

Datasheet No. A-061.014.015
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Calanthe puberula* Lindl.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms: *Calanthe amoena* W.W.Sm., *Calanthe lepida* W.W.Sm., *Calanthe okushirensis* Miyabe & Tatew., *Calanthe puberula* var. *formosana* (Murata) M.Hiroe, *Calanthe puberula* var. *okushirensis* (Miyabe & Tatew.) M.Hiroe, *Calanthe puberula* var. *reflexa* (Maxim.) M.Hiroe, *Calanthe reflexa* Maxim., *Calanthe similis* Schltr., *Paracalanthe reflexa* (Maxim.) Kudô

3.Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Asparagales Link
- Family: Orchidaceae Juss.
- Subfamily: Epidendroideae
- Tribe: Collabieae
- Genus: *Calanthe* R.Br.
- Species: *Calanthe puberula* Lindl.

Bentham and Hooker(1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledonae
Series: Microspermae
Ordo: Orchideae
Tribus: Epidendreae
Subtribus: Blettieae
Genus: *Calanthe* R.Br.
Species: *Calanthe puberula* Lindl.

4.Distribution:

Global: Western Himalayas, the eastern Himalayas, Assam, Nepal, Bangladesh, Thailand, southeast Xizang and southeast and western Yunnan provinces of China as well as Vietnam

India: Western and Eastern Himalayas 1200-3000m

5.Indigenous/Exotic/Endemic;Cultivated/Wild: Indigenous, wild

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat: Terrestrial, grows in humus rich soil in thick forests in high rainfall areas; in moist evergreen broad leaved forests at elevations of 1200 to 3000 m

8.Life Form: Cryptophytes

9.Economic Importance: Ornamental, Medicinal, rhizome dry powder with milk taken as tonic

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=20^{6, 11, 12, 16, 17, 23}, 21^{21}$

13. Zygotic chromosome number(s): $2n=40^{16}, 40+1B^{6, 11, 12}, 42^{21}$

14. Gametic chromosome number(s): $n=20^{16, 17, 23}$

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes): $1B^{6, 11, 12}$

Image file

16.Ploidylevel:Diploid $^{6, 11, 12, 16, 17, 21, 23}$

Image file

17.Agametoploidy:

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

19.Genomic formula:

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

21.Somatic chromosomes: $^{6, 11, 12}$

KaryotypeMedian, submedian, 4 subterminal pairs $^{6, 11, 12}$

Chromosome sizeSmall $^{6, 11, 12}$

NOR chromosome(s)

Degree of asymmetryModerately asymmetrica $^{6, 11, 12}$

Image file

22. Banding pattern(s):

Image file

23.Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization:

Image file

24.Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26.Chromosome associations:

Female meiosis

Male meiosis2011^{17, 23}

Image file

27.Chromosome distribution at anaphase I:20% abnormal tetrads observed^{17, 23}

28. Genetic diversity:

Chromosomal level

Image file

DNA level

**29.Any other information (Apomixis; Inversion; Male sterility;Pollen grain mitosis;
Pollen stainability;Translocationsetc.):**