthonius* (*Pseudochthonius*) *simoni* Balzan, 1892, is designated as the type species of the subgenus *Chthonius* (*Sigmodactylus*) Hadži, 1930. *Sigmodactylus* therefore becomes a junior objective synonym of the genus *Pseudochthonius* Balzan, 1892. *Microchthonius* Hadži, 1933, is returned to subgeneric rank under the genus *Chthonius* C. L. Koch, 1843.

*Sigmodactylus* was created by Hadži (1930: 140) as a subgenus of *Chthonius* C. L. Koch, 1843, diagnosed by the sigmoid curvature of the fixed finger and the dentition of the fingers of the chela. The heterogeneity of the group is evident from the modern familial and generic assignments of the seven species which Hadži referred to *Sigmodactylus* (see Harvey, 1991):

### Chthoniidae

- Afrochthonius godfreyi* (Ellingsen)
- Chthonius* (*Chthonius*) *cavernarum* Ellingsen
- C. (C.) heterodactylus* Tömösváry
- C. (C.) raridentatus* Hadži
- C. (C.) troglodites* Redikorzev
- Pseudochthonius simoni* (Balzan)

### Tridenchthoniidae

- Anisoditha curvidigitata* (Balzan)

*Sigmodactylus* has been either overlooked or ignored by subsequent authors, including Hadži himself (1941). Fortunately, it was included by Neave in his *Nomenclator Zoologicus* (1940).

Because Hadži (1930) did not designate a type species, *Sigmodactylus* represents a potential source of nomenclatural instability. The obvious candidates for type species would be *Chthonius heterodactylus* and *C. raridentatus*, as these are the only included species which Hadži (1930) had seen (ICZN recommendation 69B(8)). *Sigmodactylus* could then be used as a subgeneric name for the *subterraneus*-group of *Chthonius*, to which *heterodactylus* and *raridentatus* belong. However, the monophyly of this informal species-group has yet to be demonstrated. Furthermore, this might result in a synonymy with

the better-known subgenus *Chthonius* (*Microchthonius*) Hadži, 1933 (REVISED STATUS; Beier's (1963) elevation of *Microchthonius* to generic rank is not followed here). It seems likely that the species of *Chthonius* (*Microchthonius*) are closely related to those of the *subterraneus*-group.

Instead, I propose here to designate *Chthonius* (*Pseudochthonius*) *simoni* Balzan, 1892, as the type species of *Sigmodactylus*. Because *simoni* is already the type species of the genus *Pseudochthonius* Balzan, 1892, *Chthonius* (*Sigmodactylus*) becomes a junior objective synonym of *Pseudochthonius* (ICZN article 67(k)) (NEW SYNONYMY). Hence the potential threat of synonymy between *Sigmodactylus* and *Afrochthonius* Beier, 1930, *Anisoditha* Chamberlin & Chamberlin, 1945, or, perhaps, *Chthonius* (*Microchthonius*) Hadži, is removed.

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### Addendum

In a paper received after this manuscript had gone to press, Gardini (1991: 173) refers to *Chthonius* (*Chthonius*) *lessiniensis* Schawaller as "appartenente al gruppo degli *Chthonius* s. str. con dito fisso dei palpi sigmoide ("subgen. *Sigmodactylus*" di Hadži, 1930)". Although this implies a synonymy between *Sigmodactylus* and *Chthonius* (*Chthonius*), it does not have any formal status because Gardini did not select a type species for *Sigmodactylus*. Hence the synonymy with *Pseudochthonius* proposed here is unaffected.

### Reference

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