琉球大学学術リポジトリ

# カイメン類：
# センナリスナギンチャク科の系統と多様性の研究



| メタデータ | 言語: English<br>出版者: 琉球大学<br>公開日: 2015-12-03<br>キーワード (Ja):<br>キーワード (En):<br>作成者: Montenegro Gonzalez, Javier Andres,<br>モンテネグロ ゴンザレス, ハビエール アンドレス<br>メールアドレス:<br>所属: |
|---|---|
| URL | http://hdl.handle.net/20.500.12000/32745 |

**Diversity and phylogeny of the sponge-parazoanthid association.**

カイメン類ーセンナリスナギンチャク科の系統と多様性の研究

Montenegro Gonzalez, Javier Andres

Supervisor: Assoc. Prof. James Davis Reimer

September, 2015

**Abstract**

The Parazoanthidae associated to sponges are widely distributed in tropical and subtropical waters from the intertidal to the deep sea. While in the Atlantic Ocean the association has been relatively well studied in the Pacific Ocean studies are few. Chapter One starts by giving background information on the taxonomy and systematics of Porifera and Parazoanthidae, and presenting a short chronological recall of previous studies on the sponge-Parazoanthidae association. In Chapter Two we give a detailed explanation about how we took advantage of traditional morphological and molecular tools combined with field and ecological data to investigate the diversity of the sponge-Parazoanthidae association in southern Japan and the Indo-Pacific region, and how this led us to the erect genus *Umimayanthus*. Chapter Three deals with the decision of Duerden (1903) to merge the genus *Bergia* from Duchassaing de Fontbressin and Michelotti, (1860), within the genus *Parazoanthus*, and explains how the analyses of the genetic information of five DNA markers let us to formally re-establish the genus *Bergia* as a sister group to the genera *Parazoanthus* and *Umimayanthus* within the family Parazoanthidae. Chapter Four explores the diversity of sponges associated to *Umimayanthus* and the specificity of the association. Sponge species are very specific to *Umimayanthus* species, and no sponge species was associated with more than one formally described *Umimayanthus* species. *Umimayanthus* species apparently have different degrees of specificity towards sponge species. In Chapter Five we report the finding of *Umimayanthus* specimens in Palau, Micronesia, representing the first records for this region, with 34 specimens from seven different locations; eight identified as *U. chanpuru*, while 26 colonies were only identified to genus level. In Chapter Six I explore the controversial topic of coloration on the sponge-parazoanthid association with focus on *U. chanpuru*, and explain how the association hase a tendency to be as concealed as possible with very small color contrast ratios and cryptic behavior. Additionally in this chapter we introduce HaviStat©v2.3, a computer tool that performs basic analyses of preference and selection inside Microsoft Excel. We have made the script available for public use.