

Epiphytes

Epiphytes are plants that live on other plants but do not take any food from them (they are not parasitic). Many kinds of bromeliads, orchids and ferns are found as epiphytes and may be very common in tropical rain forests. In temperate (colder) climates, some algae, lichens and mosses may grow as epiphytes.



Epiphytes may live high in the tree branches (in the canopy) and may also be attached anywhere along the trunk of a suitable tree. Most are found lower in the lower branches, where they are shaded. Most epiphytes can grow on more than one species of tree and even on rocks or telephone wires. Epiphytes produce many seeds, because most will fall to the ground and die without lodging within the tree canopy.



Growing on a tree, above the ground, allows these plants to escape animals grazing on the ground. It also reduces other risks faced by plants growing on the ground, such as flooding on the forest floor and ground fires.

This growth habit also presents several problems. If the branch on which an epiphyte is growing is broken from the tree by the wind, the epiphyte then falls to the ground with the branch. A larger problem is getting water and nutrients. An epiphyte's roots serve to anchor it to its host tree, and not to absorb water and food. Some epiphytes receive the

water they need from rain, others from dew and mist.

Some bromeliads have special absorbing scales (trichomes) that allow them to take in water and nutrients through their leaves. Many epiphytes are adapted to hold water in cavities, between leaves, or in special cells. Other epiphytes (algae, lichens and mosses) can survive long periods without water.

Whether they live in cold or warm climates and under dry or moist conditions, all epiphytes are adapted to their unusual way of life. They are able to survive without soil, sometimes high from the ground, under extreme conditions. The many different kinds of epiphytes have produced a great many adaptations for their environment, and epiphytes contribute substantially to the rich biological diversity found in the canopies of humid tropical forests.

