HOME GROUND HABITATS

SEED TRAVELERS

Once a seed is set and matured, it has to find a place that offers the specific conditions it needs to grow well: the right exposure, soil, and water—and all of these preferably a distance away from the parent plant. Since most seeds can't move on their own, they get help from outside forces. Sometimes we can tell how a seed travels just by looking at it; sometimes we have to see it travel in order to understand how it works; sometimes one seed can travel in several different ways!

WIND

Many plants are wind-pollinated and also rely on wind to help with the dispersal of the seeds. Plants that are pollinated by wind do not need to produce showy flowers or nectar to entice insects to help with pollination. They DO need to produce copious amounts of pollen so some of it will reach the female flowers and fertilization can occur. Wind-blown seeds are usually tiny, sometimes as fine as dust.

- Lots of trees are wind pollinated: *oak, willow and hazelnut*
- *Grasses* are wind-pollinated and the seeds often wind-dispersed.
- Some plants produce tiny seeds in capsules, which become "shakers" and rely on wind to tip and empty the capsules and help blow the seed around: *clarkia, columbine and evening primrose*
- Other plants produce seeds with a parachute: *milkweed, thistle and dandelion*
- Some seeds have flat, membranous "wings" (samara) built into the seed coat, which act as helicopters or gliders: *maple*
- Some seeds are covered with hairs that help pick up wind currents: *willow, poplar*

HUMAN BEINGS

People have, of course, moved fruits, seeds and plants all over the world; sometimes intentionally by bringing edible, medicinal, and ornamental plants with them to a new home. Sometimes the seeds travel with humans in many unintentional ways—with their livestock and its feed, in the mud on shoes, or stuck to clothing. Lots of European plants (and invertebrates) were introduced to the New World in the ballast (often soil) of ships. People have also traveled all over the world to "botanize"—collecting seeds and plants for horticultural purposes.

OTHER ANIMALS and BIRDS

- Seeds that have hooks, hairs, bristles, or awns can get attached in fur, feathers, or clothing to hitch a ride to a place to grow: *forget-me-nots, needlegrass, bedstraw*
- Scrub Jays store lots of seeds by burying them in the ground, and then do not eat them all. Jays are the means by which *oaks* get planted uphill from the parent tree!
- Little Chickadees store thousands of seeds each year, retrieving many, but forgetting some: *sunflowers*
- Animals such as squirrels cache seeds like *acorns*, but often too densely, and not always in suitable places to grow.
- Finches typically eat seeds from plants, but they are messy eaters and lots of seeds fall to the ground where sparrows forage. The typical "double-scratch" method brings up and scatters some seeds and sows others: *salvias, tarweeds, clarkias, evening primrose, sunflowers*
- Even small creatures like snails may move small seeds: *strawberry, heuchera, miner's lettuce*

FRUIT

Plants have developed brightly colored fruits that contain their seed in order to entice mammals, birds, or reptiles to eat the fruits, thereby cleaning and scarifying the seed, as well as moving it away from the parent plant: *toyon, currant, holly-leaf cherry, manzanita, elderberry, coffeeberry, snowberry, bay*

Birds (esp. Western bluebirds) eat sticky *mistletoe berries* and then can be seen cleaning their bills by rubbing them along a tree branch, hopefully in just the right place for mistletoe to grow!

INSECTS

Ants move lots of seeds for storage within their nests; some of these will be left along the way: *grasses*

Minute seeds are also eaten and moved by ants: *fringecups, miner's lettuce*

Beetles also eat and move seeds, some of which are dislodged and catch a breeze or fall to the ground.

FIRE

Some seeds are embedded into hard, closed containers and need the heat of a fire to open the nut or cone: *pine*

Fires also produce a perfect seedbed, and opens up available light for many plants to grow: annual "fire followers" like *fire poppy, large flowered phacelia*

WATER

Plants that grow by lakes or streams often produce seeds that can float to a new place to grow.

They can be tiny so they float: *seep-spring monkeyflower*

They can be flat or corky so they float: *cow parsnip*

They can have air pockets built into the seed so they float: *sedges*

MECHANICAL METHODS and GRAVITY

Some seed capsules have evolved to burst or split with enough force to eject seeds away from the parent plant: *California poppies, many lupines, ceanothus*

Some seeds are large and can roll downhill away from the parent plant: *buckeye, acorns*

Some seeds have a "corkscrew" attached that helps them drill a hole into the soil: *needlegrass, geranium, crane's bill*