

AMERICAS

# High-Tech Backpacks Open World of Whales to Deaf Students

By THE ASSOCIATED PRESS    MARCH 17, 2017, 12:52 A.M. E.D.T.

SAMANA, Dominican Republic — Every winter, whale-watching excursions take tourists to ride alongside humpbacks frolicking in the Caribbean. One voyage this week pursued whales for their mysterious, multi-octave songs, but with passengers who didn't hear the grunting and squealing.

The dozens of deaf students wore high-tech backpacks that turn whale songs into vibrations, opening the world of whales to children who gasped and marveled at feeling the sounds for the first time.

"When I first felt the vibration, I felt it in my heart," said Nicole Duran, 15, a student at the St. Rose Institute for Deaf Assistance in Santo Domingo. "It

reminded me of a heartbeat," she said through a sign language interpreter.

Nicole was among 47 students on the field trip from Santo Domingo, the capital on the south coast, to Samana province on the north coast, a three-hour bus ride.

In grades 7 through 12, the children used their hands to express the thumps, pings and gentle massage they felt on their skin. Stretching their arms high and low to follow the varying tones they sensed, the students opened and closed their hands rapidly to express strong impacts.

"I feel the pulses — it's like boom, boom, boom!" Melissa Castillos, 18, said aboard a 48-foot, power catamaran in the Bay of Samana. "I've seen photos and videos of whales, but this is the real thing."

The migration of several thousand humpbacks from the northern Gulf of Maine to the Dominican coast brings some 50,000 tourists to the area from January through March annually, the Tourism Ministry says. For three consecutive years, the visitors have included children and teachers from several Dominican schools.

Introducing deaf and hearing-impaired students to the whales and their music was the vision of Dominican artist and musician Maria Batlle, 34, who in 2013 founded the Muse Seek Project. Her nonprofit's goals include using music as an educational tool for deaf children.

Batlle said she learned in 2014 of the Subpac technology, developed for music producers and aficionados by a Los Angeles company, and a year later incorporated the devices into a music program she launched for the 500-student National School for the Deaf in Santo Domingo.

The annual whale migration to the Dominican Republic made it a natural learning opportunity for students interested in marine life, Batlle said.

"They learn about whale behavior, anatomy, the environment," she said. "They learn why the whales come here, what they do when they're here. They learn to appreciate why whale watching is important and why whale hunting should stop."

Passengers aboard this year's voyage included teachers, students and guests from four academic institutions. Eric Quinlan, originally from Brockton, Massachusetts, and teacher of English and sign language at the 200-student St. Rose school, served as interpreter for the deaf passengers.

"Being deaf, the students are never really going to know what sound is, but to experience it this way is just awesome," Quinlan said as the boat trailed a pod of six adult whales through choppy waters.

Quinlan also interpreted in February when Battle took 40 deaf students to see the hit musical "La La Land." Instead of high-tech gear, each child held a simple balloon, which vibrated to the music and dialogue. It was the first sign-language interpretation at a Dominican cinema, Battle said.

In 2016, ornithologist Richard Prum, a hearing-impaired professor at Yale University, lectured deaf students about birds and their melodies in another blending of education and music, Battle added. And just for fun in 2016, she organized a beachfront silent disco, where deaf students danced to the rhythms they felt through the wearable technology.

In another first for deaf services, the Popular Savings and Loan Association, a Muse Seek partner, has a bilingual (Spanish-sign language) employee in each branch, Battle said.

While the whale excursions in 2015 and 2016 picked up clear melodies from the humpbacks, the hydrophone lowered from the boat Tuesday mostly transmitted the static of rough seas. Ready with Plan B, Battle used a recording of last year's robust melodies instead.

Reveling in the sight of humpbacks and the pulses of last year's songs, the students expressed sheer delight.

"How emotional, how beautiful," David Montero, 17, said through animated signing. "This is my first time in Samana, the first time I ever saw a whale, and to know they sing — wow! It's super!"

---

