## Discovery and environmental significance of the discoid fossil from the Paleoproterozoic Liangshan Formation in southwestern Margin of Yangtze

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**Objectives:** Through a 1:50,000 regional geological survey and research, for the first time, disc-shaped macrofossils were discovered in the Liangshan Formation of the Yimen Group in the Yimen area of central Yunnan.

**Results:** For the first time, disc-shaped macrofossils were discovered in the Liangshan Formation of the Yimen Group of Paleoproterozoic in the Yimen area of central Yunnan, which further enriched the types of early macrofossil groups in the Central Yunnan Paleoproterozoic.

**Conclusions:** The large-area comparison of the Precambrian strata in the southwestern margin of Yangtze provides paleontological evidence. This preliminary report opens a new window for exploring the early development and evolution history of the Earth from 2. 8 billion to 800 million years ago from different perspectives; it is of great value to the study of the early Earth's environmental evolution and life evolution, and it is worthy of further exploration and research.

Keywords: Disc-shaped macrofossils; paleontology; Paleoproterozoic; Liangshan Formation; Yimen area Acknowledgements: This paper is the results of regional geological survey of 1:50000 Samaki, Yinmin, Guicheng and Shugu in Yunnan Province (No. D201905), Yunnan Province Paleontological Fossil Development and Protection Survey (No. 530000210000000021416), Yunnan Paleontological Fossil Producing Area Demonstration

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## 新书介绍

王照波著. 2021. 中国新生代冰川与环境演化. 北京: 地质出版社. 本书以清晰的图片展示了在中国东部发现的冰川成因的平行擦痕、交叉擦痕、钉头鼠尾擦痕、磨光面、颤痕、新月形凿口、新月形断口、新月形裂纹、冰臼、河曲状冰川岩溶槽、鼓丘、巨型流线构造、终碛条带构造、冰碛垄、漂砾、冰筏坠石、冰石河、冰川袭夺、冰蚀夷平面、多成因 U 谷、冰斗等各类冰川遗迹; 涵盖了山谷冰川、兴安冰帽、松辽冰盖、华北冰盖、云贵冰盖、青藏高原大冰盖等请多地貌;根据最新获得的冰碛堆积年龄,结合深海氧同位素气候演化曲线,从渐新世到全新世初步划分出 13 个冰期,建立了中国新生代冰

Survey

期划分方案。重点论述了山体冰蚀过程与三角脊链、冰川滑动过程与各类擦痕、冰川堆积过程与垄槽序列、冰期气候过程与东亚冷槽、风成堆积过程与太行山隆起、青藏高原的降升与青藏高原大冰盖、冰期—间冰期对我国大陆架海陆变迁、古人类演化的影响、冰岛阀门效应与北极冰盖的形成等内容。这是一本极具探索趣味又引人思考的书,其中许多地貌现象的解释在地质、地理学术界尚存在相当尖锐的争论。联系人: 273304,山东省临沂市蒙山旅游区柏林镇沂蒙山世界地质公园管理处王照波。