

Genus Datasheet

Datasheet No. A-377.037
(Family.Genus)

DBT- Network Programme

1. Genus: *Thunbergia* Retz.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Superasterids
- Clade: Asterids
- Order: Lamiales Bromhead
- Family: Acanthaceae Juss.
- Genus: *Thunbergia* Retz.

Bentham and Hooker (1862)

- Kingdom: Plantae
- Division: Phanerogamia
- Class: Dicotyledons
- Subclass: Gamopetalae
- Series: Bicarpellatae
- Cohors: Personales
- Ordo: Acanthaceae Juss.
- Genus: *Thunbergia* Retz.

3. Species:

Global:

India:

4. Taxonomic riddles:

5. Distribution:

Global: China (Guangdong, Guangxi, Hainan, Fujian), India (throughout), Vietnam, Laos, Myanmar [Burma] (Bago, Mandalay, Yangon), Costa Rica (introduced), Australia (introduced) (Queensland (introduced)), Java (introduced), Sri Lanka (introduced), Philippines (introduced), Panama (introduced), Belize (introduced), Paraguay (introduced), Nicaragua (introduced), Mexico (introduced), Guatemala (introduced), Seychelles (introduced), Gabon (introduced), Cameroon (introduced), Mozambique (introduced), Bioko Isl. (Fernando Poo) (introduced), Fiji (introduced), New Caledonia (introduced), Micronesia (introduced) (Pohnpei (introduced)), Singapore (introduced), Surinam (introduced), Ecuador (introduced), Palau Isl. (introduced) (Koror (introduced)), Society Isl. (introduced) (Tahiti (introduced), Tahaa (introduced)), Southern Marianas (introduced) (Guam (introduced)), Mauritius (introduced), Réunion (introduced), Madagascar (introduced), Cuba (introduced), Hispaniola (introduced), Jamaica (introduced), Puerto Rico (introduced), Virgin Isl. (introduced) (St. Croix (introduced), St. Thomas (introduced)), Lesser Antilles (introduced) (Dominica (introduced), Guadeloupe (introduced), Martinique (introduced), Saba (introduced), St. Lucia (introduced), St. Vincent (introduced)), Isla Margarita (introduced), naturalized in Puerto Rico (introduced), Hawaii (introduced) (Kauai (introduced), Oahu (introduced), East Maui (introduced), Hawaii Isl. (introduced)), USA (introduced) (Florida (introduced)), Colombia (introduced) (Antioquia (introduced), Atlántico (introduced), Bolívar (introduced), Chocó (introduced), Cundinamarca (introduced), Nariño (introduced), Valle (introduced)), Bolivia (introduced), Honduras (introduced), Trinidad & Tobago (introduced)

India: Central India, West Bengal, North-Eastern India, Maharashtra, Kerala and Tamil Nadu

6. Habit and Habitat: Climber. Found in evergreen forest, moist deciduous forest, in plains and hills, and in garden

7. Economic Importance: Ornamental

8. DNA content range:

Methodology:

2C

4C

9. Basic chromosome number(s): $x=14$ ¹¹

10. Zygotic chromosome number (s): $2n=18$ ¹, $2n=16$ ^{8, 9}, $2n=20$ ^{7, 8}, $2n=48$ ¹⁵, $2n=56$ ¹⁵, $2n=60$ ¹⁰, $2n=64$ ¹²

11. Gametic chromosome number (s): $n=9$ ^{1, 2, 3, 4, 5}, $n=10$ ^{7, 8}, $n=14$ ¹⁶, $n=24$ ¹⁵, $n=28$ ^{2, 4, 13}, $n=31$ ¹¹

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/ Neoc chromosomes):

13. Ploidy level: Tetraploid¹¹

14. Nature of polyploidy (auto, segmental, allo, autoallo):

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

16. Karyograms:

Meiosis:

17. Banding pattern(s):

18. Physical mapping of chromosomes:

GISH:

19. Phylogenetic relationship at Chromosomal; DNA level:

20. Cytogenetic mechanism (s) underlying evolution: Genetic complexity in the genus *Thunbergia* accompanied by a large variation in chromosome number ranging from $2n=16$ ^{8, 9} in *Thunbergia* to $2n=18$ ¹ in *Thunbergia alatata* $2n=64$ ¹² also reported in *Thunbergia erecta*. As reported count of $2n=60$ ¹⁰, $2n=62$ ¹¹, $2n=64$ ¹² in the species *Thunbergia erecta* with a gametic chromosome number of $n=31$ reported by Sareen and Sanjukta (1976) suggest the existence of tetraploidy with $x=14$ number.

21. Any other information:

