

Final Species Datasheet JamU+CalU+SUK-Phase I

Datasheet No. A-416.009.019
(family.genus.species)

DBT- Network Programme

1. Taxon:

Species: *Bupleurum longicaule* Wall. ex DC.

Subspecies

Variety

Cultivar

Hybrid

Image file

2. Synonyms: *Bupleurum hazaricum* Nasir, *B. himalayense* Klotzsch, *B. longicaule* f. *obtusiusculum* Nasir, *B. longicaule* var. *clarkeanum* H.Wolff, *B. longicaule* var. *dalhousieanum* C.B.Clarke, *B. longicaule* var. *hazaricum* (Nasir) Nasir, *B. longicaule* var. *himalayense* (Klotzsch) C.B.Clarke, *B. longicaule* var. *longicaule*, *B. longicaule* var. *ramosum* Nasir, *B. longicaule* var. *strictum* C.B.Clarke, *B. longicaule* var. *tibeticum* H.Wolff, *B. rupestre* Edgew.

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicot
- Clade: Asterids
- Clade: Campanulids
- Order: Apiales Nakai
- Family: Apiaceae Lindl.
- Genus: *Bupleurum* L.
- Species: *B. longicaule* Wall. ex DC.

Bentham and Hooker (1862)

- Kingdom: Plantae
- Division: Phanerogamia
- Class: Dicotyledons
- Subclass: Polypetalae
- Series: Calyciflorae
- Cohors: Umbellales
- Ordo: Umbelliferae Juss.
- Genus: *Bupleurum* L.
- Species: *B. longicaule* Wall. ex DC.

4. Distribution:

Global: India, Pakistan, Nepal

India: Himalaya

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

6. Threat Status:

IUCN

BSI

7. Habit and Habitat: Herb; Forests, grassy places on mountain slopes at 1000-4000 meters

8. Life Form:Hemicryptophyte

9. Economic Importance:Used in medicine

10. Probable Progenitor of:

11. DNA

C-value

Methodology

4C (11.225 ± 0.001 pg)²

Feulgen cytophoto-densitometry²

4C (12.276 ±0.004 pg)²

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): 2n=16^{2,8,14}

14. Gametic chromosome number(s):n=7¹⁴;n=8⁷

15. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/Neocentric chromosomes):

Image file

16. Ploidy level:Diploid⁷

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:

Karyotype: Majority metacentric chromosomes²

Chromosome size: 18.14±0.11µm²;25.88±0.07µm²

NOR chromosome(s): 2NOR²;6NOR²

Degree of asymmetry

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 meiosis

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability; Translocation etc): Pollen fertility = 98%⁷