



<http://dx.doi.org/10.11646/zootaxa.4000.4.2>

<http://zoobank.org/urn:lsid:zoobank.org:pub:9A179A1A-D134-48AA-975A-EB5C8B088A15>

## A new species of *Anoplodactylus* (Pycnogonida: Phoxichilidiidae) from Brazil, with a case of gynandromorphism in *Anoplodactylus eroticus* Stock, 1968

RUDÁ AMORIM LUCENA<sup>1,3</sup>, JOAFRÂNCIO PEREIRA DE ARAÚJO<sup>1</sup>  
& MARTIN LINDSEY CHRISTOFFERSEN<sup>1,2</sup>

<sup>1</sup>Programa de Pós-Graduação em Ciências Biológicas–Zoologia, Universidade Federal da Paraíba, Cidade Universitária, João Pessoa, PB, CEP: 58051-900, Brasil. E-mail: rudalucena15@gmail.com

<sup>2</sup>Laboratório de Biodiversidade de Invertebrados Não-Insetos, Universidade Federal da Paraíba, Cidade Universitária, João Pessoa, PB, CEP: 58051-900, Brasil.

<sup>3</sup>Corresponding author

### Abstract

A new species of *Anoplodactylus* was discovered in coral reefs from the State of Paraíba, northeastern Brazil. *A. mirim* sp. nov. is very small and is characterized for having 3 teeth on the cheliphores and a very small cement gland. It belongs to the *A. pygmaeus* complex, which contains very small species. *A. batangensis* is recorded for the first time along the Brazilian coast, and *A. eroticus* is recorded for the first time in the South Atlantic. We record the fifth known case of gynandromorphism, the fourth for *Anoplodactylus*, based on two specimens of *A. eroticus*.

**Key words:** Sea spiders, coral reef, northeastern Brazil, *Anoplodactylus mirim*, *A. pygmaeus* complex

### Resumo

Uma nova espécie de *Anoplodactylus* foi descoberta para os recifes de coral do Estado da Paraíba, nordeste do Brasil. *A. mirim* n. sp. é uma espécie muito pequena caracterizada por possuir três dentes nos quelíforos, e glândula argamassadora muito reduzida, pertencente ao complexo formado por espécies muito pequenas denominado complexo *A. pygmaeus*. *A. batangensis* é registrada pela primeira vez para o litoral brasileiro, assim como *A. eroticus*, que também tem sua ocorrência citada pela primeira vez para o Atlântico Sul. Também é realizado o quinto caso de ginandromorfismo para Pycnogonida, e o quarto para *Anoplodactylus*, baseado em dois espécimes de *A. eroticus*.

### Introduction

Pycnogonida contain exclusively marine arthropods (Du Bois-Reymond Marcus, 1952; Munilla, 1999). They are rarely cited in estuaries, where they are distributed in the intertidal region, and where they may be particularly numerous (Corrêa, 1987). They also occur in the deepest seas (Bamber, 2007), reaching more than 6000m (King, 1973). They are cosmopolitan, but tend to be more visible in some temperate and polar regions (Corrêa, 1987), where some taxa attain larger body sizes. There are presently more than 1300 described species (Munilla & Soler-Membrives 2009; Appeltans *et al.*, 2012). Warm- and shallow-water species tend to be neglected due to their small size, occasional occurrence, and cryptic habits (Arango & Krapp, 2007).

The first records of Pycnogonida for Brazil resulted from the material collected in expeditions of the “Challenger” (Hoek, 1881) and the “Vettor Pisani” (Schimkewitsch, 1889). Beginning in the nineteen-forties, important publications appeared for the Brazilian fauna, such as Marcus (1940 a, b), Sawaya (1947, 1949, 1951, 1952), Mello-Leitão (1945, 1946, 1949 a, b, 1955), Corrêa (1948), Du Bois-Reymond Marcus (1952), Du Bois-Reymond Marcus & Marcus (1962), and Stock (1992). Marcus (1940b) reviewed the South-American species. Another great expedition along the Brazilian littoral was accomplished by the “Calypso” (Stock, 1966) and some