

# Ephedra przewalskii

LC

Taxonomic Authority: Stapf

Global Assessment  Regional Assessment

Region: Global

Endemic to region

## Synonyms

*Ephedra przewalskii* (Fedtsch. & Bobr.) C. Y. Cheng

## Common Names

MO GUO MA HUANG Chinese

## Upper Level Taxonomy

Kingdom: PLANTAE

Phylum: TRACHEOPHYTA

Class: GNETOPSIDA

Order: EPHEDRALES

Family: EPHEDRACEAE

## Lower Level Taxonomy

Rank:

Infra-rank name:

Plant Hybrid

Subpopulation:

Authority:

## General Information

### Distribution

Distributed across central Asia from Mongolia to Pakistan.

### Range Size

Area of Occupancy:

Extent of Occurrence:

Map Status:

### Elevation

Upper limit: 3800

Lower limit: 300

### Depth

Upper limit:

Lower limit:

### Depth Zones

Shallow photic  Bathyl  Hadal

Photic  Abyssal

### Biogeographic Realm

Afrotropical

Antarctic

Australasian

Neotropical

Oceanian

Palearctic

Indomalayan

Nearctic

### Population

Population size is not known, but recorded as sub-dominant or dominant in areas (Freitag & Maier-Stolte 1994).

### Total Population Size

Minimum Population Size:

Maximum Population Size:

### Habitat and Ecology

Shrub, found in dry, sandy places, stabilised sand, gravelly plains and stony slopes. In lowland parts of the range it can be associated with xerohalophytes and gypsophytes such as *Salsola arbusculiformis*, *Anabasis truncata*, *Arthrophytum betpakdalense*, *Nanophytum erinaceum* and *Haloxylon ammodendron*. In sandy areas it can be associated with *Haloxylon persicum* (Freitag & Maier-Stolte 1994)

### System

Terrestrial  Freshwater

Marine

### Movement pattern

Nomadic  Congregatory/Dispersive

Migratory  Altitudinally migrant

### Crop Wild Relative

Is the species a wild relative of a crop?

| <u>Growth From</u> | <u>Definition</u>                                       |
|--------------------|---|
| Shrub - large      | Perennial shrub (>1m), also termed a Phanerophyte (>1m) |

### Threats

There are no major threats.

|         | <u>Past</u>                         | <u>Present</u>                      | <u>Future</u>                       |
|---------|-------------------------------------|-------------------------------------|-------------------------------------|
| 13 None | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

### Conservation Measures

Samples have been collected for ex situ conservation as part of the Millennium Seed Bank project and two collections are known from botanic gardens. Across its range *E. Przewalskii* occurs in many protected areas.

|                                  | <u>In Place</u>                     | <u>Needed</u>                       |
|----------------------------------|-------------------------------------|-------------------------------------|
| 3 Research actions               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3.2 Population numbers and range | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3.5 Threats                      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3.6 Uses and harvest levels      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3.9 Trends/Monitoring            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5 Species-based actions          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5.7 Ex situ conservation actions | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5.7.2 Genome resource bank       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

### Countries of Occurrence

|            | <u>PRESENCE</u>                     |                          |                          |                          |                          |                          |                          | <u>ORIGIN</u>                       |                          |                          |                          |                          |
|------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|            | Year Round                          | Breeding Season only     | Non-breeding season only | Passage migrant          | Possibly extinct         | Extinct                  | Presence uncertain       | Native                              | Introduced               | Re-Introduced            | Vagrant                  | Origin uncertain         |
| China      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Kazakhstan | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Kyrgyzstan | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mongolia   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pakistan   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tajikistan | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Uzbekistan | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### General Habitats

|                        | <u>Score</u> | <u>Description</u> | <u>Major Importance</u> |
|------------------------|--------------|--------------------|-------------------------|
| 8 Desert               | 1            | Suitable           | Unset                   |
| 8.2 Desert - Temperate | 1            | Suitable           | Unset                   |

### Ecosystem Services

- Insufficient Information available       Species provides no ecosystem services

Score according to relative importance where 1 = very important, 2 = important, 3 = some importance, 4 = not important/relevant and 5 = not known.

Ecosystem service      Score (from 1 to 5)      Geographic range over which benefits are felt?

Water Quality



## Value to Livelihoods

Proportion (%) of total population benefiting from this product: Not known

Proportion (%) of household consumption (if dietary as a % of protein/carbohydrate) for this product: Not known

Proportion (as a %) of household income for this product: Not known

Value to Economy Annual cash income from this product - gross (in US\$): Not known

## IUCN Red Listing

Red List Assessment: (using 2001 IUCN system) Least Concern (LC)

Red List Criteria:

Date Last Seen (only for EX, EW or Possibly EX species):

Is the species Possibly Extinct?  Possibly Extinct Candidate?

### Rationale for the Red List Assessment

Distributed across a large range in central Asia and becoming dominant in areas. As there are no major threats the species is considered stable.

Reason(s) for Change in Red List Category from the Previous Assessment:

- Genuine Change
  - Genuine (recent)
  - Genuine (since first assessment)
- Nongenuine Change
  - New information
  - Knowledge of Criteria
  - Incorrect data used previously
- Taxonomy
- Criteria Revisio
- Other
- No Change
  - Same category and criteria
  - Same category but change in criteria

Current Population Trend: Stable

Date of Assessment: 20/09/2010

Name(s) of the Assessor(s): A.Bell & S.Bachman

Evaluator(s):

Notes:

% population decline in the past:

Time period over which the past decline has been measured for applying Criterion A or C1 (in years or generations):

% population decline in the future:

Time period over which the future decline has been measured for applying Criterion A or C1 (in years or generations):

Number of Locations:

Severely Fragmented:

Number of Mature Individuals:

## Bibliography

Freitag, H. & Maier-Stolte, M., 1994, Ephedraceae, Chorology of the trees and shrubs in south-west Asia and adjacent regions, Browicz, K., , ,

Plants for a Future, 1996-2010, Plants For A Future, Earth, Plants, People., , ,

RBG Kew, 2009, World Checklist of Selected Plant Families, , Published on the Internet; <http://www.kew.org/wcsp/>,