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Distribution of slipper lobsters (Decapoda: Scyllaridae) in Uruguayan waters

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ABSTRACT

Scyllarid lobsters are commonly found in tropical waters with scarce records from temperate zones in the southwestern Atlantic. Here, we provide new information about the distribution of *Scyllarides deceptor* Holthuis, 1963 along the Uruguayan continental shelf and include a new austral record for *Scyllarus depressus* (Smith, 1881).

KEY WORDS

Scyllarides deceptor, *Scyllarus depressus*, continental shelf, temperate waters, south Atlantic.

Slipper lobsters are mainly found in tropical waters and records from temperate zones of southwestern Atlantic are rare (Holthuis, 1991; Tavares, 2002; Santana *et al.*, 2007). In the southernmost part of the northern Atlantic Patagonian coast there are only two published records of *Scyllarides deceptor* Holthuis, 1963 (Balech, 1962; Boschi, 1973). *Scyllarides deceptor* is known to occur from Rio de Janeiro (Brazil) to the Buenos Aires Province (Argentina) (Boschi, 1973; Tavares *et al.*, 2009), mainly in soft bottoms between 30 to 300 m of depth (Holthuis, 1991); it is an abundant species in some localities in Brazil (Tavares *et al.*, 2009). Another Scyllaridae, *Scyllarus depressus* (Smith, 1881), has its southernmost record in Brazil (Rio Grande do Sul, see D’Incao, 1999). Contrary to *Scyllarides deceptor*, *Scyllarus depressus* is a species not often captured and there are only few deposited specimens from South America waters (see Tavares, 1997 for details). In this sense, we describe the distribution of *Scyllarides deceptor* along the Uruguayan continental shelf and include a new austral record for *Scyllarus depressus*.

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The material examined was collected during fishing operations conducted along the Uruguayan continental shelf (Fig. 1). All specimens of *Scyllarides deceptor* and *Scyllarus depressus* were obtained from sand and/or mud bottoms, preserved in ethanol 70–80%, and deposited in the Museo Nacional de Historia Natural de Montevideo, Uruguay (MNHNM). Additional material examined belonged to the collections of the National Museum of Natural History, Smithsonian Institution (USNM).

Material examined.

Scyllarides deceptor Holthuis, 1963 (Fig. 2A, B) – São Paulo, Santos, Farol da Moela, F/V ‘Emilia’ 21.ix.1959, 1 male paratype (USNM 105810). Uruguay, F/V ‘Cacique’, 34°43’S 53°25’W, bycatch of *Zidona dufresnei* (Donovan, 1823), ix.2000, D. Carrizo col., 46 m, 1 female (MNHNM 1950). F/V ‘Sigma’, stn. 8; 34°46’S 52°33’W, in gastropod traps, 24.v.2004, S. Horta col., 70 m, 1 female (MNHNM 1951). 34°52.71’S 53°08.42’W to 34°51.46’S 53°08.90’W, 06.xii.2006, red engel trawl, 45–41 m, 2 females (MNHNM 1952). 35°12.2’S 52°56.7’W to 35°10.9’S 52°54.7’W, 24.iv.2006, red engel trawl, 67–70 m, 1 male (MNHNM 1953).

Scyllarus depressus (Fig. 2C, D) – Uruguay, R/V Aldebaran, cruise 2008-02, stn L. 18, 35°51.73’S 54°03.56’W to 35°53.11’S 54°03.78’W, 09.iv.2008, A. Segura, L. Rubio & E. Delfino col., red engel trawl, 61–62 m, 1 female (MNHNM 1964).

In decapods, the information about species distribution is not always supported by documented data and material deposited in scientific collections, which, in some cases, might lead to misinterpretation of the species distribution area. *Scyllarides deceptor* has a widespread distribution, occurring from Rio de Janeiro, Brazil to Buenos Aires Province in Argentina. Melo (1999) recorded only “Argentina” for *Scyllarides deceptor* with a map showing its distribution throughout Tierra del Fuego as the southern limit, which is probably a mistake. A well-documented record for the Argentinian coast was provided by Boschi (1973: 16) who listed one male from the Buenos Aires Province (38°45’S 57°50’W) and confirmed a previous doubtful record by Balech (1962) as *Scyllarides brasiliensis* Rathbun, 1906. In Uruguayan waters, the only record for *Scyllarides deceptor* was mentioned by Riestra *et al.* (2006) as bycatch of *Zidona dufresnei* (Mollusca, Gastropoda) as the specimen MNHNM 1950 studied here (Fig. 2).

Some morphological variations were observed in the pleura of the second abdominal somite in *Scyllarides deceptor*. The Uruguayan material presents a posterior margin of the pleura of the second abdominal somite distinctly concave (Fig. 2B), while, at least in some specimens, the Brazilian material (from Rio de Janeiro to Rio Grande do Sul) have a more convex margin (Fig. 3).

Scyllarus depressus was described based on a postlarva (Smith, 1881: 429) causing difficulties in the identification of the adults. As a result, the adults of *Scyllarus depressus* were mistakenly identified as *Scyllarus arctus* (Linnaeus, 1758) by some authors (e.g. Doflein, 1900; Moreira, 1903; 1905; Andrade Ramos, 1951). Until now the distribution of *Scyllarus depressus* ranged from Massachusetts, US to São Paulo State, Brazil (Tavares, 1997). However, references with precise data about this species are very scarce (Doflein, 1900; Moreira, 1903; 1905; De Man, 1916; Luederwaldt, 1929; Vasconsellos, 1938; Andrade Ramos, 1951; Holthuis, 1960; Robertson, 1971; Tavares, 1997; Puciarelli and Rego, 2016). The

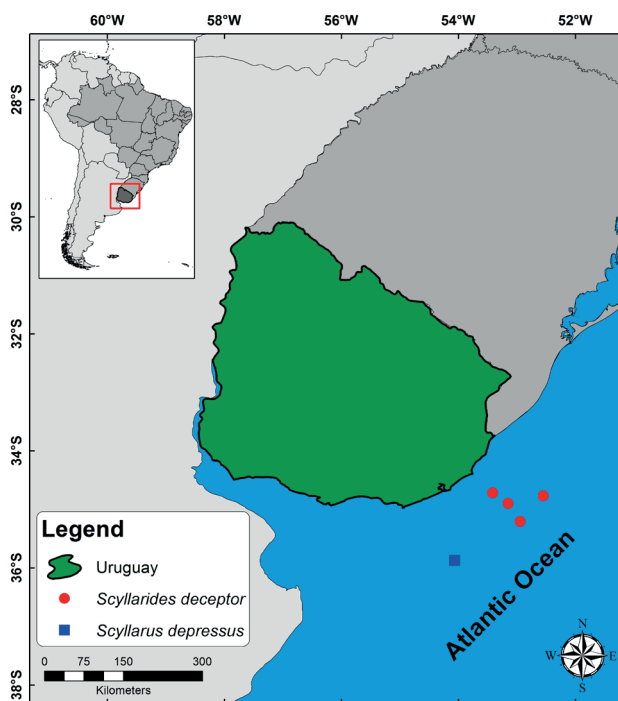


Figure 1. Distribution of Scyllaridae species sampled in Uruguayan waters.

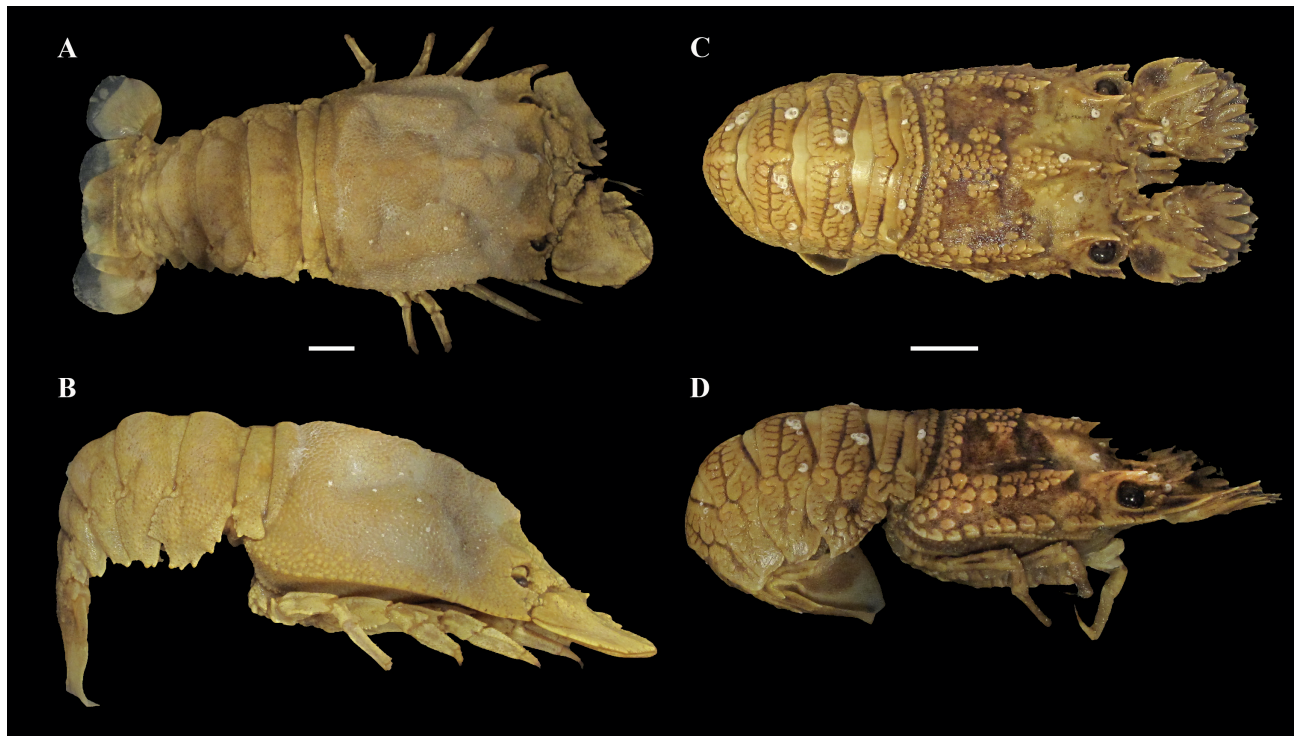


Figure 2. A, C, Habitus, dorsal view. B, D lateral view. A, B, *Scyllarides deceptor* Holthuis, 1963, female (MNHNM 1952). C, D, *Scyllarus depressus* (Smith, 1881), female (MNHNM 1964). Scale bars: 1 cm.

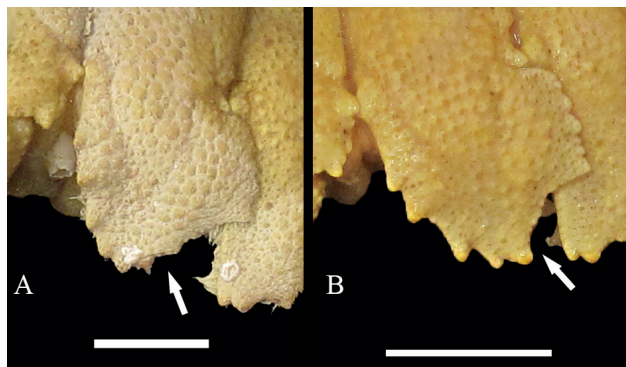


Figure 3. Lateral view of the pleura of the second abdominal somite of *Scyllarides deceptor* Holthuis, 1963. A, female (MNHNM 1952). B, male paratype (USNM 105810). White arrows indicate the differences on the margins. Scale bars: 1 cm.

following publications mention *Scyllarus depressus* for South America, but without any reference of deposited material: Perez and Pezzuto (1998), D’Incao (1999), Melo (1999), Barros and Pimentel (2001), and Serejo *et al.* (2007).

The new austral record presented here (Fig. 1) not only corroborates the presence of this species in temperate waters of South America, but also confirms that the records southern to São Paulo State in Brazil are plausible, with Uruguay being currently the southernmost record of *Scyllarus depressus*.

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