Row, row, row your boat across the ocean, down the Mississippi and into elementary school classrooms  by Angie Pendergrass

The Mississippi River is the longest river in North America. Its watershed drains 40% of the continental US. This September I got to spend a week rowing the river with Ocean Adventure Rowing (OAR) Northwest, a team of rowers who inspire and educate students (primarily K-12, though they are captivating to learners of all ages) about the environment and about undertaking big challenges, and do science.

The Adventure: Mississippi River expedition started at Lake Itasca (the headwaters of the Mississippi River) in early September and finished at the Gulf of Mexico at the end of November. To fulfill their outreach mission, the team keeps in contact with students along the way via the expedition website, rowboatclassroom.org. Here they have interactive maps and activities, a blog, and modules about watersheds, history, and ecosystems designed by curriculum development experts. They also stop at elementary school classrooms along the river to inspire students in person, which is easy for this engaging, enthusiastic, and jovial crew. They are planning to make the trip an annual event, to build ties with schools along the way and keep attention on the river.

The primary crew for the Mississippi River expedition consists of four seasoned expedition rowers. Jordan Hanssen and Greg Spooner both rowed in high school and at the University of Puget Sound, and shortly thereafter started OAR Northwest in order to enter a rowing race across the Atlantic Ocean, from New York to England, unsupported, which they completed in 2006. They (along with two other teammates) won the race (and also entered the Guinness Book of World Records for being the first boat to row
from mainland US to mainland UK). Of course, it was not all smooth sailing (haha), and Jordan documented the experience in an entertaining book, *Rowing into the Son*. Greg is a physical therapist in his day job (a skillset which also comes in handy in expedition rowing). Jordan and Greg entered the race because of their love of rowing, but they were so captivated by the open ocean that they wanted to share the experience by teaching students and helping scientists.

They spent the next few years reinventing themselves in support of their new mission. They formed collaborations with oceanographers that could use their help collecting data in the ocean, exercise and sleep scientists to study the team in this strenuous endeavor, and curriculum developers to bring provide relevant and useful educational materials to classrooms. Finally, they stumbled across the University of Washington American Meteorological Society Student Chapter, who provided them and their followers with weather forecasts underway (an effort which I led). In 2012, they brought some new team members on board, including adventure filmmaker and decorated Canadian stand-up-paddleboarder Markus Pukonen (the third member of the Mississippi team), and circumnavigated Vancouver Island in April and May. While the island is not an ocean, its circumnavigation was no small feat. The inside passage of the island has some of the strongest tidal currents in the world, including tidally driven white-water features. Many a shipwreck can be found at the bar crossing at the northern end of the island and the rocky, exposed west coast. The weather forecasting team had plenty to contribute, since spring brings a North Pacific storm every few days. Furthermore, the team’s marine navigation mentor David Burch helped them to realize that most charts are created for vessels that travel much faster than the average 2.5 knots of the rowboat, and most don’t include a 1 knot current up the west side of the island. They successfully completed the circumnavigation in 20 days.

In winter of 2013, they undertook another Atlantic crossing, this time in the subtropics, with the intention of completing the first journey from mainland Africa to mainland North America. The fourth and final Mississippi rower, Pat Fleming, (ski patroller by winter, raft guide by summer, and fellow UPS rower) joined the team for this expedition. They took off from Dakar, Senegal in late January, and found the trade winds to be more nauseating and the cold fronts trailing far south to be more numerous than expected. They persevered for 73 days, traveling over 2900 nautical miles, but the trip was cut short when the boat capsized in steep waves during a shift change (so that the hatch door was open) just outside of the Bermuda Triangle and could not be righted. The crew was rescued promptly and the boat was recovered shortly thereafter. Despite that they didn’t reach their intended take-out point in Miami, the capsize propelled their outreach mission by bringing plenty of media attention, including an appearance on *Dateline NBC*.

Engaging students in person is hard to do from a boat in the middle of the ocean (though, as
Row, row, row (continued)

The team has shown, not impossible. Rowing down the Mississippi allows them to visit classrooms in person, while showing many students a side of their own figurative backyard that they have surprisingly little contact with. For Adventure: Mississippi River, they’ve partnered with river ecologists at the University of Louisiana to look at the influence of the different tributaries of the river, and continue to get weather forecasts from the UW AMS team (now under the guidance of Jen DeHart and Elizabeth Maroon).

From Lake Itasca to Minneapolis, the Mississippi is a wild river, with no locks, so dams and waterfalls have to be portaged. They went by canoe for this part of the trip. Since the team’s expertise is facing backward (rowing) rather than forward (canoeing), they brought along expert canoeist Max Finkelstein, a Canadian geographer and author who has crossed Canada by canoe repeatedly. After three weeks of canoeing, they arrived at St. Anthony’s falls in Minneapolis. From here, locks accompany the dams to enable passage by barge (and smaller vessels), obviating the need for portaging, so the team traded canoes for two rowboats (though Max continued in a less-traditional canoe, all are pictured above). Here, they also acquired a certain atmospheric scientist (your author).

During my week on the trip, we paddled 153 river miles over 5 days of rowing. The lock-and-dams tame the river, so it is quite mellow in this section, and headwinds meant only a little net gain from the wind and current; progress was made by rowing. I was unsure how much, if at all, I would get to row going into the trip (since they are a team of professional rowers), but Jordan came down with giardia shortly before my arrival, so I had the opportunity to do plenty of rowing. Despite the headwinds, the weather was warm and sunny to partly cloudy, perfect for our expedition. We spent some nights camping along the way, which was especially pleasant in the Upper Mississippi National Wildlife Refuge, and for nights in town we enjoyed the hospitality of supporters who share a love of the river, the environment, and adventure. We sent Jordan ahead to a school in Winona, Minnesota, when we were short on time, and we all got to visit an environmentally focused elementary school in La Crosse, Wisconsin. We told the students about watersheds, plants, animals, clouds, adventures, and science, and I hope they were especially excited to see that girls can go on adventures and be scientists too.

The river is an interesting mix of nature and industry. The wildlife refuge spans most of the floodplain, and is essentially fertile wetland, surrounded by bluffs carved out by the water flowing from the Laurentide ice sheet during the last glacial period. Small post-industrial towns punctuate the river from time to time, with old grain silos, gravel mills, and oil refineries, connected by train tracks (one on each bank of the river). Despite plenty of visits to the river in St. Louis (my mom’s hometown) throughout my life, I got to experience a whole new side of the river on this journey.

After I left the expedition at La Crosse, the team continued down the lock-and-dam section of the river (there are 27 of them) to St. Louis. From there, the river is free-flowing all the way to the Gulf. The character becomes more industrial and the barge traffic becomes heavier.

You can follow this and future OAR Northwest expeditions from the team website, oarnorthwest.org.

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