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# *Lagerstroemia* L. fossil wood from the Indus molasse sediments (possibly late Miocene) of Trans-Himalayan region and its phytogeographic and climatic significance

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ABSTRACT

The collision of the Indian and Eurasian plates led to the formation of Himalaya. The uplift of Himalaya had a direct impact on the intensification of South Asian monsoon which has influenced the evolution of many Asian biotas. The plant fossil records from the Indus-Tsangpo-Yarlung Suture Zone are exceptionally significant for the reconstruction of palaeoclimate during the collision and uplift of the Himalaya. However, these records from the Himalayan region are poorly known. Here we report a fossil wood from the Trans-Himalayan region unearthed from the possibly late Miocene Indus molasse sedimentary succession (Karit Formation) of the Kargil district, Jammu and Kashmir. The anatomical features of the fossil wood such as semi ring porosity, simple perforation plates, vestured intervessel pits, vasicentric to confluent axial parenchyma, exclusively uniseriate, homocellular rays, septate fibres and crystalliferous parenchyma strands suggest its close affinity with *Lagerstroemia* L. and particularly with *L. parviflora* Roxb. of the family Lythraceae. The climatic tolerance and anatomical details of the nearest living relative of the fossil indicate that during the late Miocene the climate of the