Figure 5: Plant characteristics table

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| **Taxon****(bead color)** | **Temperature** | **Moisture** | **Description and growth requirements** |
| Alder(red) | Tolerant of hot and cold | Along river banks | A small deciduous tree or shrub that can tolerate both temperate (mean temperatures of 10°C [50°F], summers hot, winters cold) as well as colder boreal conditions (average temperature about 0°C [32°F], summers are very short). Alders are found along river banks and the presence of sufficient local water critical for them. |
| Birch (white) | Cold | Moist | Birch trees are deciduous and like cold areas—many of the current forests of northern Russia are birch forests. In general, birches can be found in alpine, boreal climates (cold and moist). |
| Fir(yellow) | Cold | Moist | An evergreen tree often sold as a Christmas tree. Firs are now naturally found at either very high altitudes up on mountains or in the far north at high latitudes where the environment is generally cold and moist. |
| Hemlock(turquoise) | Cool (not too cold, not too hot) | Moist | Hemlocks are another evergreen tree that does best in moist conditions, but needs temperatures that are cool not cold, conditions that are warmer than those found in alpine conditions. Small pockets of hemlock forests exist on the East Coast in special spots that are very shaded, moist, and usually near rivers.  |
| Oak(black) | Warm (can survive in cold) | Not too wet, not too dry | Oaks are a very common deciduous tree in eastern forests and do best in temperate climates, although they can survive in cooler climates. They like mesic (not too wet and not too dry) moisture levels. |
| Pine(brown) | Tolerant of hot and cold | Moist or dry | Pine is an evergreen tree that can tolerate a range of environments. It grows in a cool, moist area or a warm, dry one. They often occur in forests in low numbers and then expand in number when other species can no longer grow because of a change in the environment. |
| Ragweed(blue) | Anywhere in temperate zone | Range of moisture levels | The pollen from ragweed, a low-growing annual herbaceous plant, is a major cause of hay fever. Ragweed can grow anywhere in the temperate zone and even grows in Canada and Alaska. It can take a range of moisture levels. It is found growing in highly disturbed areas and is associated with agriculture. You do not see it in forests, but it is common in abandoned fields, at the edges of farm fields, and along roadsides. You find it in places where farms replaced forests.  |
| Sedges(purple) | Cool | Moist | Sedges look like grasses, but they have triangular stems, not round stems (“sedges have edges”). Fossil pollen from sedges is interpreted to mean cool and wet alpine or boreal habitat. They do best with cool summers, short growing seasons, and cold winters.  |
| Spruce(orange) | Cold | Moist | Spruce, also an evergreen tree, is a species that is found in the tundra, a boreal habitat. Boreal habitats are mostly cold and moist with short, cool summers and long, cold winters.  |
| Viburnum(pink) | Tolerant of hot and cold | Moist | Viburnums are generally forest understory plants that produce large clusters of flowers in mid-spring. While they like full Sun, they can grow in partial shade. This might explain why we see them commonly in forests with deciduous trees (trees that drop their leaves over winter). The limbs are bare in early spring and when the Sun can reach the understory plants. |
| \* A *taxon* is a group of related species; the plural of taxon is taxa. *Canids*, or dogs, for example, can include wolves as well as house pets, and coyotes.  |