



W183: A New Evolutionary Framework for the Genus *Citrus*: Its Origin, Evolution and Dispersal

Saturday, January 13, 2018

03:10 PM - 03:30 PM

📍 Pacific Salon 6-7 (2nd Floor)

We present first solid insights on the origin, evolution and dispersal of citrus and elucidate the genealogy of the most important wild and cultivated varieties. These findings draw a new evolutionary framework for these fruit crops, a scenario that challenges current taxonomic and phylogenetic thoughts and points towards a reformulation of the genus *Citrus*. Based on genomic, phylogenetic and biogeographical analyses of the genus *Citrus* we propose that the center of origin of citrus was the Southeast foothills of the Himalayas, in a region including the eastern area of Assam, northern Myanmar and western Yunnan. Our analyses suggest that the ancestral citrus species underwent a sudden speciation during late Miocene and that the new species dispersed from there to surrounding regions, coinciding with a drastic transition from wetter monsoonal conditions to a drier climate. The Australian citrus and Tachibana mandarin split later from mainland citrus during the early Pliocene and Pleistocene, respectively.

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