

## NEW SYNONYM OF *HESIONE SPLENDIDA* (HESIONIDAE, POLYCHAETA, ANNELIDA)

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The genus *Hesione* LAMARCK, 1818 has 18 nominal species and the relationships between them are currently confusing, requiring major revisions (PLEIJEL, 1998). The genus has species with a prominent prostomium, in the shape of a diamond or square, which can hold a pair of dorsal antennae. It has completely reduced palps, a large facial tubercle, and, sometimes, median antennae are present; there are generally two pairs of red eyes. The nuchal organs form slightly elongated slits situated postero-laterally in the prostomium. The peristomium is composed of small folds containing modified cirri. Enlarged dorsal cirri are present on segment 1–5, ventral cirri are on segments 1–4, and the neuropodia have falciger neurochaetae (ROUSE & PLEIJEL, 2001). The genus has a pre-anal achaetiger segment with two dorsal and two ventral cirri, the pygidium is cone-shaped, with two anal cirri, and sometimes, there is a median papilla (IMAJIMA, 2003).

In Brazil three nominal species are known, *Hesione picta* Müller, 1858, *H. margaritae* Hansen, 1882 and *H. splendida* Lamarck, 1818. *H. margaritae* was synonymized with *H. picta* (NONATO & LUNA, 1970). These authors recorded *H. picta* for northeastern Brazil in the states of Sergipe and Alagoas, and the species *H. splendida* was reported for the state of Paraíba (DE ASSIS et al., 2007).

The material is deposited in the Invertebrate Collection Paulo Young, Departamento de Sistemática e Ecologia, Centro de Ciências Exatas e da Natureza, Universidade Federal da Paraíba. The drawings were made under a stereoscopic microscope Zeiss with a camera lucida. The parapodial structures were observed with a composite optical microscope Olympus BX41, and drawn under a camera lucida. The measurements were taken in millimeters.

### Systematics

*Hesione* Lamarck, 1818

*Hesione splendida* Lamarck, 1818

LAMARCK, 1818: 316; DAY, 1967: 228, Fig. 11.2.a-c;

IMAJIMA, 2003: 132-134, Fig. 78-h; PARAPAR et al., 2004: 216-217, Fig. 76-c.

*Hesione picta* Müller, 1858 **syn. nov.** (MÜLLER, 1858 213-214, pl. 6, Fig. 3; HARTMAN, 1951: 35; NONATO & LUNA, 1970: 67-68, Fig. 9; FAUCHALD, 1977: 16-17; UEBELACKER, 1984: 28-36, 38, Figs. 28-33, 34-c).

Description: Body short and robust, with 16 chaetigers. Coloring uniformly brown-yellow, with an intricate design of narrow lines ivory colored, and median circular patches white-yellow (Fig. 1A). The two medium-lateral black spots in the proboscis. Two pairs of red eyes. Enlarged dorsal cirri on segments 1–5 (Fig. 1A, B). The cirrophores aren't biarticulate. Notopodia don't have hooks (Fig. 1C). Neuropodia absent on segments 1–4, with enlarged ventral cirri, and with falciger chaetae (Fig. 1D, E). Notopodia don't carry hooks. From the fifth chaetiger, neuropodia are rectangular and truncated, whose projections are papilliform, being located dorsally. Parapodia stippled with black spots located posteriorly, and stippled with brown spots located on parapodia tips.

Distribution: United States (Florida); Gulf of Mexico, the Cape Verde Islands; northeastern Brazil; Red Sea; coast of France to Senegal; Mediterranean Sea; Tropical Indo-West Pacific, Japan (HARTMAN, 1951; NONATO & LUNA, 1970; FAUCHALD, 1977; IMAJIMA, 2003; DE ASSIS et al., 2007). Material examined: Ceará (Paracuru; Ponta do Trapiá, Camocim; Ponta do Mucuripe; Taíba); Rio Grande do Norte (Ponta do Mel, Natal); Paraíba (Ponta do Cabo Branco, João Pessoa; Praia do Bessa, João Pessoa; Projeto Algas; Rio Paraíba do Norte, Cabedelo); Pernambuco (São José da Coroa Grande); Alagoas (Ponta Verde, Maceió); Sergipe (CIPY-POLY-UFPB 176-185, 226, 239, 313-315, 454, 838, 889, 965-968).

Discussion: We added color information to the description of this species. The species has white-yellow circular spots located on back in the middle of the transverse bands. In some adult specimens these circular spots aren't shown due to the time of conservation in alcohol. These spots have not been seen in juvenile specimens, even alive, which suggests that they are present only in living adult animals or recently conserved.

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Specimens stripped black spots were also observed on the base of parapodia, only in the back. In some of them, the spots are larger in the first chaetiger. In preserved specimens these spots aren't observed. Another type of coloring was observed, with brown spots located on the tip of some parapodia. Two black spots were observed on the stipped medium-side of the proboscis. These spots are obvious when the proboscis is everted. The staining pattern of the back was also mentioned by HARTMAN (1951); FAUCHALD (1977); IMAJIMA (2003).

According NONATO & LUNA (1970), *H. picta* has a fringed proboscis tip and a triangular papilliform fold. Some of our specimens showed a fringed proboscis. In other specimens, the proboscis is smooth. This probably occurred due to poor fixation of the material. DAY (1967) and IMAJIMA (2003) showed the presence of a tubercle in the proboscis, which is present in all specimens observed by us. HARTMAN (1938) synonymized the species *H. praetexta* with *H. picta*. Later, HARTMAN (1951) reported *H. picta* for the Western Atlantic, including as its synonyms the species *H. proctochona* and *H. vittata*. NONATO & LUNA (1970) expanded the synonyms of *H. picta* to include the species *H. margaritae*. So all these species synonymized as *H. picta* should also be referred to the species *H. splendida*.

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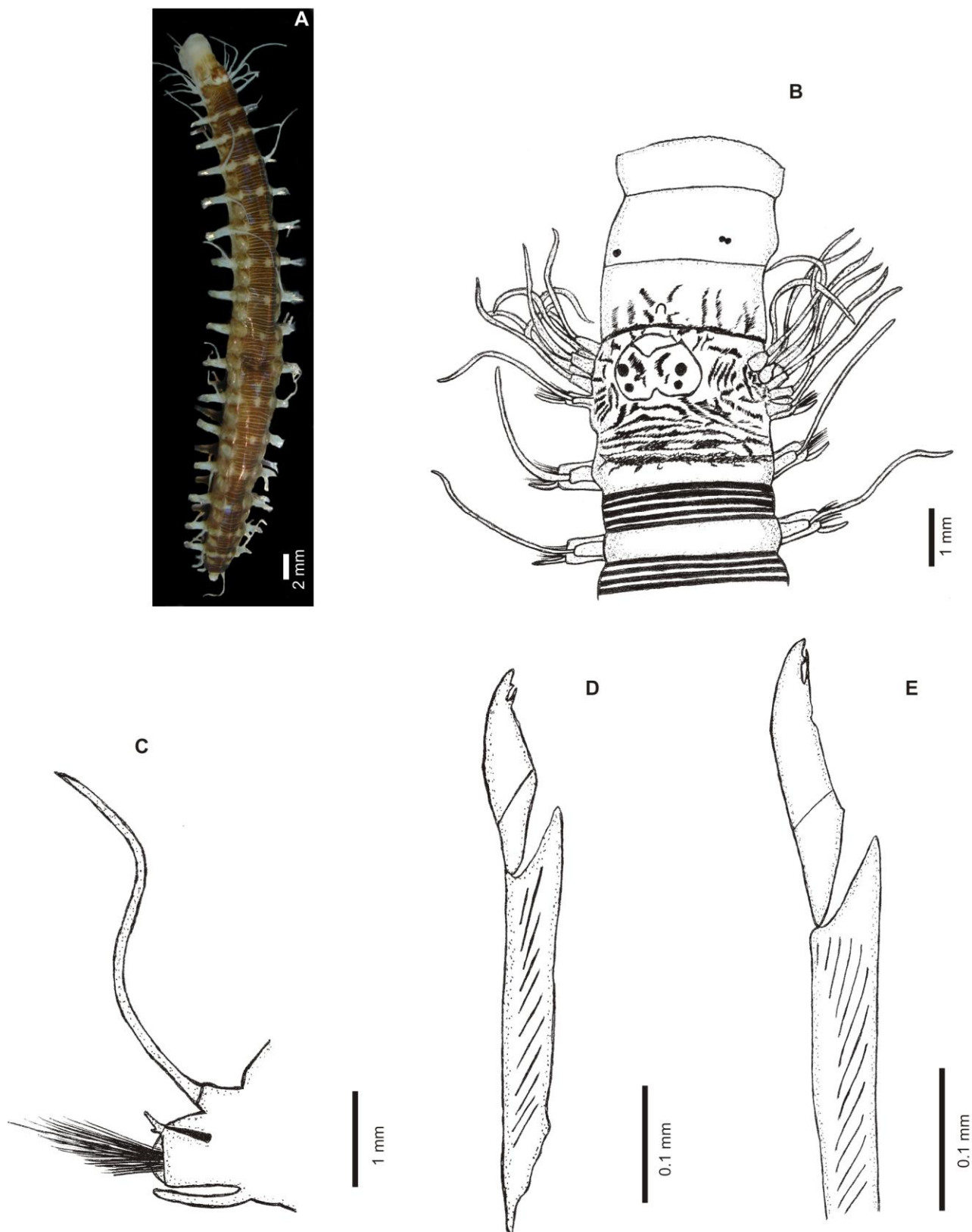


Figure 1. A, Complete body in dorsal view; B, anterior region in dorsal view; C parapodia from 8 chaetiger; D, E, falciger chaetae.