

Comments. Discussions

Comment on the paper by Dnestrovskaya & Jirkov relating to the genus *Micronephthys* (Polychaeta: Nephtyidae)

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Dnestrovskaya & Jirkov recently wrote a review of northern European and Arctic species of *Micronephthys*. In the "Final remark" the authors comment on a recent paper for which I am the senior author (Ravara *et al.*, 2010) and where the new genus *Bipalponephtys* was erected. They propose that the generic name *Bipalponephtys* is a junior synonym of *Micronephthys*. To my surprise, the authors further state that "Ascensão Ravara when the problem have been discussed at 10th International Polychaete conference agreed with our opinion". I completely disagree to the statement and consider their behaviour as scientifically unethical as well as incorrect. In my brief conversation with Dr. Jirkov I never agreed that *Bipalponephtys* should be considered a junior synonym of *Micronephthys*. There are several reasons for this.

Dnestrovskaya & Jirkov (2010) states that "All characters which authors propose to be diagnostic for their new genus absolutely the same for type species of *Micronephthys — M. minuta*, so *Bipalponephtys* is no more then junior synonym of *Micronephthys*". In contrast to this statement *Bipalponepthys* and *Micronephthys* in our analysis (Ravara *et al.*, 2010) comes out as non-nested taxa. *Bipalponepthys* is the sister to all other nephtyids, whereas *Micronephthys* (represented by *M. stammeri* since we did not have access to material of *M. minuta* preserved for molecular analysis) is the sister to *Nephtys*, and these relationships are well supported. Dnestrovskaya & Jirkov argue that *Bipalponephtys* and *Micronephthys* have the same diagnostic characters and therefore *Bipalponephtys* should be treated as a junior synonym of *Micronephtys*. But there are several issues here. First, they omit the influence of all the molecular data that was included in our analyses. Second, their interpretation of *M. minuta* is non-authoritative since they did not examine Théel's original material (deposited at the Swedish Museum of Natural History). Third, the morphological diagnoses of *Bipalponephtys* and *Micronephthys* are not similar, since *Bipalponephtys* has the morphological synapomorphy posteriorly smooth (rather than barred) chaetae in posterior chaetigers (Ravara *et al.*, 2010, Table 5). Fourth, they misunderstand, either the term "diagnosis" or the term "synonymy", or both. A synonymy case appears when one or more taxa are nested within another taxon of the same rank, and therefore deals with phylogenetic relationships. Similarity in diagnoses are simply irrelevant for synonymies. If, in future studies, *Bipalponephtys cornuta* and *Micronephthys minuta* indeed come out as a closely related, then there may be a case for a synonymy. But Dnestrovskaya & Jirkov fails to show that this is the case.

References

Dnestrovskaya N.Y., Jirkov I.A. 2010. *Micronephthys* (Polychaeta: Nephtyidae) of Northern Europe and Arctic // Invertebrate Zoology. Vol.7. No.2. P.107–121.

Ravara A., Wiklund H., Cunha M.R., Pleijel F. 2010. Phylogenetic relationships within Nephtyidae (Polychaeta, Annelida) // Zoologica Scripta. Vol.39. P.394–405.