

It's 4 p.m. Do you know where your kids are?



Many are playing sports and doing homework. But in Flushing, Queens we found an inspired group doing something remarkable: DNA-barcoding forms of life found in the five boroughs!

Empowered by access to sophisticated genomic tools, teenage New Yorkers are exploring the DNA of their surroundings. CSHL's DNA Learning Center is making the URBAN BARCODE PROJECT possible, thanks to a grant from the Sloan Foundation and educational partners across the city.

Team BIG BANG out of Flushing International High School is on the heels of illicit traders of an endangered species. They're scrutinizing the DNA of seahorses sold for medicinal purposes in local Chinese pharmacies. Team members worry that the 2011 World Conservation Union Red List of Threatened Species lists seven seahorse species as "Vulnerable" and one as "Endangered" (there's not yet enough data on 29 others to make an assessment). The students learned that an estimated 24.5 million seahorses are harvested annually and 90% of them are sold in Asian markets, untracked and unlabeled. Are any sold in Flushing's pharmacies among the endangered? Here's where the students' DNA barcoding effort can help.

BIG BANG is one of eight "Urban Barcode Project" teams from this one NYC public school, which was organized to meet the special needs of a community with a large share of recent immigrants. The 9th-12th grade students who voluntarily participate in the after-school science club run by Living Environment teacher C. Anthony Finney and Jordan Wolf come from families that have been in this country for less than three years and have yet to become fluent in the English language.

"We have a majority population of Mandarin Chinese speakers, with a sizable Spanish speaking group. This year, I have speakers of Korean, Haitian Creole, Arabic, Japanese and Tibetan," explains Finney, whose background in biology, political science, scuba diving, and work on the Space Shuttle conjures up Indiana Jones-like movie possibilities.

These kids might be challenged by the English language, but they not only get the science – they say they love it and are eager to see how they match up against teams in from other New York schools. It's about more than bragging rights. The grand prize is a \$20,000 scholarship! **Dagnia Zeidlickis**

CSHL's educational partners



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