

# Quadrant II - Transcript and Related Materials

**Programme: Bachelor of Science (First Year)**

**Subject: Botany**

**Course Code: BOC 102**

**Course Title: Biodiversity II**

**Unit: 2**

**Module Name: Classification and Morphology of *Gnetum***

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## **Notes**

### **Classification**

Class: Gnetopsida

Order: Gnetales

Family: Gnetaceae

Genus: *Gnetum*

### **Distribution**

*Gnetum* is a genus of gymnosperms, the sole genus in the family *Gnetaceae* and order *Gnetales*. They are tropical evergreen trees, shrubs and lianas. The genus includes 30-35 species of woody trees, shrubs or even climbers. These are dioecious tropical species that occur mostly in the rain forests. *Gnetum* is represented in India by 5 species. These include:

*Gnetum contractum*: A scandent shrub growing in Kerala, Nilgiri Hills and Coonoor in Tamil Nadu.

*Gnetum gnemon*: A shrubby plant found in Assam (Naga-Hills, Golaghat and Sibsagar).

*Gnetum montanum*: A climber with smooth, slender branches, swollen at the nodes. It is found in Assam, Sikkim and parts of Orissa.

*Gnetum latifolium*: A climber found in Andaman and Nicobar Islands.

*Gnetum ula*: It is a woody climber found commonly in various parts of India. (Western ghats, Coorg, Kerala, Pulni hills, Orissa, Godhavari district of Andhra)

### **Morphology**

Majority of the Indian species are woody climbers, a few are scandant shrubs (*G. contractum*), whereas *G. gnemon* is a medium sized tree.

It resembles to dicotyledonous angiosperm because of its leaf shape and reticulate venation. There are two types of branches found in *Gnetum*.

1. Branches of limited growth: They are divided into nodes and internodes and bears foliage leaves that arises in decussate pairs.

2. Branches of unlimited growth: Bears reduced and cup like pairs

of scale leaves. The nodes are swollen and the branches become articulated in many species.

The leaves are sessile, large and oval with entire margin. *Gnetum* is dioecious. The reproductive organs are organised into well-developed cones or strobili.