

BLUEFIN TUNA TRAINING MODULE FISH HANDLING

PRODUCED BY THE UKBFTA
IN ASSOCIATION WITH THE ANGLING TRUST AND THE PBA



FISH HANDLING

LEADERING -INTRODUCTION

Leadering a large, powerful bluefin at the end of a fight is amongst the most stressful, and dangerous periods for fish, angler and crewman.

Collecting accurate data at the point of capture including the length of the fish are in many cases a mandatory condition of your permit to operate in the fishery. Effective recovery and release protocols are essential to ensure the world class survival rates we have enjoyed in the CHART programs are continued.

In this article we will discuss the leadering process, securing and measuring the fish, and the recovery and release protocol. These techniques have been developed by experienced skippers, crew and anglers over a number of years of operations in various UK bluefin research programs. In each element of this process it is important that good communication between skipper and crewman, and a line of sight to the fish, are not impeded by observing anglers. If at any stage during this process the skipper/crew are concerned for the safety of a person on board or for the-



safety/welfare of the fish, they may choose to pause the operation, reset, including moving the vessel a short distance from the fish, until the safety concern is addressed.

If needed, the BFT can be towed alongside or behind the vessel for a short period to address safety concerns. The skipper will have final responsibility for the safety of the persons on board and for the welfare of any fish caught by their vessel as part of the CRRF.

Please read and incorporate the following into these vital processes.

LEADERING THE FISH

The designated leaderman will be solely responsible for determining at what stage the leader is grasped and for issuing instructions as required to the helmsman and angler.

Where to leader? Skippers and crew will have a favoured location on the vessel to undertake the leadering. This may be determined by the best visibility, or a door/removable rail to facilitate access to the fish and should communicate this to the anglers before the days fishing. It should be kept clear of bags, rods etc, and the leadering (and if relevant tagging) tools be kept close to hand.

The leaderman should position himself in relation to the angler such that if the he loses control of the fish and it runs, he is not trapped against the gunwhale by the line.

Final Stages

In the final stages of the fight the vessel should be position such that the predominant wind/tide forces are pushing the vessel AWAY from the fish, not OVER the

top of the fish. This may have to be balanced against heavy seas on the leadering side of the vessel requiring the vessel to be positioned to create a lee from the waves.

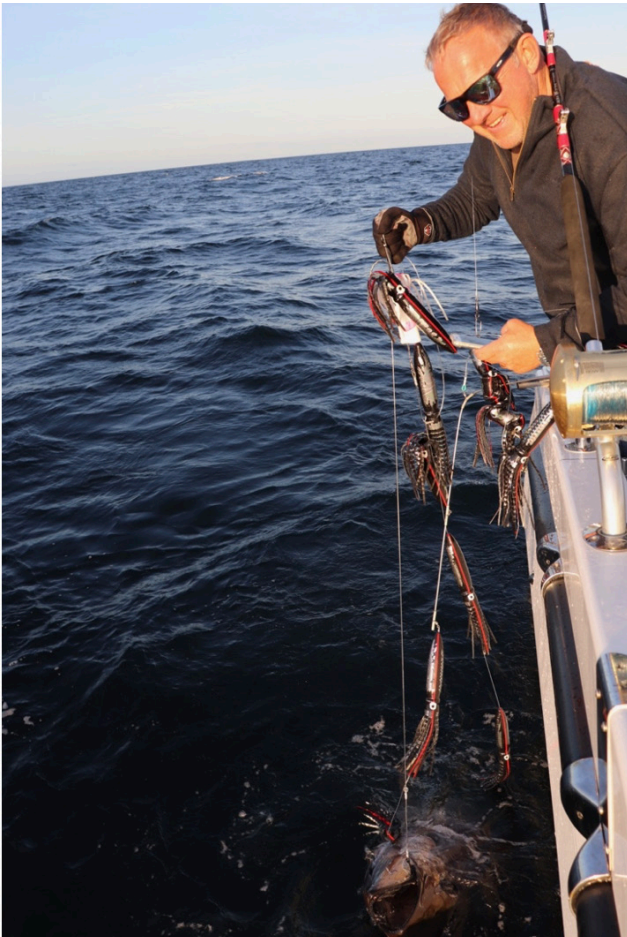
Leadering glove(s) are a necessity to avoid serious injury in the event the fish makes a move to get away from the vessel whilst the leaderman has hold of it.

The fish may surface a short distance from the vessel, or come up from pretty directly below the transom if in a 'pinwheel'. The leaderman should communicate the location of the fish in the water column via

calling 'colour' to the skipper and angler. Other anglers/observers should not rush or crowd around the angler at this important stage in the process.

Pinwheeling

If in a pinwheel the helmsman will need to listen carefully for instructions from the leaderman in the event he needs to move the vessel in response to the movements of the fish, (for e.g. the fish running ahead or underneath the vessel). When the leader is coming within reach the leaderman should prepare to grasp it



If fishing a large spreader bar, they can become a major obstruction and snag/trip hazard at this stage, the outer lines wrapping themselves around everything.

Depending upon the bar design, you may be able to unclip the bar from the centreline, keeping the mainline connected through to the 'stinger'.

This is where another pair of hands, if briefed beforehand, can help unclip and remove the mass of the bar well away from the leadering/securing process.

The leaderman will request the angler wind the fish closer and possibly move the rod tip, towards him, at the final stage he may be asked to step backwards to bring the leader within grasping distance.

The extent to which the angler can wind may be constrained by any connecting swivels etc and he should be monitoring this.

Great care should be taken to avoid any line that may slacken in this leadering process from wrapping around the tip of the rod. Should it do so and the fish take off, cue one broken rod and possibly lost fish. The shorter a leader the leaderman has to grasp, the greater control he will have over the fish.

The right time to leader

When the leaderman deems the leader to be the right length and within range, he should loudly inform skipper and angler of his intention. If the fish is pinwheeling he should reach for the leader on a 'instroke' of the circle, when it is coming towards him.

The leaderman should keep his shoulders well above the fish, for maximum leverage from his back, chest and bicep muscles. He should firmly grasp the leader in his strong hand, not snatching, sharp movements can agitate the fish. A rolled hand over hand motion is then used to draw the fish up/in. An experienced leaderman will know if, how and when to 'take wraps' around his hand in this process. Getting it wrong or doing it too early can result in a serious accident if a large fish takes off.

At some stage once he has the leader, if the reel drag has been set at a high level to power the fish up out of the pinwheel, the leaderman may advise the angler to back the drag off very slightly. If the fish makes a break for it and has some slack line and traction, with the drag set 'high' he may pull the angler into the gunwhale, injuring him. Different skippers and crew have their own fine tuned techniques, which anglers should be briefed upon in advance.

The key is to keep the fish's head pointing upwards and towards the vessel, it can only go towards you if accelerates at that point. Constant communication with the helmsman is essential and possible manoeuvring of the vessel to avoid the fish or line contacting the hull.



SECURING THE FISH

SECURING THE FISH

Firm and steady movements will bring the fish to a point with its head very close to the vessel. The leaderman should hold the leader taut to control the fish whilst being mindful to minimise potential impacts with the vessel.

At this stage, depending upon access to the fish, the leaderman or a nominated second will prepare to apply the restraint tool to the fish. This should be a specialist 'lip hook' or 'Boga grip'. Conventional gaffs should not under any circumstances be used. The individual applying the restraint tool should be familiar with the location of the tool and where it should be applied.

At any stage before that tool is utilised, should a large fish be able to get its head down and away the leaderman should be prepared to release the fish, the angler let it take line, the helmsman manoeuvre the vessel as required, and reset to start the process again.

LIP HOOK

A lip hook is a specialised hook designed to hook through from the inside of a tuna's mouth to a cleft in the centre of the lower jaw. If a fish doesn't play ball with an open mouth, you may have to slide it in sideways and rotate. It is crucial that penetrating the tongue, or hitting the gills is avoided. The cleft is easy to find once you have done it a few times. The lip hook must be kept very sharp and a



firm pull may be required to penetrate the cleft of a large fish. The lip hook should already be secured to the vessel by a strong rope. Conventional gaffs have totally the wrong head shape and angle to lip hook a fish and lack the typical 'T' end to aid insertion and control that a specialised lip hook has.

'Boga' style grips. These have become popular as they are seen as a less damaging restraint tool than a lip hook. However, they do require familiarity to use, and in the wrong hands can still damage a fish badly. The approach to restraint is the same as with a lip hook, but the boga is applied with one arm of the jaws inside the lower jaw, in the cleft, and one underneath the jaw in a small cleft between the left and right of the jaw.

These final stages of lea dering and securing, the vessel may well have been taken out of gear and the fish sitting motionless, often hanging upwards in the water. This means the fish is not effectively passing water over its gills, it is not breathing.

It is important then to get the the vessel moving forward reoxygenating the fish This should be the priority over unhooking and measuring, unless the hookhold is such that it can be removed quickly and easily.

With vessel moving gently forward, if not already unhooked, this is the time to do so. If the fish is deeply hooked, cut the line as close to the hook as possible, Take care in this initial towing phase that the fish is not held up high with just one side of its gills in the water, or that it is banging against the vessel. Be conscious of tidal flow and sea state when deciding how to position the vessel and the vessel speed for this initial towing and examination stage.



MEASUREMENT AND RECOVERY

PRE MEASUREMENT CHECKS

Carry out visual checks of the fish – check for wounds, bleeding, and activity/movement. When bluefin tuna are exhausted they will be dull in colour, but when they are revived, they will brighten up. Subdued tail beats, and a 'glassy eye' are also signs of a tired fish, and both should change as the fish reoxygenates.

If the fish is anything less than extremely lively and at risk of damaging itself boatside, it will be towed behind the vessel to help revive it. This initial assessment will give you a baseline to assess the fish after a period of towing to reoxygenate it.

Each fish should be checked for previous tags, look on both flanks and be aware that tags could be encrusted with algae or biofouling. If the fish is tagged with a conventional tag where tag details can be read accurately or photographed, record the tag number, take a length measurement and leave this tag in.

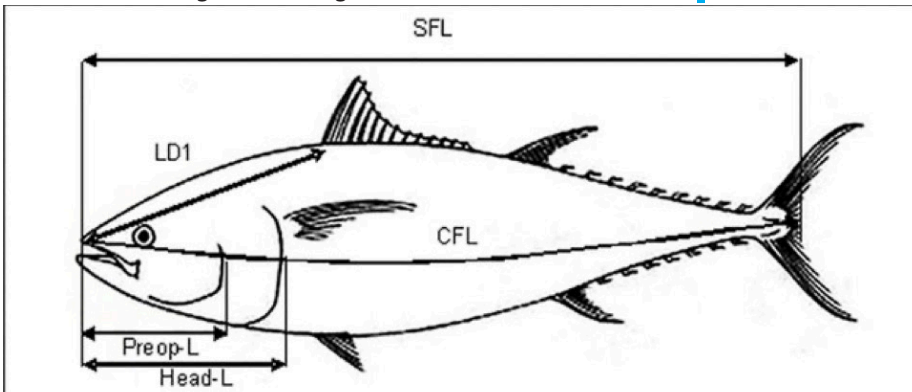
If the tag details cannot be read accurately, where possible, please remove by cutting off and collecting the tag as close to the base as possible. If you do gather tag numbers or recover such tags you should inform the MMO of this in your trip report.

LENGTH MEASUREMENT

Only attempt to measure the fish when it is safely secured alongside the vessel.

The use of a tail holder ('shepherds crook') is recommended to provide stability for measuring.

Systems used (e.g. floating tape, tape along gunnel etc.) to measure the fish can be boat specific, however, consistency in method over the season is essential. Measure the Straight Fork Length (SFL) in inches from



the snout to the fork of the caudal fin (Figure 4). Do not measure the curve of the body. If using a measuring tape placed on the gunwale or other methods marking the positions of the tail fork and/or snout, ensure a tail lift is used to ensure accuracy.

RECOVERY AND RELEASE

This process is probably the single most important factor in ensuring the post release survival of your fish and should be executed diligently. A designated 'handler' will be responsible for overseeing this process and monitoring the fish condition.



Once the bluefin tuna has been measured and dehooked it needs to be recovered for a minimum of five minutes prior to release. This should only be deviated from if there is a risk to the fish (for instance if the fish starts overtaking the vessel) or human safety.

The recovery period may also be extended to facilitate improved welfare outcomes or where there is a concern over vitality – this may be especially important for fish with longer fight times (e.g. over 45 minutes).

Ensure the tuna remains secured on the lip hook or grip and keep the vessel in gear and tuna facing the direction of water flow.

Measurements of BFT

Use Straight Fork Length (SFL) as it is easier and will be less stressful to the BFT and because no contact is necessary. Source: Rodriguez-Marin, E., Ortiz, M., Ortiz de Urbina, J.M., Quelle, P., Walter, J., Abid, N., Addis, P., Alot, E., Andrushchenko, I., Deguara, S. and Di Natale, A., 2015. Atlantic bluefin tuna (*Thunnus thynnus*) biometrics and condition. *PLoS One*, 10(10), p.e0141478.

RELEASE

The speed of the tow may be influenced by sea state and tidal flow, but the helmsman should endeavour to be moving the fish through the water at a relative speed of 3-4 knots.

CEFAS favour a recovery position on a long-line away from the vessel but this does require close monitoring to ensure the fish does not swim ahead of the vessel and detach from a lip hook, possibly injuring itself in the process. This is offset against the risks of collision and stress from sunlight/close proximity to the vessel from a fish recovered on a short line next to the hull.



For those fish recovered boatside it is imperative that the head of the tuna remains under the water at all times and care is taken to ensure that the head and body of the tuna does not come into contact with the side of the vessel during the recovery process. Monitor changes in behaviour such as increased movement, especially if towed on a long line, where increasing tail beats may be felt by the handler holding the tow line.

Be mindful that fully recovered tuna may pose a danger to themselves and those onboard so close monitoring of increases in movements (such as swimming 'ahead' of the travel of the boat) will ensure the bluefin is released at the appropriate time.

DECISION TO RELEASE

The decision on when the tuna should be released should be made by the skipper or crew and the release is carried out by the handler.

Signs of fish ready for release may include:

A vitality in colour returning, from a dull sheen to a more vibrant shimmer of silvers, gold and black/blue. A glassy eye should become clearer and darker.

Strong tail beats, pectoral fins extending and the fish clearly trying to swim upright rather than on its side. Make a note of the vitality/ condition of the bluefin tuna as it is released, as per the initial assessment when it came to the vessel.

The recovery process, getting it right and not rushing it, is the single biggest factor in the post release survival of line caught bluefin tuna.

Even fish that have experienced 'long' fight times, 60-90 minutes, have been shown in studies to survive post release if the recovery process is given the priority it warrants and done properly.

Your fish deserves you spending that time, over rushing to get lines back in.

RELEASE

When the designated person has deemed the fish ready for release, the vessel should be taken out of gear, restraining tools cleanly disconnected, (care with lip hooks not to rehook the fish inadvertently).

And then enjoy the sight of your fish gliding or powering away. Some fish will begin a glide and then give four or five powerful tail beats just as they move out of sight in the water column.

Produced by the UK Bluefin Tuna Association in partnership with The Angling Trust and the Professional Boatman's Association



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