**Classification of Gymnosperms**

Sporne (1965) classified gymnosperms into 3 classes, 9 orders and 31 families. The classes include i) Cycadospsida ii) Coniferopsida iii) Gnetopsida.



**General Characters of Main classes:**

**Class I – Cycadopsida**

• Plants are palm-like or fern-like.

• Compound, frond-like pinnate leaves.

• Manoxylic wood.

• Sperms are motile.

• Flower like structures are absent. Strobili are simple.

* Most of the members of this group are extinct.

Example: Cycas, Zamia.

**Class II – Coniferopsida**

• Tall trees with simple leaves of varied shape. Form the luxurious dense coniferous forest in temperate regions.

• Wood is pycnoxylic.

• Cone like strobili are present.

• Motile sperms are absent (except Ginkgo biloba).

Example: Pinus, Podocarpus, Tsuga

**Class III – Gnetopsida**

• Shrubs, trees and lianas.

• Leaves are elliptical or strap-shaped, simple, opposite or whorled.

• Motile sperms are absent.

• Wood contains vessels.

• Strobili is called as inflorescence.

• Flower like structure with perianth is present. Almost similar to angiosperms except for naked ovules.

Example: Gnetum, Ephedra.