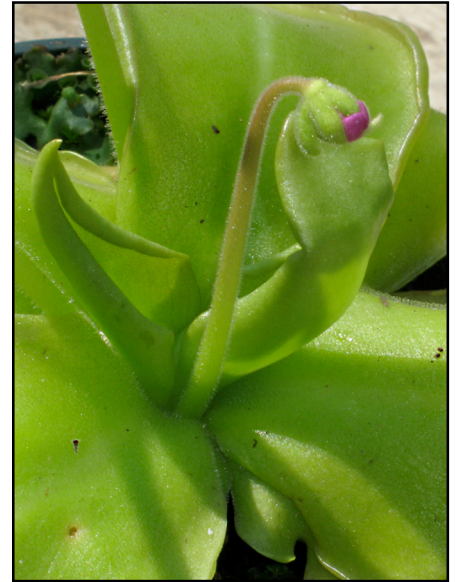


Butterwort

Pinguicula moranensis

A carnivorous plant from Central America. This species is *heterophyllus*, meaning it has two types of leaves – one type in summer, and another in winter. It is one of the most common butterworts in cultivation, with many hybrids. Butterworts are often grown by orchid collectors to trap insect pests such as whiteflies.

What they like: Butterworts grow in nutrient-poor, alkaline soils, with constant soil moisture in the warm season. They get most of their nutrients by digesting insects that get stuck on the leaves. Unlike most carnivorous plants, our water should not be a problem for them. The soil mix should drain very fast, and it is best if they sit in a shallow tray of water. Keep in partial sun or full shade.



Our grower says: “In our greenhouses they are more effective at attracting flying insects, principally fungus gnats, than yellow sticky cards. This is one of the easiest carnivorous plants to grow. It likes strong indirect light, or at least cool direct light, and damp conditions. Little else seems necessary.

It grew well for us in cool, unheated (but frost free) greenhouses over winter and the only problem I have had with the one I took home was when I partially burned it up by putting it on a window sill in full, direct, all-day winter sun.

....[F]lowers, are produced on tall, thin stalks seemingly at any time of year. Give it copious watering, it can probably even stand in a shallow dish of water. It shouldn't need almost any feeding, and if you do fertilize use something weak and organic like fish emulsion. It won't ever develop much of a root system.” – Monterey Bay Nursery

Lifecycle: The roots wither and the plants form compact rosettes of non-carnivorous, smaller leaves during the cool season. At that time they can go completely dry. The leaves begin to change in late October, at which time you should move them to a frost-protected location. Keep them with your jade plants in a dry, cool area near the house or in a bright room indoors. Carnivorous leaves should grow again about May.

They have showy flowers beginning in June and continuing in July and August. Unusual among the butterworts, this species also produces flowers with the winter rosette leaves. The stalk (*peduncle*) that holds the flower is covered with the same glands and also traps and digests insects.

How it eats insects:

The leaves contain two types of specialized glands. One group, held up on stalks, secretes mucilaginous droplets that trap the insect. The insect's struggles trigger more of these glands until it is encased in mucilage. Leaves respond to the movement by curling



(*thigmotropism*) and bringing more of the glands in contact with the insect. Then *sessile* glands that lie flat on the leaf surface begin to release enzymes that digest the insect's body until all that remains is the chitin exoskeleton.

Butterwort leaves contain a strong bactericide, which has been used for sores on cattle in northern Europe (there are many temperate zone species). In Scandinavia the leaves are used to curdle milk and make buttermilk-like products (similar to yogurt) called *filmjök* and *tätmjök*.

