

Gnetum

Gnetum is a genus of gymnosperms, the sole genus in the family Gnetaceae within the Gnetophyta. They are tropical evergreen trees, shrubs and lianas. Unlike other gymnosperms, they possess vessel elements in the xylem. Some species have been proposed to have been the first plants to be insect-pollinated as their fossils occur in association with extinct pollinating scorpionflies.[2] Molecular phylogenies based on nuclear and plastid sequences from most of the species indicate hybridization among some of the Southeast Asian species. Fossil-calibrated molecular-clocks suggest that the Gnetum lineages now found in Africa, South America and Southeast Asia are the result of ancient long-distance dispersal across seawater.[3][4]

Their leaves are rich in bioactive[clarification needed] compounds such as flavonoids and stilbenes.[citation needed] Of the species studied so far, Gnetum have photosynthetic and transpiration capacities which are considerably lower than those of other seed plants, due to the absence of multiple chloroplast genes essential for photosynthesis, a trait they seem to share with the other living members of Gnetophyta, Ephedra and Welwitschia, as well as conifers.[5] There are over 50 different species of Gnetum.[citation needed]

subsection Araeognemones

subsection Micrognemones

section Gnetum

subsection Gnemonoides

subsection Stipitati

subsection Sessiles

G. buchholzianum Engler

G. africanum (de Loureiro) Welwitsch

G. costatum Schum.

G. gnemon von Linné

G. raya Markgraf

G. gnemonoides Brongniart

G. leyboldii Tulasne

G. nodiflorum Brongniart

G. schwackeanum Taubert & Schenck ex Taubert & Markgraf

G. paniculatum Spruce ex Benth
G. camporum (Markgraf) Stevenson & Zanoni
G. urens (Aublet) Blume
G. microcarpum Blume
G. diminutum Markgraf
G. klossii Merrill ex Markgraf
G. parvifolium (Warburg) Cheng
G. luofuense Cheng
G. indicum (de Loureiro) Merrill
G. hainanense Cheng ex Fu, Yu & Gilbert
G. montanum Markgraf
G. macrostachyum Hooker
G. latifolium Blume
G. edule (Willdenow) Blume
G. neglectum Blume
G. leptostachyum Blume
G. ula Brongniart
G. tenuifolium Ridley
G. cuspidatum Blume

There are over 50 different species of *Gnetum*.

Many *Gnetum* species are edible, with the seeds being roasted, and the foliage used as a leaf vegetable.[9] The plant is harvested and yields a useful fiber.[clarification needed] There is no sense of danger in consuming the fruit or the seeds.[10]

There is also a study done on the plant to see if it has any medicinal properties, finding some anti-coagulation effects due to its stilbenoid content. The family Gnetaceae is well known as a rich source of plant-derived stilbenoids as well as Cyperaceae, Dipterocarpaceae, Fabaceae, and Vitaceae.[11]

Some species of *Gnetum* are in danger of dying out. The habitats are being removed with the trees being cut down to create industry. The tropical rainforest are being destroyed so many

of the species are going extinct such as *Gnetum oxycarpum*. The rainforests are being torn down and being turned into farmland. *Gnetum* live in only a small part of the rainforest.

Gnetum gnemon carpellate/female cones

Gnetum latifolium staminate/male cones

Gathered leaves of *Gnetum africanum*

Gnetum gnemon seeds

