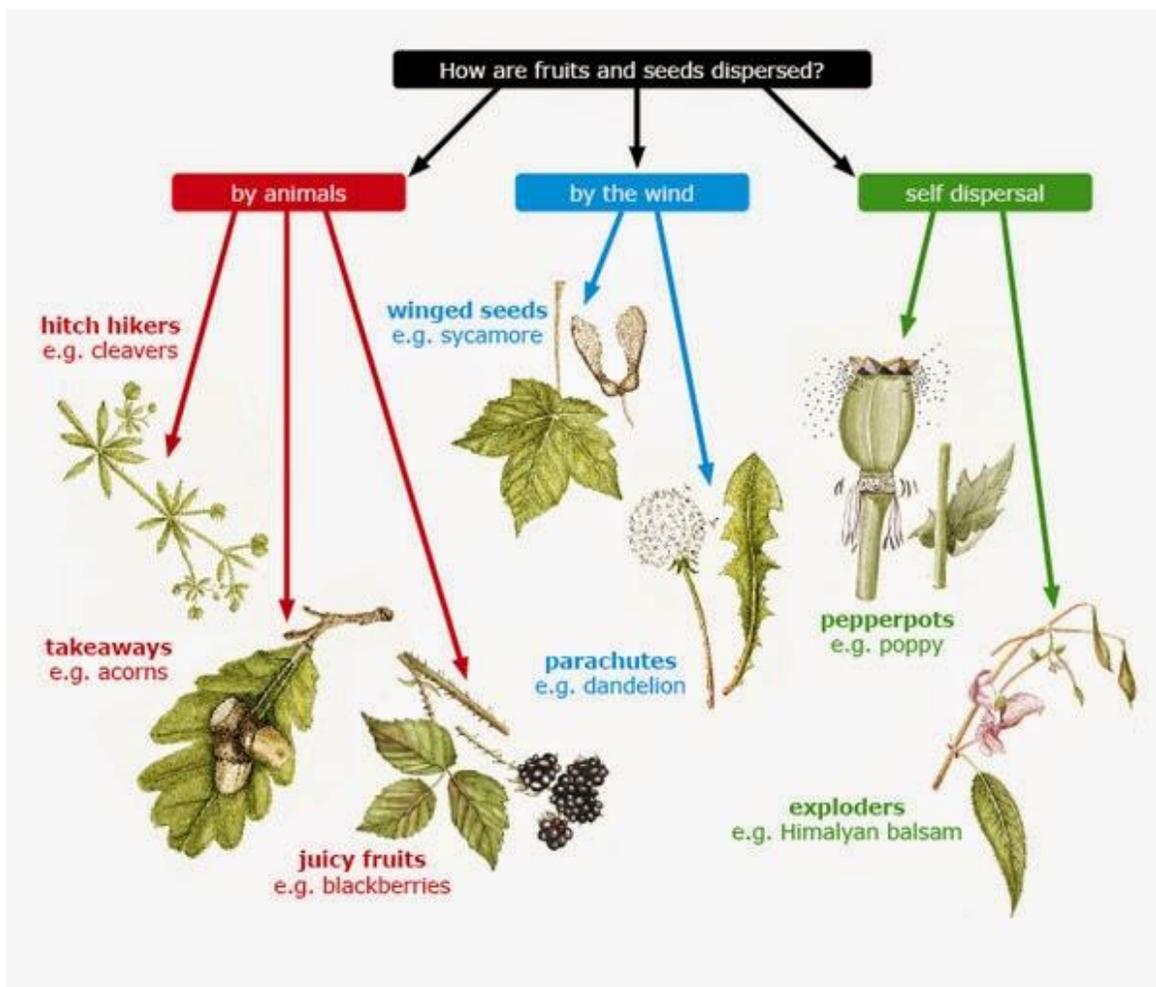


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How Do Plants Rely on Animals?

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One of the main goals of plants, like most organisms, is to survive and reproduce. One of the main challenges that plants face in reproducing is spreading their seeds so that they are not all growing in the same place. If plants grow in the same place they will have difficulty surviving because they will have to compete with one another. There are many different ways that plants can accomplish the goal of spreading their seeds. You have probably seen a number of them and even possibly helped your fair share of plants with seed dispersal. The main ways that plants disperse their seeds are wind, water, explosive action, and animals.



The first three are important and widely used in the plant community, but I want to focus on how plants use animals to disperse their seeds and what makes animals more likely to assist certain plants. There are couple ways that animals can assist in dispersal of seeds. There are plants like the oak tree, whose acorns get buried by animals such as squirrels. Another way seeds can be dispersed by animals is through hitchhiking. Many plants have seed pods with burs on them that can attach to animals and fall off later in a different place. The final way is from animals ingesting and defecating the seeds of a plant to allow it to grow in a new location.



A few factors can determine what plants animals are going to eat and later disperse. A plant is not going to get eaten unless it stands out to the animals in some way. Plants have evolved over millions of years to stand out in their respective environments. Color plays an important role in places like the jungles, if an animal can't see a fruit they are not going to be able to find and eat it as easily. There are also some scientists looking into the idea that some fruits colors may have been influenced by the animals that are eating them. In a study of fig plants in Uganda and Madagascar scientists found that it was possible that the color of the fig plants was influenced by the animals that were eating the figs. The plants in Uganda had red fruits, which against the green background of the jungle would stand out to the apes and monkeys who live there. Apes and monkeys have tricolor vision like we do. On the island of Madagascar, the same kind of fig plant was found to have mostly yellow fruits. Madagascar is home to many lemurs who are red-green colorblind. The yellow fruit stands out to them better against the jungle background where the red fruit would just blend in. (Nevo et al., 2018)



A plants odor can also play a role in attracting potential animal transportation. If a plant has a stronger odor when it is ripe and ready to disperse its seeds it is easier for some animals to find. You may have noticed this trait with some of the fruits you may buy at the grocery store. Checking fruits using smell the same way that some do animals in the wild. The smell of fruits plays an important role in attracting animals that may not have good vision or who look for food at night. This allows the plants to have the ability to spread even if there are not animals around to see them, they still have a way for the animals to find where they are.

Plant seed dispersal by animals is one of the countless ways that plants and animals depend on one another. Plants play important roles in the lives of the animals around them.

Animals also play an important role in the lives of the plants. These codependent relationships are what make our ecosystems possible, but also what makes them fragile.

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