Genus Datasheet

Datasheet No. A-061.073 **DBT- Network Programme**
(Family.Genus)

1. Genus:*Platanthera* Rich.

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angisperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Orchidaceae Juss.
- Subfamily: Orchidoideae
- Tribe: Orchideae
- Subtribe: Orchidinae
- Genus: *Platanthera* Rich.

3. Species:

Global: 144

India: 14

4. Taxonomic riddles:

5. Distribution:

Global: Alabama, Alaska, Albania, Alberta, Algeria, Altay, Amur, Arizona, Arkansas, Assam, Austria, Azores, Baleares, Baltic States, Belarus, Belgium, Bismarck Archipelago, Borneo, British Columbia, Bulgaria, Buryatiya, California, Central European Rus, China North-Central, China South-Central, China Southeast, Chita, Colorado, Connecticut, Corse, Costa Rica, Cuba, Cyprus, Czechoslovakia, Delaware, Denmark, District of Columbia, East Aegean Is., East European Russia, East Himalaya, Finland, Florida, France, Føroyar, Georgia, Germany, Great Britain, Greece, Greenland, Hainan, Hungary, Iceland, Idaho, Illinois, Indiana, Inner Mongolia, Iowa, Iran, Iraq, Ireland, Irkutsk, Italy, Japan, Jawa, Kamchatka, Kansas, Kazakhstan, Kentucky, Khabarovsk, Kirgizstan, Korea, Krasnoyarsk, Krym, Kuril Is., Labrador, Lebanon-Syria, Louisiana, Magadan, Maine, Malaya, Maluku, Manchuria, Manitoba, Maryland, Massachusetts, Mexico Central, Mexico Gulf, Mexico Northeast, Mexico Northwest, Mexico Southwest, Michigan, Minnesota, Mississippi, Missouri, Mongolia, Montana, Morocco, Myanmar, Nansei-shoto, Nebraska, Nepal, Netherlands, Nevada, New Brunswick, New Guinea, New Hampshire, New Jersey, New Mexico, New York, Newfoundland, North Carolina, North Caucasus, North Dakota, North European Russi, Northwest European R, Northwest Territorie, Norway, Nova Scotia, Nunavut, Ogasawara-shoto, Ohio,

Oklahoma, Ontario, Oregon, Palestine, Pennsylvania, Phil
Portugal, Primorye, Prince Edward I., Qinghai, Québec, Rhc
Sakhalin, Sardegna, Saskatchewan, Sicilia, South Carolina,
South European Russi, Spain, Sumatera, Sweden, Switz
Tennessee, Texas, Thailand, Tibet, Transcaucasus, Tunisia, Tu
Europe, Tuva, Ukraine, Utah, Vermont, Vietnam, Virginia, W
Himalaya, West Siberia, West Virginia, Wisconsin, Wyo
Yakutskiya, Yugoslavia, Yukon

India: Himachal Pradesh, Nagaland, Sikkim, Uttarakhand, Arunachal Prades
Assam

6. Habit and Habitat: Terrestrial tuberous herb

7.Economic Importance: Medicinal

8. DNA content range: 2C (15.38 pg) [19]

Methodology Feulgen microdensitometry[19]

9. Basic chromosome number(s): x=19[20], 21[1, 8, 9, 10, 11, 12,14, 15, 16,17, 18, 19, 22, 24, 25, 26, 27, 2
22[7, 8, 14, 21, 27],
23 [17,18, 22, 27, 28],
24[8, 15, 16, 18, 27]

10. Zygotic chromosome number(s): 2n=38[20], 42[1, 2, 8, 10, 11, 12, 15, 16, 17, 18, 19, 22, 26, 27, 28, 2
44 [7, 8, 14, 21, 27], 46[17, 18], 48[8, 15, 16, 18, 27], 84[6,8, 13, 15, 18, 23, 26, 27]

11. Gametic chromosome number(s): n=21[1, 2, 7, 8, 9, 12,14, 15,17, 18, 22, 24, 25, 26, 27, 29],
22[21], 23[17, 22, 27, 28], 42[7, 8, 13, 15, 22, 23, 26, 27]

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene Chromosomes/

13. Ploidy level Diploid 1, 2,[7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20,21, 22, 24, 25, 26, 27, 28, 29],

Tetraploid [6, 7, 8, 13, 15, 18, 22, 23, 26, 27]

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

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

16. Karyograms: [7, 8, 15]

Meiosis:[7, 8, 15,22]

17. Banding pattern(s):

18. Physical mapping of chromosomes:

GISH:

19.Phylogenetic relationship atChromosomal; DNAlevel:

Freudenstein JV, Chase MW 2015 Phylogenetic relationships in Epidendroideae (Orchidaceae) flowering plant radiations: progressive specialization and diversification. Annals of Botany 115:

Jin WT, Jin XH, Schuitman A, Li DZ, Xiang XH, Huang WC, Huang LQ 2014. Molecular syste Orchidinae (Orchideae, Orchidaceae) based on matK, rbcL and nuclear ITS. Molecular Phyloge Evolution 77: 41-53

Bateman RM, Hollingsworth PM, Preston J, Yi Bao L, Pridgeon AM, Chase MW 2003 Molecul and evolution of Orchidineae and selected Habenariinae (Orchidaceae) Botanical Journal of Lin 142: 1-40

22. Any other information: