

Genus Datasheet

Datasheet No. A-377.027
(Family: Genus)

DBT- Network Programme

1. Genus: *Lepidagathis* Willd.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Asterids
- Order: Lamiales
- Family: Acanthaceae Juss.
- Genus: *Lepidagathis* Willd.

Bentham and Hooker (1862)

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

3. Species:

Global: 71

India: 24

4. Taxonomic riddles:

5. Distribution:

Global: China, Myanmar, India, Pakistan, Thailand, Philippines, Malaysia, Nepal, Namibia, Yemen, Uganda, Kenya, Tanzania, Nigeria, Cameroon, Somalia

India: North-East India, Punjab, West Bengal, Peninsular India

6. Habit and Habitat: Erect herb or shrub, found in tropical to sub-tropical forests.

7. Economic Importance: *L. cristata* is reported to have immunosuppressant activity, *L. subarmata* leaf extract is used for especially malarial fever. Leaf extract is also used to clean the cattle in rainy season and for skin itchy affection, burns and wounds. And *L. keralensis* used as a source of natural antioxidant.

8. DNA content range:

Methodology:

2C

4C

9. Basic chromosome number(s):

10. Zygotic chromosome number (s): $2n=22^{1, 8, 9, 10}$, $2n=20^{4, 5}$

11. Gametic chromosome number (s): $n=11^{1, 2, 3, 9}$, $n=10^{4, 5, 6}$, $n=12^{6, 11}$, $n=22^7$, $n=42^{2, 12}$

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

13. Ploidy level: Diploid¹, Tetraploidy¹

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

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

16. Karyograms:

17. Banding pattern(s):

18. Physical mapping of chromosomes:

GISH:

19. Phylogenetic relationship at Chromosomal; DNA level: Chromosomal level^{1, 2, 3, 4, 5, 4, 6, 7, 8}

20. Cytogenetic mechanism (s) underlying evolution: In terms of chromosome number, there are at both the somatic and gametic level. Although somatic chromosome numbers were reported most species^{1, 8, 9, 10}, $2n=20$ was also reported in *Lepidagathis incurva*^{4, 5}. However, gametic number was reported to be $n=11^{1, 2, 3, 9}$, $n=10^{4, 5, 6}$, $n=12^{6, 11}$, $n=22^7$, $n=42^{1, 2, 12}$. *n* *Lepidagathis purpuricaulis*^{2, 12} and in *L. incurva* var. *mollis*¹ Nees is one of the high number reported in Acanthaceae for the gametic chromosome number which suggest the tet

21. Linkage map:

22. Any other information: