

A synopsis of the carabid beetle tribe Lachnophorini reveals remarkable 24 new species

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One of the newly described carabid species -- *Asklepia asuncionensis*. Credit: Terry L. Erwin and Laura S. Zamorano



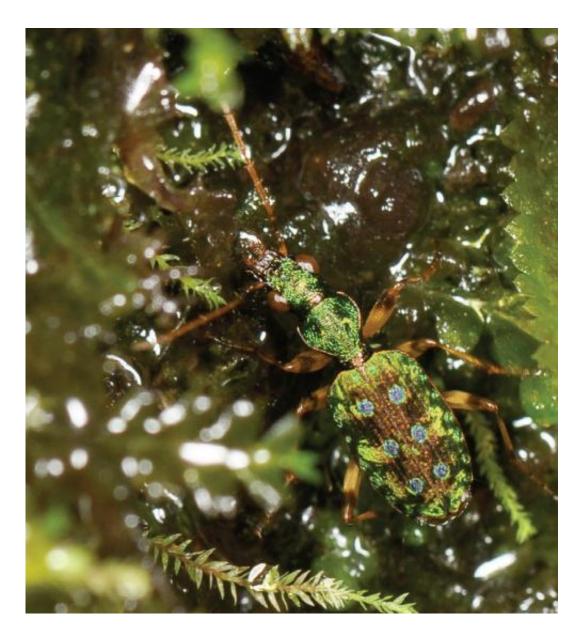
An extensive study by Smithsonian scientists presents a synopsis of the carabid beetle tribe *Lachnophorini*. The research contains a new genus and the remarkable 24 new species added to the tribe. The study was published in the open access journal *ZooKeys*.

Beetles from the family *Carabidae*, commonly known as ground beetles are a large, cosmopolitan group, with more than 40,000 species worldwide, Carabid beetles range in size from 0.6 mm to 90.2 mm and occur in nature in several fractal universes influencing life therein as predators, ectoparasitoids, seed eaters, and even fungal mycelia feeders in a multitude of ways.

Understanding the impact of this beetle family's importance across a multidimensional landscape in a cascade of fractal universes is our biodiversity challenge for the 21st century for one of insects' most diverse families.

"For a fairly large and diverse Tribe of *Carabidae* with markedly interesting body forms and divergent ways of life, the *Lachnophorini* have all but been largely ignored by carabidologists until now. This new study establishes the groundwork for more refined studies aiming for a better understanding of the diversity of the species and the evolution of the <u>tribe</u> in order to have a finer awareness of the next smaller fractal universe for the *Carabidae* family, if we are truly to understand it." explains one of the authors Laura Zamorano, research student at the National Museum of Natural History, Smithsonian Institution.





Quammenis spectabilis, a live individual in its natural hygropetric habitat in Costa Rica. Credit: K. Taro Eldredge, University of Kansas

This research is the beginning of series of steps towards the provision of taxonomic relationships of carabid <u>beetles</u>. For the near future the path forward to be followed will lead to an attempt, using morphological and molecular attributes to provide a firm basis for firm classification.



More information: Erwin TL, Zamorano LS (2014) A synopsis of the tribe Lachnophorini, with a new genus of Neotropical distribution and a revision of the Neotropical genus Asklepia Liebke, 1938 (Insecta, Coleoptera, Carabidae). *ZooKeys* 430: 1-108. DOI: 10.3897/zookeys.430.8094

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