Stephen VanRyswick

The Sediment Expert

By Darcey Heflin

Growing up on a farm in Southern Maryland was the foundation of Stephen VanRyswick's future career with the Maryland Geological Survey (MGS). Stephen absolutely loved being outside and exploring. Taking care of the family farm provided him with consistent exposure to hard work and the elements.

"Working on a farm from an early age kept me busy, focused and helped me understand what constitutes a good work ethic," Stephen recalls. After tending to his family's estimated 120-acre farm, he knew his future career would have to incorporate Maryland's natural world.

Indeed, this upbringing led Stephen to his role as a Geologist Lead at MGS — a scientific and investigative agency responsible for analyzing and inspecting the State's water resources; topography; environmental, coastal and estuarine geology; and mineral resources.

When asked about a typical day in this role, Stephen responds that it's *never* the same, which is what he loves most about his job. One day it reads more as a desk job: he spends the day in the office, writing proposals and making phone calls about grants and funding. Another day he may find himself on the Eastern shore collecting data and working on sand and shore restoration in Ocean City. He thrives on this constantly changing atmosphere and who can blame him?

While Stephen has carried out many significant projects as the Geologist Lead, he is most proud of his work with oysters. He carefully locates, identifies and maps out habitats in the Bay that have a *suitable substrate*, or a firm bottom, to support oyster shell. He supplies the exact locations of these habitats to restoration groups, who then place *spat* (baby oysters) there. Placing the shell on habitat known to be suitable and highly productive allows for greater odds of survival success, which ultimately increases the population.

Additionally, as the eyes and ears to our underwater landscapes Stephen also uses *cores* (2-12 feet sediment samples taken underwater with a tube) to study a variety of areas in Maryland.

He has done metal analysis of sediment behind the Centreville Dam. In a similar project, he assisted with the examination of the Patapsco River to determine the percentage of fine material that would be released if either of the two dams within the River was removed. (To date, one of the two dams in the River has been taken out.) Recently, he studied the amount of sediment in Deep Creek Lake.

Stephen's interest in sediment began in college. He attended the University of Maryland College Park where his studies focused on soil, water and water quality and natural resources. He graduated with an environmental science degree.

During an awarding internship at the Morgan State Lab in Southern Maryland, he gained extensive experience in boating, microscope identification and a *lot* of meticulous count work and lab time.

After graduating, he came across an opening at MGS. Stephen cheerfully remembers, "I just happened to be in the right place at the right time."

The job posting was looking for someone who had knowledge of soil and sediments. The role was clearly right up Stephen's alley. Eleven years later, he continues to be extremely successful in his work and dedication to MGS.

When Stephen isn't studying the Chesapeake Bay Watershed, he finds solace in going back to his roots and working on his family's farm. He brightens at the mention of his 5-year-old son, Matthew, with whom he adores spending most, if not all, of his free time.

When asked of his favorite place to visit or things he likes to do in Maryland, he is completely stumped: "It's hard to really narrow it down when so much interests me. I thrive on variety."

"Stephen is the jack-of-all trades and master of many," according to his supervisor Bob Conkwright.

Variation may just be the common denominator in his success. ■

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Darcey Heflin was an intern with DNR's Office of Communications.