

Plant of the Month

February
2018

Common Name: Succulent Sesame
Scientific Name: *Uncarina grandidieri* (Baill.) Stapf
Family: Pedaliaceae
Etymology
Genus: *Uncarina* – possibly after the Uncarina tribe of Madagascar
Species: *grandidieri* – honors plant collector Alfred Grandidier



Distribution

Restricted to southern Madagascar.

Native Habitat

Dry forest.

Description

Deciduous pachycaulescent tree to 4 m high. Pachycauls are plants with a swollen trunk or caudex where they store water and nutrients. They are also known as caudiciform or sometimes “fat’ plants.” Soft, velvety leaves resemble those of the cotton plant.

Flowers

In clusters on young shoots, the flowers have a calyx of 5 sepals, and a 6 cm long corolla with a narrow tube. Petals are spreading, about 2.5 cm long, rounded, and bright yellow. The throat of the flower is stained purplish-red.

Fruit

A flat, pointed capsule covered with small inwardly pointed spines. Each spine has a tiny hook at the end. When dried they resemble small sea urchins.

Location in Garden

Succulent Garden. Pollination display at the Calyx.

Information

This unique plant belonging to the sesame family, has not only beautiful flowers and a striking fat trunk but a fascinating pollination strategy.

Uncarina flowers do not shed pollen. They rely on pollen eating beetles for pollination. The beetles feed on lobes attached to the anthers (male part) of the flowers. As they bite into the lobe, a slit pore opens and pollen the consistency of toothpaste is deposited on the the head and thorax of the beetle.

The beetle freely exits the flower but when it tries to enter another *Uncarina* flower its path is partially blocked by lobes attached to the flower’s stigma (female part). As one lobe is pushed down by the beetle another lobe moves down and scrapes the pollen off the beetles’s head. Pollination is now complete and the curious spiny fruit capsule develops.

Look at the front of the flower for a petal shaped like a landing pad. Unlike bees, beetles are poor flyers and need a large and stable place to land. At the centre of the flower are dark markings which help illuminate this “runway” to passing beetles.



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