

2 Taxonomy of squat lobsters

Enrique Macpherson and Keiji Baba

ABSTRACT

The discovery and systematics of squat lobsters since Linnaeus described the first species in 1761 until modern times are reviewed. Recent re-interpretation of evidence of their external morphology and new phylogenetic analyses of molecular data from all taxa and other anomuran decapods, squat lobsters are now placed in two superfamilies, Chirostyloidea and Galatheoidea. The two superfamilies are not sister taxa. Chirostyloidea includes families: Chirostylidae, Eumunididae and Kiwaidae. Four families are included in Galatheoidea, three of squat lobsters, Galatheidae, Munididae and Munidopsidae, and one, Porcellanidae, the porcelain crabs. All superfamilies, families and genera are diagnosed and dichotomous keys to these taxa are provided.

KEYWORDS

History, taxonomy, family diagnoses, generic diagnoses, keys.

INTRODUCTION

The taxonomy of the squat lobsters has undergone numerous changes since the description of the first

species, *Galathea strigosa* (as *Cancer strigosus*) by Linnaeus in 1761. The first family of squat lobsters (Galateadae) was established by Samouelle in 1819. In ‘The entomologists’ useful compendium; or an introduction to the knowledge of British Insects’, Samouelle (1819) arranged different classes of arthropods, including the Class ‘Crustacea’ that contained two large groups or subclasses: Entomostraca and Malacostraca. The family Galatheidae (as Galateadae) was placed in the Malacostraca and contained the genera *Porcellana* Lamarck, 1801 and *Galathea* Fabricius, 1793. Three species of the genus *Galathea* were mentioned: *G. squamifera* Leach, 1814, *G. spinigera* Leach, 1814 [= *G. strigosa* (Linnaeus, 1761)] and *G. rugosa* Fabricius, 1793 [= *Munida rugosa* (Fabricius, (1775))].

The new taxon was used by different authors with slight differences in spelling and taxonomic level: Galatheidae (Leach 1820), Galatheidés (H. Milne Edwards 1837), Galatheidea (Haan 1833–1850 [1850]; Dana 1852; Stimpson 1858; Miers 1876; Boas 1880; Haswell 1882).

During the first half of the 19th century, contributions to the squat lobster fauna were small (fewer than 10 species). However, during the 1880s–90s, some large works were published, improving the knowledge of the group: the reports on the *Blake* expeditions to