

Small Spider Weaves Own Trap in the Pitcher Plant

WALLOON LAKE: In last week's column we wrote about bog-dwelling plants including one of the most spectacular of these, the pitcher plant. This unusual member of our flora has modified its structure and habits to a surprising degree to meet the demands of its special habitat.

Although the pitcher plant's leaf is a trap for many insects and spiders which supply its nitrogenous food, there are other creatures which have not only become adept at escaping its hazards but have learned to use both the water and the drowned prey within its depths to their own special advantage.

One of these is a small spider which weaves a delicate but sticky platform-web just above the water line but below the downward pointing hairs that line the pitcher plant's leaves.

Such creatures as moths and beetles blunder into the open lip of the leaf and tumble to the spread-out net below.

Flies, attracted by the carrion odor of previously drowned prey in the pitcher's reservoir, alight on its slippery lip and slide into the spider's lair.

In wet weather, fellow insects may also be victims of this trap. If the web is submerged by frequent rains, the clever little spider spins a silken escape-way for scaling the pitcher leaf's sides. If a sudden shower descends, this hapless insect may drown in the reservoir filled with the nitrogen-rich food of which it was robbing the plant.

AN EVEN MORE incredible adaptation is presented by a small caterpillar-hunting wasp which sometimes lives within the pitcher-plant traps.

The first action is to drain the water by biting a small hole in the leaf-wall well toward its base. It then proceeds to make a neat nest of short lengths of grass at the bottom of the drained pitcher.

The clever wasp then stores a few newly paralyzed caterpillars in the nest and lays an egg beside them, thus insuring a fresh meat supply for the newly hatched larva. Following an inborn instinct, this hungry maggot first devours the less essential parts of its victims, so that they remain alive to provide necessary food until the wasp larva pupates and becomes an adult. Thus it completes its solitary life cycle safely hidden within the

red and green walls of the dry pitcher leaf.

THE ABOVE INSECT is not interested in the decaying carcasses within the pitcher's depths, but if the young adult is a female, she will instinctively repeat the above cycle of her kind, in due time making a similar cozy nest for her young.

Another interesting relationship between insect and pitcher plant is that presented by a small moth. She habitually lays her eggs in the soft sphagnum moss just outside the base of these curious leaves where they hatch into caterpillars. Soon each of these hungry larva burrows into the leaf-wall, where it tunnels between the outer and inner epidermis or "skin" feeding on the green plant tissue. One false bite puncturing the tunnel would flood the whole gallery, drowning the insect.

WHEN AUTUMN comes, these insect miners work into the base of the pitcher plant's leaf where they pupate during the winter pro-

duced by its heavier walls.

Another insect whose life cycle is dependent on this curious bog plant is a species of blow-fly which lays its living larva on the lip of the leaf where it soon slides down into its watery depths. However, its skin is resistant to the digestive juices in the reservoir so that it remains unharmed, feeding on the decomposed prey therein.

From time to time it backs up to the water's edge, where it breathes in the atmosphere air by means of a curious whorl of waxy hairs on its posterior end.

WHEN MATURE, the maggot bites a hole in the pitcher's wall and proceeds to pupate in the surrounding sphagnum moss. Only when it becomes an adult fly does it take its first drink, and then it sips only dew.

The above creatures illustrate an extreme degree of adaptation between plant and animal types. So dependent has each become upon its own particular relationship that it can live in no other way.



Frehse

WSU Announces Theatre Schedule

The Wayne State University Theatre announces a series of six plays from the modern repertoire for its 1964-65 Bonstelle Theatre season.

In addition, three Saturday matinee performances of its Children's Theatre production, which tours the greater Detroit area, will be presented in the Bonstelle.

The season opens Oct. 9 with the musical "Once upon a Mattress." John Osborne's "Luther" is planned for the second production, scheduled to open Nov. 13. The regular subscription series will be interrupted in December to allow holiday matinees of "Jack and the Beanstalk" on three consecutive Saturdays beginning Dec. 5.

The adult series resumes in January with the American comedy "Three Men on a Horse," followed by Paddy Chayefsky's "Gideon," opening (Feb. 26 and Caron McCullers' "The Member of the Wedding" in early April. The season closes with G. B. Shaw's "Androcles and the Lion" in May.

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