



First record of *Diodon eydouxii* Brisout de Barneville, 1846 (Osteichthyes: Diodontidae) in Saint Peter and Saint Paul Archipelago, Brazil

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Abstract: The present note reports the occurrence of *Diodon eydouxii* in Saint Peter and Saint Paul Archipelago (Brazil), which was captured by casting net, and now has become part of the list of species found in the archipelago area.

Keywords: Tetraodontiforms, porcupine fish, new occurrence

Resumo: Primeiro registro de *Diodon eydouxii* Brisout de Barneville, 1846 (Osteichthyes: Diodontidae) no Arquipélago de São Pedro e São Paulo, Brasil. A presente nota registra a ocorrência de *Diodon eydouxii* no Arquipélago de São Pedro e São Paulo (Brasil), a qual foi capturada através de tarrafa, e agora faz parte da lista de espécies encontradas na área do arquipélago.

Key words: Tetraodontiforms, peixe porco-espinho, nova ocorrência

The Diodontidae Family (Tetraodontiformes) is currently represented by 19 species of burrfishes, arranged in seven genera distributed in hot and temperate waters (Leis 2006). Burrfishes have elongated bodies covered by long and sharp spines, and two large teeth in the jaws fused in a beak shape. The species are able to swallow water and inflate fully their body when they feel scared or uncomfortable (Nelson 2006, Leis 2006). The *Diodon* genus has five described species, *D. nichthemerus* in South Australia, *D. liturosus* in the Pacific and Indian oceans, and three species with circumtropical distributions, *D. holacanthus*, *D. hystrix* e *D. eydouxii* (Leis 2006). In the Western Atlantic Ocean,

D. holacanthus is recorded from Florida (USA) to southern Brazil, and *D. hystrix* from Massachusetts (USA) to southern Brazil (Menezes *et al.* 2003). *D. eydouxii* is recognized as an oceanic pelagic species and its occurrence area in the Western Atlantic Ocean is between 37° N and 28° S (Leis 2006), with records in oceanic waters of North Carolina (USA), in the western and southern Gulf of Mexico (McEachran & Feckhelm 2005), and just one specimen was caught at Florianópolis, coast of Santa Catarina state, southern Brazil (Lema *et al.* 1979). Saint Peter and Saint Paul (SPSPA) is a small archipelago located in the median equatorial region of the Atlantic Ocean, about 1100 km from the city of Natal, northeastern coast of Brazil

(Figure 1). Formed by small rocky islands, it covers an area of about 17,000 m² and is up to 18 m high. The junction of the four main islands form a small bay with depths of up to 25 m, followed by a wall falling almost vertically, and at low tide, tide pools are formed on most of the islands (Viana *et al.* 2009).

On March 4, 2014, two specimens of *D. eydouxi* (Figure 2) were captured on surface waters, using a dip net, about 50 m from the area of the islands (0°55'2.89"N, 29°20'47.56"W). Once fixed in 10% formalin, the specimens were transferred to 70% ethanol and deposited in the fish collection of the Laboratory of Fisheries Biology at the Federal

University of Rio Grande do Norte (LABIPE 402 and 403).

Morphometric and morphological characterization of the specimens was carried out according to Laws (1978) (Table I). Until then, the only species of the genus *Diodon* recorded at SPSPA was *D. hystrix* (Vaske Jr. *et al.* 2005). Besides the number and measurements of characters, this species differs from *D. eydouxi* by its coloration, which is usually browner, and its dorsal and anal fins are rounded, while *D. eydouxi* has a more blue color and their dorsal and anal fins are more pointy (Laws 1978).

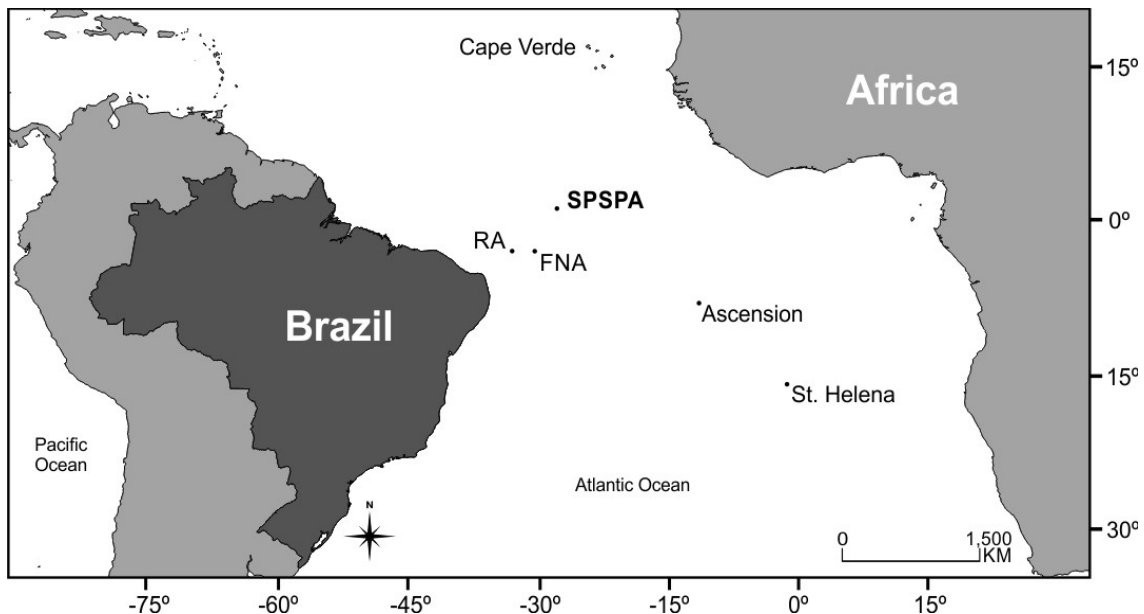


Figure 1. Location of Saint Peter and Saint Paul Archipelago (SPSPA), Brazil. RA = Rocas Atoll, FNA = Fernando de Noronha Archipelago.



Figure 2. *Diodon eydouxi*, 161.35 mm, LABIPE 403.

Table I. Morphometrics and meristics characters of *Diodon eydouxii* from Saint Peter and Saint Paul Archipelago.

Morphometry (mm)	LABIPE 402	LABIPE 403
Total length	193.25	196.20
Standard length	160.40	161.35
Body width	67.80	65.40
Head width	39.51	40.13
Peduncle length	31.60	31.80
Total weight (g)	198	196
Meristics		
Dorsal-fin rays	17	17
Anal-fin rays	17	17
Pectoral-fin rays	20	20
Spines on the dorsal surface of caudal peduncle	2	2
Spines from snout to dorsal fin	13	13
Spines from lower jaw to anus	12	12

Due to this morphological similarity between species, it is possible that some records of *D. hystrix* at the SPSPA can actually be incorrect identifications of *D. eydouxii*, whereas it is difficult to visualize such distinctive characters during underwater observations. The present first description of *D. eydouxii* in the waters around the SPSPA will contribute to a closer attention in future identification of the species of the genus *Diodon* in this region. So, is recommended that all future identifications in the SPSPA should be made based on these collected specimens and quantitative characters.

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