Datasheet No. G-004.001.001 (family.genus.species)

1.Taxon:

Species: *Welwitschiamirabilis*Hook.f. Subspecies: Variety: Cultivar: Hybrid:

Image file

2. Synonyms: Tumboabainesii Hook. f., T. strobilifera Welw.ex Hook. f., Welwitschia mirabilis subsp. Mirabilis

3.Systematic Position:

- Christenhusz et al. (2011)
- Class: Equisetopsida C. Agardh
- Subclass: GnetidaePax
- Order: WelwitschialesSkottsb. ex Reveal,
- Family: WelwitschiaceaeCaruel
- Genus: *Welwitschia*Hook.f.
- Species: *W. mirabilis* Hook.f.

4.Distribution:

Global: Native to Angola to Namibia

India: National Botanical Garden NBRI, Lucknow, Uttar Pradesh

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

6.ThreatStatus:

IUCN:

BSI:

7.Habit and Habitat:Dwarfunbranched tree or shrub. The area is extremely arid, receiving no rainfall in some years and averaging fewer than 100 mm per year. Most specimens are found within 80 km of the coast in a fog belt, suggesting that the fog is an important moisture source

Bentham and Hooker (1880)

Kingdom: Plantae Division:Phanerogamia Class: Gymnospermeae Ordo: GnetaceaeBlume Genus: *Welwitschia*Hook.f. Species:*W. mirabilis*Hook.f.

8.LifeForm:Phanerophytes

9.EconomicImportance: The core, especially of the female plant, was used as food for people in earlier times. It is said to be very tasty either raw or baked in hot ashes, and this is how it got its Herero name, onyanga, which means onion of the desert.

10. Probable Progenitor of:

11.DNA	
C-valueMethodology	
2C (14.40 pg) ⁵	Feulgenmicrodensitometry ⁵
2C (13.10 pg) ⁶	Flow cytometry ⁶

12.Basic chromosome number(s):x=21^{2,3,4}

- **13. Zygotic chromosome number(s):**2n=42^{2,3,4}
- **14. Gametic chromosome number(s):**n=21^{2.3.4}

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene

chromosomes/Neocentric chromosomes):

Image file

16.Ploidy level:Diploid^{2,3,4}

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:^{3,4}

Karyotype :All the chromosomes are with terminal centromere. The longest chromosome is 3.25 times longer than the shortest. The other chromosomes show gradual transition between this range^{3,4}

Chromosome sizeLarge^{3,4} NOR chromosome(s): 2 ^{3,4}

Degree of asymmetry: Highly asymmetrical ^{3,4}

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. Genomicinsituhybridization:

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 level¹

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