

NEW MATERIAL OF ANTARTIC LOBSTER FOSSILS (HOPLOPARIA) FROM THE JAMES ROSS ISLAND, ANTARCTIC PENINSULA

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ABSTRACT: The James Ross Basin, in the Antarctica Peninsula has one of the best preserved and highly diverse fossil assemblages of the continent. In this basin, the Upper Cretaceous (Campaniano-Maastrichtiano) Santa Marta Formation (Hebert Sound member) has abundant records of decapods, specially nephropids. In 2016, an expedition organized by the Museu Nacional/UFRJ to the James Ross Island has recovered a great number of fossils, including decapods. Two lobster specimens from Santa Marta Formation were found. The material shows rostrum curved and strongly denticulated. Cephalothorax with abundant coarse nodose ornamentation, without supraorbital, postorbital and antennal carinae in the cephalic area; branchiocardic region without intermediate, branchial or lateral carinae like *Hoploparia* genus. The material reveals characteristics previously not know in the other *Hoploparia* species of the area since pereopods are rarely or were poorly described. The specimens comes from an outcrop located close to the Santa Marta Bay. This new material shows carapace disconnected from abdomen and pereopods, endophragmal skeleton visible under UV light that in fact resembles an exuvia. Could be observed that chela was visible, merus, carpus, preserved, laterally compressed; palm partially preserved, inflated. Merus possess three ventral and one dorsal acute tubercles; carpus smooth; palm with distinct tubercles, sparsely distributed in all surfaces. Pereopods were laterally compressed. P1 with merus, carpus preserved, propodus partially preserved; merus with line of five, well-spaced, acute tubercles on ventral margin, dorsal margin with small tubercles grouped distally. P2 merus preserved, other segments not preserved, merus with only one acute tubercle on ventral margin medially. Fragments of other pereopods only poorly preserved, apparently smooth. Despite the amount of *Hoploparia* material known, there is no mention placed to the pereopods characters. *Hoploparia* genus is a challenge to characterize since the great variation among the lobster species referred to it. Such variation already was attributed to evolutionary environmental answers but some author pointed *Hoploparia* like a “wastebasket taxon” that would be an unnatural, default receptacle for taxa excluded from other higher groupings. It was already demonstrated that *Hoploparia* is actually a paraphyletic group with a lack of synapomorphies to define it. So, this material brings more information about this group and could be helpful to understand the real diversity present Antarctic lobster fossils. Funding for this project was provided by the CNPq (PROANTAR #407670/2013-0).

KEYWORDS: SANTA MARTA FORMATION, JAMES ROSS ISLAND, ANTARCTIC PENINSULA