



Near and Far

Holiday parties offer one of the increasingly rare opportunities to dress up. A week before Christmas, when I was decked out in a swishy new skirt, I dropped my phone over the edge of my front porch, and had to wade down through snow and last year's weeds to retrieve it. Once indoors, I discovered that dozens of prickly seeds had attached themselves like Velcro, creating pleats and puckers no designer would ever have planned. As it happens, the inventor of Velcro took his inspiration from the freeloading habit of many seeds. All had to be carefully removed, one by one, so as not to snag the delicate fabric. Similarly decorated raccoons, woodchucks, and deer wouldn't be so meticulous, of course; they would carry the seeds everywhere they travel, shedding them as they traveled.

We tend to think of seeds as passive beneficiaries of whatever chance sends their way. There's even a parable in the Bible that takes this view:

...some fell by the way side; and it was trodden down, and the fowls of the air devoured it.

And some fell upon a rock; and as soon as it was sprung up, it withered away, because it lacked moisture.

And some fell among thorns; and the thorns sprang up with it, and choked it.

And other fell upon good ground, and sprang up, and bare fruit an hundredfold.

Parable of the Sower, Luke 8:5-8.

All true, but not the whole story. Mother Nature's ingenuity in assuring the perpetuation of species finds many ways to spread seed far and wide beyond the original plant. My experience with my tangled skirt got me thinking.

Burdock, Cockleburs, and Cleavers (aptly nicknamed stickyweed), are just a few of a thousand plants that have adopted the hitchhiker strategy for seed distribution, as any dog owner can attest. Plants with burrs generally have seeds too heavy to be picked up by the wind, but others, with very light seeds, can travel on the slightest breeze. Often, their aeronautical journeys are helped along by parachutes or wings. Think of the dandelion heads you used to love to blow on as a child, to the consternation of lawn-proud neighbors, or the fluffy contents of milkweed seed pods. And do you remember playing with the winged maple seeds, so diabolically well designed to sprout seedlings all over your lawn?

Other plants prefer to travel by water. Lily pads float from one cove to another. Coconuts, far too heavy for most other means of transport, fall onto beaches and are taken away at high tide, moving from one island to the next until a whole archipelago is populated. Sheer gravity is put to work, as firm or hard-shelled fruits like the coconuts or apples drop and roll away from home.

In their quest to minimize competition and reach new habitats, some plants resort to energetic explosions that send seeds far from the parent. You have only to touch the seed pods of impatiens or its wild cousin jewelweed to see the impressive distances these sprinters can achieve. The record appears to be held by the sandbox tree, *hura crepitans*, nicknamed the ‘dynamite tree’ for explosions that send seeds 100 to 300 feet from the tree.

Another dramatic strategy, known to be used by some pines, is to wait for a fire to burn away all the understory plants before releasing their seeds, thus ensuring a sunny, competition-free space for new seedlings to germinate.

And those seeds devoured by the “fowls of the air” may have represented loss to a Biblical farmer, but botanists recognize the importance of dispersing seeds to maintain genetic diversity. Seeds with hard coats need to be ‘scarified’—nicked, soaked in warm water, or scraped with sandpaper—mimicking the effects of a bird’s digestive tract. Common examples include nasturtiums, morning glories, sweet peas, columbine, redwood, and some dogwoods. The seed packet will usually recommend scarification for good germination results—no need to wait for the birds to process them. (Or mammals: most notoriously, coffee beans partially digested by civets or elephants are picked out of the animal droppings, processed, and sold at premium prices. I am confident my palate will never be sophisticated enough to try this delicacy.)

The key element missing from the parable, of course, is human agency. The writer lived in a world in which seeds traveled slowly, instead of leaping from one continent to another in a day. Our seed distribution activity can be benign, as when friends share seeds saved from their gardens. It can be very positive, as when organizations like Wild Ones and native plant nurseries promote a changing aesthetic focusing on native varieties instead of imports. Or it can be astoundingly negative, when plants are moved from perfectly balanced ecosystems in which they thrive but are held in check to environments in which they crowd out not only the native plants but the insects and animals dependent on them. Let’s hope the new year brings more careful stewardship.