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Rodrigo T. Figueroa, Valéria Gallo



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NEW CHONDRICHTHYAN FIN SPINES FROM THE PEDRA DE FOGO FORMATION, BRAZIL

RODRIGO T. FIGUEROA^{1,2} and VALÉRIA GALLO¹

¹Laboratório de Sistemática e Biogeografia, Departamento de Zoologia, Instituto de Biologia,

Universidade do Estado do Rio de Janeiro, Rua São Francisco Xavier 524, 20550-013, Rio de Janeiro, RJ, Brazil

²Laboratório de Estudos de Comunidades Paleozoicas, Departamento de Ciências Naturais, Instituto de Biociências, Universidade Federal do Estado do Rio de Janeiro, Av. Pasteur 458, 22290-240, Rio de Janeiro, RJ, Brazil

e-mail: rotinof@gmail.com; gallo@uerj.br

Abstract: The Pedra de Fogo Formation is located at the northeast region of Brazil and possesses a diverse palaeobiota mainly composed by plants and vertebrate remains of Lower Permian age (Cisuralian). The palaeoichthyofauna includes several chondrichthyans (e.g. *Sphenacanthus maranhensis*, *Taquaralodus albuquerquei*, *Itapyrodus punctatus* and *Anisopleurodontis pricei*) but also include osteichthyans as the ‘palaeoniscoid’ *Brazilichthys macrognathus* and several actinopterygian and sarcopterygian remains. This variety of fish taxa of both marine and freshwater affinities is important for understanding taxonomical diversity and distribution of vertebrates from Western Gondwana. Here, specimens collected at the Pastos Bons locality, near Nova Iorque at Maranhão State, are described as two new species for known genera, *Sphenacanthus ignis* sp. nov. and *Bythiacanthus lopesi* sp. nov., also a new genus and a new species *Rubencanthus diplotuberculatus* gen. et sp. nov. that exhibit a distinct pattern of ornamentation from all previously known Palaeozoic chondrichthyans. These new records highlight the importance of more palaeontological studies for the Pedra de Fogo Formation and enlarge the variety of chondrichthyan for the locality.

Keywords: Parnaíba Basin, fin spines, Northeastern Brazil, Permian, sharks

INTRODUCTION:

The Cisuralian Pedra de Fogo Formation from northeast Brazil is mainly distributed at the states of Piauí and Maranhão, but also occurs at state of Tocantins. The fossil assemblage possesses a considerable amount of vertebrate taxa, with both continental and marine affinities. The northern portions of this formation show continental related taxa, the middle

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