

Revision of the Lithoglyptidae sensu Tomlinson, 1969 and *Lithoglyptes Aurivillius, 1892* (Cirripedia, Acrothoracica), including a new species from Bermuda

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Abstract

The morphology of the females and males of the ancient acrothoracican burrowing barnacle family, the Lithoglyptidae Aurivillius, 1892, was surveyed. It became evident that by resurrecting a previously described family-group taxon and proposing a new family-group taxon, the Lithoglyptidae could readily be divided into three subfamilies, the Lithoglyptinae s.s. Aurivillius, 1892 stat. nov., the Weltneriinae subfam. nov., and the Kochlorininae Gruvel, 1905 stat. nov. The largest and relatively generalized lithoglyptine genus, *Lithoglyptes* s.l., was investigated utilizing SEM as well as conventional means. From gross morphological characteristics it became evident these species fell into three natural groups for which we propose the genera *Lithoglyptes* s.s., *Auritoglyptes* gen. nov., and *Armatoglyptes* gen. nov. The relationships between the species as well as the genera are explored cladistically, a new species of *Armatoglyptes* is described from Bermuda, the biogeography of the subfamily is discussed, and a key to the genera and species is provided.

Key words: Morphology, SEM, systematics, new subfamilies, new genera, phylogeny

Introduction

The Acrothoracica, one of three superorders of the Cirripedia, is represented by small burrowing barnacles found largely in carbonate sediments and skeletons of marine invertebrates. Representatives were first discovered at relatively high latitudes (Hancock 1849; Darwin 1852) but the greatest diversity is found in the tropical seas of the world. Berndt (1907) divided it into two orders, the relatively generalized Pygophora and the rather specialized Apygophora. The former is presently divided into two families, the