

Ocean Gazing: Episode 27
Bobbing and bowling
Wisconsin's Lake Sturgeon Bowl

<begin music>

Ari: This is Ocean Gazing, the podcast where we paddle the swirling seas of our planet. I'm Ari Daniel Shapiro. You'll never guess where we're going this time.

Schmidt: So there are a lot of opportunities, believe it or not, to study oceanography here in central Wisconsin.

Ari: Steve Schmidt is a biology teacher at Newman Catholic High School in Wisconsin. He's also the coach for the school's Lake Sturgeon Bowl team, a regional high school competition about ocean science and stewardship. Tomorrow, he and his students will be joined by 120 other students on 24 teams from all over Wisconsin. The winning team'll travel to Florida in late April to compete in the National Ocean Sciences Bowl. Ready to meet some of the students? Stay tuned.

<fade up music to full and sustain until the end>

Ari: Okay, let's start with the basic rules for the Bowl. <fade up Alaska symposium recording> Teams are made up of a coach and 4 or 5 student members.

Alaska: Here we go, you guys all ready?

Ari: We're listening to a practice competition that took place a few weeks ago not in Wisconsin but in Alaska, and it's where our last sonic stumper came from.

Alaska: So, first toss-up multiple-choice question is in geology. Two major elements that make up the Earth's crust are: W: oxygen and silicon; X: oxygen and iron; Y: potassium and magnesium; Z: potassium and sodium.

Ari: The toss-up questions are asked of both teams. When a team member knows the answer, they <buzz sound> buzz in.

Alaska: B1. <faint "W"> W is correct. Oxygen and silicon. Team B, you guys get a bonus short answer physical.

Ari: The team that gets the toss-up question right is asked a bonus question like this one that only they're allowed to answer.

Alaska: What is the density of a water mass with a sigma T of 26? <laughter> Good thing you got a physical oceanographer on your team.

Ari: There are also *team challenge* questions that each team gets to answer as a group. In total: there's a 6-minute buzzer round, 2 team challenge questions, a break, and then another 6-minute buzzer round. The team with the most points wins. <fade up applause>

Alaska: So, next toss-up multiple choice question is in technology...

Ari: Teams proceed to subsequent rounds based on a double elimination system. And the winners of each of the 25 regional competitions across the country head to St. Petersburg, Florida for the national faceoff. <fade up music and then down>

Alright, back to Wisconsin, to Newman Catholic High School.

Hart: It's a two-story building, 4, 5 hallways, 180 students.

Ari: That's sophomore Matt Hart. To visit him and the rest of the Newman Catholic Lake Sturgeon Bowl team, you have to go about 150 miles northwest of Milwaukee to a town called...wait, how, how do you pronounce, is it Wausau?

Cornell: Yeah, it's Wau-sau.

Ari: Wausau. Okay, wasn't sure how to pronounce it. Sounds a little bit like 'wassup.' Do you ever joke about that or no?

Cornell: <students laugh> No we don't...now we do.

Ari: Now you do. <laughs> So I'm wondering, I mean, here you all are in the middle of a state that doesn't touch any ocean: the closest body of water is a lake, and the next one closest to that is a bigger lake, you know? I'm wondering why, why are you committed to learning about the oceans?

McCarty: I think that the oceans obviously play, like, a huge role in our lives. And really it's such a vital resource and such an important aspect of everyone's life, whether or not we live on it or near it, I think it's important to learn about it.

Ari: That's co-captain Sam McCarty. Next up is the other co-captain Erin Kast, who'll be followed by team captain Nick Cornell. All three young men are juniors.

Kast: I think the ocean is just – even for I think most people, but especially for me – it's just something really fascinating because it's just so huge. And you've got the biggest animals in the world there – these whales – and all that stuff is really amazing. And then when you think about how little we know about it, it's something that seems, like, really interesting to learn more about.

Cornell: The ocean is so diverse and it covers so many things from physics to biology to chemistry and how the ocean's resources relate with the economies of

countries and the politics of countries and stuff. You can take all the knowledge that you learn about the ocean, and also apply that to other things, like the Great Lakes, which are really, really close to us, or even Lake Wausau.

Ari: And the thing about the Lake Sturgeon Bowl is that it can take a student's interest in science, and strengthen it or clarify it. Take Michaela Guster, she's a sophomore at Clara Mohammed, an Islamic affiliated high school in Milwaukee.

Guster: I'm actually a little more interested in biology and chemistry now that I'm in the Ocean Bowl competition. So, I think it made it more interesting to me, yeah.

Ari: And I guess I'm wondering, like, what's more interesting about chemistry and biology now than it was before?

Guster: Um, everything's more interesting about it, I guess, like, me learning about all the different chemicals that's in the water and all the different fish, I guess.

Ari: Right, I see, so is it kind of like it's exposed you to things about chemistry and biology that...

Turner: I didn't know before.

Ari: Yeah, that you didn't know before. Uh-huh.

Turner: Yeah.

Ari: Here's another example. Daja Boyd: she graduated from Clara Mohammed, is in the middle of her freshman year right now at the University of Wisconsin-Milwaukee, and decided to major in microbiology *because* of her involvement with the Lake Sturgeon Bowl.

Boyd: I tried my best and I tried to make it more of a fun activity, more of an activity than work. And by doing that, it kind of steered me towards microbiology, and it helped me pick my profession.

Ari: Last year, the *National Ocean Sciences Bowl* winners actually came from Wisconsin, from Marshfield High School. Since this is a competition though, not every team's gonna win. And I wondered whether that could be discouraging to some of the high schoolers. So I asked Nadira Nasir about that. She's a science teacher at Clara Mohammed and the coach of the team there. But Nasir said the Bowl is hands down one of the most positive experiences for her students.

Nasir: Oh, yes, because they need to be exposed to the environment here, which they rarely experience that because our school is very small so most of the time they stay in school. Once in a while, we take them on field trips so they don't have that

much exposure. I don't care about whether they win or not: I want them to be exposed to the world, and that's the best opportunity for them.

Ari: And being a part of the Lake Sturgeon Bowl does expose her students to the world. Carmen Aguilar is an associate scientist at the Great Lakes WATER Institute at UW-Milwaukee, and she helps organize day-long research cruises on Lake Michigan for many of the Wisconsin teams. It's part of a diversity initiative to involve schools from inner city Milwaukee and students from underrepresented groups.

Aguilar: The students really enjoy coming on the cruise and we want them to take part also in real research. They come up with a hypothesis and then we go out on that particular cruise so everybody gets to get the right sample. So then when we come back, they get to count and measure and then spend some time with us looking at the results. Most of the times when we go out on the cruises is when either it's raining or it's really cold. But it's just really great to hear that they really never will forget that experience. Whatever they do in their careers, they'll always remember this as kind of like a springboard moment for them to go into the world.

Ari: This cruise was a real highlight last year for Romero Halliday, another sophomore on the Clara Mohammed team.

Halliday: I know everybody wanted to go on the boat because it was real fun. Most of the people haven't even seen how far we went. The boat didn't stop moving for, like, 3 hours. And on the boat, they have a camera that you control. You put it in the water and control everything, so they always have something for you to do on the boat. It was more hands on. And that was the part that everybody liked.

Ari: And it goes well beyond just this cruise.

Aguilar: We want students to not only be exposed to the sciences, but also think that this would be a career that they can pursue in the future.

Ari: The Lake Sturgeon Bowl's even helping folks who already have careers. Here's biology teacher Steve Schmidt from Newman Catholic.

Schmidt: I grew up in Houston, Texas and I remember going to the beach on Galveston Island as a child and then in college to play beach volleyball. And so the ocean was a part of my life as a kid. My career choice as a youngster would have been to get into oceanography. And I'm not sure what changed that career interest, but my experiences in Ocean Bowl helped me to feel like I'm a part of the oceanographic community. I enjoy learning about this just as much as the students, I think. And it's been wonderful.

Ari: You gotta admit: Wisconsin's doing a pretty unbelievable job getting all sorts of people jazzed about the ocean through the Lake Sturgeon Bowl. And for the

moment, for 120 high schoolers across the badger state, all thoughts are on tomorrow's competition. <fade up Newman Catholic High School's practice>

<fade up transition music>

Ari: Here's next episode's sonic stumper.

<sonic stumper; cross-fade to outro music>

Ari: Have a guess? Or maybe you want to cheer on the teams at tomorrow's Lake Sturgeon Bowl? Well, visit us online at [oceangazing - all one word - dot org](http://oceangazing-alloneword.org) to send a note or leave a message. You can also hear about one of Newman Catholic's special strategies. You'll find a bunch of photos of students from Wisconsin doing oceanography, and all our past episodes about ocean observing science and technology.

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