

# A new *Opuntia* species, *Opuntia debreczyi* species nova (*Cactaceae*) from the United States of America

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**Author: Gyula SZUTORISZ, H-1162 Budapest, Csoport u. 25., Hungary**

## **Opuntia debreczyi SZUTORISZ species nova**

Planta fruticiformiter, dense ramulosa, cca. 5-10 cm alta, 10-20 cm lata, ramulis brevibus, e nonnullis cladodiis geminatione ortis formata, radice filiformi, ad partem superiorem incrassato. Cladodia elongato-ovata, 3-5 cm longa, 1-2 cm lata, section transversalis eorum circularis-elliptica, in statu juvenili non leviter separabilia. Folia in cladodiis parva, involuta, cito decidua. Planta subcaeruleo-cinereo-oviridis, circa areolas parum emersas rubrobrunnea. Areolae cladodiorum dense, ab invicem 0.6 cm distanter, in lineis spiralibus distributae, caespitibus pilorum alborum laniformium, 1 mm longorum et glochidiis cooperate, plerumque sine spinis, sed nonnullae earum spinis 2-3, basin versus directis, 1-2 mm longis, tenuibus, albis, in apice brunneis, fortuito ad cladodia annorum plurium spinis 3-4, longitudine 10-15 mm. Flores in apice ramulorum singuli, plerumque mense Majo aperti, carminei, 3-4 cm alti et lati. Petala externa 1-1.5 cm longa, 1 cm lata, albidoseola, in medio virga longitudinali, oallide olivaceoviridi; petala interna 3 x 0.7 cm, ad basin carminea, apicem versus pallescentia. Filamenta roseola,

thecae pallide flavae. Stilus albus, stigma ramulis 6, viridis. Ovarium pallide viride, 1-1.5 cm altum, 1 cm latum, caespitibus parvis pilorum laniformium et foliis brevibus, involutis, apiculatis, deinde ad partem apicalem setis parvis in areolis. Fructus globosus, flavidus, aridus, superne setis brevibus. Semina deplanata, diametro 5-6 mm, albida.

Locus collectionis typi: USA: prope "Colorado Mountain College West Campus, comit. Garfield, Glenwood Springs"

Leg: Mrs. Heacock (Denver, Colorado)

Typus: in Herbario Museaei Historiae Naturalis Hungarici, Budapest (BP) (numerus collectionis #DRB-65535). Plantae vivae collectionis typicae in collectione Fundationis Dendrologicae Internationalis, H-2092 Budakeszi, (prope Budapest) Pf. 52, Hungaria (signum collectionis: OP-30/H-68-TYP-65535).

Species nova in honorem dris Zsolt Debreczy nominata.

## **English description by Zoltán FERENCZI:**

**Plant:** Creates a low, dense clump of 5-10 cm high, 10–20 cm in diameter; it sprouts from the lower part of the joints. The joints are elongated egg shaped, round or oval in cross-section 3–5 cm in length, 1–2 cm in diameter; the areoles are elevated. The new joints do not break off easily. The root is white, threadlike, thickened at the base. The skin is bluish-greyish-green, becomes reddish brown around the areoles. The short, rudimentary leaves of the new growth fall off soon.

**Areoles** are in helical order, 0.6 cm apart and covered with white, 1 mm long wool bundles and yellowish brown glochids.

**Thorns:** the joints are partly thornless but occasionally with up to 2–3, downward pointed, 1–2 mm long, white, brown tipped, thin thorns. Older joints may have up to 3-4 thorns, these are 10–15 mm long.

**Flowers:** single on the tip of the joints, carmin-red, 3–4 cm high and wide. In Hungary (zone 7) it blooms usually in May.

**Ovary** light green, 1–1.5 cm high, 1 cm wide, covered with small, woolly hair bundles, short, pointed, rudimentary leaves, and tiny bristles on the upper areoles.

**Outer petals** 1–1.5 cm long, 0.5 cm wide, whitish pink with pale olive center.

**Inner petals** 3 cm long, 0.7 cm wide, carmin red at the base, fading towards the tip.

**Stamens** numerous, pink; **anthers** light yellow. Pistil white, stigma green, 4 lobed.

**Fruit** round, yellowish, becomes dry, with short bristles on the upper part; **seed** flat, whitish, 5–6 mm in diameter.

**Habitat:** so far, only known from the type locality (see below).

**Holotype** is deposited in the herbarium of the Botanical Department of the Hungarian Natural History Museum (BP) in Budapest (collection number #DRB-65535). Reference living specimens are cultivated at the International Dendrological Foundation under #OP-30/H-68-TYP-65535 in Budakeszi near Budapest.

**Type locality:** near West Campus, Colorado Mountain College, Glenwood Springs, Garfield Co., Colorado State.

Comparative marks of *Opuntia debreczyi* and the closest allied species:

	<i>O. debreczyi</i> SZUTORISZ	<i>O. fragilis</i> var. <i>parviconspicua</i> BACKEBERG	<i>O. fragilis</i> var. <i>denudata</i> WIEGAND & BACKEBERG
<b>Joints</b>	do not separate easily, elongated egg shaped	easily separate, elongated egg shaped	easily separate, roundish
<b>Areoles</b>	0.6 cm apart from each other	0.4 cm apart from each other	0.8 cm apart from each other
<b>Flower</b>	carmin red	yellow	yellow
<b>Habitat</b> (type locality)	nr. the West Campus of the Colorado Mountain College, Glenwood Springs, Garfield Co., Colorado State	unknown	Utah

Collected and cultivated by Mrs. HEACOCK (Denver, Colorado, USA) who gave a specimen to Dr. Zsolt DEBRECZY dendrologist (then curator of the "Herbarium Generale" collection of the Botanical Department of the Hungarian Natural History Museum) during his visit in Denver in 1973 and later in 1983. He registered it with the accession number Op-30/H-68 in 1973 and gave it to Gyula SZUTORISZ in Budapest, where it bloomed and produced seed. The first description is based on the observations of the plant during a 17-year period.

The plant proved to be hardy in Central Europe without any protection outside. Two times the temperature dropped below  $-25^{\circ}\text{C}$  during the 17 years and the plant tolerated these frosts without any damage.

Named in honour of Dr. Zsolt DEBRECZY, who introduced numerous hardy cacti to Europe and wrote an essential book about their habitat and cultivation.

**Acknowledgement:** Thanks to Dr. János BODOR, who made the photos of the flower sections; and to Dr. Sándor TÓTH for making the latin diagnosis.

#### **References:**

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EARLE, W.H. (1963): Cacti of the Southwest, Phoenix  
HAAGE, W. (1981): Kakteen von A bis Z. Neumann Verlag, Leipzig

#### **List of pictures:**

1. *O. debreczyi* growing outside – Photo: Gyula SZUTORISZ
2. The flower of *O. debreczyi* – Photo: János BODOR
3. Longitudinal section of *O. debreczyi*'s flower – Photo: János BODOR

*Szutorisz Gyula*

H-1162 Budapest, Csoport u. 25.  
Hungary

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