

## Review of characters used in taxonomical analysis of Fauveliopsidae and Sternaspidae (Polychaeta)

Fauveliopsidae. The fauveliopsid polychaetes are rarely abundant; this might explain why the type genus was first recognized in the 1920s (McIntosh 1922). They have been found in shallow water, but mostly from deep water from all over the world (Petersen 2000), and the species *Fauveliopsis brevis* Hartman, 1965 (currently *Laubieriopsis brevis* (Hartman, 1965)), is apparently cosmopolitan. The body is thin, sub-cylindrical, and the body ends are hardly different, whereas the poorly-developed parapodia include capillary or falcate chaetae. There are no standardized diagnoses for species and even the body ends have not been clarified. Therefore, species should be re-evaluated to delineate them in a standard approach and then the supposedly widely distributed species might be clarified.

Sternaspidae. There is a different story for sternaspid polychaetes. They were first recognized in the XVI century and formally described in the late 1810s (Ranzani 1817). They are commonly called 'mud-owls' because of the large, stiff, ventral shield resembles two large eyes and the plump, peanut-shaped body completes the resemblance. Sternaspids are mostly shallow water polychaetes with few deep water records, and two species are recorded from all over the world: *Sternaspis scutata* (Ranzani, 1817) and *S. fossor* (Stimpson, 1854). Kelly Sendall (Sendall, 2006) made his MSc thesis on the group but it has not been published yet; his contribution will be largely followed but the shield will be re-evaluated because it is the only stable, always visible feature of the body, and the changes with body size must be reassessed in order to define its diagnostic relevance. Further, the body of sternaspids has two other intriguing features: one is the type of parapodia because it has been defined if they are uniramous or biramous, and second, there are apparently no nephridial openings driving wastes to the outside.