Newly discovered scorpionfly genus with bizarre appearance

December 12 2022

A newly discovered species of large scorpionfly from Nepal named Lulilan obscurus. In addition to the long head, characteristic of all scorpionflies, its very elongated abdomen is striking. It is described by Emeritus Professor Rainer Willmann, University of Göttingen, together with other species that make up a new genus of scorpionfly named Lulilan. Credit: University of Göttingen/R Willmann

Zoologist Professor Rainer Willmann, former Director of the Zoological Museum at the University of Göttingen, has described and classified previously unknown species of scorpionflies from Nepal. These species belong to a completely new genus, for which Willmann has introduced the name "Lulilan." His paper was published in the journal *Contributions to Entomology*.

"The appearance of the newly discovered scorpionflies could hardly be more bizarre," says Willmann.

The males have a spindly, extremely elongated abdomen, at the end of which is a large organ—with long, grasping pincers—for mating.

The insects have a body length of more than three centimeters, meaning they are particularly large. The insects were captured by the Mainz zoologist Professor Jochen Martens and his colleague from Stuttgart Dr. Wolfgang Schawaller. Until now, only one such species was known and that was discovered exactly 200 years ago.

"Despite their dangerous-sounding name, scorpionflies are completely harmless to humans," says Willmann. Their name comes from their spherical genital segment, which looks like the sting of a scorpion. They also have a distinctive, elongated head.

In Europe, there are only a few species of scorpionflies. "More species of Lulilan probably exist in Nepal and the surrounding regions," Willmann says. So far, only the females of some types are known. Unlike the males, however, the females have none of these characteristic features, meaning that classification is more difficult.

Credit: University of Göttingen/R Willmann

From the scorpionflies that have already been described, only the genus Leptopanorpa, which is native to Sumatra, Java and Bali, has developed such a distinctive abdomen. However, it is not closely related to Lulilan.

"This is an amazing example where similar characteristics emerge independently, perhaps in response to similar evolutionary pressures," says Willmann.

More information: Rainer Willmann, Neue Skorpionsfliegen (Mecoptera, Panorpidae) aus Nepal, *Contributions to Entomology* (2022). DOI: 10.3897/contrib.entomol.72.e97277

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Provided by University of Göttingen

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