

Trappers

These carnivorous plants are the most exotic in the entire plant kingdom. Their name is associated with their ability to capture insects and digest them. What do they get from these tiny animals? They get substances rich in nitrogen, which is usually absent from the soil where they grow. By eating insects, they are able to compensate for this nitrogen deficiency because the bodies of the arthropods they catch have amino acids and other nutrients that contain nitrogen. ●

The Terror of the Flies

The exotically named Venus flytrap is a famous carnivorous plant. It produces a nectar that attracts flies. Reaching the leaf is usually fatal for the visiting insect because it sets off a series of physiological reactions in the plant that transform it into a deadly trap. Even larger insects, such as the dragonfly, can be trapped by these carnivorous plants. Upon contact by its prey, a very specific reaction takes place. Hairs detect the presence of the insect and stimulate the closure of the leaves. However, a Venus flytrap's leaves do not react to other types of contact, such as the impact of raindrops.



Dionaea muscipula
Scientific name of the Venus flytrap. It is native to the eastern United States.

LATERAL THORNS
are the hardened borders of the leaves, which have a thick cuticle.

DETECTOR HAIRS
are sensitive to contact with insects.

LOWER PART OF THE LEAF
The cells have a great number of chloroplasts.

UPPER PART OF THE LEAF
Reniform, or kidney-shaped, it has special cells arranged along a central hinge.

1

Falling into the Trap

The fly positions itself above the trap and brushes the lateral thorns. This stimulus provokes the swollen cells of the hinge to lose water rapidly, which in turn causes the upper part of the leaf to close. If the insect is slow to react or move as the trap begins to close, it will be unable to escape.

A Varied Diet

Trappers belong to the group of autotrophic organisms—that is, they can produce organic material to use as food from simple inorganic substances. Carnivorous plants live in environments poor in nutrients. The insects that they trap permit them to make up for this deficiency.

Main Menu: Insects

There are distinct orders of dicotyledons that include carnivorous plants, such as Nepenthes, Sarraceniales, and Scrophulariales. These plants include the pitcher plant, sundews, and bladderworts.

1/5 second

THE TIME NECESSARY FOR THE UPPER PART OF THE LEAF TO CLOSE AFTER A FLY LANDS ON IT.

CARNIVOROUS PLANTS



DIONEA MUSCIPULA
Flytraps are cultivated all over the world. They are grown in slightly acidic soils, such as peat. They flourish if they have many insects to consume.



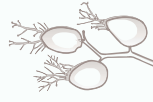
DARLINGTONIA SP.
Unlike other carnivorous pitcher plants in which the pitcher (trap) is attached to a stalk, this plant's pitcher grows directly from the soil.



SARRACENIA SP.
These plants are passive traps that use nectar to attract insects. Full of hairs, the pitchers retain the prey and keep it from escaping.



NEPENTHES MIRABILIS
The cover of its leaf-pitcher prevents water from entering. These plants tend to have very showy colors that are a fatal visual attraction to an insect.



UTRICULARIA VULGARIS
These aquatic carnivores are of the family Lentibulariaceae. Their leaves are oval vesicles that open and close to trap microscopic animals.



DROSERA CAPENSIS
Their ribbonlike leaves are covered in sticky hairs. When the leaves receive a stimulus, they roll up and enclose the prey.



2

No Exit

The fold of the leaf stimulates the lateral thorns on its opposite sides to interlace like the fingers of two hands and create a type of cage. This process occurs in two tenths of a second, so the fly has little chance of avoiding being trapped.

3

Digestion

In less than three minutes the trap has completely closed, and the digestion of the prey's tissue begins. Special glands located in the interior part of the upper leaf secrete acids and enzymes that chemically degrade the soft parts of the insect's body. When the leaf-trap reopens after a few weeks, the wind blows away the parts of the exoskeleton that were not digested.