



The potential economic benefits of a UK Recreational Live Release Atlantic Bluefin Tuna fishery.

Introduction.

Since 2015, Giant Atlantic Bluefin Tuna have appeared late each summer in substantial numbers all across the UK's Western waters, from Dorset to the Shetlands. A significant change in the spatial distribution of the species is underway with fish now regularly appearing in Norwegian, Swedish, Danish and Irish waters also.

Research continues into determining the catalysts of this shift, but it seems likely that long term (20-40 year) climatic cycles are a factor in the return of Bluefin to the far NE Atlantic, after an absence of many decades.

Parallel to this change, and perhaps contributing to it, the species has experienced a substantial recovery since around 2010 in the Stock Spawning Biomass following recovery plans instituted by the species' global management body, the International Commission for the Conservation of Atlantic Tunas, ICCAT.

Post Brexit, an opportunity exists for the UK to establish a Recreational Live Release Bluefin Tuna Fishery. Dozens of other nations operate such fisheries. Even other non quota holding countries such as Ireland, Denmark and Sweden, in a similar situation to the UK, have been for several years operated large scale recreational angler led **Catch And Release Tagging ('CHART')** programs.

As well as the scientific value of these programs, they are bringing significant economic benefits to those nations coastal communities.

The UK is an outlier in currently NOT operating such a widescale floy tagging program. We believe there are strong arguments to follow those three nations, and generate similar scientific and economic value. A UKCHART program this year, and a fully fledged regulated fishery from 2021 could bring great benefits to UK Coastal Communities.

Economic benefits? How?

Recreational Bluefin Tuna fisheries have been shown to generate significant economic benefits for the coastal communities hosting the fishing fleets. Live release ('catch and release') fisheries in particular have been shown to generate multiples of revenue per tonne than that of the commercial harvesting of the same fish.

'Giant' Atlantic Bluefin Tuna (circa 300lbs, 136kg and above), in particular present a particularly valuable opportunity for a recreational live release fishery, (as well as particularly complex issues for their commercial harvesting). Anglers will travel far and spend significant sums to catch (and release) a 'Giant' Atlantic Bluefin. For many it is 'the catch of a lifetime'.

Here are just two interesting examples we can examine to assess the potential economic benefits of such recreational fisheries .

North Carolina, USA.

In the winter of 1994 Atlantic Bluefin Tuna began to appear in numbers off of the North Carolina coast, adjacent to the Outer Banks. Their presence was a new and unexpected development.

Previously the main, identified fisheries over the winter were confined to the far North East of the US.

Their appearance off of North Carolina has been identified as being linked to changes in the intensity, temperature and path of the Gulf Stream passing up the NC coast. Only in a few years since 1994 has this 'winter run' of Giant Bluefin failed to materialize.

The nature of this, Bluefin unexpectedly appearing one year, in areas they had not been seen for many decades, bears resemblance to the change in distribution that took place from c2015 in the far NE Atlantic.

The US did have existing Quota applied to recreational fishing in other parts of the US and quickly retasked some of this to facilitate a recreational winter fishery out of North Carolina. This was centred upon Hatteras, an established fishing community on the Outer Banks. Anglers flocked to this new fishery and to this day Hatteras' winter Bluefin Tuna fishery is a mecca for anglers from all over the world.

In 1997, a group of US Universities collaborated to carry out a study on 'The Economic Impacts of the Recreational Bluefin Tuna Fishery in Hatteras, North Carolina'¹ The report was published in 2002 and concluded that just three years after its establishment, the fishery was generating significant additional economic revenue for the community of Hatteras, beyond that just accruing to the charter fishing fleet.

The report estimated that in 1997 this new fishery was already generating a total economic contribution of \$5,032,870 across the state, of which \$4,627,108 was a direct benefit to the Hatteras economy alone.

It detailed the significant wider societal benefits from revenues accruing to the 'tourism' sector of the region.

This from a fishery operating from several marinas just 3 years after its establishment.

Canada.

A substantial Bluefin Tuna recreational live-release fishery exists in Canada, in the waters of Nova Scotia in the North West Atlantic. Established in 2009 this fishery was allocated 10%, or around 45 tonnes of Canada's Quota for Atlantic Bluefin Tuna as 'mortality quota' for an exclusively Live Release recreational fishery.

In 2012 a study of this fishery was undertaken by the Ecology Action Centre, 'Reeling in Revenue'², and concluded:

*'live release bluefin have the potential to generate up to **six times more** revenue on a per tonne basis than a commercially caught bluefin'.*

The study estimated that recreational charter revenues alone created a value of Can\$100,000 per tonne versus the landed value from commercial fishermen of Can\$17,000 per tonne. This was before additional revenue generation related to the charter industry was assessed, i.e. hotels, restaurants, fuel, bait, tackle etc.

The Commercial sector clearly has downstream revenue also, but still the 'six times' revenue comparison was a significant conclusion and revelation as to the merits of recreational live release fishing for Bluefin.

In 2014 in a CBC news interview with Nova Scotia Bluefin charter boat captain Robert Boyd stated:

"With the charter industry, right now we're employed for six to seven weeks every fall, instead of just one or two days (harvesting their commercial quota). The economic spin offs to that are just as valuable to the surrounding community as much as they are to us...It's different from commercial fishing. It's more of a tourism business than a fishing business..."

How does a live release Bluefin fishery generate those multiples?

ICCAT requires that any recreationally harvested fish are deducted from the member states Quota. Furthermore, a live release fishery must account for the possible mortality of fish that likely die as a result of capture and release process.

Live release fisheries therefore require Quota to operate, as well as an understanding of the mortality associated with that fishery.

Given that, in 2010 Canada carried out a study designed to specifically determine the real world mortality associated with the capture and live release of Atlantic Bluefin in their recreational fishery.

After the largest Satellite tagging program to date at that time, the study concluded that less than 5% of the Bluefin caught in the live release fishery would suffer post release mortality associated with the catch and release process.

Applying that 5% mortality to similarly regulated live release fisheries shows how the multiple revenue per tonne over a commercial fishery can be generated, leveraging often limited quota into optimal revenue.

Using 5%, each mortality in a recreational fishery is deemed to be a function of 20 capture and release events. Depending upon 'hookups per day' statistics, the revenue from multiple vessel charters alone soon outstrips the dockside value of a commercially harvested Bluefin. In addition, the 'tourism related' revenues that accrue from visiting anglers staying and spending in the locale boost the economic benefits further and spread them across a wider cross section of those communities.

There is significant evidence worldwide of the economic benefits recreational angling can bring to coastal communities. The leveraging of small amounts of quota in live release fisheries for large pelagic species such as Bluefin is a particularly effective use of a valuable and often limited resource.

¹ [https://afspubs.onlinelibrary.wiley.com/doi/10.1577/1548-8675\(2002\)022%3C0165:TEIOTR%3E2.0.CO;2](https://afspubs.onlinelibrary.wiley.com/doi/10.1577/1548-8675(2002)022%3C0165:TEIOTR%3E2.0.CO;2)

² <https://ecologyaction.ca/issue-area/reeling-revenue>