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## Nomenclatural issues in the *Psammodromus hispanicus* (Squamata: Lacertidae) species group

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The *Psammodromus hispanicus* species group has been recently shown to include three lineages that differ in morphology (San-Jose *et al.* 2012), have largely parapatric range but exhibit little evidence of historical gene flow (Fitze *et al.* 2011), leading to the recognition of these three lineages as distinct species (Fitze *et al.* 2012). The eastern species can be unambiguously associated with the nomen *Lacerta edwardsiana* Dugès 1829, as the detailed information in Dugès (1829) leaves no doubt that he describes as *Lacerta edwardsiana* the local member of the *P. hispanicus* complex, and the type locality is the “bas Languedoc”, an area of France equivalent to the lowland parts of the current Languedoc region where the only member of the complex is the eastern lineage. The types of *Psammodromus edwardsianus* have not been traced as far as I am aware, but given the lack of uncertainty regarding allocation of this nomen to the eastern lineage of the *P. hispanicus* complex this has no nomenclatural consequence. Two nomenclatural issues remain in this species group however: the aim of this note is to solve them.

### The correct spelling of the scientific nomen of the Eastern Spanish species

The specific name of the species from Eastern Spain and France is often spelt “*edwardsianus*” (for ex. in Glandt 2010; Fitze *et al.* 2011, 2012) since the name was meant to honor H. Milne Edwards (Dugès 1829). However, the original spelling “*Lacerta Edwardsiana*” can be found four times in the description (three times in the text, once in the table) and is mirrored by the French vernacular name constantly spelled as “l’Edwardsien”; it is thus clear that this spelling is not an incorrect original spelling and that Article 32.5 of the Code of Zoological Nomenclature (International Commission for Zoological Nomenclature 1999, the Code hereafter) does not apply: “*edwardsianus*” is clearly an incorrect subsequent spelling. An incorrect subsequent spelling can be the valid spelling under certain conditions though: article 33.3.1. of the code states that “when an incorrect subsequent spelling is in prevailing usage and is attributed to the publication of the original spelling, the subsequent spelling and attribution are to be preserved and the spelling is deemed to be a correct original spelling”. We have searched recent works (from Mertens & Wermuth 1960 onwards) dealing with geographical variation in *P. hispanicus* and found both spellings *edwardsianus* and *edwardsianus* in approximately equal frequency. Article 33.3.1 thus does not apply either and the original spelling “*edwardsianus*” must be used for the eastern species of the complex, which must thus be called *Psammodromus edwardsianus* (Dugès, 1829).

### The type specimen of *Psammodromus hispanicus* Fitzinger, 1826

In their systematic revision of the *Psammodromus hispanicus* complex, Fitze *et al.* (2012) intended to designate a neotype for *Psammodromus hispanicus* Fitzinger, 1826. This action is indeed necessary to allocate this nomen to one of the three Spanish species since Fitzinger (1826) established it without reference to any identifiable specimen and without providing any type locality other than “Spain”; this nomen could thus apply to any of the three species occurring in Spain. However, Fitze *et al.* (2012) failed to “state expressly” the need for a neotype designation (Art. 75.3) and especially failed to include “a statement that it is designated with the express purpose of clarifying the taxonomic status or the type locality” of the nomen *hispanicus* (see Art. 75.3.1). The only statement that approaches this requirement is “to be consistent with this description we designate a specimen as neotype of *P. hispanicus* that belongs to the lineage, which only exists in Spain”, which would fulfill requirements of Articles 75.3.5 & 6 only. According to the Code, Fitze *et al.*’s

(2012) neotype designation is thus invalid, because it does not fulfill article 75.3.1 of the Code, leaving the nomenclature of the *Psammodromus hispanicus* complex unresolved. The best way to solve this issue is to designate here the same specimen as Fitze *et al.* (2012) as neotype in a way that is fully compliant with the Code. A valid designation of a neotype for this species-group nomen is absolutely necessary to clarify its taxonomic status as the short description provided by Fitzinger (1826) does not allow this nomen to be linked unambiguously to any of the three Iberian species: the characters given (abdomen with large scales, no collar) can apply to any of the species in *Psammodromus* and the type locality (“Spain”) is inhabited by all three species in the *P. hispanicus* group (see Art. 75.3.1). The characters that differentiate *P. hispanicus* from the other species (see Art. 75.3.2) can be found in Fitze *et al.* (2012). The original type specimen(s) have been looked for by Fitze *et al.* (2012), who explain in detail the steps that have been taken to trace it or them (Fitzinger 1826 contain no indication whether one or more than one specimens were part of the name-bearing type). I therefore believe the name-bearing type is lost (see Art. 75.3.4). For all these reasons, I formally designate here the specimen Museo Nacional de Ciencias Naturales MNCN/ ADN 41745 as neotype of *Psammodromus hispanicus* Fitzinger, 1826. This specimen is an adult male from Perales de Tajuña (Madrid), captured on 15 October 2010 by Patrick S. Fitze and Luis M. San-Jose (field number PF\_09\_670). Photographs and description of this specimen can be found in Fitze *et al.* (2012). The neotype, being a member of the *Psammodromus hispanicus* group from Spain, is fully consistent with what is known of the original name-bearing type (see Art. 75.3.5) and comes from the original type locality (Art. 75.3.6). The provisions of articles 75.3.3 and 75.3.7 are also fulfilled here. The present note should thus make the choice of Fitze *et al.* (2012) fully compliant with the Code and safely fix the allocation of the nomen *hispanicus* to the species chosen by these authors.

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