

Species Datasheet

DBT- Network Programme

Datasheet No. A-140.002.014
(family.genus.species)

1. Taxon:

Species: *Vignaluteola* (Jacq.) Benth.

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file:

2. Synonyms: *Calopogonium pendunculatum* Standl., *Dolichos gangeticus* Roxb., *D. luteolus* Jacq., *D. niloticus* Delile, *D. repens* L., *Orobustrioliatus* Sesse & Moc., *Phaseolus luteolus* (Jacq.) Gagnep., *P. maritimus* Hassk., *Scytalishelicopus* E. Mey., *Vignabrachystachys* Benth., *V. bukobensis* Harms, *V. fischeri* Harms, *V. glabra* Savi, *V. helicopus* (E. Mey.) Walp., *V. jaegeri* Harms, *V. longepedunculata* Taub., *V. luteola* var. *luteola*, *V. marina* (Burm.) Merr. subsp. *oblonga* Padulosi, *V. nigerica* A. Chev., *V. nilotica* (Delile) Hook. f., *V. oblonga* Hook. f., *V. repens* (L.) Kuntze, *V. repens* Baker, *V. repens* var. *luteola* (Jacq.) Kuntze, *V. villosa* Savi

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: Fabales Bromhead
- Family: Fabaceae Lindl.
- Subfamily: Faboideae Rudd
- Genus: *Vigna* Savi
- Species: *V. luteola* (Jacq.) Benth.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: Leguminosae Juss.
Subordo: Papilionaceae Giseke
Genus: *Vigna* Savi
Species: *V. luteola* (Jacq.) Benth.

4. Distribution:

Global: Africa, Argentina, Bangladesh, Burma, China, Costa Rica, Guatemala, India, Israel, Kenya, Mozambique, Sudan, Sri Lanka, Tanzania, Uganda, USA, Vietnam, Zaire, Zambia

India: Andaman Islands, West Bengal

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Twining herb; swampy grasslands, among reeds on sandy lake shores

8. Life Form: Therophytes

9. Economic Importance:Fodder

10. Probable Progenitor of:

11. DNA

C-value

Methodology

12. Basic chromosome number(s):

13. Zygotic chromosome number(s): $2n=22$ ^{11,27,28,32,34,74}

14. Gametic chromosome number(s): $n=11$ ⁴

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

Image file

16. Ploidy level: Diploid ^{11,27,28,32,34,74}

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: ^{27,34,74}

Karyotype Majority metacentric chromosomes

Chromosome size Small

NOR chromosome(s) 2

Degree of asymmetry Symmetrical

Image file

22. Banding pattern(s):C-banding ²⁸

Image file

23. Physical mapping of chromosomes:

In situ hybridization: Ty1-copia-like Retrotransposable Elements ³²

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: 11II⁴

Image file

27. Chromosome distribution at anaphase I: 11:11⁴

28. Genetic diversity:

Chromosomal level³⁴

DNA level⁷⁵

29. Any other information (Apoixis; Inversion; Male sterility; Pollen grain mitosis;

Pollen stainability; Translocations etc.): Pollen stainability: 82-99%⁴