



# ALL HANDS ON DECK

The Oceans Learning Partnership's  
Coastal Explorers program is  
helping to inspire a new wave of  
marine enthusiasts.

By Linda Browne

Students aboard the “floating classroom” lower a remotely operated vehicle (ROV) into the ocean. *David Howells photo*

With the ocean covering about 71 per cent of its surface, it's little wonder that Earth is known as the "Blue Planet." The ocean is responsible for everything from the air we breathe to the food we eat, and plays a vital role in regulating weather and climate. It is the beating heart that connects us all – yet we know relatively little about it. In fact, according to the National Oceanic and Atmospheric Administration, 95 per cent of the underwater world remains unexplored.

While the ocean is especially closely tied to the history and culture of Newfoundland and Labrador, one local organization – the Oceans Learning Partnership (OLP) – believes there is a gap that exists in marine education. Since 2011, the non-profit organization has been working to bridge that gap by providing youth with intimate and interactive educational experiences that can't be duplicated in a traditional classroom setting.

"We've got this strong tie to the sea here in Newfoundland, but yet what the kids are learning in the classroom doesn't really reflect that. We don't often think about the ocean, so it's not integrated into the curriculum, and yet it plays such an important role," says Chelsie Archibald, manager of field programs with the OLP.

"We have our programs for kids, but we also do teacher training and feel it's really important that teachers have that confidence to teach about the ocean," she says. To achieve its goals, the OLP works with partners

like Parks Canada, Memorial University, the Newfoundland and Labrador English School District, and the Newfoundland and Labrador Teachers' Association.

While the OLP organizes a range of activities for youth (everything from travelling touch tanks to World Oceans Day events), it is their flagship program, the Coastal Explorers field school, that is making waves – in a very positive way.

Based at four locations around the province (Holyrood, Terra Nova National Park, Bonne Bay, and at lab facilities at the Ocean Sciences Centre in Logy Bay), the field school aims to get youth from Grades 4-12 interested in ocean science and technology by taking them out on the water aboard the "floating classroom" and providing them with real-world experience. Activities are designed to engage students and encourage teamwork, while meeting required learning outcomes.

After receiving a lesson in boating safety and navigation, students essentially get to be marine scientists for the day as they get their hands wet with plankton tows and squid dissections; haul in crab pots and study the crustaceans; and take water samples to measure salinity, pH and temperature. Students also get the chance to operate a remotely operated underwater vehicle (ROV) to observe sea stars, kelp beds and other ocean life up close, and use scientific and oceanographic equipment to collect and record data, among other activities.

"They get so excited about seeing

animals up close. They get really excited about seeing plankton. Here's this tiny life that drives everything in the ocean; it's the foundation of the food web. And yet we tell them to look over the side of the boat and they say, 'Oh, there's nothing there.' And then they help us with the plankton tow and they realize there's so much life – it's just microscopic," says Chelsie.

"It's just opening up their eyes to this amazing environment, this really special environment we have here in our own backyard."

### Swept Away

Recently, 22 students from Kerri Mercer's Grade 8 French immersion science class from Holy Trinity High School in Torbay participated in the program. They sailed the coastal waters around Holyrood and learned by doing.

"Living so close to the ocean, we have a fantastic opportunity for students to get involved in exciting, hands-on education to learn about the environment we live in," Kerri says. "A four-walled classroom, a teacher, books or videos can never

compare to the hands-on experiences Coastal Explorers offers."

Her students are giving the program the thumbs up, too. While he's not sure what he might like to study after high school, student Ryan Scott says participating in the field school has piqued his interest in ocean-related careers. And when it comes to his favourite part of the field trip, there's no contest.

"I really liked going on the trip because we got to use the ROV and we got to look at stuff underwater...they even pulled up a piece of seaweed and we saw a bunch of fish," he says. "It was really fun."

Chelsie says while many schools have expressed interest in coming onboard, the high bussing costs to the field sites (coupled with limited budgets) can be prohibitive, especially for schools in rural areas. To overcome this problem, OLP has started a crowdfunding campaign to raise money to help cover program fees and transportation costs, allowing more schools to participate. Especially in this province, and especially at this time, marine education is seen as so important to the



A high school student studies a snow crab up close.

*David Howells photo*

next generation.

“This is an environment for so long we’ve gazed out at, and now we have these tools that actually enable us to look under and really understand more about the ocean. So it’s an exciting time. And if you look at Newfoundland industries today, there’s a lot of opportunities related to the ocean. Our economy is really strongly tied to the ocean. We have a huge ocean technology sector; we have transportation, fisheries, aquaculture...so there’s a lot of potential that these kids could grow up and stay here in Newfoundland and work and have really rewarding, interesting careers,” says Chelsie.

“We’re so dependent on the ocean, and the ocean’s facing these really complex, challenging issues. So we need to raise the next generation to understand those issues better, whether they become scientists or whether they’re just members of the voting public. We need to become more ocean literate and really just start to appreciate what we have here.”

*For more information or to contribute to their campaign, visit [www.coastalexplorers.net](http://www.coastalexplorers.net)*

## Ocean Science, By the Numbers

**97** the percentage of the planet’s water contained within oceans

**50-80** the percentage of all life on Earth found under the sea



**20** the approximate percentage of the Earth’s surface covered by the Atlantic Ocean

**70** the percentage of the world’s oxygen produced by marine plants



**8 million** approximate amount (in tonnes) of plastic tossed into oceans each year

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