PHYLOGENETIC ANALYSIS OF THE FAMILY GLYPHOCRANGONIDAE SMITH, 1884 (DECAPODA: CARIDEA) BASED ON MORPHOLOPHIC DATA

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The family Glyphocrangonidae includes about 95 species in one genus, *Glyphocrangon* A. Milne-Edwards, 1881. The diagnostic characters of the genus are: a rigid and firm body, rostrum flat or concave, armed with 2-7 pairs of lateral spines and a strong carapace, with carina, grooves, spines and tubercles (Chace, 1984). And the abundance of ornamentation in *Glyphocrangon* is a positive factor for the morphological phylogenetic analysis, since many characters can be identified, it requires a lot of care to trace the homologies. The genus was divided into four informal species groups: *Glyphocrangon spinicauda* A. Milne-Edwards, 1881 group (37 spp.); *Glyphocrangon regalis* Bate, 1888 group, (14 spp.); *Glyphocrangon caeca* Wood-Mason & Alcock, 1891 group (8 spp.); and *Glyphocrangon holthuisi* Kensley, Tranter & Griffin, 1987 group (7 spp.) (Komai 2004a, 2006). And 30 species (De Grave & Fransen, 2011) are not included in any of these four groups. The monophyly of the superfamily Crangonoidea is not well supported by molecular analyzes (Bracken *et al*., 2009) and the monophyly of the Glyphocrangonidae has never been tested by morphological or molecular phylogenetic analyses. In addition, the characteristic that defines Glyphocrangonidae is the first prehensile pereopod, all species of Glyphocrangonidae are included in a single genus for lack of further studies in the group. The propose of this work are: realized phylogenetic analysis of the family Glyphocrangonidae from the morphological characters, testing its monophyly and observe the interrelationships between species, especially if there is formation of monophyletic groups of species, and organize the taxonomy that reflects the evolution of the genus.The character matrix is elaborated in the MESQUITE program. A preliminary phylogenetic analysis was performed using 40 terminal taxa and 32 characters. Were generated 160 equally parsimonious trees. In strict consensus, *G. neglecta* Faxon, 1896 was found as the most basal taxa and *Glyphocrangon brevis* Komai, 2006, as the most derived taxa. The tree presented several polytomies, indicating a great instability in the grouping of terminal taxa. And some monophyletic groups were formed. This preliminary analysis is one of many that will still be carried out in order to verify the conduct of the characters and study the analysis program before reaching the final objective. The study of the morphological phylogenetic analysis methodology will be continuous, as well as the characters surveyed will be constantly improved and tested so that a clear and more secure result of the evolution of the group can be obtained.

Keywords: Phylogeny, Decapoda, Caridae, Glyphocrangonidae, deep sea.

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