

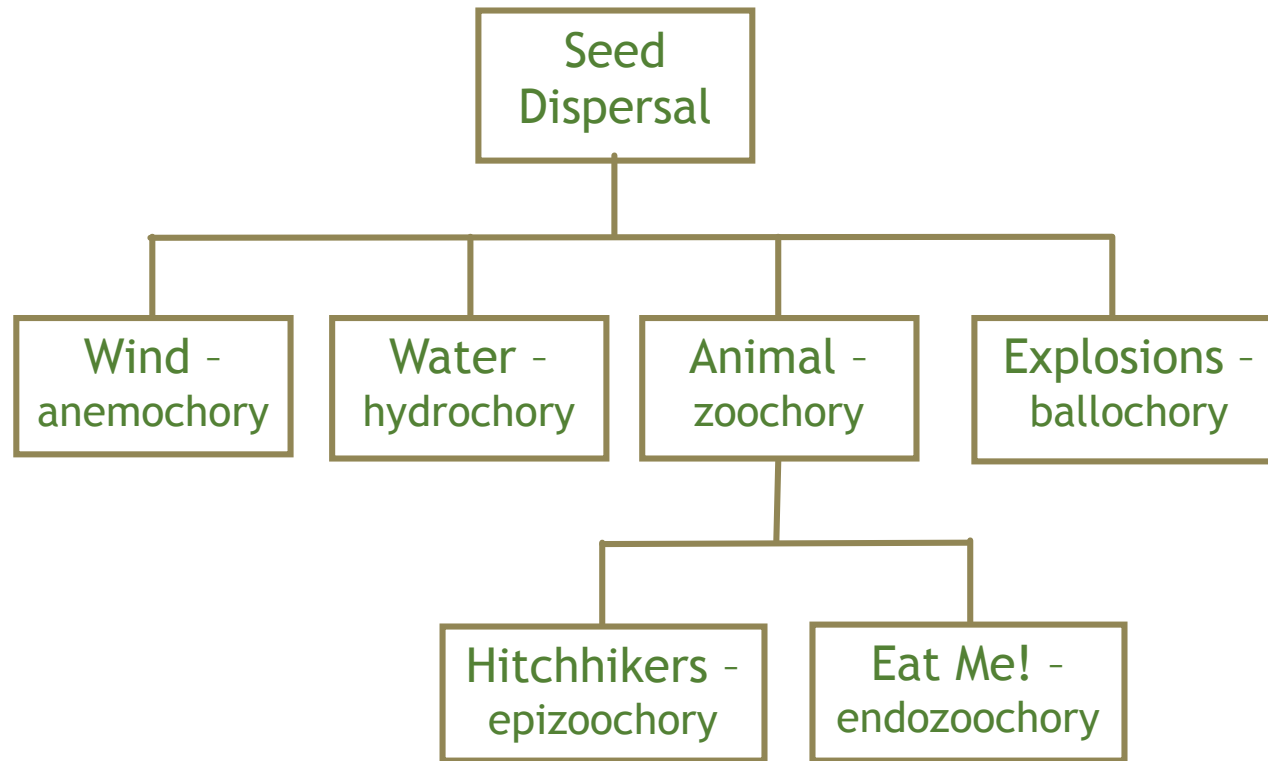
Seed Dispersal Notes

Adaptations that help plant babies survive

Seed Dispersal is an Adaptation for Reproduction

- ▶ Flowering plants reproduce by producing seeds.
- ▶ Seeds allow the plants to spread out and grow in new places which can be a long distance from the parent.
- ▶ This distance eliminates competition not only between the parent and the offspring, but also between other offspring.
- ▶ The competition can be for light, space, water and nutrients, which are all important for plants to be able to grow.

Seed Dispersal at a Glance



- -chory : a Greek suffix meaning to spread, to disperse; to move, to go; to withdraw, to advance; it can also be a means for distribution

Seed Dispersal by Wind Currents

Anemochory

► Strengths

- ❖ Seeds move fast and away from the parent plant.
- ❖ Diverse environments are possible.
- ❖ Many seeds are dispersed from the parents at one time.

► Weaknesses

- ❖ Wind currents must be adequate.
- ❖ If the seed floats to a place with unfavorable conditions, germination will not occur.
- ❖ No energy stores to help the seed germinate.

► Plant Examples

- ❖ Dandelion
- ❖ Maple Trees



Seed Dispersal through Water Hydrochory



► Strengths

- ❖ Transportation can be over large distances - as far as other continents.
- ❖ Seeds are waterproof.
- ❖ The seeds can be very large allowing for energy storage.

► Weaknesses

- ❖ It can take a long time to reach land.
- ❖ Seeds can be lost at sea or land in places where they cannot germinate.
- ❖ Seeds must be durable and able to float.

► Plant Examples

- ❖ Water Lily
- ❖ Coconut



Seed Dispersal by Animals

Two Kinds

Hitchhikers

on the outside of animals



Eat me

on the inside of animals
(ingestion and excreting)



Seed Dispersal by Hitchhiking Epizoochory

► Strengths

- ❖ Rapid plant migration and spread.
- ❖ Very defensive (sharp and pokey).
- ❖ Probably carried to a place good for germination.

► Weaknesses

- ❖ Seed isn't dispersed unless it comes in contact with the animal.
- ❖ Can't be very large - has to be relatively light to be carried.
- ❖ Not much energy storage.

► Plant Examples

- ❖ Burdock (Velcro plant)
- ❖ Devil's Claw



Seed Dispersal - “Eat Me!”

Endozoochory

► Strengths

- ❖ Allows for migration of seeds over a fairly large distance.
- ❖ The seed is protected.
- ❖ Lots of nutrients for germination.

► Weaknesses

- ❖ Seeds may be susceptible to infection, drying out or insect damage.
- ❖ Seeds may not end up in a place where germination is possible.
- ❖ Relying on one animal for distribution could lead to extinction.
- ❖ Usually only a small number of seeds are involved.

► Plant Examples

- ❖ Quinine Bush
- ❖ Figs
- ❖ Melons



Seed Dispersal by Explosion Ballochory

Violent ejection from the plant



► Strengths

- ❖ Allows for scattering in all directions.
- ❖ In some cases the seeds are able to burrow themselves into the ground.

► Weaknesses

- ❖ Migration is not as far as other types of dispersal.
- ❖ The weather needs to cooperate - the plant has to be dry to explode.
- ❖ The seeds are very light - not a lot of food stores.

► Plant Examples

- ❖ Wild Oats
- ❖ Coco de mer
- ❖ Pea Family

