

# Passionfruit

## *Passiflora edulis*

### A well-travelled fruit!

Passionfruit, an exotic, iconic fruit of the tropics! How could we exist without passionfruit for pavlovas, the classic soft drink *Passiona* and so on.

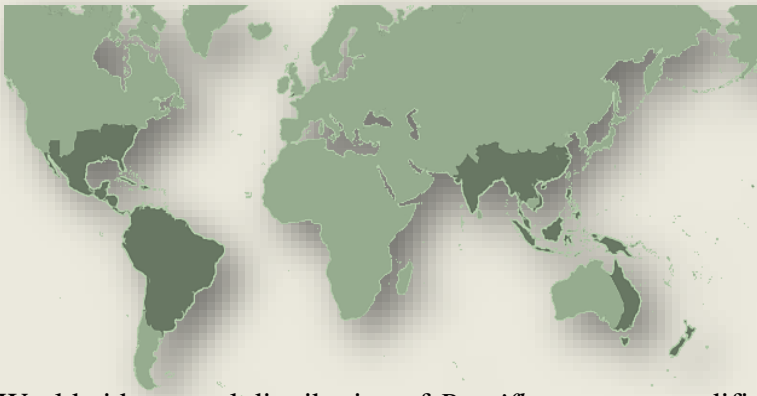
Passionfruit are the delicious, tangy fruits of a perennial vine, *Passiflora edulis*, a native of tropical and subtropical regions of southern Brazil, Paraguay and northern Argentina, and now cultivated in many regions of the world. It belongs to the family Passifloraceae, most of which are woody or herbaceous vines, usually climbing with the aid of tendrils; a few are shrubs or trees. Most cultivated species of *Passiflora* are perennial climbers.



There are almost 600 species of *Passiflora*, most occurring in the Neotropics (South, Central, North America) with just a few (23 species) elsewhere in the

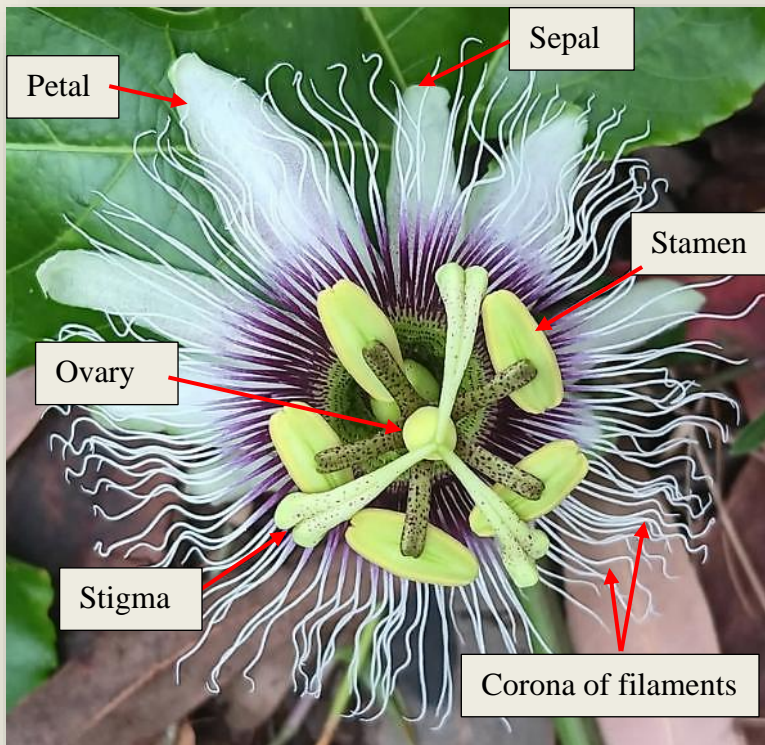
world, including southeast Asia, and Oceania, including Australia. There has been considerable debate about the origins of the Passifloraceae family. There are few fossils to provide clarity, but it seems the family has its origins in Africa, (which has no indigenous *Passiflora* species but does have other Passifloraceae genera) dispersed northwards to Europe and Asia, and eventually reached the New World by land bridges where the genus *Passiflora* diversified rapidly in Central America.





Worldwide natural distribution of *Passiflora* – map modified from *Royal Botanic Gardens Kew, Plants of the World Online*.

which was home to temperate forests at least until the Pliocene, and dispersed northwards through Australia and New Zealand to New Guinea.



pollinators seeking nectar below. This conveniently minimizes the risk of self-pollination; passionfruit is largely outcrossing. The *corona* is comprised of long, thin filaments that radiate from the central axis of the flower, and the variation in colour, from light to dark, is believed to guide pollinators, insects and hummingbirds (in the Americas) to the nectaries at the centre of the flower.

Australia has six native species, twelve introduced or naturalised species: the origins of the native species are equally complex. Extraordinarily, *Passiflora* probably arrived in Australia from the **south**, following a westward route from South America against the prevailing winds and oceanic currents, then along the coastline of Antarctica,

Passionfruit flowers look weird and wonderful but are perhaps not as complex as they might originally appear. Each flower has five petals and five sepals that alternate with the petals. Petals and sepals look alike, but sepals have a greenish hook at the tip.

There are five comparatively large stamens inserted below the ovary, which is topped by three styles and stigmas. At first, the anthers face upwards, but within an hour of the flower opening, all five rotate to face downwards bringing them closer to



