

Diamond is so strong that the only other mineral that can scratch its surface is another diamond.



# Burly bluefin tuna

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.

Aiza Moin, AIS VKC Lko, VIII

**Meet me, I am:** Bluefin tuna

**My taxonomic name:** Thunnus Thynnus

**I am native to:** Atlantic Ocean and Mediterranean Sea

**My life expectancy:** Almost 40 years

## About me

- I am the largest tuna and can grow up to 10 feet long and weigh as much as 1200 pounds.
- I come in three varieties (species) - Atlantic (the largest and most endangered), Pacific and Southern.
- I reproduce by the process of broadcast spawning; this increases the chances of my eggs being fertilised and further minimises the risk of being eaten by prey.
- I am an excellent swimmer. With retractable fins and streamlined bodies, I can swim at a fast pace of up to 50 miles per hour and dive deeper than 3,000 feet. In fact, such is my speed that my kind can cross the ocean within the span of a few weeks.
- All thanks to my high speed and ability to regulate body temperature, I am capable of making long migrations every year, thus, making epic journeys across the Atlantic.
- Other than my speed, I am also known for hunting. Those belonging to my kind are born predators, preying on schools of fish like herring, mackerel, and even eels. The fact that we have the sharpest vision of any bony fish further aids our hunting ability a great deal.
- You can find me in great quantities in the Mediterranean Sea, which makes it the most significant bluefin tuna fishery in the whole world.



Illustration: Aiza Moin, AIS VKC Lko, VIII

## Why I am in danger

All my three variants are on the red list of the International Union for Conservation of Nature (IUCN). This means I am in grave danger. Many say that this is primarily due to over-fishing and illegal fishing. The fact that the Atlantic Bluefin is a highly sought-after delicacy, with a single fish fetching as much as 1.75 million USD, only makes matters worse. All thanks to these high prices, fishermen use refined techniques for fishing, resulting in overfishing.

Things became worse for me in 2010, when BP's oil spill in the Gulf of Mexico ruined my spawning ground. Scientists say that it killed almost 20% of juvenile tuna in the area. In the western Atlantic, my population dropped by 80% since 1970, whereas the eastern Atlantic saw a dip by 74% between 1957 and 2007. If this continues, I doubt if I will be able to survive.

## How I am being saved

Sure, I make for great seafood, but I am a lot more than that. I am a top predator in the ocean and killing me would disturb the entire marine eco balance. And so, I badly need some kind of legal protection. The Center for Biological Diversity has already filed a petition under the Endangered Species Act to save me. However, it is the consumers who can protect me by choosing to not eat me. International regulators have refused to stick to any kind of quota vis-à-vis my fishing, so my only hope lies with the consumer. So, please stop eating me, else I will soon be making my way from endangered to extinct.

# Rising like the phoenix

Phoenix Mind - An Application That Can Help You Deal With Mental Health Issues



## Pro@Project

**Innovation:** An app to help with mental health issues

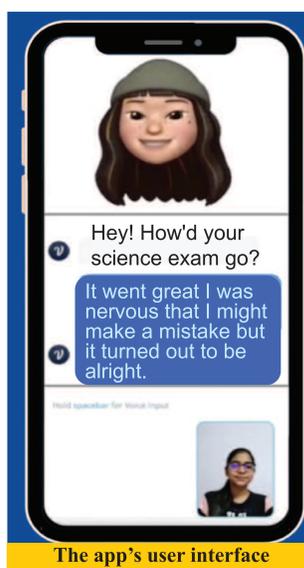
**Innovator:** Harshita Prasad, AIS Noida, X

**In the spotlight:** 1st Prize Winner, Young Scientist India Competition 2021-22

Stuti Kalra, GT Network

Have you ever felt the need for someone empathetic and non-judgemental to whom you could just pour your heart out? Or have you ever been in a situation where, even amidst the presence of family and friends, you have felt alone?

If the answer to all or even one of the above questions is yes, then GT has some good news for you. Taking cognisance of the mental health issues faced by her peers, Harshita Prasad, a Class X student of Amity International School, Noida, developed a technology-based solution for mental health issues - Phoenix Mind, an app to help adolescents maintain a healthy psychological state through non-invasive process utilising AI and computer vision. The app won her the



The app's user interface

first prize at the 'Young Scientist India Competition 2021-22' (8th Edition), organised by Space Kidz India in collaboration with Niti Aayog. Competing with more than 750 shortlisted participants, Harshita went through four elimination rounds while presenting her project in front of a jury consisting of thirteen eminent national and international personalities.

For this avid reader of sci-fi, meta-verse enthusiast, and digital artist, the process of building this path-breaking app started during the COVID-19 lockdown. Harshita was researching about futuristic technologies like Artificial Intelligence,

## The Problem

Many adolescents, all over the world, face depression, anxiety, and suicidal signs.

### Causes

What are the causes of this problem?

- Age and Hormones
- No one to confide to for problems
- Overburdens by school or family
- Loneliness
- Undetected Onset
- Social Stigma



A slide presentation

computer vision, and machine learning, while also coping with the strain caused by mandatory isolation. The final push came when she read about the suicide of a student, who was forced to take such a devastating step due to bullying in school. She realised that she could use her research to design a solution for mental health problems in adolescents and help them maintain a healthy and happy state of mind. With the help of online resources and her school mentors thus, Harshita started designing the app in July 2021 and in about nine months, she was ready with a prototype.

Her app is designed specifically for adolescents and consists of a virtual buddy who helps them overcome mental issues. This virtual buddy scans and recognises the emotions of the person it is interacting with and gives workable solutions to improve the same. This is, perhaps, the

greatest USP of the app as there are no other products available in the market that do the same in such a non-invasive, personalised manner. Harshita's virtual buddy reads and understands facial expressions with empathy, analyses them without bias, and finally, based on the data collected, engages the teenager in creative and stress-busting activities aimed at instilling a positive mindset. In the future, Harshita plans to integrate CBT (Cognitive Behavioural Therapy) and DBT (Dialectical Behavioural Therapy) into the app to make it more user-friendly. Well, all success stories are scripted with the help of staunch allies and Harshita, too, gives the full credit of her achievement to her parents, teachers, and Chairperson ma'am for motivating her and giving her unconditional support at all times. She hopes that her innovation will prove to be a game-changer for all her fellow teenagers. 🇮🇳