



Beechdrops

By Emily Grafton

From late fall through early spring one is likely to walk by, but overlook a colony of branched, slender-brown stalks growing at the base of a beech tree. Sometimes only one or two stalks may be present. In late summer, these curious little plants called beechdrops (*Epifagus virginiana*) have a spongy texture with a dull-purplish to brown color. Even during their growing season, people often overlook these obscure flowers.

This herbaceous, annual plant makes its living parasitizing the roots of beech trees. It will grow on a tree of any size and has been known to parasitize one-year-old seedlings. A growing plant inserts a root-like structure called a haustorium into a beech root, absorbing enough nutrition to sustain itself. The genus *Epifagus* is derived from the Greek word "epi" which means upon, and the Latin "fagus" meaning beech.

Beechdrops belong to a whole family of plants that live as root parasites. They do not produce chlorophyll, so consequently they lack any green color. This lack of "greenness" is one reason that many people overlook them. When first observed, many people think beechdrops look like a fungus.

Beechdrops range in height from about five inches to 18 inches. The skinny, tubular branches bear small, scale-like leaves pressed flat against the stem. Tiny flowers occur singly or in spikes. Looking through a hand lens, an individual flower is quite beautiful. The flowers are tubular and bear two lip-like projections. The flowers produce nectar to attract winged pollinators, but only the upper flowers produce seeds.

It is believed that raindrops disperse the seeds and that they germinate in spring. Plant development moves



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Lacking the showy flowers and bright colors of most plants, beechdrops often go unnoticed by people.

slowly through the growing season. By July, the whole plant is still only a half-inch in height and appears on the surface of the ground as a small white tubercle. Beechdrops do not fully mature until the last half of August. They bloom from August to October, and by the end of November the plant turns dark brown and brittle.

Beechdrops occur in every county in West Virginia. The Peterson Field Guide, Eastern/Central Medicinal Plants by Steven Foster and James Duke states that the species ranges from Ontario south to Florida, and as far west as Louisiana. They indicate that this plant was once used medicinally to treat diarrhea, dysentery, mouth sores and externally on cold sores. Native Americans steeped the whole plant in hot water for a tea. Beechdrops tea tastes bitter,

so people dried the plant before using it to lessen the bitterness.

Although beechdrops live as a parasite on beech trees, they do not damage the trees. Each plant dies at the end of the growing season. This is a good thing considering the fact that the underground portions of beechdrops grow throughout the life of the plant, sometimes encasing and constricting the root it is parasitizing. If beechdrops were a long-lived perennial, it could eventually kill its own source of food.

Beechdrops and its relatives in the Broomrape family are one of nature's many anomalies. New things may yet be discovered about the pollination mechanisms, seed dispersal and the genes that control its growth. The next time you see a beech tree look at its base for beechdrops.