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PROJECT ON *EX SITU* CULTIVATION OF THE TEMPERATE ARID PLANTS FROM XINJIANG PROVINCE, CHINA (*COMMUNICATION*)

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In 1999 the Prague Botanical Garden has signed draft mutual cooperation agreement with Xinjiang Institute of Ecology and Geography and Turpan Botanical Garden (which is part of it). On September 29 – October 31, 2003 in the framework of this cooperation, supported by grant "Kontakt M620" of the Ministry of Education of the Czech Republic, has been organized an expedition to China Xinjiang Province.

The goal of project was to carry on *ex situ* conservation of genetic diversity of the Middle Asia desert plants and later their exposition in the Prague Botanical Garden, through introduction of selected genera of plants, especially genera *Athraphaxis (Polygonaceae), Calligonum (Polygonaceae), Caragana (Fabaceae), Ceratoides (Chenopodiaceae), Cynanchum (Asclepiadaceae), Ephedra (Ephedraceae), Halodendron (Fabaceae), Haloxylon (Chenopodiaceae), Hexinia (Asteraceae), Karelinia (Asteraceae), Nitraria (Rutaceae)* and *Zygophyllum* (Mijt Hudaberdi, Xue Jianguo 2000).

We included also methods for desert plants growing and propagation used in the Turpan Botanical Garden.

Expeditional collections are only one possibility to obtain plants which are not yet in plantation. We specialized in the genus *Tamarix* (Fig. 1). Namely of this genus are in

Fig. 1. Old solitary tree *Populus eupharatica* in Central Taklamakan Desert.

the Czech Republic only 3 among approximately 80 well-known species planted and about 20 of them could be grown in our climatic conditions. It is a pity because these plants are attractive shrub species. Important is their resistance to adverse natural conditions like salination, dry air, extremely high temperatures, that predetermines them as promising tree species for extremal city areas load. In Xinjiang dependency grow about 12 species of tamarisk, some as *Tamarix taklamakensis* which are critically endangered (Fu Likuo, Hong Tao 2003). All of them are planted out in the Turpan Botanical Garden from where we have obtained woody cuttings. Except these cuttings during expedition we collected 10 unknown specimens. Their taxonomic classification will be possible after their flowering, i.e. in the next 2–3 years.

We collected also 3 species of genus *Myricaria*. Most of species grow on river gravel deposit, therefore they are difficult to grow in culture. Attractive species *M. elegans*, that grows on steep or wasteland slope, is a perspective plant for garden culture. The leaves are relatively long (about 0,5 cm) and turn red in autumn.

Among locally in the province endangered critically species have been introduced into our garden *Ammopiptanthus mongolicus* and *A. nanus*, decorative evergreen shrubs of family *Fabaceae* and poplars *Populus euphratica* and *P. pruinosa* (Fig. 2 & 3).

In the time of expedition we also visited and collected plants in Tian Shan and Kunlun Mountains, some of them as *Christolea flabellata (Brassicaceae)* are rare in cultivation. A part of seeds among 158 collected during our expedition have been given to offer in our *Index Seminum*.

REFERENCES

Mijit Hudaberdi, Xue Jianguo (edit.) 2000. Claves Plantarum Xinjiangensis. Public House Xinjiang University.

Fu Likuo et Hong Tao (edit.) 2003. Higher Plants of China, vol. 5: *Tamaricaceae*. Qingdao Publishing House, pp. 174-188.

Fig. 2. Callow poplar *Populus euphratica* "Forest" in Cenral Taklamakan Desert.

Table 1. List of determinated plants from family *Tamaricaceae* cultivated in Prague Botanical Garden

Species	Origin
Myricaria bracteata	China, Hebei
Myricaria bracteata	China, Xinjiang
Myricaria elegans	China, Xinjiang
Myricaria germanica	Czech
Myricaria germanica	Turkey
Myricaria prostrata	China, Xinjiang
Reamuria soongarica	China, Xinjiang
Tamarix arceuthoides	China, Xinjiang
Tamarix austromongolica	China, Xinjiang
Tamarix gansuensis	China, Xinjiang
Tamarix hohenackeri	China, Xinjiang
Tamarix chinensis	China, Beijing BG
Tamarix laxa	China, Xinjiang
Tamarix parviflora	China, Turkey

Fig. 3. Shrubs of *Tamarix* which are trapped on sand and develop bizarre sand drift (Central Taklamakan Desert).