

Improving post-release survival in Atlantic bluefin tuna: extra information



BFT - RELEASE

Atlantic bluefin tuna are a prohibited species in UK waters and must not be targeted by commercial or recreational fishers. Should they be accidentally caught, they must be returned to the sea alive by following the guidelines below and all incidents reported to the MMO.

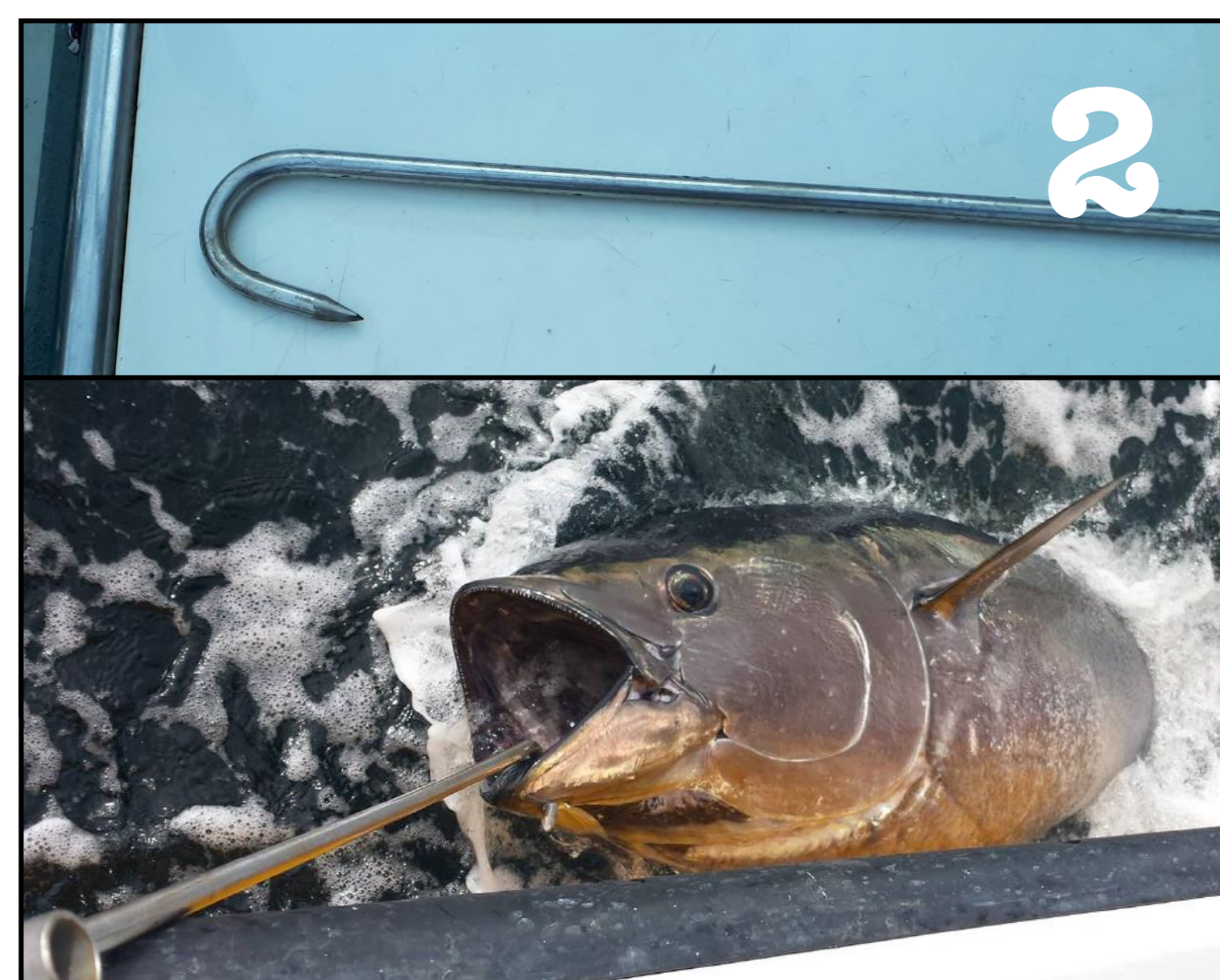
Multiple factors affect post-release survivorship e.g. time on the hook, handling time at the side of the boat and depth of water for release.

THE KEY DANGERS ARE OVER-EXHAUSTION OR SUFFOCATION OF THE FISH.

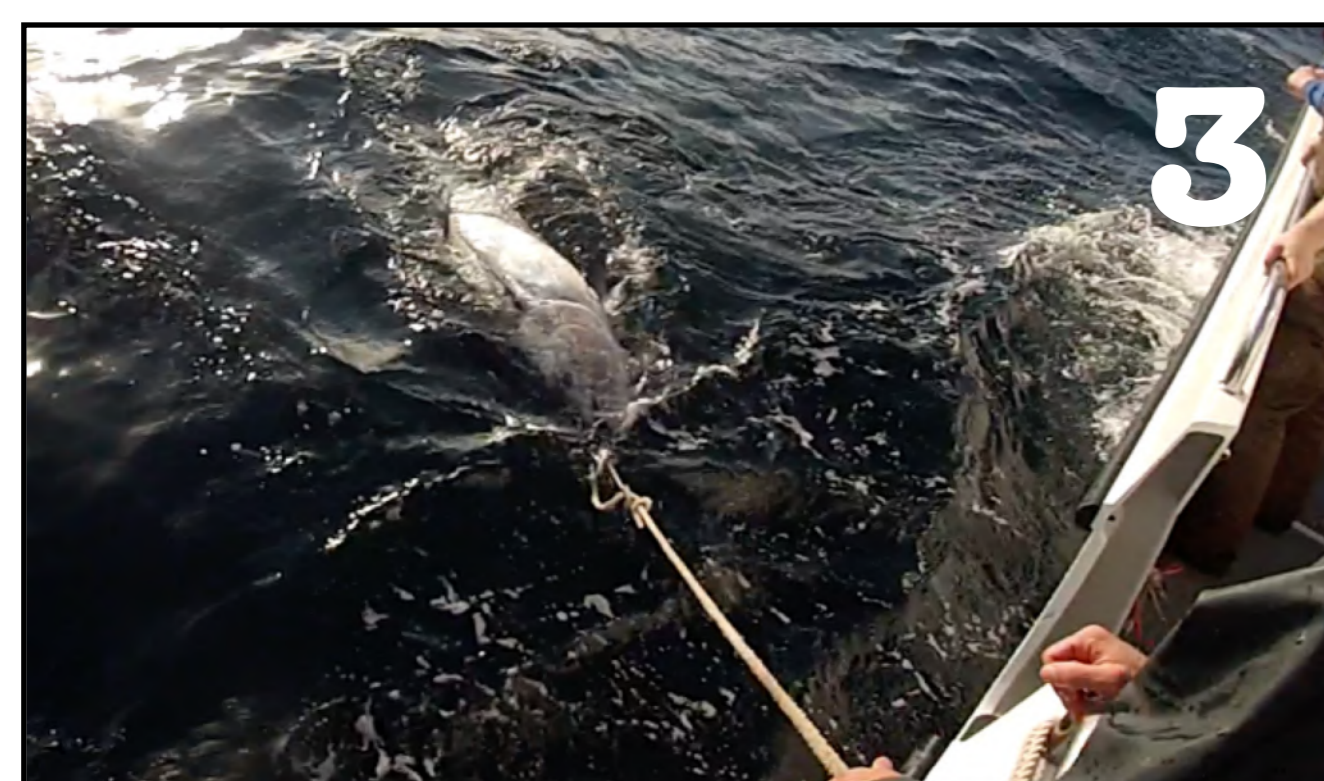
Bluefin tuna have evolved for short periods of high-stress activity (feeding) or long periods of low-stress activity (migration). Subjecting a bluefin to an extended period of high-stress increases the risk of accidental death.



"Bring the fish to the boat as quickly as possible - if there are bluefin in the area consider moving on." 'fighting' or 'playing' the fish for long periods of time can cause over-exhaustion. There is also a risk wrapping the line around the tail of the fish, which can cause the line to pull taught over the gill plates, stopping the flow of water over the gills.



"Free the hook and lip-hook the fish quickly if you can't free the hook, cut the line as close to the hook as possible. Fish can survive with fishing hooks left in the jaw, so don't spend too much time trying." A suitable lip-hook should be made from round bar stainless steel (12mm \varnothing), highly polished, especially at the hook (no barb). Lip hook spec.: shaft: dependent on height of the vessel's gunwale from the water; gape width: 75mm; hook length: 75-100mm. A rope of at least 3 meters length should be attached to the handle of the lip hook. Bluefin can survive with fishing hooks left in their mouths, but it is better to try and remove them. However, do not leave the fish without water running over the gills for long periods (minutes). The sharp lip-hook point should pass under the tongue and out through the soft pallet, being careful to avoid damaging the mouth.



"Tow the fish gently with its head in the water - secure the lip-hook to the gunwale and put the boat in gear. Tow the fish until it shows signs of revival." This stage is incredibly important; water moving over a fishes gills is equivalent to breathing in humans. As long as the fishes head is in the water, by towing the fish you are effectively pumping oxygen back into the fishes body. Once revived the fish will start trying to swim away by beating it's tail. This is a sign that the animal is ready for release.



"RELEASE the fish by 'Popping' off the lip-hook - ensure the tuna's head faces down when released, if possible." Done by pulling the fish sharply towards you and then pushing sharply away against the momentum of the fish to 'pop' the lip-hook out. Bluefin tuna are negatively buoyant and will sink until they start beating their tail to swim off. If released with the head down then water will rush over the gills to further aid in their revival. Similarly, care should be taken not to release tuna in water shallower than 50m to avoid the fish making contact with the seabed before it is fully revived.