Poop Squad

By Mustafa Alaskary

“Oh no! Is that a shark behind you?” asked Bob.

“Aaah! You scared me!” exclaimed Gary. Gary was tired of Bob’s jokes. He should be more serious as their leader. Gary was extremely concerned about their population numbers. Over the last 50 years, there had been a 90% decrease in the number of bluefin tuna. They were also facing another impending threat: humans tracking them using eDNA.

“We are in the midst of a crisis,” announced Gary. “Humans are tracking us using something called eDNA. Environmental DNA is genetic material shed by organisms like us into the environment.”

“What, like poo?” Bob asked jokingly.

“Yes, actually,” answered Gary. “This DNA can come from skin cells, hair, and like Bob mentioned, poo. Human scientists collect samples from the environment to analyse them for traces of eDNA.”

“Why do they care so much? You guys really aren’t that interesting,” snickered Bob.

“To detect where certain species are living without needing to see or capture them,” Gary replied impatiently. "eDNA is used to monitor habitats and to study hard-to-find or endangered species, like us. It's particularly valuable in the ocean, where we live, for tracking fish populations and things like biodiversity.”

“So, they track us with our poo,” Bob mused. “That’s funny. In fact, it’s so funny that it gives me an even funnier idea. We should go to another part of the ocean and poo everywhere. That way, we can trick the humans into thinking we’re somewhere else.”

“I don’t think that’s a good idea. We should definitely not do that,” Garry advised with a note of resignation in his voice.

“Come on everyone, let’s go poo!” Bob yelled. Garry sighed.

The entire school of fish followed Bob for what seemed like thousands of miles. They used ocean gyres to move them quickly through the water. Once they reached their destination, they filled everywhere within a hundred metres with laughter and poo. Everyone joined in, except for Garry, who watched the fish at work with a look of worry on his face, knowing something bad approached in the inevitable future.

After a long, rigorous day, the fish, led by Bob, all swam tiredly back home. In the morning, they all awoke energised in anticipation for the day ahead, only to find out that disaster had struck. Not one, not two, but dozens upon dozens of fisherman boats were floating on top of them.

“What’s happening?” asked one fish.

“And what’s with the fishing boats?” another wondered worriedly.

“We’re all going to die!” squealed a little fish as it zipped past in a frantic craze.

All the fish gathered together to search for Bob, but there was no sign of him. Unsure of what to do next, they all turned to look questioningly at Gary instead.

“Gary, what’s happening?” the same fish repeated.

“Due to Bob’s poo joke, humans have banned fishing to protect the area we were at yesterday because they thought that hundreds of thousands of bluefin tuna live there. However, we live here, and our numbers are small, so now we’re at an even greater risk from the fishermen. Bob has been caught and killed because of his little joke.”

The fish gave a collective gasp of horror, devastated at the loss of their leader and friend. He may have been a clown, but he had been close to their hearts.

“But this means you’re in charge now,” realised one of the fish.

“Yes,” confirmed Gary. “Yes, it does.”

Garry’s first act as leader was to send a group of bluefin tuna to find all the fish that weren’t already there. This required fast fish, and every inch of the bluefin tuna was made for speed. They also had a great advantage over humans: their gills, which allowed them to breathe underwater.

Once they had gathered all the bluefin tuna, Garry decided that they should leave their home and head for the newly protected area. Their home was already filled with coral bleaching due to ocean acidification, so the new location would be more suitable for them anyway.

The fish travelled together through the ocean gyres, avoiding predators, and making sure to stick together. After a lengthy journey, the school of bluefin tuna finally arrived at their new home.’

Upon arriving safely, Gary’s number one priority was to ensure the safety of all the bluefin tuna in their new home by creating ‘The Poop Squad’. “The poop squad is a group of fish that poop everywhere in the ocean daily. This will make sure that our home remains protected,” explained Gary.

And so, ‘The Poop Squad’ was born.

Appendix

Coral Bleaching: Coral can only live in certain temperatures. Warmer oceans cause the algae (zooxanthellae) to leave their tissues, leaving the coral white. This is coral bleaching. When this happens, the coral are not dead yet, but they are under more stress and can die as a result.

eDNA: Living animals shed DNA through their mucus, faeces, urine, and skin cells like scales. Scientists can use the DNA in these tissues to track the animals. DNA is what makes up genes, which helps scientists find out which animal's DNA it is.

Gills: These are the respiratory organ of a fish and some amphibians, which they use to extract oxygen dissolved in the water. They are usually located on the sides of fish's head. They contain many blood vessels. In that sense, gills help fish and some amphibians breathe oxygen and get rid of carbon dioxide, just as lungs help humans breathe.

Ocean Acidification: Oceans absorb 30% of the carbon dioxide in the atmosphere. When CO_2 is absorbed by seawater, a series of chemical reactions occur resulting in the increased concentration of hydrogen ions. This increase causes the seawater to become more acidic.

Ocean Gyres: Ocean gyres are large systems of rotating ocean currents. These gyres can carry many things like eDNA, plastic and even animals. They can be caused because of strong winds blowing on the surface of the ocean, causing the water to move in certain ways.

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