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Plastics in the High Seas and Remote Arctic Areas

Belén García Ovide, marine biologist, wildlife guide

Everybody knows that most of our seas nowadays are polluted with plastics and that this is one of the biggest problems for marine life, our oceans and eventually humans. But does the plastics also reach the most remote areas, like the High Seas far from shore or inhabitable and almost unexplored places far as above 70° degrees North in our planet?

In September 2018 I took part of an incredible week tour expedition in Scoresby Sund, East Greenland, where I had the chance of taking some samples of micro plastics. Following a similar protocol than the one used by the researchers Amy Pryor and Wanda Bodnar during the previous expedition even farther North (71°degrees in King Oscar, Greenland).



King Oscar (71º North, Greenland)



Scoresby Sund fjords and crossing

At least one sample per day was taken using a simple plankton net and in areas of special interest in calm seas. The water samples were collected in min glass jars and sent after the expedition to a laboratory in the University of Plymouth, England, to be analyzed. At first sight, we did not see macro plastics or notice



any visible particle in the mini jars, but abundant zooplankton species like copepods, larvae and krill.

Scoresby Sound is one of the most isolated parts of Greenland and it is also the biggest fjord system in the entire world. The stunning landscapes and majestic icebergs that you can find here is absolutely breathtaking and no one is living here.

"Opal" is an elegant top sail two mast Schooner that sails from Iceland to Greenland every summer bringing guests to explore Scoresby Sund fjords during summer time.



Picture: North Sailing

T ogether with Opal, there is other two sail boats from "North Sailing" company, that operates in the same way. These boats are an excellent "opportunistic platforms" that allow researchers to take relevant information about health status of our oceans in a very easy way instead of having a dedicate boat which is always a very big challenge in science as there is always limited money.

Despite the benefits of researchers joining these tours, these activities are normally very interesting for the passengers who show generally great enthusiasm listening to us and learning about the importance of protecting our seas. Education is fundamental and very important now since only pure science seems to be not enough to make a rapid change and take action. We need everyone onboard to take action and build up solutions.

The results in King Oscar after preliminary analysis are quite positive. They point that there are almost no micro plastics in the samples and the most predominant element found was muskox hair, impressive animal living in some Greenland fields. Results for Scorby Sund and the crossing Greenland Iceland are still in the laboratory.

Sailing the high seas during crossings (in the middle of nowhere) is very exciting. When you are out there in the deep blue, you feel a straight and powerful connection with the ocean and the nature and this is when you realize where you belong...Further, these places can be dangerous and inaccessible and almost anyone has the opportunity to get there and explore... This is the main reason why monitoring plastics in the high seas is extremely important. We need to understand how plastics are being transporting with the ocean currents and detect areas are being more or less impacted. Despite that generally coastal waters gather most of marine life, high seas are essential migratory paths for many

marine creatures that travel long distances speciallywhales but also sea birds that are among those suffering the most due to the actual plastic pollution.

We are willing to continue this project for the upcoming season in Greenland. Currentlywe are also looking for partners, organizations and boat expedition operators in the North Atlantic interesting on developing these projects in their own boats.

If you think you can help please contact me: lis_thecorpus@hotmail.com

For the oceans!