

Drosera regia Stephens.

Much has been written about this interesting species of sundew over the years, both in popular literature and on-line in more recent times. Much of what is written would serve to discourage the average hobbyist from attempting cultivation, and as a result until surprisingly recently, it was scarcely seen. However, it is easy to grow successfully, and once established is a long-lived perennial which can attain huge dimensions.

Although becoming more common in collections, it remains exceedingly rare in the wild, with one of the smallest and most endangered natural ranges of any *Drosera* species. It is found in a single remote valley at Bainskloof, near Cape Town in South Africa at an altitude of 600-900 metres, where it exists as two separate colonies. The upper location was considered extinct for many years, but a tiny colony has recently been re-discovered.

It has been suggested that the two colonies differ slightly, one having broader leaves, but this does not seem to be the case in cultivated plants. They are found growing amongst dense grasses which make them somewhat difficult to find, and indeed compete with the surrounding vegetation by producing their unique upright lanceolate leaves up to 50 cm in length—the largest of any *Drosera*. At their bases they can be up to 2 cm wide, gradually tapering to a point at their apex, with many



Figure 1. Close up of leaves.

large tentacles up to 4 mm in length, each topped with a generous droplet of mucilage found on the upper surface of the leaf, facing inwards toward the growth point (Figure 1). The rear of the leaves are glabrous, with a large raised central vein running the entire length. They are a uniform bright apple green colour, with the central vein being slightly lighter, and suffusing red at their base by the growth point (Figure 2).



Figure 2. Red leaf bases.

Producing leaves of this size enables the plant to capture insect prey of a substantially larger bulk than other species, and unlike other upright species such as *Drosera filiformis* from North America, and *Drosera spiralis* from South America, *Drosera regia* has not only active tentacles, but is able to curl its leaves along their entire length. This power of movement ensures the plant can catch and hold prey as large as the common wasp *Vespula vulgaris*, the leaves often folding over more than 360 degrees in the struggle.

The copious amount of mucilage produced ensures a high number of trapped prey, and its leaves can become black with insect carcasses.

This plant exhibits the unusual characteristic of producing a rhizome, which is clothed by dead leaf bases and which, periodically, divides into two branches. Over many years the plant can attain huge proportions with numerous growth points. My original plant, now over twenty-seven years old, has a number of such growth points and overhangs its 35-litre pot. In the summer months it is approximately 60 cm across with leaves usually in excess of 45 cm in length (Figure 3). Their growth pattern is similar to many other South African *Drosera* species. In the winter months when the light levels drop, the long carnivorous summer leaves die back, either to a crown of small glandular leaves to 5 cm in length, or sometimes to a loose hibernaculum of tiny, truncated leaves barely 1 cm in length (Figure 4). At this time, they are tolerant of low temperatures, enduring the occasional freeze. Growth resumes in early March with the of lengthening daylight hours, and within one month they can produce a rosette of 4 or 5 mature leaves which unfurl like watch springs.



Figure 3. A large multi-crowned plant.





Figure 4. Plants emerging from dormancy.

The first flush of leaves are followed by flower stalks which are easily recognisable as they are circular in cross section, glabrous, and with a narrowly ovate embryonic bud covered in short, stalked red glandular hairs-protection from sap sucking insects (Figure 5). The flower scapes are usually taller than the leaves and can branch several times, so a single stem may support as many as 20 flowers. The flowers themselves are spectacular; up to 3 cm in diameter, bright pink with darker veins running the length of each petal, with the green glandular calyx lobes holding their bases together so that a tube is formed, from which emerge the anthers and stigmas. This species is considered self-sterile, but the flowers have a mechanism for reducing the risk of self-pollination. Bright yellow pollen is released copiously shortly after opening, but at this time the stigmas are simple, unbranched, and un-receptive (Figure 6). Once the pollen has been released, the stigma tips open and feather out, becoming fimbriate (Figure 7). When this occurs, the flower can be pollinated with pollen from another flower (although some residual pollen may be released from the same flower). Several flowers open together to give a better chance of seed-set, and I have obtained a good quantity of seed from single clones. The seeds are falcate and to 2 mm in length (Figure 8).



Figure 5. Glandular calyx lobes.

Of course, having more than one clone is preferable as the resulting progeny are likely to be more variable and vigorous.



Figure 6. The stigmas are simple and un-receptive.

After flowering growth continues, with each growth point producing several more leaves, which toward the end of the season become progressively shorter as autumn approaches. With the onset of winter, the glandular leaves die back, and dormancy begins.

Despite what is written about this plant, it is easy to grow in cultivation and as I have already stated is long-lived. Mine grow in the same bed as my other summer growing South African species such as *D. capensis*, *D. admirabilis*, and *D. slackii*, enjoying a southerly

aspect in full sun, and standing in 2-3 inches of rainwater for the growing season. Over winter the water is reduced so as the compost remains damp but does not dry out. I use a quartz or lime free silver sand and moss peat mix to a ratio of 60% sand and 40% peat which gives good results.

Seed is the best method of producing a number of plants, but it is somewhat slower than in other species. It appears not to require any pre-treatment and can be surface sown on the same compost as adult plants in the spring and early summer. Keep in a sunny position in a tray of rainwater, and germination commences in 3-5 weeks. I find it best to leave the seedlings until they are at least 2 cm in height before potting separately in to 7-8 cm pots.

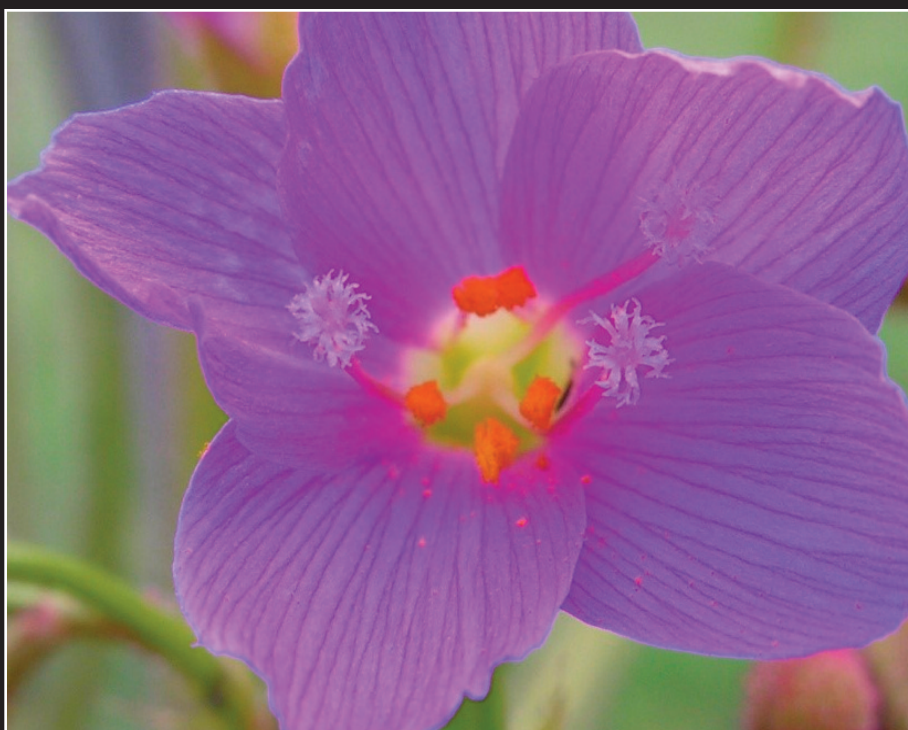


Figure 7. Receptive, fimbriate stigmas clearly visible.

Root cuttings work well and can easily be taken without disturbing the adult plant (which they seem to dislike, by the way), as they frequently grow out of the drainage holes of their containers and can simply be cut off. Reduce each root to 5 cm in length and lay on the surface of the compost. Cover lightly with some torn sphagnum moss, water well from above with rainwater, and enclose in a plastic bag to maintain a high humidity. Keep in a bright position away from direct sunlight to avoid over-heating and check



weekly. In approximately 4 weeks the roots will produce tiny green buds which will develop into new plants. Once they are growing well, gradually harden off the plants by making a small hole in the bag, increasing the size of it a little each day for a week, at which time the bag can be removed. As with the seedlings, leave the young plants until they are 2 cm in height before potting separately. The cuttings are best taken in the spring.



Figure 8. Close up of fresh seeds.

Seed grown plants are occasionally available at the nursery website at www.hccarnivorousplants.co.uk

© Nigel Hewitt-Cooper, August 2012, revised January 2021.

