S01: Taxonomy Systematics, Biogeography of Antarctica Biota

A new giant *Lipkius*-like shrimp from the Crozet Islands (Crustacea, Decapoda, Caridea)

d'Udekem d'Acoz Cédric¹ and Sammy De Grave²

¹ Royal Belgian Institute of Natural Sciences, Directorate Natural Environment and Scientific Heritage Service, Rue Vautier 29, 1000 Brussels, Belgium

E-mail: <u>cdudekem@naturalsciences.be</u>

² Oxford University Museum of Natural History, Parks Road, Oxford OX1 3PW, United Kingdom

It is a well-known fact that the Southern Ocean is a cold spot of diversity for decapod crustaceans. Yet, at the beginning of the twenty-first century, new species continue to be described in the sub-Antarctic and Antarctic SCAR-MarBIN/RAMS Areas Of Interest (AOI), suggesting that this fauna remains incompletely known. A remarkable discovery presented herein confirms this. A strange and huge (total length of over 150mm) caridean shrimp was found in the biological material obtained by long line sub-Antarctic fisheries, preserved by the French fishery controllers (COPEC), and sorted during the Antarctic Biodiversity Workshop, Concarneau, autumn 2016. The unique specimen examined was collected on the steep slope of a seamount situated NW of the Crozet Islands: 44.6533°S 47.9415°E, 1889 m depth. It is suspected to have been hauled up on board with corals entangled in long lines. The shrimp exhibits no affinity with any previously known species from the Southern Ocean. A close examination reveals some similarities with Lipkius holthuisi Yaldwyn, 1960 from New Zealand and SE Australian bathyal waters, which was the only known species of the family Lipkiidae Burukovsky, 2012. However, important differences were observed as well. The characters of the new shrimp are presented. Its systematic position is discussed and hypotheses are proposed for explaining the occurrence of this very unusual taxon in sub-Antarctic waters. Just like campylonotid shrimps, thymopine lobsters and belliid crabs, *Lipkius*-like shrimps have a distribution centred on the cold and temperate waters of the southern hemisphere, and these species-poor taxa are suspected to be Gondwanan relicts.