



What's Eating You?

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Background:

Evidence of animals grazing on leaves can be easily found on some trees? The amount of leaf damage is due to local animal species being able to nibble and graze the leaves. Indigenous plants have more local browsers and therefore show more evidence of being eaten. These local animals may be caterpillars, beetle grubs, bugs etc. Introduced species will either be mostly intact because there are no native creatures that feed on them or sometimes they may show evidence of being consumed or colonised by introduced pests like aphids. Many Australian native plants, not indigenous to the area, may not be eaten.

Equipment:

Magnifying glass, note paper and pencils.

If you have access to a video microscope this can be very useful to show detail on the surface of leaves and any tiny creatures still feeding on the leaves.

Safety Precautions:

When students go outside ask them to be careful of bees, wasps and large spiders. Bees are the most dangerous animals in Australia. Do not remove leaves that have spiders or their webs attached as this may disturb the spider.

Procedure:

Divide the class in two halves. Each group collects 100 leaves. Half the class collects leaves from native trees and the other half collect leaves from introduced tree. The leaves should all be mature.

Students can quickly sketch the trees from which they collected their leaves. Note the shape of the tree and the shape and thickness of the leaves. Native plants usually have leaves that are long and fairly strong and thick. Thick, strong leaves allow plants

to retain moisture more easily. Many introduced species have leaves that are much thinner and can be either broad or long. Many introduced species of tree lose their leaves in winter where as natives rarely do. A tree that loses its leaves is called a deciduous tree.

Outside or back in the classroom examine each leaf using a magnifying glass or videoflex camera. What can you see on the leaf? Is there evidence that an animal has eaten the leaf? Usually any small blemish indicates the leaf has been fed on.

Students can make a bar graph of how many of their leaves were eaten and how many were not and make a comparison between native and introduced species.

Once indigenous species are established in a Wildscape planting, repeat the activity including indigenous trees. If there are still many local insects, there should be a wider range of blemishes on the leaves compared to either native or introduced plants.

Place _____

Date _____

Tree	Number of perfect leaves	Number of blemished leaves	Number of kinds of blemishes
Introduced plant leaves			
Native plant leaves			
Indigenous plant leaves			

Despite what may be said on gardening shows, blemishes on garden plants can be a good thing.