

# Is It Cheaper to Visit the Fish Market?



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*Photos by Willy Goldsmith unless otherwise noted*





*Courtesy Captain Bobby Rice*

Angler Dave Madrid flew to Cape Cod from Florida in September 2016 to tangle with his first Atlantic bluefin tuna. The look on his face signals that he, like so many other recreational anglers, has become afflicted with a lifelong case of tuna fever.







Early mornings, long days spent offshore, and costs in the form of fuel, tackle, bait, and time—how many sick days until the boss catches on?—are a testament to the devotion of anglers who pursue this species. What's it all for?





A school of bluefin tuna erupts south of Martha's Vineyard, one of which falls for angler Josh Lee's lure cast into the fray. Understanding what drives anglers to put so much effort into targeting bluefin tuna is critical to effectively managing the recreational fishery here in the United States.





Currently considered overfished and in a rebuilding phase, bluefin tuna are managed throughout the Atlantic by the International Commission for the Conservation of Atlantic Tunas, or ICCAT. About 20% of the United States' annual bluefin tuna allocation goes to recreational anglers. The challenge lies in ensuring that anglers don't exceed this quota while also maximizing the welfare, or "happiness," that they derive from the fishery.





To understand and measure such benefits, however, we first need to identify angler motivations—what makes them “tick.” This information can be used to better align regulations with angler preferences.



*Courtesy Captain Bobby Rice*



As with any item you might consume, different fishing trips involve tradeoffs. For example, would you rather take a trip on which you harvest a single trophy bluefin tuna like the one above, or one on which you catch and harvest several smaller bluefin tuna?





*Courtesy Captain Bobby Rice*

What about catch and release? Is catching and releasing five fish better than catching and keeping one? What about catching two and keeping both versus catching five and keeping one?





“Deep color!” A bluefin tuna comes boatside after a prolonged battle. If the fish is lost before being landed—a heartbreaking event—can anglers still derive a benefit from such an experience? Would they rather not hook a fish at all?





*Courtesy Captain Dom Petrarca*

The dreaded “sunrise shot”—a universal indicator that nothing else was worth photographing while at sea. Is a trip a complete bust if no fish are hooked or caught? While bluefin tuna may be the focus, the appeal of being immersed in nature, spending time with family and friends, and escaping the daily routine may have value too.





To answer these questions, we surveyed 20% of the 13,000 private anglers from Maine to North Carolina who possess the federal permit necessary to target bluefin tuna. About half of the folks who received the survey completed and returned it.



## *Which option would you choose?*

<b>A</b>	<b>B</b>	<b>C</b>
<b>Total catch:</b> Four 50-pound tuna Two 100-pound tuna	<b>Total catch:</b> One 300-pound tuna	Do not go bluefin tuna fishing.
<b>Legal harvest:</b> Zero tuna	<b>Legal harvest:</b> One 300-pound tuna	
<b>Fish hooked and lost:</b> Two	<b>Fish hooked and lost:</b> Zero	
<b>Cost:</b> \$600	<b>Cost:</b> \$600	

The survey presented anglers with mock trip scenarios, asking them to select their most and least preferred option. We then used economic models to investigate these choices and to determine how anglers value relevant factors.





Our results will provide estimates of how much anglers are willing to pay for these various factors, such as catching and keeping a fish versus catch and release. We will also explore whether these values vary across different segments of the angler population—for example, do the preferences of New Jersey anglers differ from those of Massachusetts anglers? Our findings will be useful for predicting how fishing effort and harvest may change as costs, regulations, and fish availability vary.



*Courtesy Captain Bobby Rice*



This economic work is a great example of collaborative research between scientists and fishermen. Such efforts are critical for informing sustainable management practices for bluefin tuna and other species.





This ongoing research will provide managers with information that they can use to maximize bluefin tuna angler benefits while allowing stocks to continue rebuilding and providing future angling opportunities.





*Courtesy Captain Bobby Rice*

With effective management in place, we hope that anglers like Dave (left) and his friends will continue to be able to enjoy their feverish pursuit of one of the most beautiful, hard-fighting, and delicious fish in the world's oceans.