

# Social Climbers

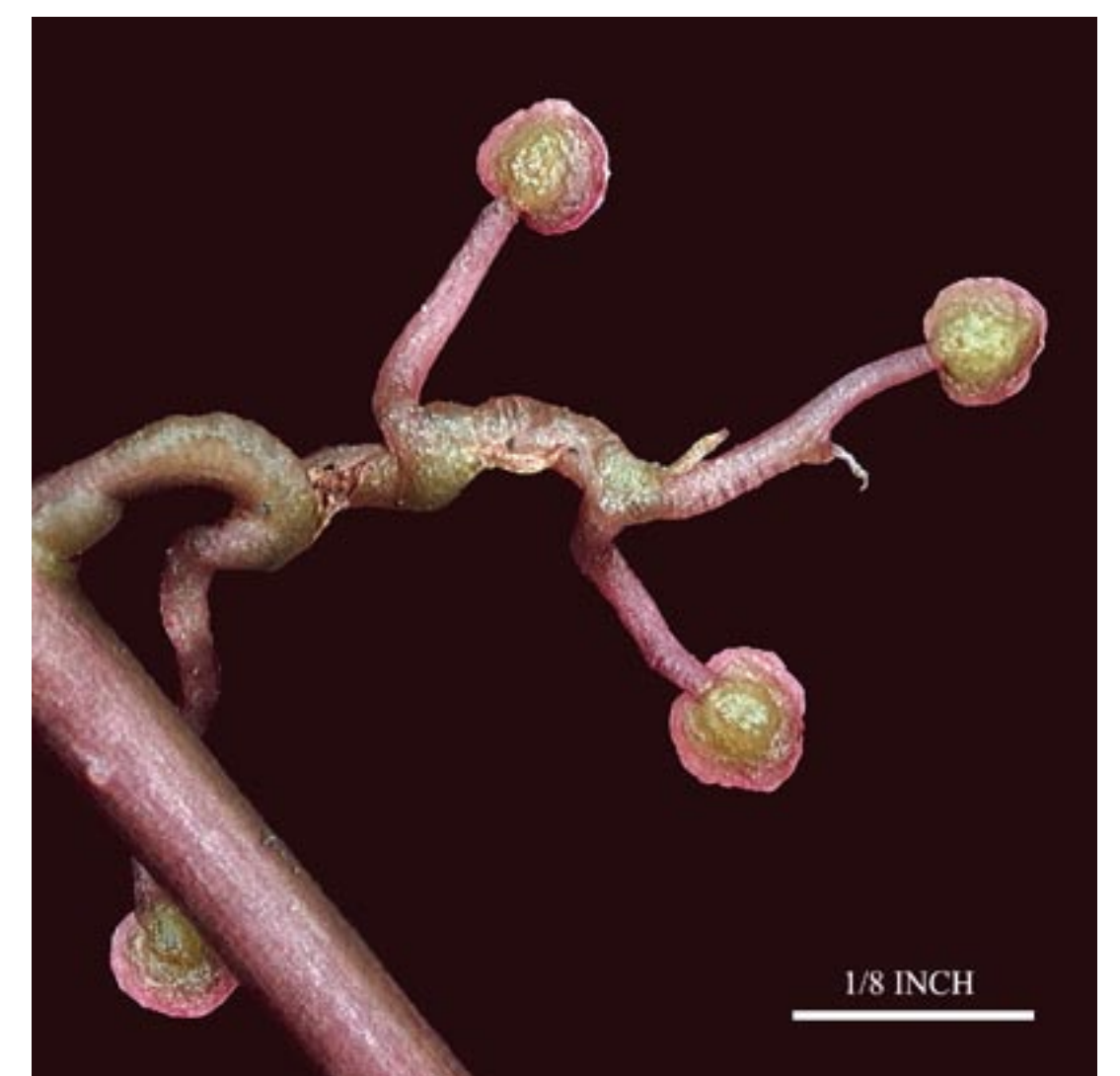


**Vines** are well adapted to compete with trees and shrubs for sunlight. Rather than having evolved to survive in a shaded understory, vines climb over other plants and objects to position themselves where they receive more sun. Several diverse climbing mechanisms have evolved.



Boston ivy climbing a wall

**Boston ivy**, *Parthenocissus tricuspidata*, has a unique climbing adaptation. Its disk-tipped tendrils are actually modified leaves. The disks secrete an adhesive substance, allowing the plant to cling to sheer surfaces such as rock cliffs (or Ivy League buildings), an ecological niche not available to most vines.



Disk-tipped tendrils of Boston ivy



Poison ivy adhering to a tree trunk

**Poison ivy**, *Toxicodendron radicans*, a vining member of the sumac family, is notorious for causing dermatitis. It is well adapted for climbing trees by attaching the hairy rootlets that emerge from its stem to the tree's bark. Climbing into the tree canopy, nearer birds, provides an added bonus since birds eat the fruit and spread the seeds over great distances.



Twining stem of Chinese wisteria

**Chinese wisteria**, *Wisteria sinensis*, a member of the legume family, is one of many vines that wraps its stems around living or inanimate objects. The vine, which may live over 50 years, can reach enormous proportions and eventually overwhelm its support. Oddly, different vine species consistently wrap either clockwise or counterclockwise; *Wisteria sinensis* twines counterclockwise.