

## **Early Cretaceous Mondaung-Lawa Arc in Myanmar and its plausible correlation with Yunnan**

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In the western margin of Indochina, the Late Cretaceous and Cenozoic tectonic evolution of Myanmar is dominated by eastward subduction of the Neotethyan slab. The Popa-Loimye Arc in West Burma links northward to the Gangdese Batholith in southern Tibet (Lin et al., 2018), expanding a >3000 km long Neotethyan arc. But in the Shan Scarps which lie east of the Arc, intrusions mapped by UNDGSE (1979) have contrasting geochemical characteristics and exhibit different age span, implying more complicated history.

Dacite and granodiorite collected from the Yebokson-Lebyin and Myodwin areas in the Shan Scarps give zircon U-Pb ages ranging from 119-123 Ma, consistent with the Yebokson dates reported by Mitchell et al. (2012). A similar age range is given by granitoids from the Gaoligong-Tengliang belt in West Yunnan, where geochemical characteristics indicate a subduction-related geological setting (Zhu et al., 2015; Xie et al., 2016; Lin et al., 2018). From the new and previous age and geochemical data (Lin et al., 2018), we suggest that the Early Cretaceous magmatic rocks in the Shan Scarps form a magmatic arc, the Mondaung-Lawa Arc, and link to the synchronous Gaoligong-Tengliang Arc.

Contrary tectonic explanations of the Gaoligong-Tengliang and Mondaung-Lawa Arcs have been advocated. Eastward subduction of the Putao-Myitkyina Tethys as a northern branch of the Neotethys (Li et al., 2004; Cong et al., 2011) or of the Mesotethys between the West Burma and Shan Scarps (Lin et al., 2018) have been invoked to explain the Early Cretaceous magmatism. On the other hand, many related studies in Yunnan argue that westward subduction of the Bangong-Nujiang Tethys and its southeastward continuation controlled the arc development.