

Trashed: Students observe Ohio River garbage, work to raise awareness, clean up the mess

By Phyllis McLaughlin
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When Jane Goecke and Donald Poe signed up for an independent study course in geology for the spring semester at Jefferson Community and Technical College's Carrollton campus, they figured they'd be studying rocks.



Phyllis McLaughlin/The News-Democrat

From left, student and volunteer observer Billy Mertz, U.S. Coast Guard representative Eric Santiago, presenters Don Poe and Jane Goecke, U.S. Coast Guard operations specialist Thomas Blossom, Trash Free Oceans coordinator Allison Schutes and geology professor Caroline Reisner.

Instead, they spent eight weeks studying garbage.

The inspiration for the project they recently completed came when Coast Guard Operations Specialist Thomas Blossom and his colleague, Eric Santiago, visited Caroline Reisner's class to talk about water pollution – particularly a phenomenon called the Ocean Garbage Patch.

There are two such patches, one in the Pacific and one in the Atlantic. The Pacific patch, according to Poe, is basically a floating garbage heap roughly twice the size of Texas.

In the presentation at the beginning of the spring term, Blossom told the class that much of the garbage that ends up in the patches actually has washed through the nation's inland rivers from the watersheds that feed into them.

Poe and Goecke decided that day to find out what kinds of garbage could be found in the Ohio River that might eventually join the garbage patch floating in the Atlantic.

With help from other students, the pair set out to study the debris field that collects on the east side of Markland Dam, about 10 miles upriver from Carrollton. For eight weeks, the volunteer observers took photos and collected data about what they could see from the observation deck at the dam.

They presented their findings Friday morning at JCTC to several JCTC staff members and other students, as well as Blossom and Santiago, and a special guest – Allison Schutes, coordinator of

Trash Free Seas with the Ocean Conservancy in Washington, D.C.

Poe said their first step was to determine what other studies had already been done, so they could devise their own.

There weren't any, he said.

"There are a lot of people monitoring chemicals [that get into the river], but not a lot of people monitor debris in the water," Goecke said. "There's nobody measuring the debris."

Once they determined what kind of debris to monitor, Poe and Goecke established a uniform system of collecting the data so that the team members would be checking for the same things.

On an average day, the observers counted 19 plastic gasoline containers, 45 tires, 68 rubber balls (basketballs and other types), 16 metal 55-gallon drums and 38 plastic 55-gallon drums. One of the markers they used to study how the debris field shifted in size and shape (often due to rain or wind events) was an end table.

"We found a lot of wildlife living in the debris field," Goecke said, adding that the team collected photos of Canada geese and other birds. "Buzzards enjoy feeding there."

That's in line with what's occurring in the garbage patches, according to photos Poe said he found online. Marine mammals and birds feed on the trash and many die because they end up eating plastic and other nonorganic items that they can't digest, he said.

"It became obvious that it was a pressing issue," Goecke said. "I felt overwhelmed and considered dropping [the class]."

But, she said, Poe reminded her about how to "eat an elephant" – taking just one bite at a time. They were able to break down the project into manageable pieces.

"He got me through this class," she said.

Studying the debris field at the dam, Goecke said, made her aware that water pollution is a problem right here in our own backyard. She admitted to passing the dam daily for the past 13 years as she drove to and from Carrollton from her home in Warsaw. She said she never really noticing the debris that collects there from upriver until they began the study.

"What we need now is public awareness," she said. "If we all tell one person at church, at work ... if we all take our one 'bite' and get our

circle to grow, we can make [the pollution problem] smaller and more manageable. And maybe we can make it go away.”

She acknowledges that the cities and towns along the Ohio River, including Carrollton and Ghent, do host River Sweep events to pick up litter from the riverbanks. Cleaning up the debris field, however, is a different task altogether.

The water at the dam is turbulent, and the gates of the dam that help control the water levels there cause suction that can pull debris – or even a boat with passengers – down into the water and through to the downriver side of the dam.

“It’s very dangerous,” Goecke said.

After the presentation itself, those attending planned to brainstorm ways to raise public awareness of the problem and help remove trash and debris from the river and watershed areas and prevent it from making it’s way to the Mississippi and, eventually, the Gulf of Mexico.

Pamela Dumm, business operations manager at JCTC in Louisville, who manages the sustainability program at all the campuses, suggested the students at the Carrollton campus help put together a college-wide campaign about the debris polluting the river. Dumm received an award earlier this year from Louisville Mayor Greg Fisher for the recycling efforts started at the six JCTC campuses under her leadership.

“Perhaps we could get other colleges across the state to get involved and partner with it,” she said.

“We’re really excited about having that conversation,” Reisner said. “We have a lot of ideas for future studies.”

Schutes said she was very impressed with the presentation and is pleased to see that it is generating interest about removing litter from watershed areas and preventing trash from getting into the inland river systems that eventually carry the debris into the oceans.

She said the photos that Poe, Goecke and their team took from the observation deck tell the story best.

She said the biggest problem facing the Trash Free Oceans program is helping people understand that trash dumped in rural Kentucky – so far away from the Pacific, Atlantic and Gulf of Mexico – does have a tremendous negative impact on the oceans and marine life.

The effects aren’t easily seen. “Pictures are worth a thousand words,” she said. “The impact [this study could have on raising awareness] is exciting.”



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