

Sikkim hosts a part of the eastern Himalayas including Kangchenjunga, the highest peak in India and the third highest on Earth.



See Sikkim

Rough and tough

Rivers, lakes, and wetlands are indubitably amongst the most biodiverse places on earth, but the diversity that dwells in them is often overlooked. As such, despite being vital for communities, economies, and ecosystems alike, scores of fish species today are heading towards extinction; fisheries that trade in them and provide employment opportunities to millions across the globe are increasingly shuttering down withal. Being mindful of the same, the United Nations has designated 2022 as the International Year of Artisanal Fisheries and Aquaculture in order to make us au courant with the catastrophe that awaits these marine miracles and ensure their continuity for the foreseeable future. Aiming to make this vision a reality, GT presents a brand-new series, wherein each segment will either cover an endangered fish species on the verge of extinction or a renowned fishing village in any part of the world in need of immediate human attention.

Kanak Verma, AIS Gur 46, VI D

I am: Orange roughy

My taxonomic name: Hoplostethus atlanticus

I am native to: The deep waters of the Western Pacific Ocean, Eastern Atlantic Ocean, Indo-Pacific, and the Eastern Pacific off the coast of Chile

My life expectancy: Greater than 140 years often crossing over 200 years



Why I am in danger

I am on the verge of being extinct as I was overfished in the 70s and 80s due to my growing popularity as a food item. I often gather in large groups, so fishermen could easily catch us in big batches using trawl nets—wide-mouthed nets that are dragged behind boats. These sudden, large harvests did not leave us enough time to reproduce, which led to no breeding for the upcoming years. This led to the decline in our number enormously. Making things worse is the fact that I cannot reproduce until I am 30 years old. So, even though I can

live up to 140 years, I start reproducing only much later, which further curbs my head count.

You can guess my fate from the fact that I became the first commercially sought fish to be added to Australia's list of endangered species due to overfishing. I have now been listed as an endangered species under the EPBC act, and even scientists claim that the true impacts of historical overfishing me have not yet been fully felt, which means worse times are definitely ahead for me, unless humans have tried to help.

About me

- I belong to the Trachichthyidae family and am bright reddish-orange in colour.
- I am a deep sea-dwelling species usually found in temperate water.
- My body is compressed and oval, while my gill cavities are bluish-black.
- I am also known as 'slimehead' as my bonehead contains muciferous canals that produce mucus.
- My head is covered with bony ridges and deep mucus cavities.
- My dorsal fin has six spines that can measure up to 75 cm in length and they can weigh up to seven kilograms.
- I prefer to stay in areas where the current is strong, usually at the depths ranging between 590-5,910 ft.
- Though my average length ranges from fourteen to eighteen inches, my longest appearance was recorded to be thirty inches.

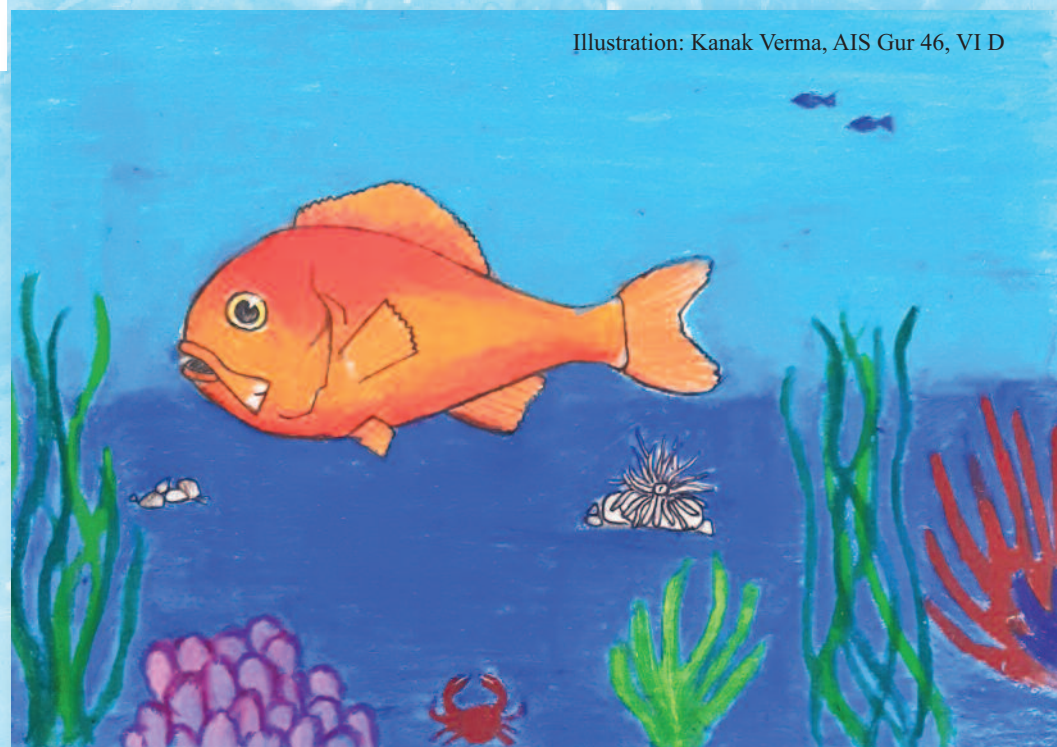


Illustration: Kanak Verma, AIS Gur 46, VI D

How I am being saved

I can be saved by restoring my population. A catch limit should be set and regular reporting and monitoring sessions must be conducted. Conducting accurate stock assessments are some steps the Australian Fisheries Management Authority already takes. In some places, I have been restricted, but scientists expect my recovery to take many years due to my slow-growing process. WWF and the Australian Marine Conservation Society have also done their best in keeping me safe, especially by stopping Australia's orange roughy fishery from getting me certified to the MSC standards. This step also helps me sustain myself from mass fishing and will surely help me recover slowly yet surely. AMCS research showcases that my number have just begun to recover in very small parts, but with the lingering impacts from fishing, there are chances that these numbers could decline again if not paid proper attention and care. So, please do your bit and keep me safe.

The junk funk

Let's Talk About The Threat We Did Not See Coming To Us

Chitrakleha

AIS Vasundhara 6, IX D

Yes, the world we live in is plagued with problems, some that are right in front of our face like COVID-19, and some that are a little hidden out of our sight...or even atmosphere. But it is still disheartening to know that one of the most concerning issue of the era - the problem of space junk, is still unknown to many of us. Space junk, if explained in simple terms, is the

tracked pieces of space debris that orbits around our planet. But why is the debris threatening at all, you ask? Well, because the debris possesses a risk to hinder space missions, and also the fact that cleaning up the debris is actually really difficult. Donald Kesser, a retired NASA senior scientist, during his orbital debris research, stated that finding several ways to remove this debris must be a top global priority, and when we look at facts, we realise that he is right.

More than 27,000 pieces of orbital debris, or

'space junk', have been tracked by sensors in the outer space till now. And much more debris - too small to be tracked, but large enough to threaten human spaceflight and robotic missions - exists in the near-earth space environment. The reality is that both the debris and spacecraft are travelling at extremely high speeds, and if they were to crash, even if it were a tiny piece of orbital debris, it would create huge problems for us. This means that all space operations stand threatened because of this space debris. And even when we have no-

ted events of this collision, even though they were not on large scale, we cannot just afford to sit quietly, because who knows what will happen in the coming future!

Apart from the big bang, this space junk also comes with other problems. Economist Matthew Burgees stated that the space junk will increase the fee and the cost of orbital usage, which, in turn, will increase the long-run value of the space industry. On the other hand, Akhil Rao, assistant professor of Economics, Middlebury College, said the solutions proposed so far are primarily either technological or managerial on our own level. Scientists explain that humans switching to eco-friendly ways to do better for earth might help the situation overall, but still that can only do so much. In reality, there are ways to solve this problem, but all of these solutions seem a little hard to implement. Like the most common solution we tried to adopt - controlled re-entry. This seemed fine until its drawbacks showcased themselves which are likely to be the high expenses and more usage of fuel. Another solution proposed by the scientists is to move this space junk. The European Space Agency is considering several kinds of "capture mechanisms" to pick up the debris with nets, harpoons, robotic arms and tentacles. Even a space debris slingshot was suggested with Texas A&M University's Sling-Sat Space Sweeper which proposes capturing an object, swinging it towards earth's atmosphere, and then using the momentum to sail on to the next piece of space debris for removal.

Overall, it is clear that most organisations are focusing on avoiding space junk by either ensuring that their rockets use all its emergency fuel to avoid explosions or by ensuring that they do reach graveyard orbit so they are out of the way. But the point remains that all these 'solutions' aim at controlling rather than cleaning up the space junk that has already been spread. Maybe it is high time for us to stop being on the defence and start playing offensive, that is if we don't want our outer space to become another garbage bin.

