

## SCIENCE CORNER November 2016

By Patrick Ryan, Education Specialist, Alaska Botanical Garden

I know what you're thinking: What's all that brown stuff on top of the snow?

And on my car, my deck, and the driveway? If you're thinking they look like seeds, you're partly right.

Technically this material is known as "mast", which, according to the **Mast Tree Network** is basically the botanical name for the nuts, seeds, buds, or fruits of trees and shrubs that are eaten by wildlife. Keep in mind that the word "fruits" has a broader definition than the sweet, succulent treats we enjoy eating. Fruits may be fleshy, like a cherry or dry like peas, beans or walnuts.

In 2014 Anchorage had an abundance of fruits and seeds, most notably from the birch and spruce trees. This was repeated in 2016, I suspect due to the dry Summer. Plants in general have a mission to reproduce themselves, and if stressed, may produce more seeds and fruit. However, this weather cycle may take more than one season to have an effect on seed reproduction. Read more about the effects this mast event has on the forest:

[https://www.fws.gov/uploadedFiles/Lisuzzo\\_N\\_and\\_ML\\_Bowser\\_2015.pdf](https://www.fws.gov/uploadedFiles/Lisuzzo_N_and_ML_Bowser_2015.pdf)

Did your fruit trees do well this year? Many gardener's apples did extremely well, as did crabapples, etc. I have a Nanking cherry (*Prunus tomentosa*), that gave an abundance of fruit. (By the way, this plant is a wonderful bush cherry for the home gardener, and under-used.) Look at the Mountain Ash trees around town. They are the ones covered with small red or orange berries, the ones favored by our visiting Bohemian Waxwings. There should be plenty of food available for our Winter birds. Here's a great story about the importance of the Mountain Ash, also known as the Rowan Tree:

<http://www.firstpeople.us/FP-HTML-Legends/LegendOfTheMountainAshBerries-Ojibwa.html>

As a result of the large amount of seeds and cones from native trees, we will certainly see lots of seedlings of birch and spruce next year. If you have large planter boxes or containers left outdoors all Winter, you will certainly see a forest of tiny trees next year. You can scoop off this top layer of soil and plant the seedlings somewhere else in the yard or a seed flat. In a few years, they will be a few inches tall. I find it hard NOT to rescue each small tree I find!

Below is what you are seeing outdoors. Thanks to friend Julie McIntosh Shapiro, Digital carpologist - photographer for the Arnold Arboretum at Harvard, for the birch seed pix.

For a long time I thought the birch bracts were the seeds. I was excited to learn otherwise!



Birch seeds and bracts.

Spruce seeds.

## SEED TRAP

An easy gardening experiment you can do anywhere, is to make a seed trap. This is simply a way to catch some of the mast that is drifting down. In the Fall, just fill an old seed flat (one with holes) with any soil you may have, and leave it outside all Winter. You can nest two old cracked trays together for extra strength. Put it somewhere where it will not be disturbed. In the Spring, make sure your flat is getting water, either through snow melt, rain or the garden hose. You are bound to have a crop of trees, some fireweed, dandelions, etc. It's most likely that wind-borne tree seeds will find a way into your trap.



Small birch tree seedlings.



Birch and spruce seeds on snow.



Birch catkins, bracts and seeds.