



**TAXONOMY OF Passiflora**

### TAXONOMY OF PASSIFLORA

Passifloraceae family takes its name from the most famous of its genera, the Passiflora, which may be taken as embodying the characteristics of the family in itself. The peculiar charm of these plants lies in the odd flowers, the parts of which were fancied by the early Spanish and Italian travellers to represent the implements of the crucifixion (whence both the technical and popular names). Legend and superstition have attached to these plants from the first. The ten coloured parts of the floral envelope were thought to represent the ten apostles present at crucifixion, Peter and Judas being absent. Inside the Corolla is a showy crown or corona of coloured filaments or fringes, taken to present the crown of thorns, or by some thought to be emblematic of the halo. The stamens are five, to some suggestive of the five wounds, by others thought to be emblematic of the hammers which were used to drive the three nails, the latter being represented by the three styles with capitate stigmas. The long axillary coiling tendrils represent the cords or the Scourges. The digitate leaves suggest the hands of the persecutors (Bailey, 1935).

The name of the genus is derived from the two latin words, *passio* - suffering and *flos* - a flower, whose flowers were a record of Christ's suffering (His passion) on the way to the cross.

Linnaeus (1751), in 'Philosophia Botanica' considered the Passiflora under the group cucurbitaceae. De Candolle (1813) has classified the passifloraceae under the division Dicotyledons, sub division Thalamiflorae, second cohort and then family. Taking into consideration De Candolle's system of classification Bentham and Hooker (1862) developed the artificial key for the classification of plants. The family was classified under the class - Dicotyledons, Group - polypetalae, Series - Caliciflorae, Cohort - passiflorales and family - passifloraceae. Engler (1892) in his 'Syllabus der pflanzenfamilien' considered the family 'Passifloraceae' in order Parietales. Bessey (1915) classified the same under order (Cohort) Guttiferales and family passifloraceae. He suggested the evolutionary trend from Ranales through Rosales. According to Hutchinson (1959), passifloraceae groups under order passiflorales. This order is probably derived from Bixales and showing close relationship with Flacourtiaceae (Hutchinson, 1959). Takhtajan (1969) positioned the family passifloraceae at the base of passiflorales.

Family passifloraceae consists of 12 genera, 4 of which are found in the new world, and the Passiflora is one of the important genus amongst them. It includes few small genera of the old world. Extremely complicated, frequently large and brightly coloured flowers of Passiflora have attracted several Botanists to the special study. The first extensive monograph of the family was published by

Cavanilles in 1790, 43 species being treated of which 32 were figured. The most extensive studies of the family were those made by Masters (1872), his monograph of the American species in 'Flora Brasiliensis' contained 202 species. Persoon (1807) recorded 3 genera Passiflora, Murucuja and Tacsonia. Killip (1938) has made remarkable survey of 365 species of the Passifloraceae treated under the genera Passiflora, Tetra-stylis, Mitostemma and Dilkea. Recent revision by Chakrawarty (1948) shows that Passifloraceae with 32 species under 2 genera - Passiflora (25 species) and Adenia (7 species). of the 25 species of Passiflora as many as 20 are introduced and some of them are naturalized or yet in a state of naturalization.

Synonyms of the genus Passiflora :

Because of the several local treatments, the complexity of some species, and the lack of sufficient material also resulted in the acceptance of too many names.

Granadilla (Tourn. Ex.Rupp.) Adans. Fam. 1763.

Giece Medik. Malvenfam. 1787.

Murucuja (Tourn.) Medik. (Loc.cit.)

Tacsonia Juss. Gen. 1789.

Erndelia Neck. Elem. 1790.

Distephana Juss. in Ann.Mus.Paris.1805.

Psilanthus Juss. (Loc.cit.)

Baldwinia Raf.in Amer.Monthly Mag. 1818.

- Astephananthes Bory, in Ann.Gen.Sci.Phys. 1819.
- Monactineirma Bory. (Loc.cit.)
- Anthactina Bory. (Loc.cit.)
- Polyanthea DC. in Mem.Soc.Phys.Geneve. 1822.
- Disemma Labill. Sert.Austro-caled. 1824.
- Distephia Salisb. ex.DC. prodr. 1828.
- Astrophea Rchb. Consp. 1828.
- Blephistelma Raf.Fl.Tellur. 1836.
- Macrophora Raf. (Loc.cit.)
- Meioperis Raf. (Loc.cit.)
- Tripsilina Raf. (Loc.cit.)
- Xeroqona Raf. (Loc.cit.)
- Peremis Raf. (Loc.cit.)
- Pericodia Raf. (Loc.cit.)
- Synactila Raf. (Loc.cit.)
- Odostelma Raf. (Loc.cit.)
- Distephania Stend.Nom.1840.
- Dysosmia Roem.Synops.Monogr. 1846.
- Pentaria Roem. (Loc.cit.)
- Decaloba Roem. (Loc.cit.)
- Distemma Lem.Fl.des serres. 1847.
- Roggendorffia Karst.Fl.Colomb.1859
- Cerafosepalum Oerst. Rech.Fl.Amer.Centr. 1863.
- Morphological description of Passiflora incarnata L.  
Sp.Pl. 1753.
- Synonyms :
- Granadilla incarnata Medik. Malvenfam. 1787.

Passiflora Kerri Soreng. Syst.Veg. 1826.

P.edulis Var. Kerri Mast. Trans.Linn.Soc. 1871.

Stem terete, glabrous or finely puberulous. Stipules setaceous, 2-3 cm. long, deciduous. Leaves 6-15 cm. long, 5-12 cm. broad, deeply 3-lobed,  $\pm$  cordate, finely serrate, 3-nerved, membranous; petiole 4-8 cm. long, biglandular at apex. Peduncles 6-10 cm. long, stout. Bracts spatulate or oblong, 4-7 mm. long, 2.5-4 mm. broad, minutely glandular - serrate towards apex, conspicuously biglandular at the base. Flowers 6-7 cm. in diameter. Calyx tube short - campanulate; Sepals lanceolate oblong, 2-3 cm. long, 7-10 cm. broad, white or lavender, obtuse, cuneate at apex, awn shaped, 2-3 mm. long. Petals  $\pm$  equal to sepal, obtuse, white or lavender. Coronal filaments many seriate, purple or pink, outer 2 series filiform, 1.5-2 cm. long, crispate at end; the next 3 series capillary,  $\pm$  2 mm. long; innermost series membranous at base, filamentose above,  $\pm$  4 mm. long, capitellate. Operculum membranous,  $\pm$  2 mm. long incurved fimbriate; nectar ring half way between gynophore and operculum; Limen cupuliform, closely surrounding the base of the gynophore. Ovary ovoid.

Distribution :

P. incarnata is distributed from Virginia to Missouri, South of Florida and Texas. In India it is cultivated in the gardens.