

Local student a finalist in prestigious national science competition

It isn't unusual to find Janani Kumaran wading around a pond at a University of Florida research facility in northwest Gainesville, water up to her waist, collecting samples of a plant that is invading lakes and other waterways throughout Florida. That plant is hydrilla, and it's the focus of a research project that has earned Kumaran national recognition.



The Gainesville High School freshman is one of just thirty finalists in the 2018 Broadcom MASTERS competition, one of the most prestigious science competitions in the nation. The MASTERS (Math, Applied Science, Technology and Engineering for Rising Stars) program is sponsored by the Society for Science and the Public, and according to its website, its goal is "to inspire young scientists, engineers and innovators who will solve the grand challenges of the future."

Kumaran's research project, 'Integrated Control of the Invasive Aquatic Plant Hydrilla Using Snails and a Plant Growth Regulator,' certainly fits that definition. For more than two years she's been testing methods for controlling hydrilla, a non-native species that was introduced to Florida about 40 years ago and has become a serious problem for the environment, tourism, and recreation. Florida spends about \$50 million annually on hydrilla control.

"Pretty much every water body in Florida will be choked up with hydrilla eventually if it isn't stopped," she said. "Our indigenous species can't grow and thrive if hydrilla is taking over."

Under the guidance of Dr. Charles Cichra and Dr. Michael Netherland, professors with the University of Florida's Center for Aquatic and Invasive Plants, Kumaran has been studying the impact of both snails and an herbicide on hydrilla. The goal is to find a combination that kills the hydrilla without harming the native plants.

Dr. Cichra has worked with Kumaran since she was in middle school and is impressed by her skills as a scientist.

"She does a better job than a lot of our graduate students in terms of critical thinking, integrating information and putting things together," he said. "I wish every graduate student was at her level."

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Kumaran will be traveling all-expenses-paid to Washington, DC later this week, where she and her fellow finalists will participate in team challenges, meet government officials and share their work at the National Geographic Society. They'll be competing for tens of thousands of dollars in awards and the opportunity to represent the U.S. in the 2019 Broadcom MASTERS International competition in Phoenix, Arizona next spring.

Although still a high-school freshman, Kumaran has already earned a lot of recognition for her scientific work. She took first place awards in the Florida Science and Engineering Fair in 2017 and 2018 after also winning top honors at the regional competition.

She's actually been a Broadcom MASTERS semifinalist for three years, an honor earned by just 300 students nationwide. To qualify, students must submit not only their research projects, but information about other academic achievements and extracurricular activities. They must also respond to essay questions demonstrating their creativity.

Kumaran says the call from a group of representatives from the Society for Science and the Public letting her know she'd been named a finalist came as a surprise.

"I didn't think I'd make it because I'd been so close for the past few years and it had never happened," she said. "So getting that call was really, really cool."

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