

Friends of Sligo Creek

Newsletter February 2022



Photo by Ellen X. Silverberg

Join FOSC's Two New Road Salt Initiatives

Help FOSC address salt pollution in Sligo by reporting excess salt on roads or by volunteering to measure salt levels in our creek waters.

If you see piles of salt dropped on Montgomery County roads, driveways, or parking lots, send your observation to salt@fosc.org and include the location, date, time, and (ideally) a photo.

Right: Photo by Galella/Univ. of Md.



Road salt should be spread thinly and evenly, not dumped in piles where it can wash into creeks causing even worse salt shocks to fish. This initiative for

reporting salt piles does not yet cover roads managed by the State of Maryland, the City of Takoma Park, Prince George's County, or private owners.

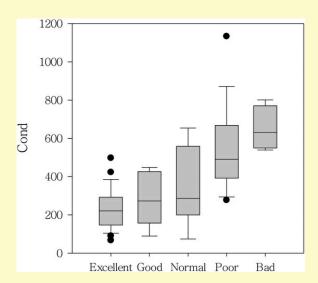
Second, you can join our new team of volunteers who measure salt levels in the creek water with simple test-strips provided by the Izaak Walton League of America. This effort in Sligo is being led by Pat Ratkowski, chair of our water quality committee.

To sign up and receive your testing kit, email Pat at waterquality@fosc.org. He will provide instructions on using the kits and help you choose a good location in Sligo Creek or one of its tributaries (such as Long Branch) based on where others have been assigned.

Right: Young volunteer tests for salt using an Izaak Walton League kit. (Wisconsin SaltWise photo)



You can study the salt levels in Sligo from the USGS monitoring station near Maple Avenue by choosing "conductance" from the menu here. It ranges from about 100 to 800 uS/cm in summer but spikes from 5,000 to 15,000 in winter, massively above the 600 maximum considered healthy for fish habitat. The helpful chart below shows salt levels for stream fish in a 2019 study (here.



For the current Maryland legislative session, Senator Cheryl Kagan has introduced a bill (SB246) that would require road salt companies to be certified, save records, and submit an annual report to the Department of the Environment.

Left: Salt levels (as measured by conductivity) and their suitability for fresh water fish (Aquatic Ecosystems Health image)

For information on road salt and its impacts on creek life and drinking water, visit the Izaak Walton League webpage here. To read more about the Isaak Walton national program on road salt, visit the FOSC webpage here. For more information on the FOSC program, email waterquality@fosc.org.

Learn About USGS Water Monitoring in

Sligo on February 24

Did you know that the US Geological Survey has monitored water quality in Sligo since 2008 and that you can access their current data in real time, as well as data from the past?

Find out what USGS has learned about Sligo Creek over the last 14 years, and how you can utilize the site, in a Zoom talk on Thursday, February 24, at 7:30 pm.

Our speaker is Chuck Walker, associate director for data at the regional USGS Water Science Center in Baltimore. The meeting Zoom link is here. If needed, the meeting ID is 813 9703 0340 and the passcode is 588110.



Above: The USGS monitoring station near Maple Ave, with solar panel and antenna (Tom Walton photo)

The Water Science Center in Baltimore serves Maryland, Delaware, and Washington, DC. It operates stream gages, observation wells, and monitoring stations designed (in the Center's words) to "provide the reliable scientific information needed to understand our natural world."



USGS device similiar to the one submerged in Sligo Creek just upstream of Maple Ave.
Ours does not measure algae or chlorophyll. (USGS photo)

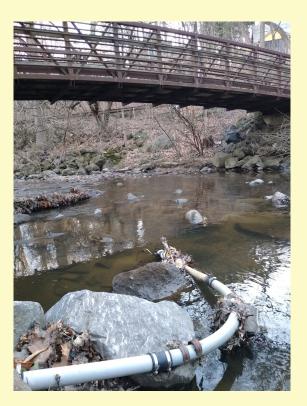
The dashboard for Sligo tracks eight factors: temperature, gage height (water depth), specific conductance (salinity), dissolved oxygen, pH (acidity), turbidity (suspended sediments), and discharge (volume of flow per minute). You can

see Sligo's gage from the first foot bridge just upstream from Maple Avenue. Its operation is funded jointly by USGS and the Montgomery County Department of Environmental Protection (DEP).

To explore what you can find on the USGS site for Sligo, I chose dissolved oxygen, which is critical to fish, insects, and other invertebrates who require oxygenated water to survive.

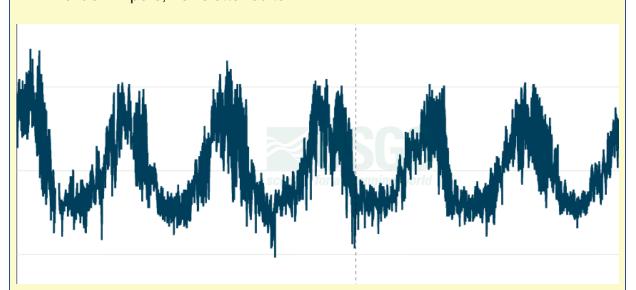
From the landing page for Sligo here, I clicked on "dissolved oxygen" from the menu below the initial graph (for gage height). I then scrolled back up to click on the "change time span" box and entered 01/01/2015 and 01/01/2021, which produced the graph below. The six-year timeline is across the bottom.

Right: USGS probe near Maple Ave. (Wilpers photo)



The horizontal lines are for 5, 10, and 15 milligrams per liter (parts per million). Compare our numbers with those on the bottom chart on oxygen levels that support freshwater fish. For more information on this event, contact Mike Smith at president@fosc.org.

-- Michael Wilpers, newsletter editor



Above: Example of data you can extract from Sligo's USGS site: dissolved oxygen from 2015 to 2021 Sligo averages about 14 ppm (mg/l) in midwinter (peaks) and about 8 ppm in midsummer (lows).

Below: For comparison, the range of dissolved oxygen required for freshwater fish (from maxtechgroup.com)

Parts per Million (ppm) – Dissolved Oxygen 1 2 3 4 5 6 7 8 9 10 Too low for fish populations Stressful for fish Acceptable for spawning and growth Supports abundant fish populations

Hear an Update on Trash Bills for Maryland on March 15

Get an insider update on all of the trash-related bills in the current state legislative session from Shari Wilson, the Interim Executive Director of Trash Free Maryland, in our Zoom event on Tuesday, March 15, at 7:30 pm.

Four bills currently before the Assembly address trash issues, including a single-use plastics bill, two recycling bills, and a new program to set up producer responsibility for packaging materials.



Above: Shari Wilson (Surdna Foundation photo)

The Zoom link for the event is <u>here</u>. If needed, the meeting ID is 873 4793 6629 and the passcode: 664187.

Delegate Brooke Lierman and Senator Malcolm Augustine have introduced a bill (HB 307/SB 292) that would require producers of packaging to create state-approved plans to incentivize a reduction in the volume of packaging and increase its recyclability. Delegate Sara Love has introduced a single-use plastics bill (HB 135), allowing restaurants to provide items such as plastic utensils and straws if the customer asks or accepts an offer.

In the House, a bill (HB 0700) sponsored by a group of twelve delegates would prohibit the display of misleading recycling symbols on plastic containers that can't actually be recycled. Finally, a House bill (HB 0217), sponsored by delegates Shiela Ruth and Sara Love, would create a task force to review the Maryland Recycling Act, study the recycling systems in Maryland, and make

recommendations on updating the Act.



In addition to serving as Interim Executive Director of Trash Free Maryland, Shari consults on public health and environment issues in the Chesapeake Bay watershed. She has worked for local, state, and federal governments, serving as deputy assistant administrator for enforcement at the EPA and Secretary of the Maryland Department of the Environment. She is on the board of Street Sense Media, dedicated to ending homelessness in Washington, DC, and she blogs about gardening with native plants.

Trash Free Maryland's mission is to "work toward a state of Maryland that is free of trash, debris, and litter, where communities, public spaces, and waterways are safe, healthy, and support economic viability." The organization aims to "prevent litter, reduce waste, and protect communities and ecosystems." The nonprofit was envisioned in 2009 when the founding director, Julie Lawson, chaired a working group for Alice Ferguson Foundation's Trash Free Potomac Watershed Initiative. It was incorporated in 2015.

For more information on this event, contact FOSC president Mike Smith at president@fosc.org.

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Thank you!



Nature Photos from Sligo

A selection of recent observations from the iNaturalist public project titled "Fauna and Flora of the Sligo Creek Watershed"

https://www.inaturalist.org/projects/fauna-and-flora-of-the-sligo-creek-watershed

Photographers' names are those provided to iNaturalist.

Send comments or questions to Michael Wilpers vianaturalhistory@fosc.org.



A Wetland in Kemp Mill

The first plant to emerge in Sligo each year is the Skunk Cabbage. Here one has pushed through icy waters in the Kemp Mill wetland, north of the ponds, on January 12.

This seep-fed wetland is probably the largest in Sligo. (photo by Stephen Davies)





Digesting Wood in Beautiful Ways

L: Radulomyces paumanokensis mushroom near Sligo Creek at Devon on Jan. 13 (photo by kdeecook)
R: Oyster mushroom (genus) near Sligo Creek at Rt. 29 on Feb. 2 (photo by Gabi Salazar)





Pileated Woodpecker at the Wheaton Branch ponds on Feb. 2 (photo by Stephen Davies)





Left: One of many oak acorns germinating on wet soil along the east side of the Parkway on Feb. 6 between Maple and Piney Branch. Right: The root grows and pushes into the ground using carbohydrates stored within the nut. (Wilpers photos)



Raptors utilize golf course towers.

Left: Peregrine Falcon on Feb. 1 Right: Red-tailed Hawk on Feb. 12 (photos by Dan Treadwell)





Winter Food for Squirrels

Eastern Gray Squirrel snacks on abundant maple buds near Dennis and Grandin on January 29 (photo by Ron Wertz). The swollen buds are packed with carbohydrates ready to fuel leaf-out and flowering.



Two scavenger birds of Sligo

Above: Black Vultures feed on a Raccoon along the Parkway near Tenbrook & Gable on Feb. 2 (photo by Dan Treadwell)

Right: Immature Bald Eagle at the Wheaton Branch ponds on Jan. 31 (photo by Stephen Davies)



Life on the Rocks

Winter is a great time to view the lichens, liverworts, and mosses that grow on Sligo's rocks.

Without leaves on most of our trees, abundant direct sunlight illuminates these often overlooked members of our wildlife community. Without root systems, lichens extract all their nutrients from the air, while mosses obtain theirs from rain or flowing or splashing water.

(All photos taken Feb. 6 or 8 between Flower and Piney Branch by M. Wilpers.)



Verrucaria nigrescens (lichen)



Snakewort (liverwort)



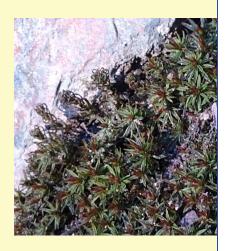
Smokey-eyed Boulder Lichen



Schistidium (moss)



Fluffy Dust Lichen



Lesser Smoothcap (moss)





Three Winter-only Birds of Sligo
They depart in spring to nest and breed further north or west.

Above left: Dark-eyed Junco near Dennis and Hayes on Jan. 22 (photo by Ron Wertz) Above right: American Pipit at the Wheaton Branch ponds on Jan. 20 (photo by S. Davies) Below: Ring-necked Duck at the Wheaton Branch ponds on Jan. 10 (photo by S. Davies)



Need to Reach Us?

President (Mike Smith): president@fosc.org

Invasive Plants (Walter Mulbry): invasives@fosc.org

Litter (Ed Murtagh): litter@fosc.org

Advocacy (Kit Gage): advocacy@fosc.org

Natural History (Bruce Sidwell): naturalhistory@fosc.org Stormwater (Elaine Lamirande): stormwater@fosc.org Water Quality (Pat Ratkowski): waterquality@fosc.org Outreach (Sarah Jane Marcus): outreach@fosc.org Treasurer (Betsy Proch): treasurer@fosc.org

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Friends of Sligo Creek is a nonprofit community organization dedicated to protecting, improving, and appreciating the ecological health of Sligo Creek Park and its surrounding watershed.

Join FOSC