

river-conservation

BY ANGELA JONES • For the Telegraph Herald
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Visitors to the National Mississippi River Museum & Aquarium may experience the exhibits in a variety of ways: Choose what to pay attention to, follow a logical route based on a museum map, or listen to a tour guide to receive more explanatory information.

Or, with kids and on your own, be led by the finger in a blur of images and text.

No matter how we visit the National Mississippi River Museum & Aquarium, though, it is abundantly clear that the river and its watersheds vitally connect nature, culture and history.

The foundational message — linking the exhibits, the people and the history to the river — is conservation.

Guides consider their diverse audiences when leading tours; they focus on the unique attributes of animals, on the interactive activities showing many kinds of connections, and on myriad historic and cultural links to the Mississippi.

Mark Wagner, the museum's director of education, said that when a guide is with a group, kids slow down and then both adults and kids are more likely to grasp the river's reach.

“We discuss the whole Mississippi watershed,” Wagner said. “Its conservation, its history and what's needed to maintain quality.”

Student group tours, which are quite popular, have the potential to make an effective impact on conservation. According to the museum's education program manager, Jared McGovern, school tours are the most popular, with 18,000 students per year.

Of course, for kids and adults alike, listening to even the most enthusiastic of tour guides is more effective in conservation education when there are hands-on exhibits.

Andy Allison, the museum's director of living collections, emphasized that conservation education and work should be fun, too. The National Mississippi River Museum & Aquarium delivers.

Wagner noted that groups can opt to have a special program for additional education. For instance, some groups may learn more about wetlands as a habitat by netting invertebrates, like mussels, or may learn about the impact of pollution and pesticides on the watershed using colorful visuals, like red and green Kool-Aid.

Wagner suggested that when students see the impact, educational guides might ask, "What would you do?" That gets students thinking in more specific terms.

Many of the hands-on exhibits attract focused attention, and the most popular ones are the live animals, like the daily paddlefish feeding, the touch tanks (most recently sturgeon, crawfish and, the newest, stingrays), and friendly visiting times with snakes and turtles.

"Certain ages are difficult to target," McGovern said. "Older students need more than a field trip." In an effort to get more college and high school students involved, the museum expanded its mussel program.

McGovern explained that older students can be more involved in direct conservation research. The museum started the Student-led River Research Program to give these students an "authentic conservation opportunity" that they are more likely to enjoy and McGovern said, could lead to "river-centric careers." Those jobs could be in conservation or in related fields such as tourism or commerce.

No matter which school-age group participates in programming, though, it's clear that the lessons in the museum and in the schools reinforce one another. Wagner, McGovern and their education team are constantly requesting and receiving feedback from teachers and are seeking ways to be a

part of a classroom's natural science unit.

Essentially, conservation is not just up to experts and decision-makers; anyone from the schools or public can take part in "citizen science."

Former professor Dr. Dan Call taught environmental science at the University of Dubuque from 1999 to 2010 after 22 years at UW-Superior). He described the National Mississippi River Museum & Aquarium as "an asset to the community (because) it draws in people."

Call's research background is in aquatic toxicology, and he often had students "testing aquaria." He sees part of the river museum's role to be educating on conservation so that the public can be "made aware of the problems," and so that research can be done on threatened and endangered species.

The former professor fully supports the river museum doing more to increase its messaging of its current research in conservation.

Although most of the river museum's living animal collection is available for visitor viewing and/or touching, some animals are definitely off limits. Enter the Wyoming Toad.

This toad was almost extinct in the wild by the mid-1990s, when their known population was but 10, Allison said.

When the river museum sought a conservation project in which it could participate, the Department of Fish and Wildlife, which relies on zoos and aquariums, needed specialists to help the Wyoming Toad spring back.

Since starting the project, the river museum has seen some success. Abby Urban is the lead researcher on the toads, which come from just two lakes in Laramie, Wyo. (The lakes are actually part of the Mississippi watershed.) Urban is among those who travel to the Laramie area to conduct field surveys.

Even with the challenges — for instance, the toads breed only once per year — Urban and other researchers have achieved some success. “They determined the optimal diet and nutrition,” Allison said. “And to maximize holding, we elevated how the toads were housed.”

Naturally, because of their sensitive nature, the museum’s 50 to 60 toads live in a basement workroom, away from the public. However, they might relocate to a more visible home upstairs so that visitors may view them and see the museum team’s progress — but still from a slight distance.

The crew determined a Species Survival Plan, and they are “pleased with success, but three years is short to determine success,” Allison said.

River museum staffers are next seeking to become more involved in projects with Box Turtles.

Living in a place the size of Dubuque, we still “need to realize our connections for impact,” Urban said. “Our environment impacts species.”

Ultimately, connection is what it’s all about. The Mississippi and its watershed connects 31 states, which really means it connects everyone living in those places. A connected and wide-reaching team of river museum employees helps us continually be aware that our place on the river is one of many and that we have a stake in its conservation.

Misunderstood mussels focus of research