

Arid vegetation species in Xinjiang in Northwest China

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- ◆ There are more than 1160 arid vegetation species in China.
- ◆ Turpan Eremophytes Botanical Garden(TEBG) has collected more than 700 arid vegetation species now, occupy 60 % arid vegetation of China. TEBG is called "Bank of desert plant".
- ◆ TEBG belongs to Xinjiang Institute of Ecology and Geography, CAS.
- ◆ TEBG joined to Botanic Gardens Conservation International(BGCI) in 1994.
- ◆ TEBG is not only a 3A scenic spot but also a popular science educational bases.

Turpan Eremophytes Botanical Garden

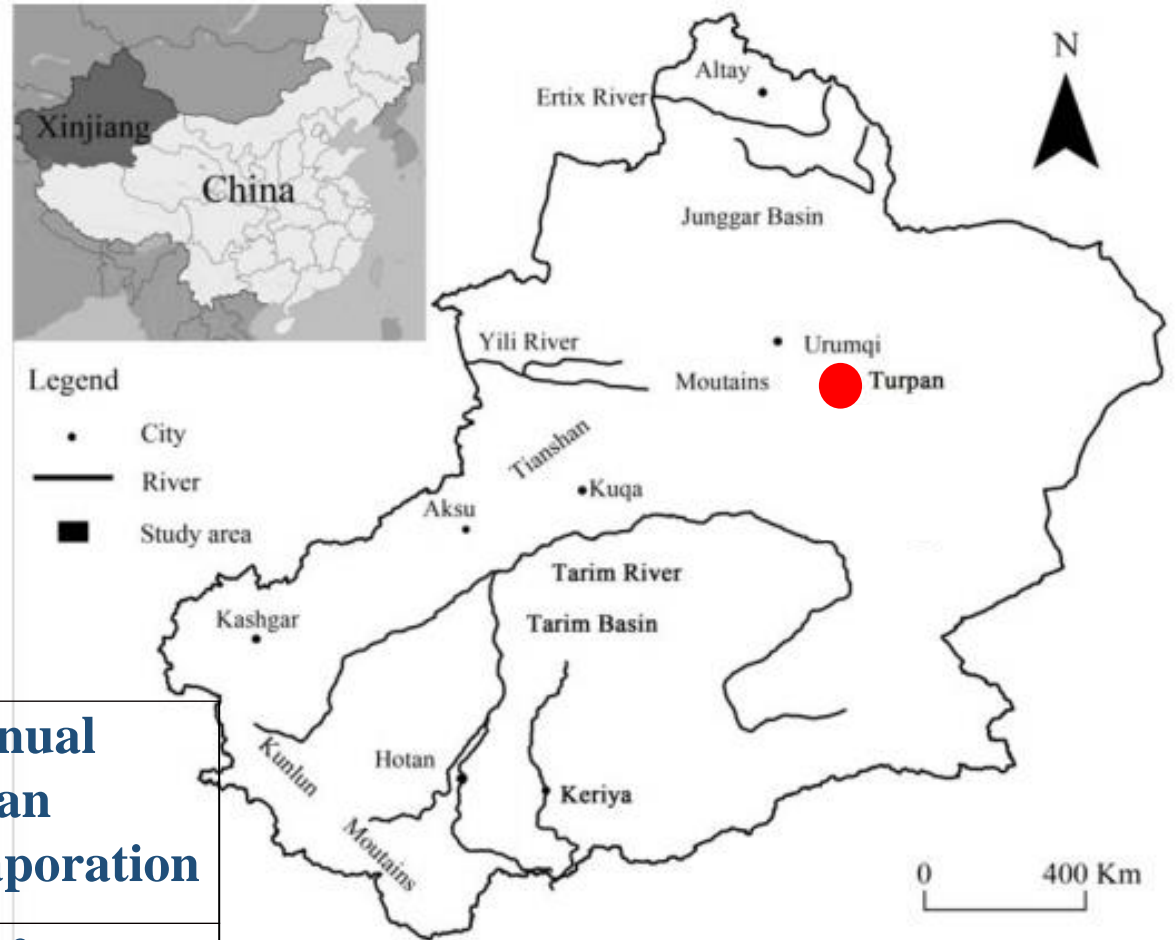
- ◆ TEBG was built in 1976.
- ◆ TEBG is the largest eremophytes botanical garden in China, the area is 150ha.
- ◆ TEBG is the lowest eremophytes botanical garden in the world.



Location

◆ Turpan Eremophytes Botanical Garden (TEBG) in Turpan of eastern Xinjiang in China ($42^{\circ} 51'52.5''N$, $89^{\circ} 11'06.8''E$; 75-80 m below sea level).

◆ The climate is characterized by low rainfall, high evaporation, high temperatures and dry winds.



Annual mean temperature	Minimum temperature	Maximum temperature	Annual mean precipitation	Annual mean evaporation
13.9° C	-28.0° C	47.6° C	16.4mm	3000mm

◆ There are 9 Specific Categorized Plants Gardens in TEBG.

- National Medicinal Botanical Garden
- Ornamental Garden
- Rare & Endangered Species Botany
- Saline Desert Botany
- Tamaricaceae
- *Calligonum* L.
- Energy Plant Area
- Desert Economic Plant
- Arid Land Vineyard

- ◆ National Medicinal Botanical Garden was built in 1992, and covers an area of 0.5ha
- ◆ It has collected more than 60 medicinal vegetation species
- ◆ The species contain Uygur herbs, Kazakhstan herbs, Mongolia herbs and so on



Capparis spinosa L.
(Capparaceae)



Glycyrrhiza uralensis Fisch.
(Leguminosae)

Lycium barbarum L.
(Solanaceae)



- ◆ Ornamental Garden was built in 1997, and covers an area of 1.0ha
- ◆ There are more than 1000 arid ornamental vegetation species in China. Ornamental Garden collects more than 100 species



Ammopiptanthus nanus (M. Pop.) Cheng f.
(Leguminosae)

Ornamental Garden



Iris tenuifolia Pall.
(Iridaceae)

Dianthus chinensis L.
(Caryophylliaceae)



Salvia deserta Schang.
(Labiatae)



Rare & Endangered Species Botany

- ◆ The area is 6.0ha
- ◆ More than 100 arid vegetation species are conserved here



Ammodendron bifolium
(Pall.) Yakovl.
(Leguminosae)



Kalidium schrenkianum Bge.
(Chenopodiaceae)



Kalidium cuspidatum (Ung.-Sternb.) Grub.
(Chenopodiaceae)



- ◆ The area of Saline Desert Botany is 1.0ha
- ◆ Artificially controlling soil water and salt conditions
- ◆ It has conserved more than 20 saline desert species

Calligonum L.

- ◆ The area is 10.45ha
- ◆ It has successfully introduced 23 species
- ◆ The fruits of them have different characteristics, they are good sand-fixation and highly ornamental plants



Calligonum ebinuricum N. A. Ivanova ex Soskov
(Polygonaceae)

Calligonum L.

Calligonum rubicundum Bunge
(Polygonaceae)



Calligonum caput-medusae Schrenk
(Polygonaceae)



Calligonum cordatum Eug.Kor.
(Polygonaceae)

Tamaricaceae



- ◆ Tamaricaceae specialized garden was built 1992, and covers an area of 2.0ha
- ◆ There are 3 generas, 20 species are conserved here, the number of species occupy 50 % of China
- ◆ Plant resources of Tamaricaceae here is the most in the word

Tamarix leptostachys Bge.
(Tamaricaceae)

Tamaricaceae



Tamarix elongate Ledeb.
(Tamaricaceae)



Tamarix tarimensis P. Y. Zhang
et M. T. Liu
(Tamaricaceae)



Tamarix gracilis Willd.
(Tamaricaceae)

- ◆ Desert Economic Plant Garden was built in 1992, and covers an area of 1.2ha
- ◆ There are 13 families, 28 generas, 93 wild fruit tree species in Xinjiang, and nearly 60 species are desert wild plants
- ◆ This garden has introduced 30 species

Armeniaca vulgaris Lam.
(Rosaceae)



Desert Economic Plant



Elaeagnus oxycarpa Schlechtend.
(Elaeagnaceae)



Punica granatum L.
(Punicaceae)



Nursery garden



Populus euphratica Oliv.
(Salicaceae)

- ◆ **TEBG conserves northwest desert plant germplasm resources in arid lands of China, spread to Central Asia, tropical, subtropics.**
- ◆ **TEBG resolves the ex-situ conservation of rare and endangered species, the efficient utilization of advantage plant resources.**
- ◆ **TEBG provides a good platform for scientific research.**

Thank you for your attention!

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