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**Systematic description of putative animal fossils from the early Ediacaran
Lantian Formation of South China**

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The early Ediacaran Lantian Formation in South China contains some of the oldest known representatives of morphologically complex macroorganisms, including various macroalgae and putative animals. The macroalgal fossils have been previously described in several publications, but no taxonomic treatment has been published for the putative animal fossils, which hampers our ability to fully evaluate the significance of these potentially important Ediacaran macrofossils. To address this deficiency, here we provide the systematic taxonomy and detailed description of putative animal fossils from the Lantian Formation, including 4 new genera and 5 new species—*Lantianella laevis* gen. et sp. nov., *L. annularis* gen. et sp. nov., *Piyuania cyathiformis* gen. et sp. nov., *Qianchuania fusiformis* gen. et sp. nov., and *Xiuningella rara* gen. et sp. nov. Morphological comparisons of these fossils and potential modern analogues (cnidarian-grade animals) are provided and critically assessed.

