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A new harpactorin hemipteran insect from the Miocene Dominican amber with fossula spongiosa on all three pairs of legs

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A new genus and species of fossil harpactorin (Hemiptera: Reduviidae), *Trispongiosus hui* Zhang, Yao, & Liu gen. et sp. nov., is described from Miocene Dominican amber, representing the third fossil record of Harpactorinae. The new species is remarkable for exhibiting fossula spongiosa on all three pairs of legs, which is not only the first report in Harpactorinae but also rare within Reduviidae. This structure is considered to be related to the locomotor capabilities of assassin bugs, potentially enhancing their attachment and agility in navigating complex surfaces and vegetation. Furthermore, the present study suggests that fossula spongiosa exhibits remarkable plasticity within Reduviidae by integrating fossil and extant perspective.

Key words: Insecta, Reduviidae, Harpactorinae, assassin bug, fossula spongiosa, plasticity, Miocene, Dominican amber.

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