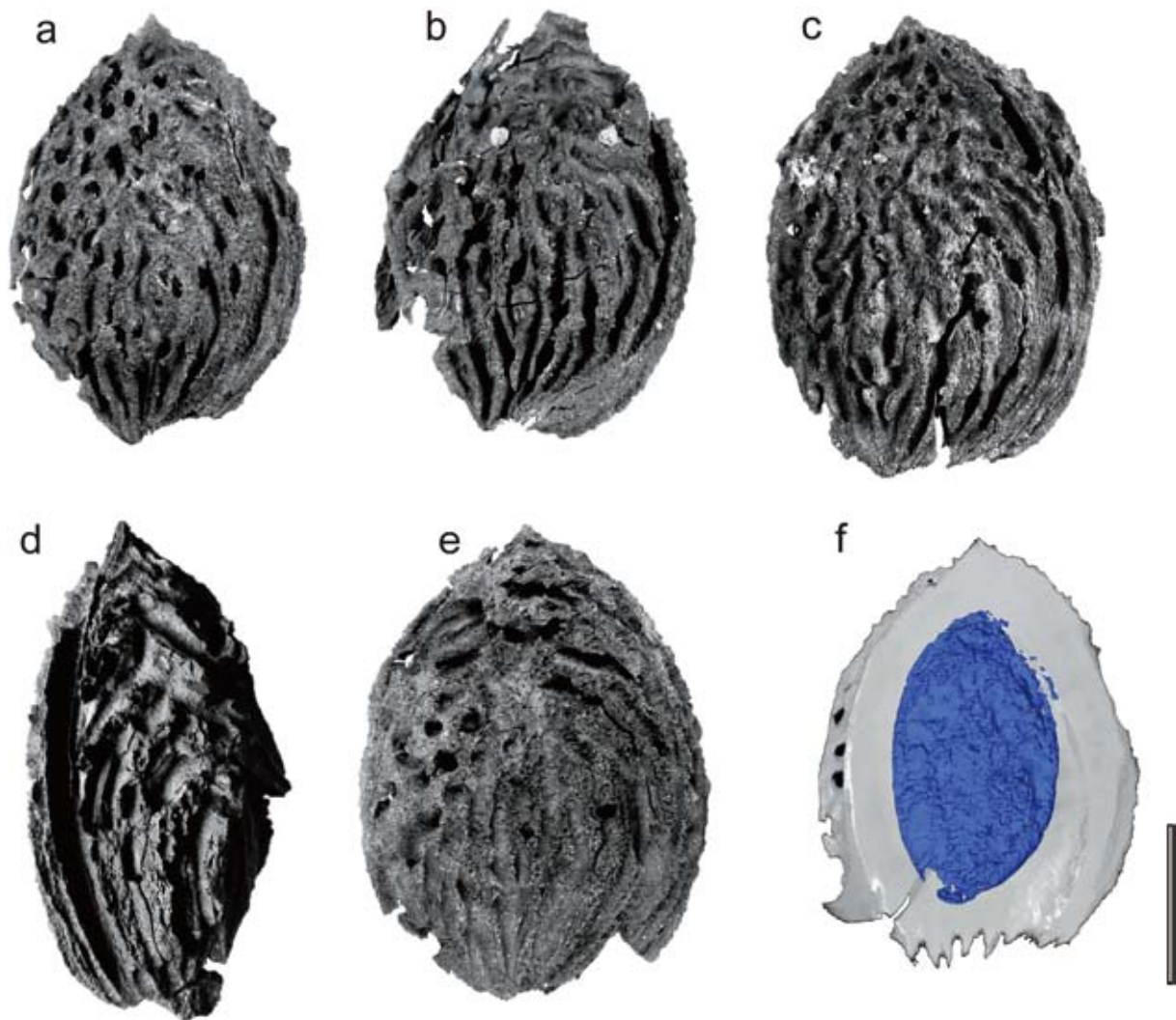


Oldest Peach Fossil Found in Yunnan

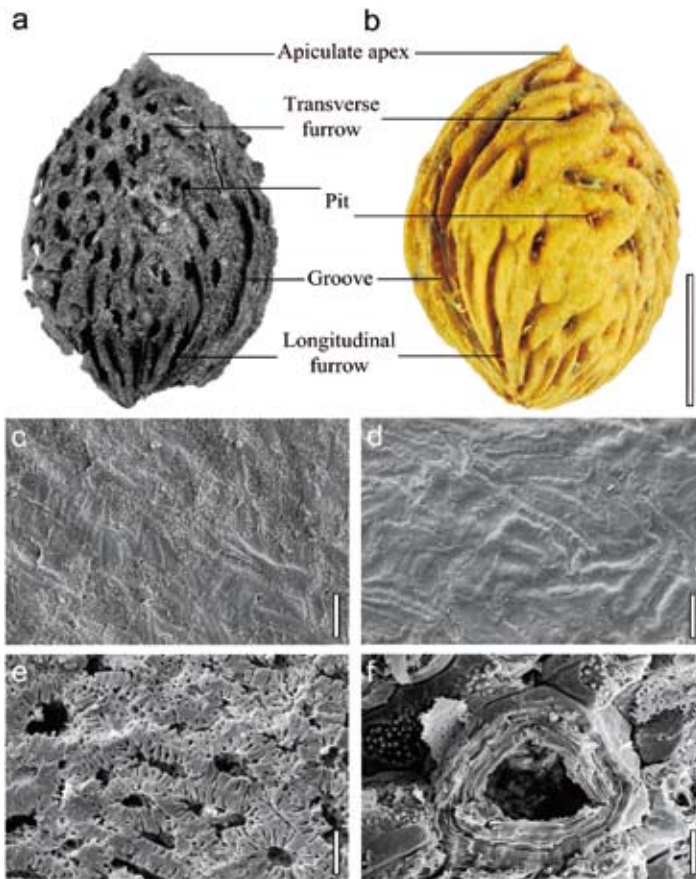
Prunus persica (peach) is an economically important deciduous tree in the Rosaceae family that produces 20 million tons of fruit per year. China has a long history of peach cultivation known from both historical and archaeological evidences. So far, the oldest evidence for the

peach has been Chinese archaeological records dating back to 8000-7000? BP. Despite the significant fossil record of Rosaceae and the genus *Prunus*, the origins of the peach and its unique features remain unknown.

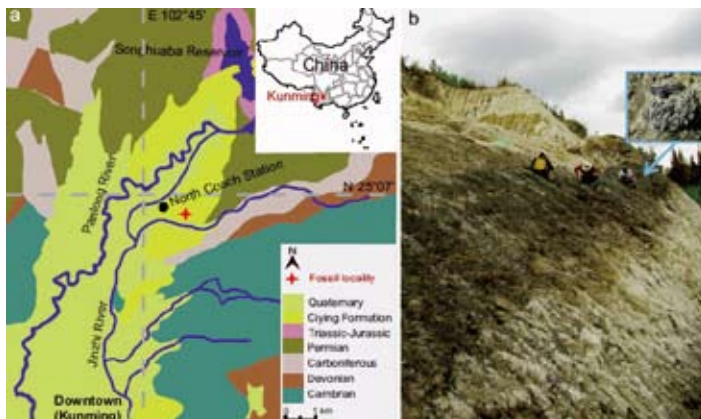
Prof. ZHOU Zhekun's team from the Xishuangbanna



Prunus kunmingensis. (a-e) KUN PC2015001-KUN PC2015005. (f) CT scan showing longitudinal section and seed (KUN PC2015001). Scale bar = 1 cm.



Morphological comparison of endocarps between *Prunus kunmingensis* (a,c,e) and modern peach (b,d,f).



Fossil locality in Kunming, Yunnan Province, southwestern China. (a) Geologic map, modified from Bureau of Geology and Mineral Resources of Yunnan Province, 199030 with the software Adobe Illustrator CS4. (b) Stratigraphic section, arrow showing the fossil-bearing layer; inset shows fossil peach endocarp *in situ*.

Tropical Botanical Garden and their collaborators found eight fossil peach endocarps near the North Terminal Bus Station of Kunming, Yunnan Province, southwestern China (25° 06'19.77"N, 102°45'52.45"E) in 2010. They found that the morphological characters of the fossil endocarps were identical to modern peaches. This discovery provided important evidence for the origins and evolution of the modern fruit.

The well-preserved specimens showed large, single-seeded endocarp, elliptic shape, and deep vascular bundle canal along the edge of the dorsal side. The morphological characters assigned them to the genus *Prunus*. The most distinctive features of peaches seen in the fossil endocarps were the large size, apiculate apex, presence of both pits and furrows on the exterior surface, and typical linear striations on the interior endocarp surface. Thus, the well-preserved fossil endocarps showed no differences from the living peach. The researchers proposed the new species name, *Prunus kunmingensis*, to provide an unambiguous epithet for the fossils in the absence of a whole-plant reconstruction.

The specimens comprised the earliest record of peach, from the late Pliocene (i.e., by ca. 2.6 million years ago), as well as the only occurrence that predated archaeological evidence. *Prunus kunmingensis* demonstrated the early presence of peach in southwestern China and dramatically increased the region's established significance for the evolutionary origins and cultivation history of the fruit.

Their paper, entitled "Peaches Preceded Humans: Fossil Evidence from SW China", has been published in the prestigious magazine of *Scientific Reports*.