All-woman expedition to tackle ocean's trash

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CALGARY — If the oceans die, we die.



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More than a dozen female scientists, researchers and explorers are planning what they term their eXXpedition to study a buildup of tonnes of plastic debris in the South Atlantic.

It's a grim statement about the state of pollution in the world's oceans, and according to scientists from across the globe, the world's plastic problem is getting worse. There are 5.25 trillion pieces of plastic debris in the oceans, according to National Geographic.

"This plastic disintegrates over time, breaks down, enters the food chain because the fish mistake the plastic for food, then it gets into the food chain and bioaccumulates," Agathe Bernard, a geologist based out of Revelstoke, says. "And we're fishing it." Bernard is one of more than a dozen scientists, researchers and explorers planning what they're calling their eXXpedition — a trek to one of five gyres in the world's oceans where tonnes of plastic debris has accumulated like a giant floating landfill.

"It's difficult to tackle the problem without fully understanding the problem," Bernard says. "The South Atlantic has a gyre and it's a portion that is not really well documented, so we're trying to gather more data around it."

The trip, which will take 14 women (the reason for the double X in the expedition's name) from the Ivory Coast to Brazil via Ascension Island in the South Atlantic on a 22-metre sailboat called the Sea Dragon. The eXXpedition is the second all-female voyage of its kind, and also aims to educate and inspire young women.

"I think that it's an amazing story of female empowerment and female leadership," says Tegan Mortimer, a marine biologist. "That's really important to me, the fact that we can go off and do this and be successful and be great role models for women in sciences and those sorts of fields which are mainly male-dominated."

Each woman is on the boat for a different reason. Bernard is planning on filming the trip and creating a documentary about what the team discovers. Some are studying the toxins that can be found in the water where the plastic accumulates. Others, including Mortimer, will look at how the plastics are influencing marine populations.

Mortimer, who studies whales, said she's troubled by the amount of damage ocean-borne plastic pollution is causing. She recalled a 2014 incident where a sei whale died in the Elizabeth River in Virginia. It was discovered that a broken DVD case inside the whale's body had caused lacerations to her stomach and organs.

"Working with and watching whales, the idea that could happen to our whales is terrifying," Mortimer said. "And actually, that happens to thousands of marine animals. Eventually it affects humans."

Mortimer said she hopes the results of the group's research will inspire people to think twice about their plastic usage.

"You impact the ocean that's hundreds of miles away," she said, "in ways that you might not think."