

2018 MWMC Carl Weber Award – Cathy Wiss



Cathy Wiss has served as the Audubon Naturalist Society Maryland-DC Water Quality Monitoring Program Coordinator since March of 2008. She has participated in the ANS Water Quality Monitoring Program since 1996 and has been the Team Leader for a site in the Montgomery County Agricultural Reserve since 1998. With her original professional background in the legal field, Cathy is a self-taught and passionate scientist who learned to identify benthic macroinvertebrates to the family level, in the field with live specimens, and has for more than ten years been training others in that same skillset as part of managing our program. One long-time volunteer monitor reports: “I just can't say enough about her commitment to continuing to educate all of us involved through her ID course series. The classes are

fantastic - even as a seasoned monitor of 25 years, I still take some of the classes almost every year. Through the classroom and field-based classes she certainly has inspired, trained and mentored countless volunteers.” Another long-time team leader and volunteer instructor says that “Cathy makes [volunteers] feel good, like what they’re doing is important.”

Cathy is deeply committed to ANS’ program, and works to recruit, train, and assign volunteers to teams so that they may maintain and grow ANS’ 28+ sites every year.

- Each time she teaches an introductory class series, she carefully identifies new program recruits and matches them with a site that fits their needs for geography, timing, interpersonal dynamics, and more.
- She carries in her head a tremendous amount of institutional knowledge of each of our stream sites and their watersheds, gleaned from her personal visits to sites as well as reviewing each team leader’s data and observations for so many years.
- She also maintains relationships with watershed groups that set up and manage their own sites using her training and database.
- In Cathy’s time at ANS, she has standardized our long-term dataset’s reporting to state and federal agencies. She has ensured that ANS routinely

reports information to the Maryland Department of the Environment, and to the Environmental Protection Agency in response to calls for data to shape TMDLs.

- She has been an active participant for many years in the Maryland Water Monitoring Council, including two terms on its Board. She is an advocate for citizen science and citizen scientists and has worked tirelessly to ensure the validity and reliability of our data so that it can be transmitted accurately to agency staff. In that vein, she has been an active participant in the Chesapeake Monitoring Cooperative, pushing the organizers to include family-level data support and providing feedback and expertise on the CMC's plans.

Cathy is an advocate for streams. She was a leader in the 2012-2014 Save Ten Mile Creek campaign to limit development in the upper watershed for the Little Seneca Reservoir, an emergency backup drinking water supply for the entire Washington, DC region.

- During the campaign she gathered reliable, high-quality data on the creek, submitted it for agency and academic review, led decision-makers on tours of the creek, and testified in favor of its protection before the Montgomery County Council.

Cathy is also a leader in her District of Columbia community. Using her knowledge of water quality, she has worked to preserve streams, trees, and a wetland in her neighborhood and to encourage developers to incorporate Low Impact Development techniques into their projects. She holds a Juris Doctor degree from Catholic University Law School and a Bachelor of Arts from Smith College, and has taken courses in stream protection and restoration, rain gardens, and wetlands ecology. She holds a certificate in Natural History Field Studies.

Over time, Cathy has pushed not only for standardization but also for transparency of our data. She worked to migrate an older, tabular database to Microsoft Access early in her time on staff, and since 2015 has been working to migrate again from Access to an online-enabled Salesforce platform that allows team leaders to enter their information digitally at home and then immediately show results on a map once she verifies the data. She has been highly committed to refining charts that display the information we gather in a readable way, and in the past created these sites by hand, quarterly, for upload to the website. She also created a Google Earth

map that allowed ANS volunteers and the public to see their sites on a map for the first time. Today, her efforts are oriented towards the greater automation made possible by our Salesforce database, maps, and charts, and she continues to seek improvements in data management and display.

Alongside this focus on real-time maps and charts, Cathy has produced several highly valuable synthesis reports of our datasets for particular geographies (i.e. Montgomery County, MD, and Washington, DC) in the past few years. These reports are available publicly on our website and serve as communication tools with the jurisdiction's environment and natural resource agencies as well as with the public and with the MWMC. Synthesizing information is extremely important when your dataset covers more than 30 sites, sampled up to four times a year, over as many as 26 years, and Cathy is able to convey the most important information about each site to land managers and decision-makers.