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On the grammar of the gender of *Ptyas* Fitzinger, 1843 (Serpentes: Colubridae)

The colubrid genus *Ptyas* Fitzinger, 1843 constitutes a conspicuous component of the snake fauna of central, southern and south-eastern Asia. It includes the largest colubrid in the world, *Ptyas carinata* (Günther, 1858), with a maximal size of 3.80 m, and at least two other species reach and sometimes exceed 3 m in total length. A second species, *Ptyas korros* is abundant within its range, rather anthropophilous, and an important control agent of rodents. These im-

pressive snakes are colloquially known as 'Oriental rat snakes'.

As these snakes are conspicuous members of the Oriental snake fauna, they received attention in nearly all works on the herpetofauna of tropical Asia. To the best of our knowledge, the generic nomen *Ptyas* has always been treated as a masculine noun (see, for example, the chresonymies given in David and Vogel, 1996). Recently, Dr. Werner Kästle (pers. comm. to the second author, April 2000) pointed out that the gender of this genus is, in fact, feminine.

The word *Ptyas* derives from the ancient Greek noun πτυας, meaning "a spitter". The origin of this name is unclear. According to Stejneger (1907: 345, footnote), this name was applied to a species of snake known to the ancient Greeks for its hissing or spitting behaviour, probably evoked when annoyed. Gotch (1986: 136) mentioned that the *Ptyas* was a serpent which could supposedly spit venom into the eyes of an aggressor. Our dictionaries reveal *Ptyas* as a venomous Asp which was capable of spitting saliva. The word πτυας was derived from the word πτυω, meaning "the saliva". According to the dictionaries of classical Greek language we consulted, the noun πτυας is indeed of feminine gender. The noun *Ptyas* (gen. *Ptyadis*) was also adopted by the ancients who spoke Latin, also with a feminine gender. According to Plinius the Elder (23-79 A.D.), who wrote the monumental work entitled "Natural History" in 37 volumes (the first 10 volumes published in 77 A.D.), it was a kind of venomous snake. Therefore, whether the generic nomen derives from the Greek or Latin languages, this noun is indeed of feminine gender, which has been largely overlooked in the herpetological literature.

In fact, Stejneger (1907: 345, footnote) did notice the feminine gender of the nomen, but nevertheless regarded it as masculine, since Cope (1861) and all subsequent authors after him treated it as such. The genus *Ptyas* was established by Fitzinger (1843: 26; Type species: *Coluber blumenbachii* Merrem, 1820 [a subjective junior synonym of *Coluber mucosus* Linnaeus, 1758] by original designation) as a subgenus of *Macrops* Wagler, 1830 (a synonym

of *Chironius* Fitzinger, 1826, see Williams and Wallach, 1989: 91). Therefore, the original description does not cast light on the grammar of the gender, to which it is at present allocated. Nevertheless, as the noun *Ptyas* was used as a genus-group name unmodified from the Greek language, it must match the gender of the Greek noun, according to Article 30.1.2 of the International Code of Zoological Nomenclature (ICZN, 1999; referred to subsequently as the *Code*).

The nomenclatural consequence is that, as species-group names which end in a Latinized adjective must agree in gender with the generic nomen according to the Article 31.2 of the *Code*, all specific nomina included in the genus *Ptyas* which are based on such an adjective must have their termination changed accordingly, in agreement with Art. 34.2 of the *Code*.

Listing the specific names which must be changed require some comments, as the systematics of the Oriental rat snakes at the generic level continue to be without consensus (see Lazell, 1998; Pinou and Dowling, 2000, for conflicting viewpoints). The genera *Ptyas* Fitzinger, 1843 and *Zaocys* Cope, 1861 (p. 563. Type species *Coluber dhumnades* Cantor, 1842 by original designation) have been recognized as distinct by Günther (1864) and subsequent authors, before being synonymised by Wall (1923) and again by Taylor (1965). However, this synonymy was not subsequently accepted by all authors (see, for example, Smith, 1943). The suggestion by Lazell et al. (1991) to synonymize both *Ptyas* and *Zaocys* with *Coluber* Linnaeus, 1758 was generally not followed by other authors. Even in three recent works on the snake fauna of south-eastern Asia, these genera were either considered synonymous (David and Vogel, 1996; Chan-ard et al., 1999) or valid (Manthey and Grossmann, 1997). According to V. Wallach (in David and Vogel, 1996: 104), anatomical data support the synonymy of *Zaocys* with *Ptyas* (see also Wallach, 1998); we follow this interpretation here.

According to the preceding commentary, the feminine genus *Ptyas* currently includes the following species: *Ptyas carinata* (Günther, 1858), *Ptyas dhumnades* (Cantor, 1842), *Ptyas dipsas* (Schlegel, 1837), *Ptyas fusca* (Günther, 1858),

Ptyas korros (Schlegel, 1837), *Ptyas luzonensis* (Günther, 1873), *Ptyas mucosa* (Linnaeus, 1758), and *Ptyas nigromarginata* (Blyth, 1854).

These list call for some additional comments. The specific nomen *dhumnades* (created as *Coluber dhumnades*) appeared to Stejneger (1907: 352), to be an adjective indicating similarity to *Coluber dhumna* Cantor, 1839. However, it may also be regarded as a modern Greek noun formed from a stem to which was added the Greek suffix *-(oides)*, meaning “similar to”. In this case, this derivative may be regarded as a noun in apposition. According to Art. 31.2.2 of the *Code*, such a nomen of uncertain origin must be treated as a noun in apposition, which retains its original spelling. The specific nomina *dipsas* and *korros* are clearly nouns in apposition, which remain unmodified. Stejneger (1907: 348) stated that the noun *korros* has been erroneously applied to a member of the genus *Ptyas*, as, according to Schlegel himself, it was the Javanese vernacular name (literally meaning ‘thin’ or ‘slender’) of another snake, *Elaphe melanurus* (Boie, 1827), at present referred to as *Elaphe flavolineata* (Schlegel, 1837) or *Coelognathus flavolineatus* (see Helfenberger, 2001a, 2001b). In fact, vernacular names provided in Hoesel (1959: 32) make it clear that the Indonesian name “*koros*” is indeed applied to *Ptyas korros* and *Ptyas mucosa*. Lastly, Dixon et al. (1993: 92) have shown that the taxon *Ptyas tornieri* Werner, 1896 (see David and Vogel, 1996: 108) was based on a misidentified specimen *Chironius exoletus*, a South American species which must therefore be removed from the Asian fauna.

Future studies may prove that the genus *Zaocys* Cope, 1861 is a valid taxon. Although the dictionaries are useful in confirming the grammar of the gender of *Ptyas*, the matter is more complicated with the etymology of *Zaocys*. According to Stejneger (1907: 352, footnote), this nomen is based on the Greek words ζα a prefix meaning “very”, and οξυς, meaning “swift”. According to our dictionaries of classical Greek language, οξυς may mean “acute, pointed, sharp”, or “keen”, or “swift, prompt, agile”, all qualifications appropriate for these long-headed, agile snakes. Consequently, this genus-group name is