Tropical Topics
Epiphytic Plants in Hawai'i

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EPIPHYTES

Epiphytic plants are plants that grow on a host, but takes no water or nutrients from the host. They rely on specialized plant structures that absorb water and nutrients.

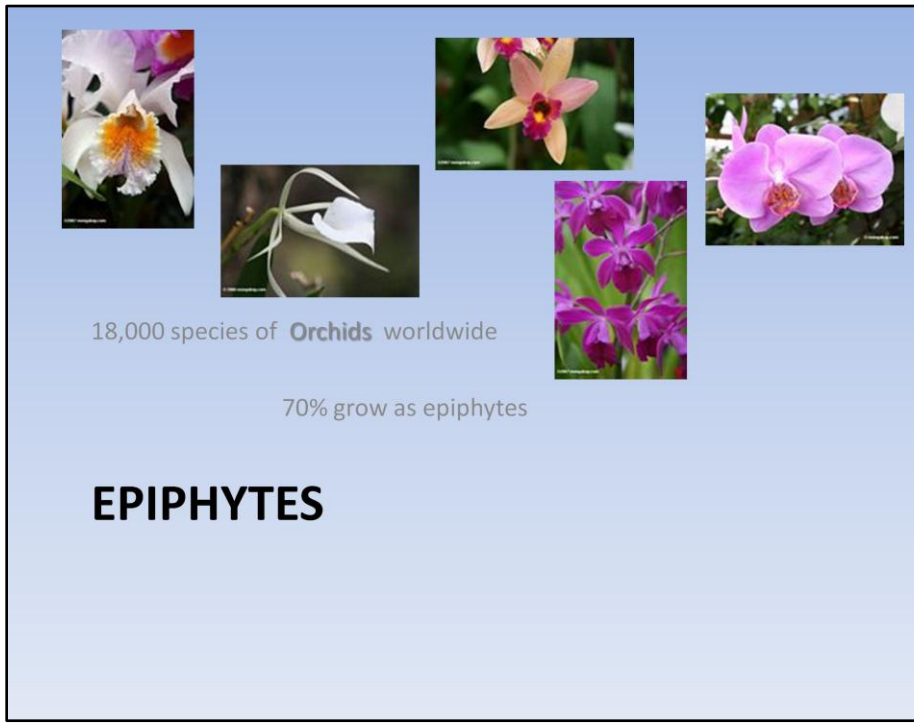
1500 epiphytes occur in the neotropical realm (Central & South America and the Caribbean)

30,000 World Wide

Most in cloud forests which occur in fog-laden elevations of 3300-6600 feet

EPIPHYTES

Knowledge of the plants' natural habitat will tell you the conditions in which the plant grows best.
Their epiphytic way of life gives these plants advantages in the rainforest, allowing them access to more direct sunlight, a greater number of canopy animal pollinators, and the possibility of dispersing their seeds via wind.



It is said that 10,000-12,000 species that have yet to be described. Many are very rare and endangered plants. They have roots with large surface area for rapid absorption of nutrients and water. Their secondary stems can hold stores of water so the plant can withstand periods of dry weather. Their seeds are small and are dispersed by the wind. They also depend on insects for pollination.

The largest Orchid

Grammatophyllum speciosum

Tiger Orchid

EPIPHYTES

Hawaii's Native Epiphytic Orchid

Liparis hawaiensis

Awapuhiakanaloa

EPIPHYTES

Endemic orchid to Hawaii. Found on all islands but Ni'ihau and Kaho'olawe
Again, stress that these plants live in very fragile ecosystems and need our help to save the rainforests of the world and the plants that occur there.

3000 species of **Bromeliads** worldwide

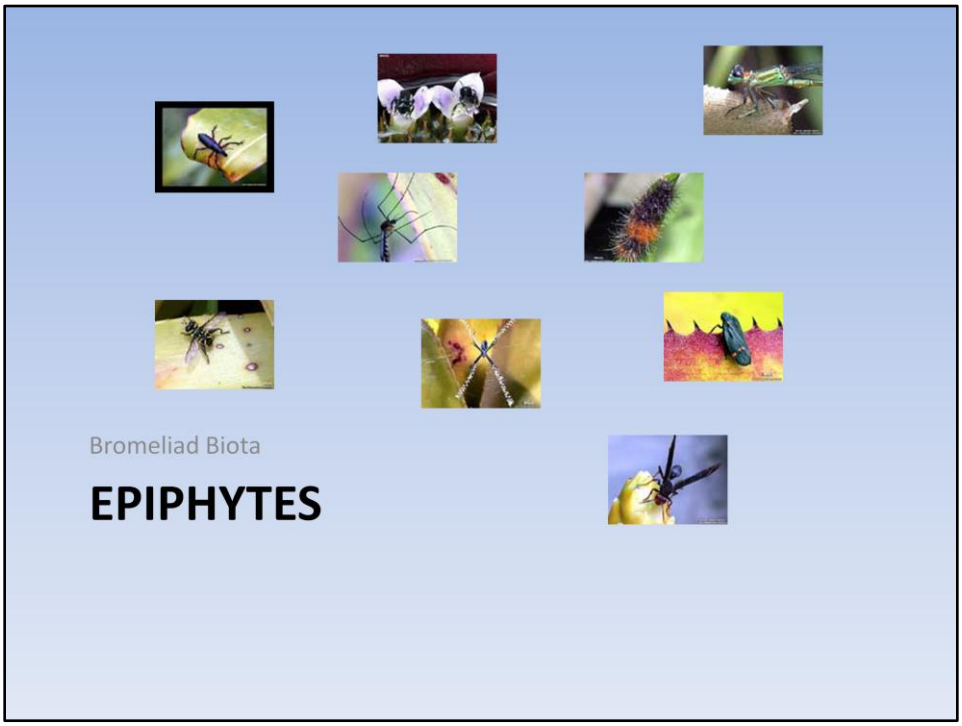
EPIPHYTES

Trichomes

Ananas comosus

The Pineapple

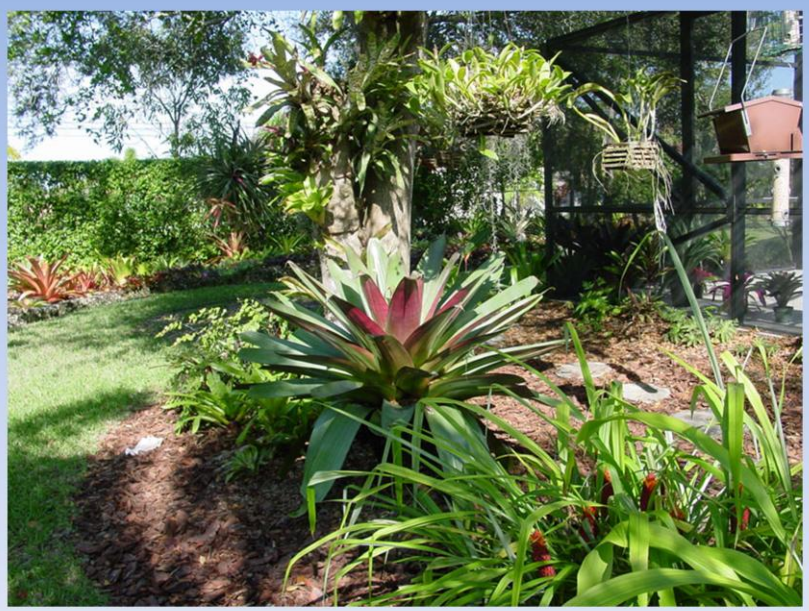
EPIPHYTES



A few hundred species of animals and plants are known to science to depend to a greater or lesser extent on bromeliads as a place in which to live, or as food. For protection and as a water source.

Spraying with insecticide. Adding a hormone that stops wrigglers maturing. Washing out plants regularly Growing plants dry by piercing lower leaf area. Using predators to eat the mossie eggs and destroy wrigglers. Place water crystals to soak up water yet retain moisture

Remove flower stalk- attracts mosq.



Designing with Epiphytic Plants
Tying materials
Ideas on where to “plant”
Indoor plants
Cultural requirements

Non Silicon Sealant
Galvanized Wire
Twist Ties

Screws
Nails

Silicon Sealant stays gooey for ages allowing roots to expand and even penetrate if desired.

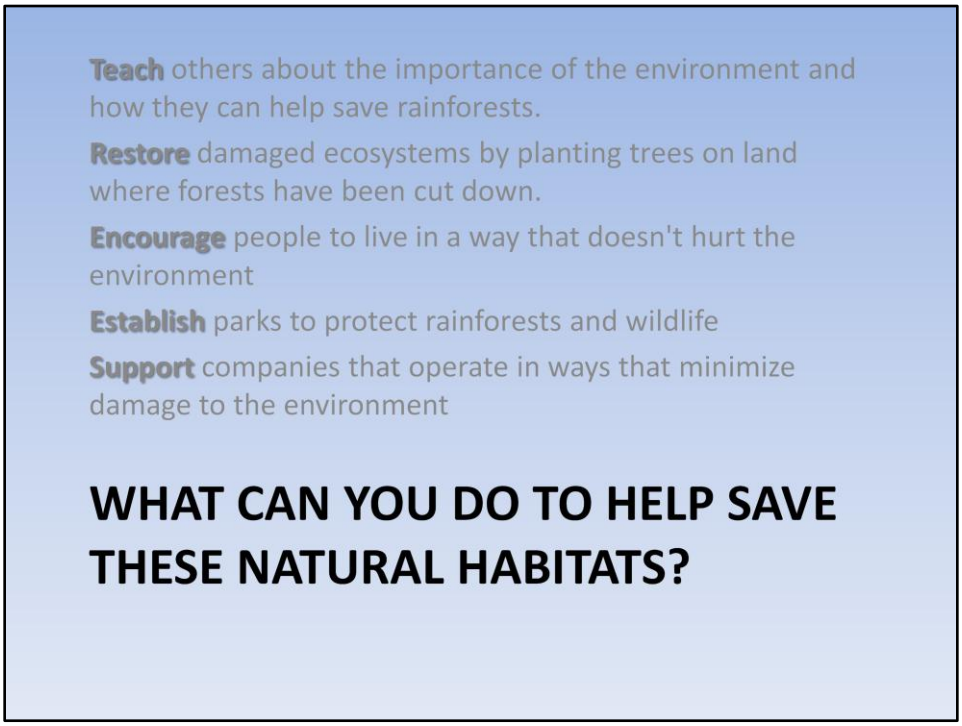

photo by
John Ingram

College of Tropical Agriculture and Human Resources
University of Hawaii at Manoa

Farmers Bookshelf - Information on Tropical Crop Production in Hawaii

Bromeliad Encyclopedia - Florida Council of Bromeliad Societies

EPIPHYTES



Tropical rainforests support the greatest diversity of living organisms on Earth. Although they cover less than 2% of Earth's surface, rainforests house more than 50% of plants and animals on Earth. Here are some examples of the richness of rainforests: rainforests have 170,000 of the world's 250,000 known plant species the United States has 81 species of frogs, while Madagascar which is smaller than Texas, may have 300 species.
Europe has 321 butterfly species, while a park in the rainforest of Peru (Manu National Park) has 1300 species.