

# Habitat Conservation Area

## *A Self-Guided Interactive Tour Fall Activities*

### SEED DISPERSAL METHODS

**Materials:** Container, seed dispersal cards (optional)

To prepare for winter, plants have adapted certain features to help them survive throughout the winter months. This process is known as hardening off and helps the plant prepare for its dormancy (no new growth) stage in the winter. With fall upon us, the days are getting shorter and the temperatures are beginning to drop. These are environmental cues for the plant to enter the dormancy stage. The plant will slowly begin moving away from creating sugars (food) through photosynthesis, halting its growth and switching its protoplasm (the liquid in its cells) from water to a more concentrated mixture of salts and sugars. This allows the plant to resist freezing as the temperature outside continues to decrease.

Seed dispersal is another response to fall and allows the seeds to efficiently spread until environmental conditions are favourable for their growth in the spring. If a seed simply falls off the parent plant, odds are that they may not get the necessary sunlight, water, and nutrients they need to grow from being smothered by surrounding plants. Therefore, it is fundamental to a plants survival that it has an efficient dispersal method. The five main dispersal methods are; water, wind, animals, explosion and humans. Seed structure varies depending on the mode of dispersal.

**Wind** (Cotton): Seeds are light, fluffy or have a wing-like-structure that help the seed be balanced and carried long distances through the wind. Others have long tails that help them fly (like the tail on a kite).

**Water** (Purple Loosestrife): Seeds are light with a hard seed shell that allows them to float on water while remaining viable.

**Animals** (Cedar Waxwing): Animals help to disperse seeds in two ways, by eating the fruit and pooping the seed out in a different location, and by unknowingly transporting them on their fur (bur seeds).

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**Explosion** (Caragana): Some plants have seed pods that become dry and split open, spreading the seeds, sometimes shooting them out a fair distance from the pressure of the small space. If you go for a walk in Wascana park during the fall you might hear the seed pods of Caragana “POP” as they break open and disperse their seeds.

**Humans:** As humans we often unintentionally track seeds to different areas simply by walking and getting them to our feet, clothing, vehicles, etc.

A fun activity to try in the conservation area is to collect different seed types in a container or in your hands, and then try to match them to the different dispersal methods. Make sure to identify all five!

A second activity is to print off the different dispersal methods below and the different types of seeds and have a relay race! Have everyone line up on one end, each with a seed type card in their hand and on the other end have the matching pile of dispersal methods. Then run one by one and grab the correct dispersal method to match the seed card and bring it back to the line. The next person in line can then run to get their match. The team with the most correct matches at the end wins. Game on!



