



## A revision of the shovel-nosed lobsters of the genus *Thenus* (Crustacea: Decapoda: Scyllaridae), with descriptions of three new species

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### Abstract

The shovel-nosed lobster genus *Thenus* Leach, 1815, long considered to contain only *Thenus orientalis* (Lund, 1793), is revised and five species recognised. *Thenus indicus* Leach, 1815, which had been relegated to the synonymy of *T. orientalis*, is reinstated and a lectotype designated. Three new species *T. australiensis*, *T. unimaculatus* and *T. parindicus* are diagnosed. Specimens of *Thenus* were collected from various locations throughout the Indo-West Pacific Oceans. Samples were analysed using a concordance approach involving three techniques: morphometrics/morphology, starch gel isozyme electrophoresis, and mitochondrial DNA sequencing of 16S and COI genes. All three investigations supported the recognition of five species. Despite significant genetic divergence, several sympatric species are morphologically similar and identification can be difficult; a key using a combination of live colour patterns and morphometric ratios is presented as an aid to species discrimination.

**Key words:** *Thenus*, shovel-nosed lobster, Indo-West Pacific, new species, DNA, 16S, COI, electrophoresis, allozyme, morphometrics