ATLANTIC BLUEFIN TUNA SPAWNING SANCTUARIES

THE PEW ENVIRONMENT GROUP

A TRANS-ATLANTIC INSURANCE POLICY TO ENSURE THE FUTURE SURVIVAL OF THE WORLD'S FAVORITE FISH

The bluefin tuna is not only the world's favourite fish, it is also one of the most remarkable. This great fish weighs up to 700kg (1,500 pounds), migrates across the Atlantic – a distance of more than 7,700km (4,800 miles) – and can dive to depths greater than 1,000 metres (3,000 feet). Like us, bluefin are warm-blooded. As these tuna traverse the Atlantic, their ability to regulate their body temperature enables them to survive a wide range of conditions and depths.

Equally impressive is the bluefin's reproductive potential. They typically spawn at least a dozen times in a given spawning season, and a large female can produce upwards of 45 million eggs each time[1]– that's roughly 540 million eggs per spawning season.

Distressingly, though, relentless fishing pressure on these once plentiful creatures has pushed them to the brink of collapse. Overfishing, spurred on by the growing demand for sushi, severely depleted their numbers to the point where the international community considered banning international trade in the species in 2010. Swift, decisive action is required to protect the bluefin's only known spawning grounds; this will help rebuild populations and ensure the long-term sustainability of this valuable species.

Prohibiting fishing in specific areas, such as spawning grounds, is an effective fisheries management tool and is regularly used to protect biodiversity, rebuild populations, and protect spawning fish – all crucial goals for both the Atlantic bluefin tuna and the fishermen whose livelihoods depend on the species. The species has only two known spawning grounds – the Mediterranean Sea and the Gulf of Mexico – and the fish's annual return to these regions makes the protection of the spawning areas an urgent priority if the species is to be conserved.

1 Rooker, *et al*. 2007. Life History and Stock Structure of Atlantic Bluefin Tuna (*Thunnus thynnus*). Reviews in *Fisheries Science*, 15:265–310.

Each year eastern Atlantic bluefin tuna gather together in the warm waters of the Mediterranean to reproduce. And each year a fleet of fishing vessels races to catch the tuna at this important and vulnerable stage in its lifecycle, encircling whole schools with nets known as 'purse seines'. This technique captures entire schools of fish during their most crucial time of year. Indeed, targeting this imperiled species on its only known spawning ground during the peak of the breeding season unnecessarily threatens the future survival of this fish.

The western Atlantic population of bluefin also faces serious threats in its only known breeding ground – the Gulf of Mexico. These threats come from pollution and fishing activities - predominantly indiscriminate surface longline fishing in the Gulf of Mexico. The Deepwater Horizon oil disaster began on 20 April 2010, with millions of barrels of oil and thousands of litres of dispersants spilling into and polluting the bluefin spawning grounds of the Gulf of Mexico at the peak of its spawning season.

JEFF ROTMAN / NATUREPL.COM

The impacts of this catastrophe are as yet unknown, so as a precautionary measure the fishing pressure on these spawning fish must be alleviated until we better understand the consequences of the spill on the environment and the bluefin.

Surface longliners fishing for yellowfin tuna and swordfish catch bluefin tuna as bycatch. Longline fishermen set hundreds of hooks on lines averaging 30 miles in length, and these indiscriminately catch spawning bluefin tuna. These fish die unnecessarily, as alternative fishing methods that would reduce this bycatch already exist.

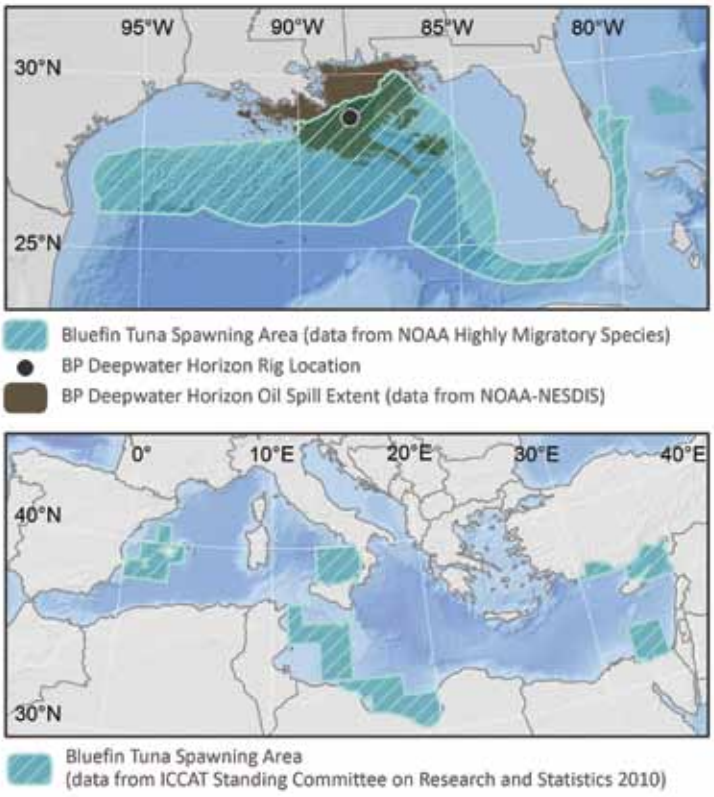
THE SOLUTION

A TRANS-ATLANTIC INSURANCE POLICY

The eastern and western populations of Atlantic bluefin tuna are not discrete: a significant amount of mixing occurs between them. As the two populations are interconnected, it is crucial that the two known spawning grounds, on either side of the Atlantic, receive equal protection. Protecting these areas will help safeguard the future of the species.

The creation of permanent bluefin tuna spawning-ground sanctuaries in the Gulf of Mexico and the Mediterranean Sea would allow Atlantic bluefin tuna populations to rebuild more quickly, and would therefore be an insurance policy against potential future collapse, helping to ensure the very survival of the species. Enacting protections for bluefin tuna that span their only two known spawning grounds will give these great fish an opportunity to recover and thrive and will safeguard the jobs of the fishermen who depend on the health of the bluefin tuna population for their livelihoods.

Figures 1 & 2: Distribution of known spawning areas for Atlantic bluefin tuna (*Thunnus thynnus*).



For further information visit www.pewenvironment.org
Contact: Dr. Susan Lieberman, Director, International Policy. e: slieberman@pewtrusts.org. t: +1-202-540-6361.
Brad Smith, Director, Global Tuna Conservation Campaign. e: BSmith-Consultant@pewtrusts.org. m:+27 (71) 688 09 47.

NORBERT WU/MINDEN PICTURES/FLPA