

Speak of the devil: the taxonomic status of *Proteus anguinus parkelj* revisited (Caudata: Proteidae)

Wenn man vom Teufel spricht...

Taxonomischer Status von *Proteus anguinus parkelj* revidiert
(Caudata: Proteidae)

J. W. ARNTZEN & B. SKET

The description of a black and non-trogomorphic form of *Proteus* sp. from the karst of Slovenia as a subspecies of *P. anguinus* (*P. a. parkelj* SKET & ARNTZEN, 1994) has not been met by with universal approval¹). In a systematic analysis of the material on *Proteus* kept in the Museum of Natural History, Wien (NMW), GRILLITSCH and TIEDEMANN (1994) reject our taxonomy, claiming that the morphology of *P. a. parkelj* falls within the (clinal) variation of *P. (a.) anguinus* and, hence, does not constitute a subspecies. However, *P. a. parkelj* is morphologically different from *P. a. anguinus* and we wish to reiterate our conclusion that *P. a. parkelj* is a taxon in its own right.

The 'WOLTERSTORFF-index' (WI = 100 * fore-arm length divided by interlimb distance) is a simple and widely used ratio designed to describe the bodily proportions of Urodeles (WOLTERSTORFF 1923; ARNTZEN & WALLIS 1994; SKET & ARNTZEN 1994²). *Proteus a. parkelj* from the type locality Jelševnik in south-eastern Slovenia (n=7) differs from *P. a. anguinus* from three other Slovenian localities (n=75) in bodily proportions as shown by non-overlapping ranges of WI for

the two taxa (fig. 1). The bigger sample of *P. a. anguinus* in the NMW (n=119) from 21 or more different localities displays a wider range in WI's, indeed showing overlap with values typical for *P. a. parkelj* (GRILLITSCH & TIEDEMANN 1994 pers. comm.). However, the mean WI-value is significantly different for *P. a. parkelj* versus both samples of *P. a. anguinus* ($p < 0.0001$ in both cases, Student *t*-test). Although some specimens of *P. a. anguinus* appear to show a WI bodily proportion indistinguishable from that of *P. a. parkelj*, considered as groups both taxa are clearly diagnosable, even on the basis of this single character. *Proteus a. parkelj* differs from *P. a. anguinus* in other features as well. It has an intense black colouration and well-developed eyes, features not found in *P. a. anguinus* and also the shape of the head is different (SKET & ARNTZEN 1994). Speaking of *P. a. parkelj*, we advocate to uphold this form of *Proteus* as a taxon in its own right. Reasons for describing it at the subspecific level rather than as a full species, a conservative and cautious act, are laid out in our original work. A more comprehensive analysis of *Proteus* morphometrics is in progress.

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1) 'Parkelj' is the devil's name in Slovenian mythology; as the expression goes: 'Speak of the devil and one may tread on its tail.'

2) We take the opportunity to draw attention to an error of presentation in the formula for WI in this paper, whilst noting that the presented values are correct.

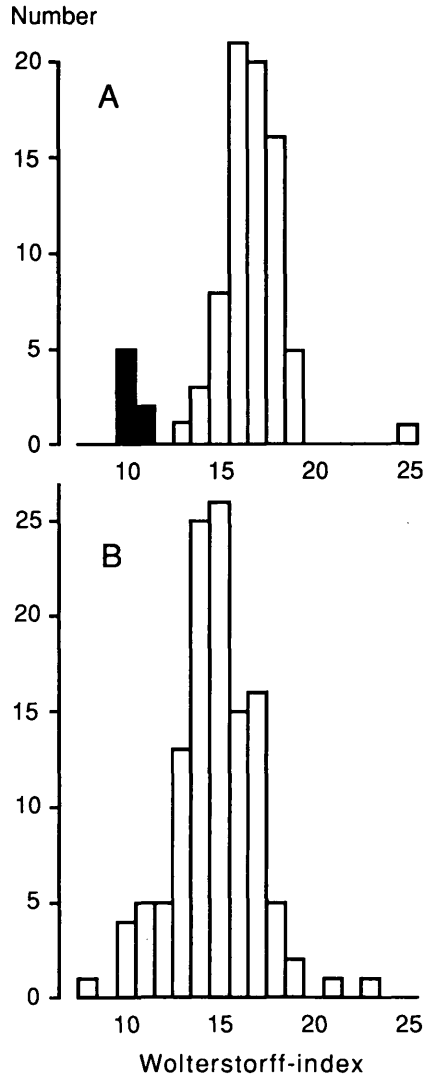


Fig. 1: The WOLTERSTORFF-index for
A - *Proteus anguinus parkelj* (histogram with solid bars) and *P. a. anguinus* (open bars) (after SKET & ARNTZEN 1994), B - *P. a. anguinus* (after GRILLITSCH & TIEDEMANN 1994, pers. comm.).
Abb. 1: Der WOLTERSTORFF-Index für
A - *Proteus anguinus parkelj* (Histogramm mit ausgefüllten Balken) und *P. a. anguinus* (leere Balken)
(nach SKET & ARNTZEN 1994), B - *P. a. anguinus* (nach GRILLITSCH & TIEDEMANN 1994, pers. Mitt.).

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