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Do Endings of Adjective Flectible Species Names Affect Stability? A Final Note on the Gender of *Podarcis* Wagler, 1830 (Reptilia, Lacertidae)

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Abstract. We here reply to the arguments put forward by ARNOLD (2000) and LANZA & BOSCHERINI (2000) concerning the gender of the genus *Podarcis*. ARNOLD's argument that a change of endings of adjective flectible species names threatens stability is rejected by clearly following the articles of the current edition of the Code (ICZN 1999). We finally conclude that the gender of *Podarcis* must be masculine for the following reasons: (1) WAGLER (1830) did not determine the gender by combination with any species name nor by statement, (2) the name *Podarcis* is of common variable gender, (3) the Principle of First Reviser does not apply to determination of gender of names, (4) the Code clearly states that a name of common variable gender is to be treated as masculine.

Key words. Grammatical gender, nomenclature, stability of names.

In a previous note, BÖHME (1997) had argued that the lacertid lizard genus *Podarcis* was not of feminine (as generally used before) but of masculine gender. This view provoked strong criticism (MAYER 1998, ARNOLD 2000, LANZA & BOSCHERINI 2000). Whereas BÖHME (1998) replied already to the critics of MAYER (1998), we feel it also necessary to answer on the views put forward by ARNOLD (2000) and by LANZA & BOSCHERINI (2000).

BÖHME's (1997) main argument for the 'masculinization' of *Podarcis* was not the Homerian use of the Greek adjective podarkes attributed to the ancient hero Achilleus (*Αχίλλευς*); this circumstance was only a first hint to the problem, which lead to question the feminine gender of this lacertid genus name. The point was rather the assumption that FITZINGER (1843) was the first to fix a type species for *Podarcis* Wagler, 1830, viz. *Seps muralis* Laurenti, 1768. Furthermore, although being aware that *muralis* is again an ambiguous adjective as to its gender (masculine or feminine), BÖHME (1997) regarded the genus name *Seps* in LAURENTI's (1768) use as masculine because this author himself used it clearly in this way by describing for instance *Seps argus* and *Seps ruber* (= *Lacerta agilis* Linnaeus, 1758) in the same work. LAURENTI's (1768) practice is apparent in other 18th century names, e.g. *Seps stellatus* Schrank, 1798 (likewise a synonym of *L. agilis*). Some 19th century names, however, implied *Seps* also to be a feminine noun, combining it with species names such as *Seps vittata* Leuckart, 1828 or *Seps quadrilineata* Metaxa, 1833, but this does not affect the original combination and therefore masculine determination of the genus' gender by LAURENTI (1768). From these grounds, we think that the viewpoint to regard *Seps* Laurenti as masculine is still justified.

In contrast, BÖHME's (1997) assumption that FITZINGER (1843) was the first to have 'masculinized' *Podarcis* Wagler by fixing a (masculine) type species, cannot withstand the arguments put forward by ARNOLD (2000) who justifiably states that *Podarcis* was earlier treated as feminine by BONAPARTE (1836), since this author used the combinations *Podarcis taurica, P. oxycephala* and *P. muralis sicula* and conformed this usage subsequently (BONAPARTE 1839).

However, the discussion about the first revising author according to article 24.2. (ICZN 1999) does not apply to the determination of gender of names, as already stated correctly by other authors (KWET 2001, CARAMASCHI 2004). The Code does not allow the adscription of the gender by any subsequent author and all the sources for gender identification must be found in the original publication. Therefore, the arguments of BÖHME (1997) and ARNOLD (2000) concerning first reviser's action are both not applicable to clarify the grammatical gender of *Podarcis*.

LANZA & BOSCHERINI's (2000) arguments for a feminine gender, however, are very weak. They do restrict the problem to the philological "side of the medal". They regard BÖHME's (1997) view an "unverifiable hypothesis", but assume instead that "almost surely the etymology of *Podarcis* is not from the Greek adjective 'podarkes' but from the Latin proper name Podarce (....), of course of Greek derivation, meaning 'Swiftfoot' and mentioned by Homer as one Harpy....". This assumption that WAGLER's (1830) name *Podarcis* is not at all deri-

ved from an adjective, but from a "Latin proper name" (why should Homer use Latin names in his "Iliad"?) is likewise an unverifiable hypothesis and cannot be taken as "evidence" for a proposed continuing use of *Podarcis* as feminine.

We therefore agree with ARNOLD (2000) in that *Podarcis* derived from the Greek (subsequently Latinized) adjective "podarcis" with originally undetermined gender. We disagree, however, with ARNOLD's (2000) further reasoning that a change of a genus' gender and a subsequent adaptation of the endings of species names (as required by Article 34.2. of the Code) would "contravene the spirit of the International Code of Zoological Nomenclature (International Trust of Zoological Nomenclature, 1999) which promotes the stability of names, for example in the Preamble (p. 2) and in Articles 23.2 and 81)". Our point is here, that a change of the ending of an adjective flectible species name does not touch the problem of stability and universality at all. A changed ending of a given name is not a new or a different, but absolutely still the same – and therefore stable – name. We think that the change of an ending of a specific name as an adaptation to the gender of a changed, different genus should be regarded as a normal process, because the change of generic names is due to zoological arguments and thus has nothing to do with nomenclatural instability. A good and rather recent herpetological example is that of the spiny-tailed agamas, *Uromastyx*, a genus which was treated as masculine for decades until LANZA (1983) justifiably claimed that there is hardly a more feminine word to be found than the Greek word "mastix", wherefore *Uromastyx* is clearly and in a philologically correct way to be considered as feminine. No problems arose since then to change the naming of *Uromastyx acanthinurus, U. aegyptius, U. ocellatus, U. ornatus*, etc. into *U. acanthinura, U. aegyptia, U. ornata* and so on, just because the names have not at all been changed, and the "virtues of stability" (ARNOLD 2000) have been respected.

ARNOLD's (2000) further argument that the change of a species name's ending could cause confusion in non-specialist users is also not convincing to us. To stay with the example of *Uromastyx*, even non-taxonomist working in applied disciplines such as ecology, etc. could not really suspect *U. loricata* to be a different taxon from *U. loricatus*. A similar case (out of hundreds more) is the Madagascan geckonid genus *Paroedura*, which had to be split off from the paraphyletic *Phyllodactylus* (that means for zoological and not for nomenclatural reasons) (DIXON & KROLL 1974). But unfortunately, specific names such as *Phyllodactylus pictus* remained unchanged as *Paroedura pictus* for some time, certainly not because of an intended "virtue of stability" of the respective authors, but much more likely because of a lack of Greek and Latin knowledge which lead to the ignorance of Art. 34.2. of the Code; or the amendment of endings has simply been forgotten in this and other cases. Fortunately, NUSSBAUM & RAXWORTHY (2000) provided the correct spellings in their recent revision of the genus.

If a changing ending of a name is thought to threaten stability and universality, the Code (ICZN 1999) would have to be altered in that the endings of adjective, flectible specific names would not have to follow the gender of the genera any more, i.e. Article 31.2. would have to be deleted. But this would at the same time destroy the philological basis on which the whole system of biological nomenclature is built, viz. the Greek and Latin languages. Our view is furthermore supported by Article 30.1.4.2. of the current edition of the Code (ICZN 1999), which clearly states that "a genus-group name that is or ends in a word of common variable gender (masculine or feminine) is to be treated as masculine unless its author, when establishing the name, stated that it is feminine or treated it as feminine in combination with an adjectival species-group name". This article probably applies to several other cases where the genus' gender was not determined in the original description and therefore more changes of adjectival species-group names from feminine to masculine are to be expected. If such actions threaten stability, the Code would be self-contradictory – we think it is not.

A last point which we should like to address here is ARNOLD's (2000) final recommendation: "However, ... changes, for instance when a group within a known clade is separated as a new genus, can be avoided by using subgenera". This proposal considers genera simply as operational units and is contra productive to modern efforts for a new, less arbitrary generic concept (see e.g. DUBOIS 1988), which includes biological reality and takes into account that the genus, in spite of all subsequent higher categories, is the classificatory level above the species where reticulate evolution just begins to stop.

In conclusion, by considering: (1) that WAGLER (1830) did not combine the generic name *Podarcis* with any species name and therefore did not demonstrate the intended gender of the genus; (2) that the name *Podarcis* is most probably derived from the Greek adjective 'podarkes' (Latinized: 'podarcis') and hence is of variable gender (masculine or feminine); (3) that the Principle of First Reviser does not apply to determination of gender of names; and (4) that the Code (ICZN 1999) clearly states that a name of common variable gender is to be treated as masculine, we hereby reassert that the gender of *Podarcis* must be considered masculine.

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