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Editorial

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Contributions to shrimp taxonomy — Editorial*

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The idea of devoting a special issue of Zootaxa to shrimp taxonomy was born during a late night meeting between the two editors in Leiden in November 2008. We discussed inviting all currently active shrimp taxonomists to come together in a single volume, dedicated to the description of new taxa in this fascinating group of animals. To be honest, our plan was not entirely altruistic, as at the time we were entering the final phase of compiling a species level list of all described taxa within the shrimp-like Decapoda (Dendrobranchiata, Stenopodidea and Caridea). As was done prior to publication of the crab list (Ng *et al.* 2008), we liked the idea of compiling a volume to bring to light as many descriptions as possible, both in order for the catalogue, once completed, to remain current for perhaps a few more months (in this fast paced field), but also to offer our colleagues a chance to publish upon (and sort out) some of the nomenclatorial problems any branch of descriptive taxonomy faces.

After a long journey, we now have 31 papers in this issue, describing 8 new genera, 38 new species and 4 new name combinations by 36 authors.

The latest listing of the Decapoda (De Grave *et al.* 2009) estimates the number of extant decapod species to be 14756, with the overwhelming majority being true crabs (Brachyura) with 6559 species. The second most speciose group are the shrimp-like Decapoda with 3877 species (De Grave *et al.* 2009), with a similar estimate being provided by Fransen & De Grave (2009). However, in contrast to the true crabs, the shrimp-like Decapoda do not form a monophyletic group and are comprised of several, rather distinct lineages (see Fransen & De Grave, 2009). The Dendrobranchiata (540 species) are considered to be the basal Decapoda lineage (Bracken et al. 2009), agreed upon by morphological and molecular studies alike. Many penaeoid shrimps (often called prawns) are of considerable value for the fishery industry and aquaculture operations. In contrast, the Stenopodidea (69 species) are a small group of primarily deeper water species, which are not commercially fished for human consumption, but nevertheless attract considerable aquarium trade interest. The largest group of shrimp-like Decapoda are the Caridea, with 3268 species described so far (De Grave *et al*. 2009). Of special systematic interest within this taxon is the placement of the anchialine family Procarididae (see Fransen & De Grave 2009), variously placed within and outside of the Caridea. The latest genetic evidence (Bracken et al. in press) has now confirmed that they should be treated as an Infraorder, thus raising the number of higher taxa of shrimp-like Decapoda to four.

Although there is currently considerable interest in the phylogeny of Decapoda, both from a morphological and molecular point of view (see contributions in Martin et al. 2009), the shrimp-like Decapoda still lag behind the other infraorders in this respect, particularly for Caridea (reviewed by Fransen & De Grave 2009). The work started by Bracken *et al.* (2009, in press) for Caridea; and Ma *et al.* (2009) and Tavares *et al.* (2009) for Dendrobranchiata is promising in this respect, and we can but hope that in the future a volume similar to this current one (focusing on alpha-level taxonomy) will appear, dedicated this time to the phylogeny of the shrimp-like Decapoda.

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Much criticism is levelled these days at alpha-level taxonomy, and many even consider the field to be defunct, with very little left to discover. For shrimps this is far from true (in common with most taxa, as any reader of Zootaxa will notice), as the discovery curves in Fransen & De Grave (2009) for the three main taxa and De Grave *et al.* (2008) for two of the most speciose genera testify. In the last two years alone (2008–2009) 146 species of Caridea were described, amounting to 4.5% of its known biodiversity, with more added herein. Much of this previously unknown biodiversity comes from new surveys in species rich areas, like the Indo-West Pacific Coral Triangle or countries with vast freshwater resources, like China. But, as some of the contributions in this volume also testify, the quantity and importance of specimens already in collections, currently undescribed, should not be underestimated.

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