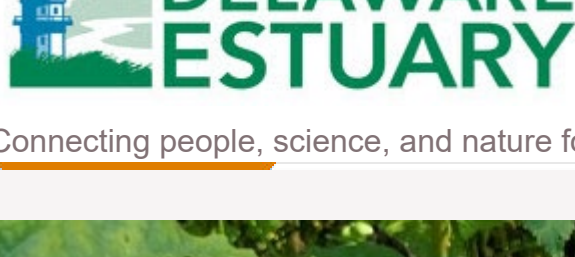


Perennial Pages

Gardens for Clean Water: A Seasonal Newsletter for Habitat Owners & Caretakers



Connecting people, science, and nature for a healthy Delaware River and Bay



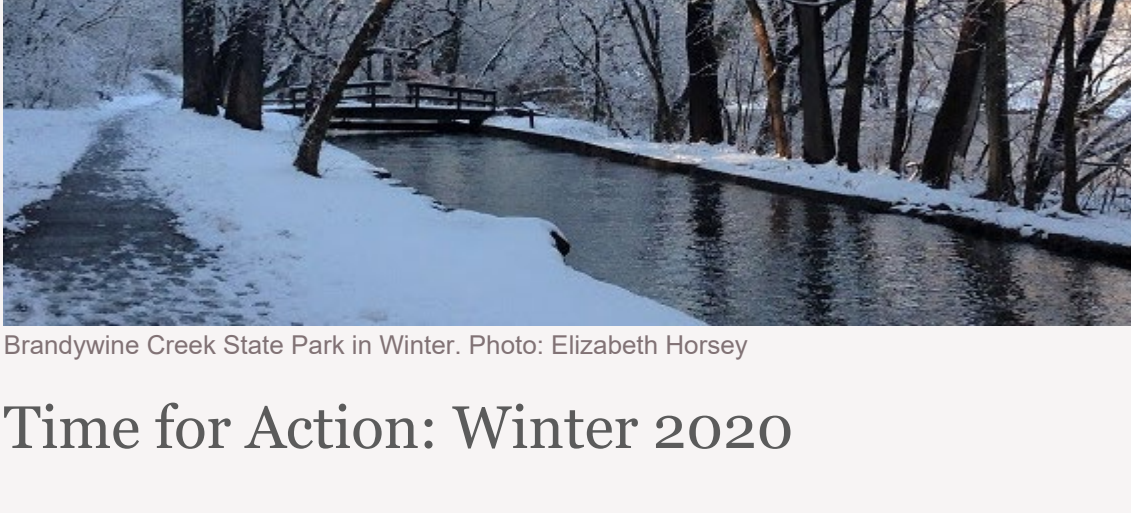
Hardy hibiscus, (*Hibiscus* hybrid, 'Fantasia'). Photo: Sarah Bouboulis

Perennial Pages is 1 Year Old!

Plants and people often go through some of their most dramatic growth in their first year of life. I think the same has been true for Perennial Pages. We have learned, improved, and grown.

Thank you to everyone who has been reading Perennial Pages. I really hope it has been helpful in keeping your gardens looking their best, for you and the creatures with which we share the amazing Delaware Estuary. I love hearing from our readers, so please don't hesitate to [reach out!](#)

Here's to another year of watering, weeding, and enjoying your gardens. And please enjoy this issue of Perennial Pages as we take a closer look at the effect of winter de-icers on our plants. Thanks for a great first year!



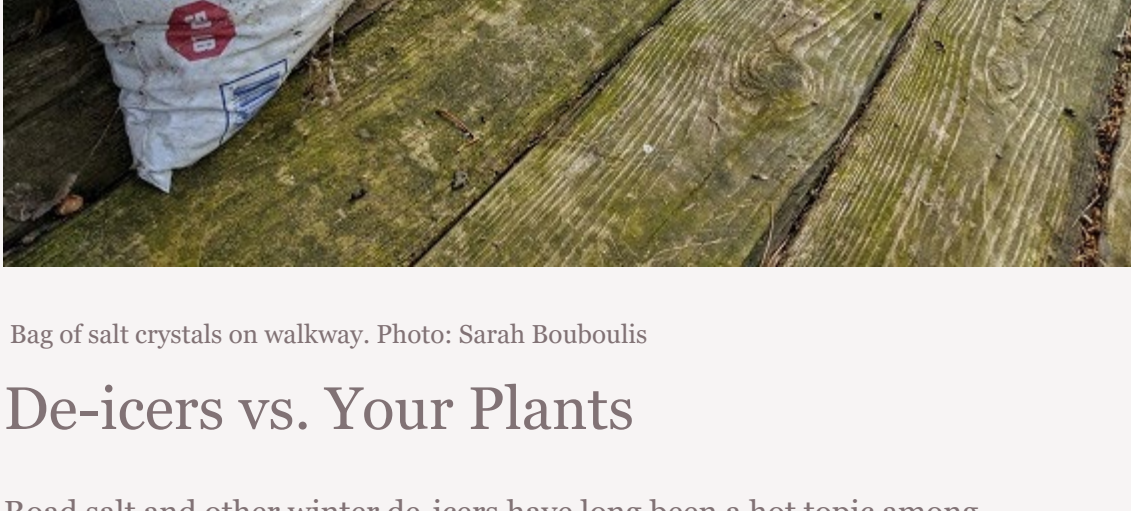
Brandywine Creek State Park in Winter. Photo: Elizabeth Horsey

Time for Action: Winter 2020

Winter is often a time for rest, but it can also be a time to plan for the year ahead. Start making a plan NOW for things you want to do in your garden in the SPRING. Winter is a good time to research plants, and make a springtime work plan. The colder months can be a good time to get deals on gardening tools and staples (i.e. pots, shovels, etc.) and to also maintain your well used tools. Sharpening shears and maintaining any electrical/gas powered tools is a good chore for late winter. (University of Delaware offers a lawn mower tune up service in early April). Keeping your tools well maintained can save time and money, and when you have tools that work, your gardens will look their best. Even when planting a native landscape, keeping your plants well maintained is key to keeping you (and your neighbors) excited about your curated habitats.

It is also important to keep an eye on things in your garden during winter. Remove trash and debris if they get caught in your gardens. If you have a rain garden, monitor any outputs for clogging. Sometimes in/out flows can get full of leaves or sediment.

During winter, resist the urge to "de-clutter" your gardens. Lots of critters use dying vegetation as cover/insulation from the cold. Removing stems and matted vegetation could disturb the animals or even kill them. So, it's better to wait until the weather warms up to do a major clean-up.



Bag of salt crystals on walkway. Photo: Sarah Bouboulis

De-icers vs. Your Plants

Road salt and other winter de-icers have long been a hot topic among environmentally conscious gardeners, and for good reason. Some de-icing products can cause direct damage to plants. These products can also runoff from walkways with rain and snow melt. This can create salty and nutrient-laden waterways, contributing to a whole host of environmental issues.

Most of the popular de-icers contain some sort of chloride compound (e.g. sodium chloride, potassium chloride, calcium chloride, magnesium chloride). Sodium chloride is the most popular. All of these compounds generally effect plants in a similar way, by limiting the plant's ability to take up water and nutrients. Since winter safety for people should always be a top priority, here are some tips for keeping you, your plants, and our waterways safer this winter:

- DO apply any de-icers according to the **package directions**. The biggest cause of de-icer pollution and plant damage is misuse and over use.
- Do NOT shovel potentially de-icer laden snow directly onto your plants and garden.
- DO shovel clean snow onto gardens and plants to act as natural insulation and to dilute any previous salt contamination.
- DO plant salt tolerant species in areas where you know there will be salt spray or soil intrusion (e.g. roadways, walkways). Sweet gum (*Liquidambar styraciflua*), northern red oak (*Quercus rubra*), eastern red cedar (*Juniperus virginiana*), little bluestem (*Schizachyrium scoparium*), obedient plant (*Physostegia virginiana*) and New England aster (*Symphotrichum novae-angliae*) can all be good choices.
- CHOOSE de-icers carefully. Calcium chloride has the best reputation for plant safety, while sodium chloride has the worst reputation and plant impact.
- CONSIDER using sand. It is not a de-icer but can add traction and is fairly neutral in the environment. Use it in conjunction with de-icers to decrease the total amount of de-icer needed.
- WATCH the weather. If temperatures will be above freezing soon after the ice event, de-icers may not be needed.

There is no one-size-fits-all answer for your de-icing needs, but by keeping your plants in mind, you'll do them and our waterways a big favor.

What's "up"?

Seasonal Plant Identification



Christmas Fern, *Polystichum acrostichoides* (Photo: Lorene Althey)

Christmas fern (*Polystichum acrostichoides*) is a great evergreen fern that stays attractive nearly all winter. The fronds are glossy green and this fern is a "clumper" rather than a "spreader," which makes it a good choice for more manicured landscapes. Christmas ferns can also work well in difficult situations. It thrives in moist partial shade, but can handle deeper shade and drier soils. Avoid direct sun and saturated soils. Christmas ferns are not prone to many pest problems making them an all around garden winner!

[Read More](#)

Space Invaders

Invasive Species Spotlight



Garlic Mustard, *Alliaria petiolata* (Photo: Sven Gaedtke)

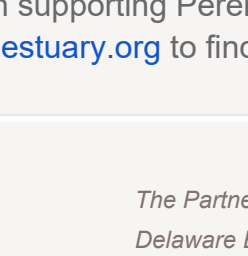
Garlic mustard (*Alliaria petiolata*) is a space invader that may still be green this time of year, so keep an eye out if you're out in your garden. Garlic mustard easily seeds and will quickly take over an area if not caught early! Luckily, garlic mustard is easy to pull, and it is best to do so before it goes to flower (which takes two years). Garlic mustard is one of the few plants to have green basal rosettes in winter. Their garlic smell is also key to correct identification. Read more [here](#) to help you identify garlic mustard early and get an edge on this invader. If you are removing a large patch, be sure to replant the area with native alternatives in order to better compete with garlic mustard seeds (and other invaders) that may be left behind.

[Read More](#)

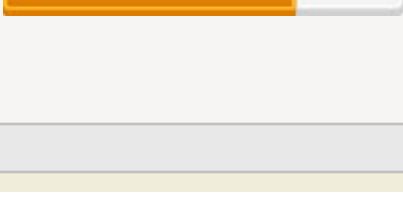
PDE News

Perennial Pages is 1 year old which means we now have "back issues" of the winter season! The information is still applicable, so check it out [here](#) (bottom of the page) for even more seasonal advice.

Partner

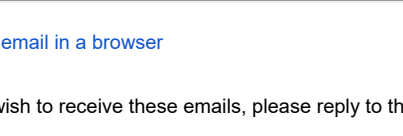


Are you interested in supporting Perennial Pages? Contact sbouboulis@delawareestuary.org to find out how you can help!



The Partnership for the Delaware Estuary, host of the Delaware Estuary Program, leads science-based and collaborative efforts to improve the tidal Delaware River and Bay, which spans Delaware, New Jersey, and Pennsylvania.

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