

# First record of *Ublias limbatus* Stimpson, 1871 (Brachyura: Leucosiidae) in Venezuelan waters

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## Abstract

*Ublias limbatus* Stimpson, 1871 is a little-known representative of the crab family Leucosiidae. This crab inhabits littoral gross sediments in depths ranging from 1 to about 64 m. The major diagnostic characters of *U. limbatus* are the broadly elliptical, laterally expanded and dorsally depressed carapace, being also slightly elevated in the middle and bearing deep pits on the branchial area; the eyes concealed beneath the orbital margin of the carapace; and the propodi of the ambulatory legs expanded and dorsally flattened, not cristate. This species is particularly small in size, measuring less than 10 mm in carapace length and width. Previously, *U. limbatus* was known from St. Thomas, Cuba, Jamaica, Haiti, Virgin Islands and Colombia. The single ovigerous female (5.35mm CL, 7.90mm CW) collected on a rocky shore at Cayo Herradura, off the island of La Tortuga (10,57°N - 65,22°W) represents the first record of this species for Venezuela. The record of *U. limbatus* increases to ten the total number of leucosiid crabs known from Venezuelan waters.

**Key words:** Benthos, Caribbean, Crustacean, Biodiversity

## Introduction

According to Manning and Holthuis (1981) the family Leucosiidae is divided into 11 subfamilies. These crabs have been rather poorly studied in Venezuela. The first records of leucosiids from Venezuela were made by Rathbun (1937), reporting *Myriopsis quinquespinosa* Stimpson, 1871; *Iliacantha intermedia* Miers, 1886 and *Persephona crinita* Rathbun, 1931. Rodriguez (1980) recorded the presence of the same three genera (*Persephona*, *Myriopsis* and *Iliacantha*) and six species (*P. punctata* (Linnaeus, 1758), *P. lichtensteini* Leach, 1817; *P. crinita*, *M. quinquespinosa*, *I. intermediata*, *I. liodactylus* Rathbun, 1898). Taissoun (1988) in his study of the two crab families, Leucosiidae and Geryonidae, from Venezuelan coasts, reported the presence of two genera and five species, two of which, *Persephona finnaganae* Rathbun 1933 and *P. aequilonaris* Rathbun, 1933, represented new additions. Bolaños *et al.* (2000) recorded the presence of *Speleophorus pontifer* (Stimpson, 1871) in the Los Roques archipelago, constituting the first record of this species for Venezuelan waters. The present study deals with the occurrence of a further leucosiid genus and species, *Ublias limbatus* Stimpson, 1871, in Venezuelan marine waters. Photographic evidence and diagnosis of the single collected specimen are provided.

## Material and Methods

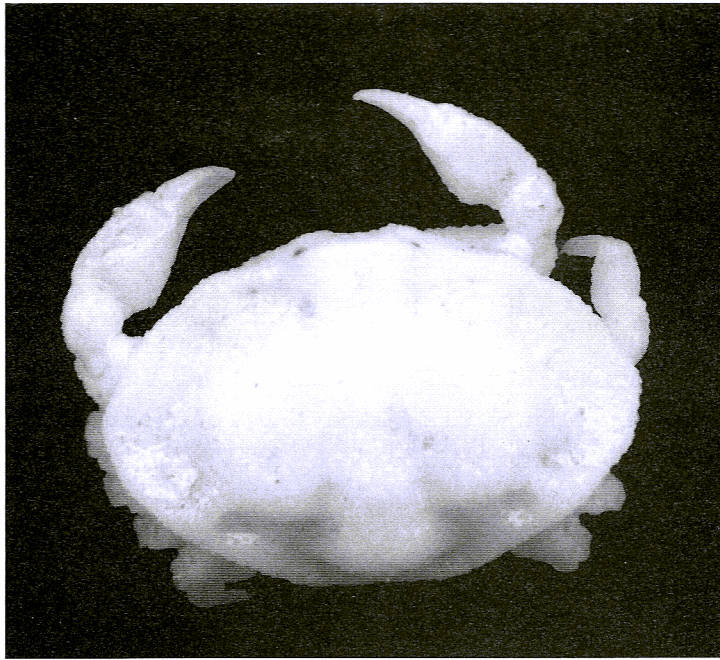
The single specimen of *Ublias limbatus*, an ovigerous female, was collected under rocks at 0.7 m deep, in Cayo Herradura, La Tortuga Island (10°53'34"N - 65°14'17"W), off north-eastern Venezuela. The specimen was preserved in 90% ethylic alcohol. The measurements of the carapace length (CL) and width (CW) were made with a calibrated ocular adapted to a stereoscopic microscope.

## Results

*Ublias limbatus* Stimpson, 1871

Fig. 1

*Ublias limbatus* Stimpson, 1871: 118. - Rathbun, 1937: 150, Lam. 36, Figs. 3-5.- Powers, 1977: 36. - Abele and Kim, 1986: 479, Fig. 491. - Werdning and Muller, 1990: 409, Fig. 4a-c.



**Figure 1:** *Ublias limbatus* Stimpson, 1871. Ovigerous female (5.35mm CL, 7.90mm CW)

### Material Examined:

1 ovigerous female, CL 5.35 mm, CW 7.90 mm, Venezuela: Cayo Herradura, off Isla La Tortuga (10°53'34"N – 65°14'17"W), depth 0,7 m, under rocks, coll. C. Lira, 30 October 2003.

### Diagnosis:

Carapace suboval, wider than long, densely covered with small closely set granules. Lateral margins developed as a blunt crest, slightly lobed, with shallow furrows between hepatic and epibranchial regions. Front straight, slightly elevated, about 1/5 of maximum carapace width. Dorsal surface of carapace with depressions on branchial area subparallel to lateral margins, interrupted by a crest between mesobranchial and metabranchial areas and a second, less produced crest on the middle of metabranchial area. Intestinal region bulky, separated from lateral margin of carapace by a deep depression continuing anteriorly until the limit between intestinal and cardiac regions. Gastric and cardiac regions, as well as adjacent portions of branchial area, elevated.

Third pair of maxillipeds wide, without recess between maxillipeds. Ischium wide, without teeth. Merus about length of ischium. Palpus hidden by merus. Exognat as broad as ischio-merus.

Chelipeds subequal, with ornamentation similar to that of the carapace. Distal third of merus visible in dorsal view. Carpus subtriangular, less than half merus length. Palm inflated, especially on mesial face, with longitudinal carinae of granules. Cutting edges armed with small teeth. Dorsal margin of chela with deep sub-triangular recess between dactylus and palm

Walking legs ornamented as carapace, gradually smaller in size from second to fifth. Merus with dorsal crest. Carpus and propodus with two subdorsal crests. Dactylus as long as propodus.

Female abdomen fitting in a deep depression in the thoracic sternites. Telson triangular, reaching buccal cavity.

#### Remarks:

The genus *Ublias* Stimpson, 1871 is represented by two species: the type species, *U. ellipticus* Stimpson, 1871 in the American Pacific, and *U. limbatus* in the American Atlantic. The two species differ by the shape of the ambulatory legs, being subcheliform in *U. ellipticus* and non subcheliform in *U. limbatus* (Rathbun, 1937).

*Ublias limbatus* was first reported from Key West, Florida (USA), Cuba, Jamaica, Haiti and St. Thomas (Rathbun, 1937). Werding and Müller (1990) reported *U. limbatus* from Santa Marta, Colombia, which is presently, together with La Tortuga, the two southern-most localities where this species has been collected. More recently, Zimmerman and Martin (2001) reported *U. limbatus* from Guana, British Virgin Islands. Although *U. limbatus* appears to be rather uncommon species, the very small size and the cryptic colour pattern and shape of this crab are more likely reasons why this species has not been previously collected in Venezuelan waters.

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