



The Trillium

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Piedmont Chapter
North American Rock Garden Society
Chapel Hill, Durham, Raleigh, NC
<https://www.piedmontnargs.org>
www.facebook.com/piedmontNARGS

Seeing the Effects of Climate Change along Western Greenland and Through the Canadian Northwest Passage: August-September, 2019

By Janice Swab

The Northwest Passage, (Fig.1) located entirely within the Arctic Circle, is actually a number of passages through the Canadian Arctic Archipelago. It begins north of land across Baffin Bay from Greenland on the east and tends to the Beaufort Sea north of Alaska in the west. The distance depends on the route taken and is about 900

What is the Arctic?

Arctic comes from *Arctos* (Greek) for the bear constellation. Boreal, as the northern regions are known, from *Bore*—North Wind of Greek Mythology.

The Arctic Circle is defined as 66°33' N latitude. Although the features of these northern regions that cover 8% of the earth's surface, vary widely. The wobble of the earth's rotation greatly affects these regions and it is the period of time each year when there is enough solar energy to drive biological processes that is important for plant life.

Generally we separate the Arctic from Subarctic on the presence of trees, the so-called timberline. This "line," actually a "zone," extends around the Arctic in a very irregular fashion from about 70°-55° N latitude. This treeless area appears to the eye of a rock gardener somewhat like a heaven of unlimited proportions! Referred to generally as tundra, a word derived from the Finnish word *tunturia*, meaning barren, or treeless hill, it consists of low vegetation—small shrubs, sedges, flowering annuals, grasses, mosses, and lichens. These organisms are highly adapted to withstand the harsh conditions of this region.

Indigenous Peoples of the Arctic:

Humans are a natural part of the Arctic environment and are thought to have lived around the region for nearly 30,000 years although evidences of culture can be wiped out by moving ice.

Of the four million people who live around the Arctic Circle today, only 10 percent are indigenous. These include forty different cultural groups; those who live in Greenland and Canada are largely the Inuit. Their language is Inuktitut and a single person refers to him/her self as Inuk. It is fascinating to see how beautifully adapted they are to their natural environment, although this has become an increasing problem for them as they have been forced to accept a more "modern" way of living. Plants provide little of their traditional food although they provide most of their medicines. They eat largely seal, caribou, whale, polar bear, and walrus, as well as fish such as char, readily available as settlements are located on water.

Unfortunately, the history of these people after European contact is much the same as the story of Native Americans. Today the toll of this treatment plays out in the high suicide rate among young people amid




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the challenges of living caught between the native past and present realities. One young Inuk on board said that he thought it was “natural” to lose friends to suicide.

After years of court battles, the Inuit now have partial control over four regions of northern Canada. One of these, Nunavut, is now one of three Territories, along with the North West Territory and the Yukon Territory.

A Brief History of Discovery:

The earliest reports of Arctic regions date from 330 BCE as a land where there was no dark in summer and no light in winter. Greenland was reported and named by Eric the Red in 983 CE. He lived there for three years during this very warm period and subsequently encouraged settlement in the southwest of the island. This colonization disappeared in the 15th Century as the climate markedly deteriorated.

A wave of exploration followed, including searches beginning in the 19th Century for a continuous passage above Canada. Explorers such as William Edward Perry (1819-22, 21-23, 24-25, 27) and John Franklin (1819-22, 25-27, 45-47) ventured to the Arctic. The disappearance of Franklin and the 129 men aboard the two ships of this final voyage set off a frenzy of 52 other voyages searching for some evidence of what had happened to them. “Fake” news about Franklin’s disappearance (e.g., that he was murdered by Greenland Inuit) was inevitable!

United States exploration expeditions (1860-61, 60-62, 64-69, 71-73, 79-82, 81-84) got in on the act. An Englishman of great ambition, Robert McClure, (1850-54) is credited with finally finding the last link to establish a continuous route through the Passage and is thereby considered to have “discovered” the Passage.

In 1903-05, Roald Amundsen, (Fig.2) an imposing Norwegian, completed the first successful navigation through this area, a feat that was not to be repeated for another 34 years. It is worthwhile to give Amundsen the credit for his success. He had read everything written about Arctic exploration and had prepared himself mentally and physically for the hardships he would face. He studied science and mastered the skills of navigation before setting out. His smaller ship, the *Gjøa*, with only seven persons aboard, allowed them to live essentially as the Inuit lived, something that earlier explorers had not considered.



Figure 2



Figure 3

Travel in the North West Passage:

Many attempts at a complete trip in either direction, a number of which were successful, were made throughout the remainder of the 20th Century. These were largely scientific expeditions.

Adventure Canada, (the company I traveled with) which has been in business for 33 years, took its first ship through the Passage in 2009 and has continued to attempt sailings every year. Only one trip from east to west and return is attempted each year, timed for the period of lowest ice. Unfortunately, this timing does not coincide with the best flowering periods of spring and summer although the fall landscape is beautiful! (Fig.3) In 2017 and 2018 the ship was unable to complete the trips both ways but 2019 was relatively “smooth sailing” in our Class 1B ice-strengthened ship, *Ocean Endeavour*. We only once needed to call an icebreaker to clear a path for us. Canada keeps seven of their seventeen icebreakers in



the water at all times so no ship is likely more than twelve hours away from help. There are also “hospital zodiacs” available in case passengers need evacuation. We were able to see the process of evacuation in action when one passenger was taken off the ship.

It must not be forgotten that even today a voyage through this passage is not a simple undertaking. Less than 10% of Canadian Arctic waters are charted so we stayed well away from the shores and went to and from the ship in zodiacs in addition to going out for sight-seeing cruises. (Fig.4) Without these extremely reliable, sturdy vessels, holding 10 passengers and the driver, land exploration of the kind we were able to do would be impossible.

Arctic Vegetation:

Approximately 500 plant species are known in Greenland and 200 species in Arctic Canada. The Arctic is made up of frozen soil, sediment and rock—covered with snow at least parts of the year, or bare. Plants must adapt to some of the harshest conditions we can imagine and there are few exotics (non-natives) because of these extreme conditions. Going around the treeless Arctic, one sees a series of vegetation types, roughly described as Tundra.

- Shrub, or heath, tundra, with a preponderance of creeping, prostrate willow and birch species along with alders, rhododendrons, heaths, blueberries and their relatives, cranberries, and other woody plants, along with lichens and flowering annuals such as mouse-ear chickweed, mountain

avens, alpine and moss campion, cinquefoil, and others. (Fig.5) Willows are the most common plants in the Arctic flora. With warming temperatures, the growth of woody vegetation is increasing. This is being referred to as “shrubification” and parts of the Arctic are turning from green to brown during the time of maximum plant growth.

- Vast sedge meadows are common, with more than 40 sedge species. The most common sedges of the tundra (cotton grass, or arctic cotton), species of *Eriophorum*, are found here. (Fig.6) They form tussocks or make continuous mats over the ground. The fruiting stalks are collected when the fruits are mature



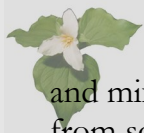
Figure 4



Figure 5



Figure 6



and mixed with moss by rolling in the fingers to make the wicks for lamps. (Fig.7) These lamps (*quilliq*), carved from soapstone, are filled with oil (previously from seals but today usually from a bottle, e.g. canola!) provide heat and light in the tent or ice houses.

There are a few substitutes but these two plant ingredients are a must if they can be found. These mesic to wet meadows also have grasses and well over 100 species of flowering plants

Fell fields (from *fjell* in Norse languages, meaning stony mountain slopes) (Fig.8)

- Stony areas with scattered vegetation where one looks between the rocks to find scattered plants such as species of *Dryas*, *Draba*, *Saxifraga*, and the arctic poppy that tracks the sun and keeps the temperature in the flower higher to attract insect visitors.



Figure 7



Figure 8

told with accuracy. Studying the lichens on a single boulder can explain what other organisms can be found there, and why (Fig.9).

Lichens are not a single organism but are symbiotic associations of fungi, algae and/or cyanobacteria. Most comprise at least two species of fungi and one photosynthetic alga or cyanobacterium. Details are not necessary but one should be able to identify the types of lichens by their growth habits:

Crustose—as the name implies, these appear to be a crust on the surface whether a rock, plant, soil, or other medium and may resemble cracked paint.

Rock deserts

- Polar steppe refers to drier regions dominated by two types of rushes, *Juncus* and *Luzula*
- Polar deserts appear to be nearly devoid of life but this is where lichens dominate.

Importance of Lichens:

Lichens are found in abundance throughout the Arctic and especially in the barren rocky areas largely devoid of plants.

If one is fluent in lichen interpretation, stories of the history and current state of areas can be



Figure 9



Foliose—appear “leafy”, although one must be able to interpret the word somewhat broadly!

Branches have an upper and lower surface.

Fruticose—with a branching, “shrubby” appearance, growing up from soil. So-called reindeer moss are examples of this type as they provide an important source of food for these animals during the long winters.

Lichens are great chemists, producing many kinds of acids, some of which break down rock and enable them to colonize a habitat otherwise unavailable to them. They produce dyes, also used by people, and provide disposable diapers! Lichens are extremely slow-growing and can often be used to date the time of exposure since the ice retreated from areas where they grow. They accumulate radioactive molecules and other atmospheric contaminants which can make them a record of air pollution.

Importance of Birds to Plant Life:

No consideration of plant life in the Arctic would be complete without consideration of bird life. More than 50 million birds use Arctic waters and at least 20 species use the tundra as breeding ground. The fertilization they provide to the vegetation makes life possible for herbivorous animals. Without birds, the summer tundra of the high Arctic would be a desert of stone, a wasteland largely devoid of plant life.

Ice and Permafrost:

The first impression that comes to mind when we think of the Arctic is ice! Three-fourths of the earth’s fresh water is in the form of ice—and it moves! Sea ice has been called “the Devil’s dance floor” for its unpredictability and danger to ships. This was borne out when our ship was unable to enter the harbor on our return to Ilulissat, Greenland, after coming out of the Passage. A huge glacier had moved in overnight and completely blocked our access. The ice is still in charge!

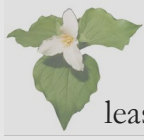
As temperatures have changed, the extent of the ice has greatly fluctuated. The last great ice sheets of North America began to recede 18,000 years ago and have more or less steadily continued this retreat although there have been periods of warming and cooling during this time. We describe the periods of receding ice as interglacial because we can see the extent of glacial retreat. The current interglacial period is the only one that is being documented as it occurs.

Over the last three decades Arctic sea ice has thinned and its extent has decreased. These trends are accelerating. Warming has resulted in extreme weather patterns, storms, sea level rise, and forest fires in the great boreal forests that border the Arctic to the south. Now, in some areas of the Arctic, fires smolder year-round beneath the surface of permafrost that is no longer permanent.



The loss of ice portends great changes for animals and humans who depend on them especially for food and clothing. (Fig.10) As examples, seals and walrus give birth on ice and polar bears depend on it for hunting the seals that they largely depend on for food. People also depend on ice for hunting and for traveling to hunting areas. Ice that is too thin to bear the weight of sleds and dogs, or increasingly, snowmobiles, is not only dangerous but can lead to starvation if hunting is diminished.

Frozen soil we know as permafrost because it is frozen ground that never thaws—at least that’s the classical definition! It can reach down thousands of feet and acts as a watertight bed for lakes and marshy areas. It contains vast reservoirs of frozen vegetation and animal remains—all full of Carbon compounds. When it melts, it re-



leases CO₂ and other greenhouse gases, especially methane, which have been locked in, often for thousands of years. It can be dry or contain ice mostly in upper levels that melt faster and release more CO₂. As permafrost melts, there are dangers of exposing disease-causing microbes, as well as radiation sources that have long lain dormant.

Other Indications and Consequences of Warming:

It is easier to understand some of the changes going on in the Arctic better than others. Scientists have been keeping track of these changes in the field for decades and we know from evidence through millions of years that warming and cooling periods have been a part of the history of this region. Today the Arctic is heating up at more than twice the rate as the rest of the earth. And although a relatively small area, the Arctic has an outsized influence on climates to the south. A few examples of what we see happening helps make the point about warming.

The Global Seed Vault, constructed deep into the permafrost in the Svalbard, an archipelago only 600 miles from the North Pole, opened in February 2008 at a cost of US\$8 million. It was planned to last for as long as humans could contemplate. The entrance flooded in October 2016 as a result of heavy rain, unknown from this area. The cost of the upgrade was €20 million!

Greenland lost more ice in 2019 than in any year since measurements began in 2002. The previous record loss occurred in 2012; loss in 2019 was 15% greater. Although no trend can be shown, the weather is certainly becoming more variable.

This past June the last intact Arctic ice shelf, the Milne, cracked off the north of Ellesmere Island. The collapse may have destroyed the monitoring equipment but because of Covid-19 no expedition could visit to study the situation. During the same month a record temperature of 38°C was recorded in the Arctic! (Human body temperature is 37°C.)

Some bird species are being seen further North than ever before. It has been observed that they may be arriving earlier than sufficient food sources are available. What happens if this situation continues or worsens?

Some plant species are blooming earlier, ahead of usual times when pollinators visit. Considering the brief time that annual plants in these environments have to germinate, grow, bloom, be pollinated, and complete seed production, every step of this life cycle depends on precise timing. What happens when these steps do not synch?

Since 2007 the mean summer Arctic temperature has flipped from below freezing to above this mark.

The Arctic is not all that's Heating Up!

Eight countries have land area or political control in the Arctic: Canada, Denmark, Finland, Iceland, Norway, Sweden, Russia, and the USA.

It is not lost on these nations, or others, that the waters of the region are warming and ice is diminishing. Submarines and icebreakers are increasingly being sent into the waters of neighboring countries, especially by Russia and the US, with consequences that have spawned books on the subject. During our voyage the *International News* announced that Russia would launch the world's first floating nuclear reactor, sending it from Murmansk to a location 5,000 miles to the east. Fifteen days later it was announced that the journey had been completed and the reactor would begin operation by year's end once it was connected to the local electricity grid. This becomes the world's northernmost nuclear plant.

Today the untold mineral and energy extraction possibilities and access to rich fish stocks are but three of the other factors driving interest in the Arctic.



Consider the original reason for Arctic exploration—a shorter path between the Atlantic and Pacific Oceans. Consider the distances from London to Tokyo via: Cape Horn—29,000 miles; Suez Canal—24,000 miles; Cape of Good Hope—23, 600 miles; Panama Canal—20,000 miles; NW Passage—12,870 miles.

Before everyone gets too excited, a note of caution. Many issues exist that thwart implementation of this route. Enough said for now. 🌀

Photos from My First Carol Woods Garden—Fall and Spring, 2016

Marian Stephenson



Japanese Maple Seedling Brought from Former Chapel Hill Home



Euscaphis japonica



Arisaema sikokianum germinated in situ.



Epimedium brachyrrhizum, bought at Piedmont Chapter auction in 1996. Moved 3 times, still going.



Constructing a Plastic-Resin Crevice Half-Barrel

By Jeremy Schmidt and Bobby J. Ward—Photos by Bobby Ward

Jeremy Schmidt:

In early 2020, Bobby Ward asked if I would like to build a tiny crevice garden in each of two half-barrel-sized outdoor containers. “Sure!” I said.

Having seen several examples of trough crevices online, I knew I had to think much smaller (and thinner) than when constructing large scale crevice gardens, like the 400’ (122 m) long botanical megalith at Juniper Level Botanic Garden. I made a trip to the local stone yard and purchased a pallet of 1”-3” (2.5 to 7.5 cm) thick “Shiloh Select Thin,” the thinnest naturally weathered stone they offered.

Thanks to a recently deceased front-load washing machine, I had a stainless-steel tub available to tumble my ideas. My initial stainless-steel container crevice looked awful; but much like disassembling a washing machine in the front yard, this was an exercise in learning—not aesthetics. In the trial run, I discovered that my stone selection was too thick to afford any intricacy or flow. Fortunately, the sedimentary flat fieldstone could be split into thinner fragments. Using a \$2 flathead screwdriver and an equally cheap carpenter hammer, I bisected a couple dozen choice stones . . . “cherry picking” rocks displaying universally

useful angles, like long isosceles triangles or trapezoids with concave edges. With 300 lbs. (about 136 kg) of selected





split stone, and enough 75% Permatill™/25% compost-soil mix for Bobby's two containers, it was time to stack.

For the sun container, my objective was to stop the eye from looking past the container. I also wanted to disrupt the symmetry of the container's rim with some sort of functionally off-balanced, overlapping feature. A primary directional vantage point simplified the design—I only had to make it great from one direction. In an attempt to prevent the eye from speed-reading left to right, all the stones' ele-



vation was confined to the back left “corner” of the container, promoting front-to-back observation over each horizontal planting crevice.

The second crevice container lives on a shady deck, with primary observation from above. Although functioning as a crevice garden, my goal was to represent the verdant and timeless simplicity of a mossy mountain forest. Hoping to trick the eye into seeing a round boulders resting near exposed rock strata, the mossiest and thickest stone on the pallet (top-right) was selected to contrast the thinnest slivers of split stone (bottom-left), separated by clear space in between (center). A second, thick stone was added at an off-angle (top-center) to support the boulder narrative—perhaps they rolled to a stop some time ago.

Of course, no ancient forest floor is complete without a celebration of ancient trees. The most difficult

part about incorporating deadwood into a container crevice is finding one small enough to fit. This was not the first piece of wood we tried to fit into this container!

What a great project! I had fun with this one. I feel anyone can build a crevice container. The material cost is significantly lower than an in-ground crevice garden, and the stones are all less than 25 lbs. (11 kg) each. And if a crevice “draft” is unsatisfactory, one can simply dismantle it and start over! The containers are semi-mobile if set on strong castors or if a hand cart is available. I estimate Bobby's finished containers at 200 lbs. (90 kg) each.



Bobby Ward:

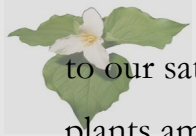
The half-barrels are made of a plasticized-high density resin and were acquired online in the fall of 2019 from Costco, an American-based membership club that operates around the world. The dimensions of the half-barrel are about 20 in. (51 cm) in diameter by 15 in. (38 cm) deep and they cost about \$40 U.S.; the color was listed as brown cedar. I placed one on the sidewalk in the front of the house, planting it with pansies, a mixture of *Viola x wittrockiana* that provided color all winter for several months till warm weather began in March of 2020. I did not plant the other half-barrel, but I kept thinking how I might eventually use both. Searching the Internet, I found crevice tubs on a Facebook site called Modern Crevice Gardens. That was my “Eureka!” moment as I decided that what I would use the two half-barrels as crevice gardens---one in the sunny front of the house and the other in a somewhat shady space on the back deck.

I had no experience in building a crevice garden but I have seen the work that Jeremy Schmidt had done using recycled concrete (“urbanite”) at Juniper Level Botanic Garden for Tony Avent. I knew the garden well from many visits to see the evolution of Jeremy’s work, particularly when I shopped at the adjacent Plant Delights Nursery. I contacted Jeremy and he accepted the challenge to try his hand for the first time in a small space crevice garden. The COVID-19 virus slowed things down in early 2020, so it was not until June that Jeremy was able to complete the two half-barrels. For the sunny crevice, Tony gave me small cell packs of plants that would work in the tight spaces of the sunny crevice, and separately I acquired plants from the JC Raulston on-line plant sale and



from other area nurseries for the shady crevice half-barrel.

Because of the weight involved, Jeremy decided it was best to build the half-barrels at my house over two visits, so I could see the construction and make any comments, and also avoid the need to load and transport them to my house 45-minutes from where he lived. Once the stones were installed



to our satisfaction, my friend, Mike Chelednik, volunteered his eye to design the layout of the plants among the stones and to plant them. For the sunny half-barrel, we used seventeen plants that included *Draba kitadakensis*, *Erysimum helveticum*, two species of *Escobaria* (cactus), *Globularia valentina*, *Lobivia backbergia*, *Saxifraga cotyledon*, *Campanula rotundifolia*, and *Silene zawadskii*. Plus, *Agave bracteosa* ‘Squidget’ from the JC Raulston Arboretum. The crevice receives mid-morning, direct sun from the south and afternoon sun from the southwest. In the first month after the planting, despite temperatures in the 90s F (30s C), I lost only one plant, an acantholimon, and it was replaced with *Escobaria guadalupensis*.



For the shady garden Mike and I made visits to local nurseries to find additional plants that would complement Jeremy’s concept of a mountain forest crevice. Because some of the stones that Jeremy used are larger than the sunny crevice, we could only accommodate space for eleven plants. These included *Cheliantes distans*, *Erodium reichardii* ‘Flore Pleno’, *Ficus pumila* ‘Dorte’, *Hosta* ‘Pandora’s Box’, *Sedum nevii* ‘Silver Frost’, *Sempervivum* ‘Golden Nugget’, *Sedum japonicum* ‘Tokyo Sun’ and a fern *Astrolepsis sinuata* ‘Jo Levy’. This half-barrel receives filtered morning sun and bright shade the rest of the day. Jeremy had envisioned a piece of gnarly deadwood for the forest setting, but it took up too much valuable planting space and was omitted in the final design and plantings.

Working on this project with Jeremy, Tony, and Mike was great fun and educational, and I thank them for their assistance. It’s also a project that can be replicated by others who have moved to an apartment, condominium, or townhouse and have limited space to garden. ❧



NARGS Rocks: Troughs Coast to Coast

Join NARGS for a virtual Study Day to celebrate gardening with rock plants in containers on Saturday, November 14, 2:00 p.m.

This will be a live online Zoom event, but your ticket will allow you to view the event later or revisit any part of it any number of times.

Presentations on how to build, plant, and display troughs will be made by horticultural authorities from across North America:

- **Josie Lawlor** will present Urban Ecology and Plants, featuring the trough garden at Rockefeller Plaza, NYC
- **Bart O'Brien** of (Tilden Park) Regional Parks Botanic Garden in Berkeley, Calif., will speak on Western Troughs for Western Plants
- **John Ray**, the Millstream Garden Award 2020 recipient and Philadelphia Flower Show medalist will present Gardening in the Banana Belt (Eastern shore of Maryland)
- **Panayoti Kelaidis** of Denver Botanic Gardens will present Troughs for the Rocky Mountains.
- A bonus presentation by **Esther Wrightman** of Wrightman Alpines Nursery will cover design, plant choice and care of troughs at the nursery.

\$25 for NARGS members, \$50 for non-members (includes a membership in NARGS)

If you are a Piedmont Chapter member but not a NARGS (national member), and you join NARGS for this event, the Piedmont Chapter will refund you half of the national membership: \$20, for the first year of your membership.

Moderators are the Piedmont Chapter's chair, **Cyndy Cromwell**, and NARGS president, **Elisabeth Zander**.

Go to www.nargs.org to sign up.

Also, would you like to win a free ticket and a year's membership to NARGS? Enter our trough photo contest at woobox.com/kdfknp



NARGS ROCKS

TROUGHS, COAST TO COAST

For Immediate Release: 10/12/2020

NARGS ROCKS: Troughs Coast to Coast: *Celebrating Gardens with Rock Plants in Containers, a Virtual Study Day.*

The North American Rock Garden Society [NARGS] will present *Troughs Coast to Coast: Celebrating Gardens with Rock Plants in Containers*, a virtual International Study Day, on November 14th at 2 PM EST. The cost is \$25 for NARGS members; and \$50 (which includes the pleasure of joining NARGS) for non-members. [nargs.org]

Troughs Coast to Coast is being held as a live online Zoom event but your ticket will allow you to view the event later or revisit any part of it any number of times. Presentations on how to build, plant, and display troughs will be made by horticultural authorities from disparate gardens as that from the roof of the NYC Rockefeller Center, the (Tilden Park) Regional Parks Botanic Garden (Berkeley, CA), the Millstream Garden Award 2020 recipient and Philadelphia Flower Show medalist, and the Denver Botanic Gardens. Plus design, plant choice and care at Wrightman's Nursery. [nargs.org]

Beyond their uses for alpinists and rock plants, troughs provide a space to grow and display miniature or diminutive plants (without losing them), and to provide finicky plants with specialized conditions. Troughs provide a space to garden and/or can make a difficult site more hospitable. Perhaps you have the urge to create miniature landscapes and gardens with plants, rocks, bonsai and found objects. There are no trough police.

The Trough Photo Contest is now open for online entries.

The Trough Photo Contest is now open for online entries. Prizes include a free NARGS membership for a year and a ticket to the November 14th Troughs Study Day. Submissions will be accepted until November 7th. [vbox.com/kdfkm] Anyone anywhere in the world may submit one entry to each of the three categories (3 photos total): Best Trough Photo, Best Trough Design, Best Use of Troughs in a Garden. Plus a People's Choice prize will be voted on by visitors to the show.

The Judges include

Laura Caddy, Curator of the L.H. Lohbrunner Alpine Garden, Univ. of BC Botanical Garden.
Mike Kintgen, Curator of Alpine Collections at the Denver Botanic Gardens
Matt Mattus, author of *Mastering the Art of Flower Gardening*.
Steve Newell, New Zealand Alpine Seed proprietor and frequent speaker.
Wiert Nieuman, plantsman and artisan from The Netherlands

NARGS encourages the study and cultivation of a wide range of plants and garden forms and welcomes both beginners and experts. Members receive access to publications, tours, videos, meetings, and garden visits. [www.nargs.org/about-us] #nargsrocks



Message from the Chair


Cyndy Cromwell
piedmontnargs.org

For many of us, gardening remains a refuge and solace during the extraordinary times we are living through. We are lucky to live in a location where year-round plant interest, and even year-round flowering are easily within reach. I am so glad that nurseries and horticulture are deemed essential and, judging by how quickly this year's bulb sale sold out, a lot of you agree! Thanks to Amelia Lane for ordering and organizing the distribution of 1600 special bulbs from Van Engelen, and to committee members David White and Elsa Liner for their help in selection, packaging and distribution!

If you haven't made the trip out to Pat McCracken's Garden Treasures in Wendell, it's only a 15 or 20 minute drive from Raleigh, and well worth the trip. The new greenhouses are full of unusual, beautifully grown woody plants and perennials. Fall hours are Friday-Saturday 9am-5pm and Sunday 1pm-5pm. Check out <http://garden-treasures.com/> for more info.

Are you trough-curious? NARGS is presenting an online study all about troughs, including construction, design and plants for successful trough-iculture. The study day begins at 2 pm, on Saturday, November 14. If you're planning to attend the JCRA Symposium that day, don't worry! Videos of all the presentations will be available on demand to registrants. Check out <https://www.nargs.org/nargs-rocks-troughs-coast-coast-virtual-study-day> for all the details.

Our last meeting of 2020 is November 21 at 10, via Zoom. About a week before, you should receive information on registering for the meeting in your email. Please get in touch with me or Chris Glenn at JCRA if you are having trouble with registration. Janice Swab, Professor Emerita of Biology at Meredith College, will present a fascinating talk on her recent adventure traveling aboard ship from Canada to Greenland through the Northwest Passage, and her observations of arctic warming.

As always, I love to see and share your photos of plants and gardens on the website's Piedmont Gallery page, currently featuring two lovely photos by Bobby Wilder. 



NARGS Piedmont Chapter Meeting

Zoom Program

10 am , November 21, 2020

Janice Swab

Raleigh, N.C.

**“Sailing from Greenland to Canada:
Arctic Warming in the
Northwest Passage”**

Piedmont NARGS Speakers

Fall 2020/Spring 2021

January 16, 2021

Dick Tyler

Clarksville, Va.

“Hellebores: Homeland to the Present”

February 13, 2021

Brandon Huber and Jason Lattier

NCSU and High Point University

“The Aroid Collection of Alan Galloway”

March 20, 2021

John Dole

Former head of the Dept. of Horticulture at NCSU
Associate Dean and Director of Academic Programs
for the College of Ag and Life Sciences at NCSU

**“A Floral Journey:
Discovering the Magic of Flowers”**

April 17, 2021

Jeremy Schmidt and Meghan Fidler

Raleigh, N.C.

“The Bristol Briar: From Space to Place”
[the development of their garden south of Raleigh]

BOARD OF DIRECTORS

Cyndy Cromwell, Chair

Amelia Lane, Immediate Past Chair

Bobby Ward, Vice Chair/Program Chair

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