First record of *Scyllarides astori* Holthuis, 1960 (Crustacea, Decapoda, Scyllaridae) from mainland Ecuador

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ABSTRACT.—A slipper lobster is found for the first time off continental Ecuador. The unique specimen belongs to the eastern Pacific coastal species *Scyllarides astori*. This corresponds to an interesting range extension as the species was previously only known from the Gulf of California and the Galápagos Islands.

Keywords: *Scyllarides astori*, Decapoda, new record, eastern tropical Pacific, Ecuador.

Palabras clave: *Scyllarides astori*, Decapoda, new record, Pacífico este tropical, Ecuador.

Introduction

Marine lobsters are poorly represented in the eastern tropical Pacific (ETP) where only two species of Family Scyllaridae are known to date: *Evibacus princeps* S.I. Smith, 1869, and *Scyllarides astori* Holthuis, 1960. The former lives on sandy bottoms, generally between 3 and 90 m, from Baja California south to northern Peru, and is commonly caught by shrimp trawlers (Hendrickx 1995a). The latter was, until now, only known from the Galápagos Islands and from a few localities in the Gulf of California, Mexico (Holthuis & Loesch 1967, Hendrickx 1995b, Hickman & Zimmerman 2000). Four other scyllarids are known from the southeast Pacific (Retamal & Jara 2002): *Scyllarus delfini* (Bouvier, 1909), endemic to Juan Fernández Archipelago, *Parribacus perlatus* Holthuis, 1967 and *Scyllarides roggeveeni* Holthuis, 1967, endemic to Easter Island, and *Arctides regalis* Holthuis, 1963, an Indo-Pacific species also present at Easter Island. We report here the presence of *S. astori* along the littoral of southern Ecuador.

Materials and Methods

The specimen was captured by a fisherman from Salango (Manabi) during a scuba dive at Bajo El Copé, in front of Manglaralto, Guayas province (Fig. 1), and given to the first author. It is now deposited in the crustacean collection at the Muséum national d’Histoire naturelle (MNHN, Paris, France). Total length (TL), tail length (TaL), carapace width (CW) and length (CL) were measured according to Manning (1978).

Results

*Scyllarides astori* Holthuis, 1960

Material examined.- MNHN-Pa1800, one ovigerous female, 350 mm TL, 175 mm Tal, 135 mm CL, 115 mm AC, fresh weight 940 g, 13/Nov/2004, Bajo El Copé, Guayas, Ecuador (1°51’ S, 81°03’ W), depth 12 m (collector: Ulises Lino).

Distribution.- Known from the southern Gulf of California and Galápagos Islands (Holthuis 1991; Hendrickx 1995a). The species is mainly distributed in the western region of the Galápagos Archipelago (Edgar et al. 2004; for details see Holthuis & Loesch 1967), where coldest conditions prevail. Number and exact location of records in the Gulf of California are not very precise. Known localities are: Cabo San Miguel, Baja California, south of Tiburón Island, Sonora, off the coast of Sinaloa, Cabo San Lucas (Hendrickx 1995b, 2005), Roca Partida [Fenner 1992, as Scyllarides squammosus (H. Milne Edwards 1837)], and Loreto (SEMARNAP 2000), Baja California Sur. The range is now extended to southern mainland Ecuador, the first record on continental America south of the Gulf of California. In some recent literature, S. astori is erroneously reported as a species endemic to the Galápagos (see Hickmann & Zimmerman 2000, Edgar et al. 2004).

Remarks.- The specimen examined is much larger than those reported earlier (maximum known size: 250 mm TL; Holthuis 1991). Almost all eggs had been removed by the fisherman.

Discussion

The Galápagos slipper lobster is not a common species of the Ecuadorian coast, but it is apparently well known from the fishermen of the area, especially divers who are familiar with this cryptic species and use it for their own consumption. They name it “langostino”, as in the Galápagos Archipelago. Other vernacular names in use are “langosta china”, and “cigarra de las Galápagos” (Holthuis 1991, Hendrickx 1995a, Hickmann & Zimmerman 2000).

The absence of records of S. astori in the Mexican and most of the Panamic tropical provinces (roughly south of Banderas Bay to northern Ecuador) could indicate an affinity for temperate/subtropical water. In the Galápagos Archipelago, the species has been recorded from the western and central-southeastern islands (Holthuis & Loesch 1967; Edgar et al. 2004), influenced by the cold Humboldt current and upwellings. It would be interesting to test for the existence of genetic exchange among populations of these islands and the mainland. Larval stages of S. astori have been found as far as 3000 km west, southwest, and south of Galápagos (Johnson 1975, Johnson & Knight 1975) but also 350 km north of Clipperton Island (Holthuis 1960). Assuming that the Galápagos Archipelago is the center of distribution for the species, colonization of mainland Ecuador and southern Gulf of California would represent drift of about 1000-3500 km, respectively, well within the known limits of the range of dispersion of.
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Palinura larvae (see Johnson 1971, Richards & Goulet 1976). It is, however, difficult to explain from our knowledge of oceanic currents pattern in the ETP (see Johnson 1971, Hendrickx 1995c, Rivera & Mujica 2004). However, the discovery of an ovigerous female indicates that S. astori reproduces in southern Ecuador and, without prejudging success of reproduction and survivorship, suggests that a resident population probably exists on the litoral zone. Discontinuous or antitropical distribution is also known among other crustaceans [e.g., Emerita analoga (Stimpson 1857)] from the eastern Pacific, which are known from California or northwestern Mexico but have also been found in Peru-Chile (Hendrickx & Harvey 1999). However, S. astori has not been reported from typical tropical water and this might also be due to undersampling or misidentification.

Fig. 2. Scyllarides astori

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Resumen

Se encontró por primera vez una especie de langosta zapatera frente a la costa continental de Ecuador. Este único especímen pertenece a la especie costera del Pacífico tropical Scyllarides astori y representa una interesante extensión de su intervalo de distribución ya que era previamente conocida solo del golfo de California y de las islas Galápagos.

Literature Cited


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