

BOTANY  
**NATURE  
 RAMBLINGS**  
 by Frank Thone



### Meat-Eating Plants

► MEAT-EATING is usually assumed to be a privilege reserved for a relatively limited aristocracy within the animal kingdom—an aristocracy in which man's place at present seems none too secure. Plants are eaten by animals, all the way from almost microscopic insects to elephants; but when a plant eats an animal, that's worth stopping to look at.

One botanist, Dr. Francis E. Lloyd, professor emeritus of McGill University, has been stopping to look at such plants for a good many years now. His studies of the carnivorous plants have taken him all over the world, and at last he has assembled all the facts he has garnered, together with many found out by other botanists, in one book, *The Carnivorous Plants*, which has recently been published by the Chronica Botanica Company.

There are not less than 15 genera of carnivorous flowering plants, besides several of ground-dwelling fungi. The general classes of traps they employ to catch their insect and other small animal prey are listed by Dr. Lloyd as pitfalls, lobsterpots, snares or nooses, sticky flypaper, steel-trap and mousetrap.

None of these is a really simple mechanism. The pitfalls of the pitcher-plants, for example, are not just holes into which insects tumble. They lure their prey with nectar, scent and color-patterns, they make descent into the *Avernus* easy and escape impossible with alternating zones of slippery surface and downward-pointed bristles. Similarly, the sticky flypaper surface of a butterwort leaf, or on the knobs of a sundew, is rendered more efficient in the one by the incurving edges that go into action when an insect is trapped, and by the closing

down of surrounding sticky fingers in the other.

Some of these vegetable traps are marvels of efficiency. The hinged leaf of the Venus flytrap, for example, functions almost exactly after the manner of a steel-trap; it has the two quick-closing halves, triggers to set them off, and interlocking teeth along the edges to render escape more difficult. The underwater box trap of the bladderwort, of which Dr. Lloyd has made a special study, is so complex in both structure and action that a mechanical mousetrap planned to

duplicate it as closely as possible looks like one of Rube Goldberg's less conservative creations. Yet it functions unerringly.

Then add to all these complexities the fact that many of these traps are digestive systems as well. Production of protein-dissolving secretions from special glands has been definitely demonstrated in some of them (though not in all) and absorption of the digested remains of the prey seems to be just as well established.

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