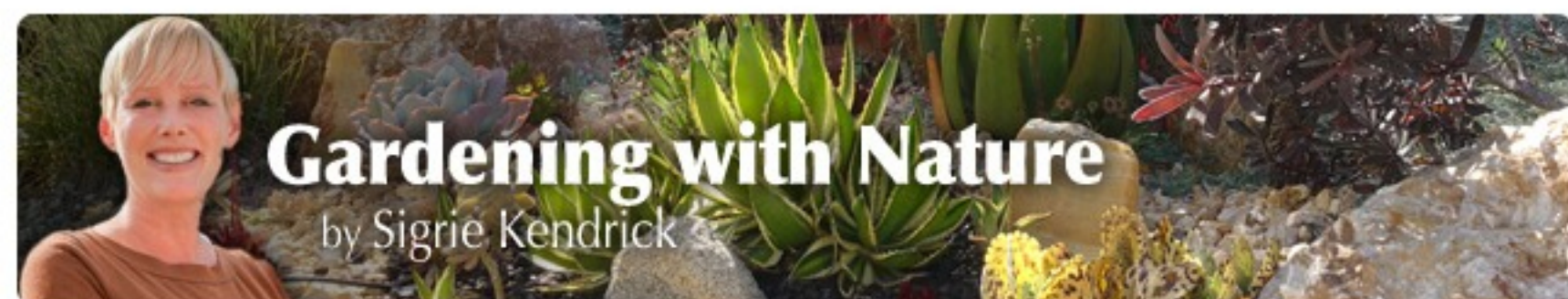


HELP SAVE LIVES & KEEP KELOWNA COOL AND SAFE
 KELOWNA'S GOSPEL MISSION
 LEARN MORE

WORLD GOLD COUNCIL
 Discover more >



Bree-Link PLUMBING & HEATING
 Residential & Commercial
 • Renovations
 • Hot Water Tanks
 • Furnaces
 • Gas Fitting
 www.bree-linkplumbingandheating.ca 250.859.6778
 Quality Service Done Right The First Time
QUALITY DONE RIGHT THE FIRST TIME
Bree-Link PLUMBING & HEATING Call Now 250-859-6778
 PROUDLY SERVICING KELOWNA, LAKE COUNTRY AND VERNON

VALLEY-WIDE PLANT DEATH

Weather wreaks havoc on plants throughout the region

Sigrie Kendrick - Jun 21, 2023 / 11:00 am

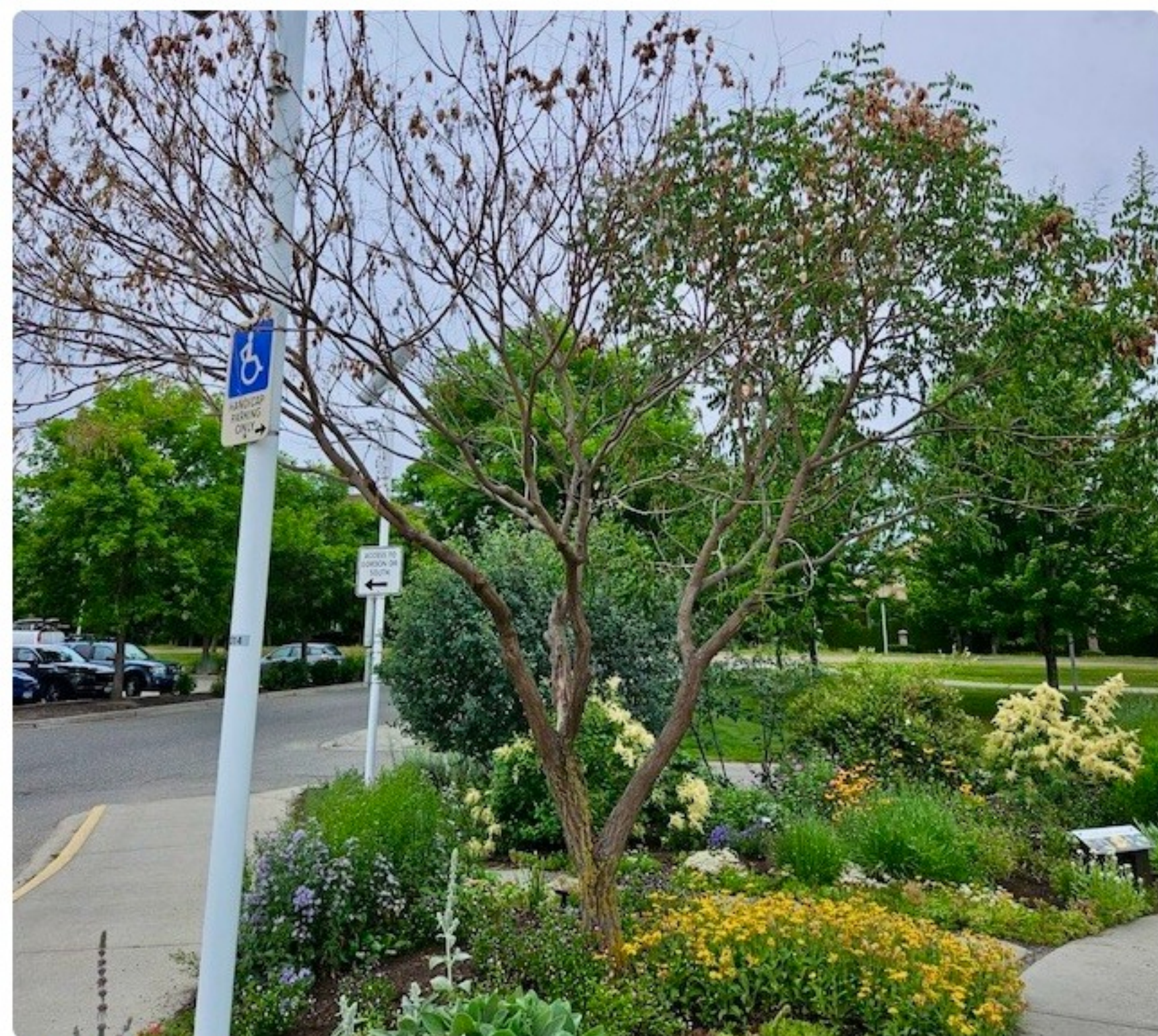


Photo: Sigrie Kendrick
 This Koelreuteria, or Golden Rain Tree, in the xeriscape demonstration garden is less than half alive following severe weather the past couple of years. If you're seeing the death of perennials in your yard too, take comfort in the fact that it's not your fault.

Severe winter weather has caused considerable havoc in gardens, orchards and vineyards in the Okanagan.

There has been a great deal of discussion in gardening circles this spring about the toll last winter took on plant material throughout the valley. Much of that damage is now starting to show up.

Don't blame yourself for the loss. The weather we have experienced over the last two years has had severe repercussions for our trees, shrubs, perennials, vines and ornamental grasses.

In the Okanagan Xeriscape Association's demonstration garden, we saw the complete loss of several lavenders and Penstemon and extensive injury to several of our trees. The Parrotia persica, the Robinia pseudoacacia "Twisty Baby" and the Koelreuteria all suffered winter damage.

Unfortunately, I believe the Koelreuteria, planted when the xeriscape demonstration garden was originally established in 2010, will have to come out. It's a heart-breaking loss.

I have heard other master gardeners around the valley sharing similar stories of witnessing first-hand deaths of these plants, as well as Buddleia, Hybiscus syriacus and various ornamental grasses. I'm sure the list goes on and on.

I know the long warm fall, followed by the extreme and abrupt cold experienced in the beginning of November was to blame for much of the damage, similar to your forgotten frozen water bottle exploding, but I wanted to know more.

It was hard to ignore many of our trees held their browned leaves through the winter, never having the chance to drop them as they normally would, with last fall's sudden lurch from summer into winter.

I consulted with plant pathologist Robert Hogue of Pegasus Horticultural to gain a better understanding of the physiological process which had wreaked such havoc. He explained it actually began with the heat dome in 2021 when plant tissue was damaged by the extreme heat, registering into the mid-40 C range.

Like people, plants go into a low-energy state in extreme heat. In survival mode, plants do not process as much carbon dioxide, leading to less carbohydrates moving into the roots. That lack of carbon dioxide means the roots receive fewer sugars, which compromises the ability of the roots to absorb the necessary water and nutrients from the soil. That, in turn, leads to root death and with the death of large woody roots comes the death of the organism as a whole.

That root death also occurred last fall with the abrupt arrival of winter, when the roots were still actively growing.

"The abrupt cessation of metabolic activity in the above ground plant parts meant there was not enough nutrient flow to the roots to complete the suberization process," said Hogue.

Suberization is the process by which the root walls harden off into corky tissue, similar to a callus over a wound. These weakened feeder roots act as an entry for many root pathogens such as Fusarium, Pythium, and Verticillium.

The damage can be immediate, as seen this spring when the plant abruptly died after a seemingly normal leaf-out. But in other cases there will be a slow but inevitable death.

Hogue has done extensive research on the hardiness of plant life in the valley and has come to the conclusion we can't simply rely on traditional plant hardiness ratings in our changing climate.

I will share more of his findings in an upcoming column.

The Okanagan Xeriscape Association is extremely grateful for the ongoing financial support of the Okanagan Basin Water Board and is proud to be collaborating with them on their Make Water Work campaign.

Sigrie Kendrick is a master gardener and executive-director of the non-profit Okanagan Xeriscape Association and can be reached at 778-363-8360 or by email at exec_dir@okanaganxeriscape.org.

This article is written by or on behalf of an outsourced columnist and does not necessarily reflect the views of Castanet.

[Back to Homepage](#)

71 Shares

About the Author
 I inherited my passion for gardening from my Australian grandfather, a renowned rose breeder in New South Wales. My interest in water conservation started early after a childhood spent growing up in the desert of Saudi Arabia, when a day of rain was cause for a national holiday.
 After meeting Gwen Steele, co-founder of the OXA through the master gardener program, I became passionate about promoting xeriscape. I joined the OXA board as a director in 2015 and became executive director in 2019.
 When not promoting the principles of xeriscape and gardening for clients throughout the valley, I can be found on a rural property outside of Kelowna where I harvest thousands of litres of rainwater with which to water my own xeriscape gardens.
 Connect with me at exec_dir@okanaganxeriscape.org or call 778-363-8360.
 Visit the website at: www.okanaganxeriscape.org

Serving the Okanagan yesterday, today & tomorrow

The views expressed are strictly those of the author and not necessarily those of Castanet. Castanet does not warrant the contents.

Previous Stories

- ▶ Spotting invasive plants Jul 5
- ▶ Plants for slope retention Jun 7
- ▶ Helping bees, butterflies May 24
- ▶ Importance of native plants May 10
- ▶ Planning your plantings Apr 26
- ▶ Worrisome dryness Apr 12
- ▶ Venture into the garden Mar 29
- ▶ Benefits of longer grass Mar 15
- ▶ Gardens and climate change Mar 1
- ▶ Better landscape choices Feb 15
- ▶ Using plants native to area Feb 1
- ▶ Learn to use the right plants Jan 18

FRESH AIR

RUN WILD
 Go off-road with our collection