

TREES



ORIGIN AND ECOLOGY

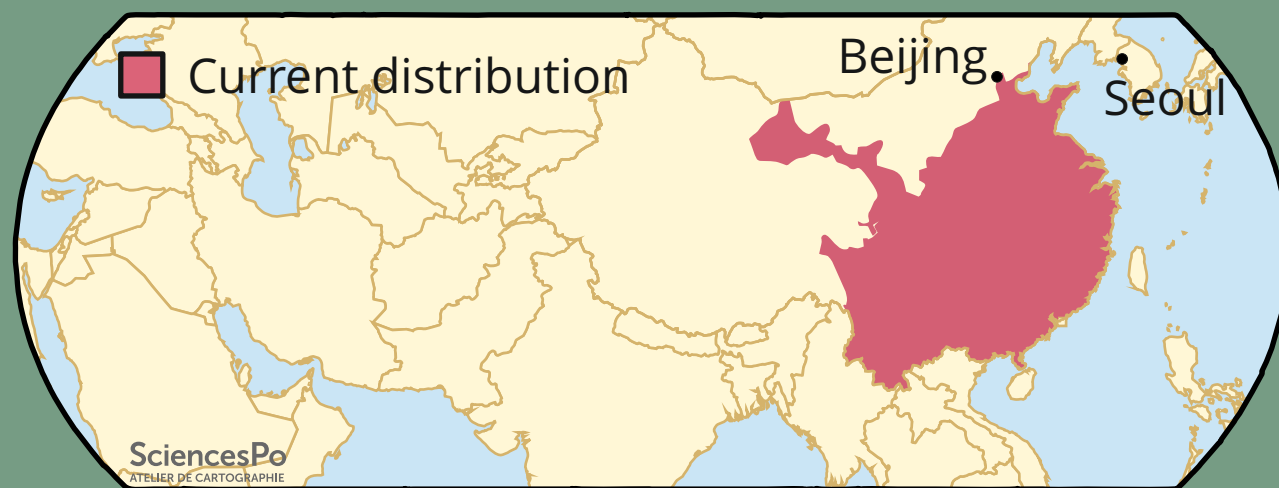
Family : Rutaceae, the citrus family

Synonym : *Poncirus trifoliata*

Origin : central China

Habitat : *Citrus trifoliata* grows in the temperate regions of central China, characterized by cold winters. It is found at forest edges in open woodlands.

Perennial plant with deciduous foliage (loses its leaves).



THE PLANT'S CHALLENGE

In regions with a temperate climate, plants must adapt to the seasons. In winter, in northern China, temperatures often drop below freezing and water is scarce. The cold can impair sap circulation. In addition, water becomes harder to access, especially when the ground is frozen, putting the plant's survival at risk.

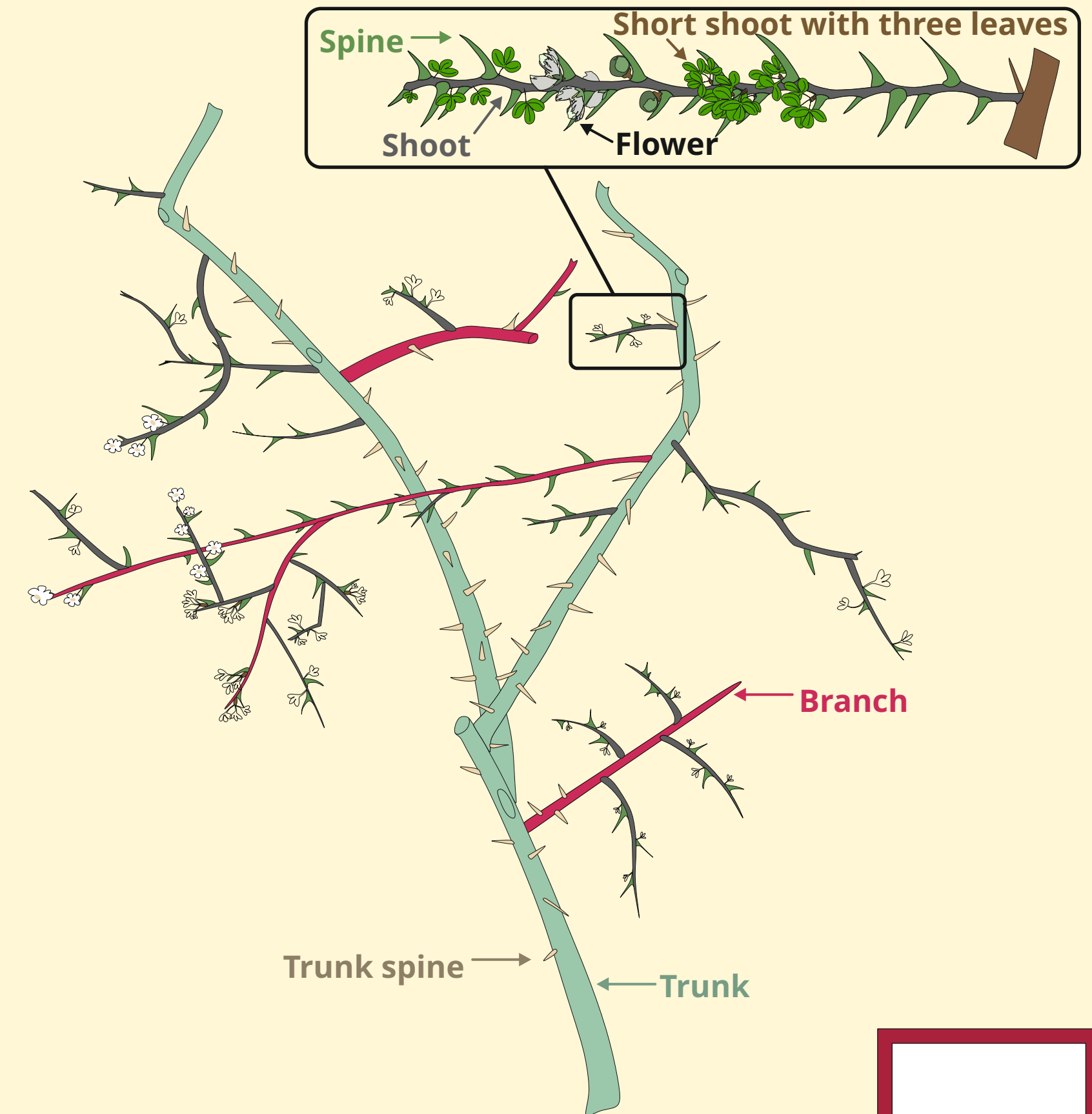
Citrus trifoliata (L.) Trifoliolate Orange

THE ARCHITECTURAL SOLUTION

Plant architecture allows plants to cope with the challenges of their environment.

In *Citrus trifoliata*, the plant's architecture is characterized by a trunk with two types of stems. The long stems serve to spread outward. The thorns, on the other hand, are very short, green, sharp stems that deter herbivores and bear the flowers.

To produce its energy (photosynthesis), the plant loses some water through its leaves. In winter, when it is very cold and dry in China, it drops its leaves to conserve water. The thorns then take over the role of photosynthesis.



Work completed by students of the Bachelor's Program in Biology-Ecology at the University of Montpellier (Class of 2024-2025)

To learn more, read the students' research report!

