

Detailed morphology description and images of the medical important scorpion *Hemiscorpius lepturus*

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Fenik Sherzad Hussen and co-workers recently published a study with a detailed description of the morphology of *Hemiscorpius lepturus* Peters, 1861 (Hemiscorpiidae). The article also includes

detailed morphological images taken by a scanning electron microscope (SEM).

Abstract:

Hemiscorpius lepturus Peters, 1861 is redefined in both sexes. The detailed external morphologies of chelae, pectinal organs, chelicerae, telsons, and legs I-IV were surveyed with the scanning electron microscope (SEM) in both sexes of *H. lepturus* for the first time. The constellation arrays, batlike shaped peg sensilla, trichobothria, and the other sensillar and epicuticular structures were described, and their functional morphologies were interpreted considering the species' habitat and other climatic preferences. The constellation arrays, basiconic sensilla, function as a chemoreceptor (hygro-reception or/and thermo-reception) by its location on the pedipalp in the habitat. The shape of the peg sensilla is remarkably bat-like in both sexes and this shape has not been observed or recorded in any scorpion species, functioning as mechanoreception and contact chemoreception. There are three slit sensilla as single slit, dual and triple slit sensilla on I-IV walking legs, being mechanoreceptors as proprioceptors detecting strain and substrate vibrations during movement. Isolated single slit sensillum was recorded on the chelicerae surface of a scorpion species for the first time.

Reference:

Hussen FS, Erdek M, Yagmur EA. External morphology of *Hemiscorpius lepturus* Peters, 1861 (Scorpiones: Hemiscorpidae). *Arthropoda Selecta*. 2023;32(4):419-37. [Open Access]

<https://scorpion-files.blogspot.com/2023/12/detailed-morphology-description-and.html>

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