



Tax the Tails

Full haul of Atlantic Lobster.⁸

The solution to overfished stocks could lie in the system that drives our global economy.

Elizabeth Herbert
lizzie.herb@gmail.com

 @eliizabethrae

Recommendations

1. Make it economically unsound for fishermen to overfish

Implication: increase tax for catch for depleted &/or young stocks

2. Encourage fishing for diversity, rather than depleting a single stock (i.e. Canada's lobster)

Implication: reduce tax if fishing for targeted diversity of stocks

3. Encourage global taxation of all stocks

Implication: prohibit non-member countries to participate in fish trade with member countries

4. Encourage sustainable fishing

Implication: increase tax for destructive, non-sustainable gear

Save the Stocks by Implementing Tax-on-Harvest

The Issue: Our current global fish stocks are plummeting, with **80%** reduction of many large fish stocks. This decline is mostly due to **overfishing**, yielding a smaller catch. Such mismanagement creates a loss up to \$50 billion a year. Fishers are aware, but often feel if they don't plunder, others will. Currently, many regulated industrial fisheries have given these fishers a long-term right to share the fish through fishing quotas. They believe "fishermen who feel like owners are more likely to behave as responsible steward."¹

However, the current quota-based system has **failed** to halt overfishing, many fisheries managements ignore scientific advice on fish quotas, setting catch limits far above the maximum sustainable yield.⁴ Canada prides itself as "*one of the world leaders in the sustainable management of fisheries.*" Fisheries and Oceans Canada (**DFO**) works to secure the future of our wild capture fisheries through sustainable and responsible fisheries management that is science based.⁵ Yet, Canada has fallen far **behind** the race in sustainable fish stocks, with a trending history in fish stock depletions

(i.e. the BC salmon and the Atlantic cod). Currently, Canada is fishing too heavy on too little fish stocks, becoming very vulnerable to future fisheries closures. Specifically, in Canada's shellfish fisheries, the **lobster fishery** is facing vulnerability, and we must take action to avoid repeating the stock depletion as seen in Southern New England's lobster fishery in 2000.^{6,7} This opens room to a more novel approach; such as global **catch taxation**.³ This tax-based system should appeal to consumers, fishermen, taxpayers, and particularly Canadian government officials to push Canada as a **leader** in sustainable fisheries management. The DFO should begin by implementing this system in Canada's lobster fishery in hope to encourage targeted diverse catch in shellfish, to alleviate pressures on individual species.

As long as there is a demand for fish, there will be motivation to fish at risk of overfishing.

The Solution: *Tax the Tails*

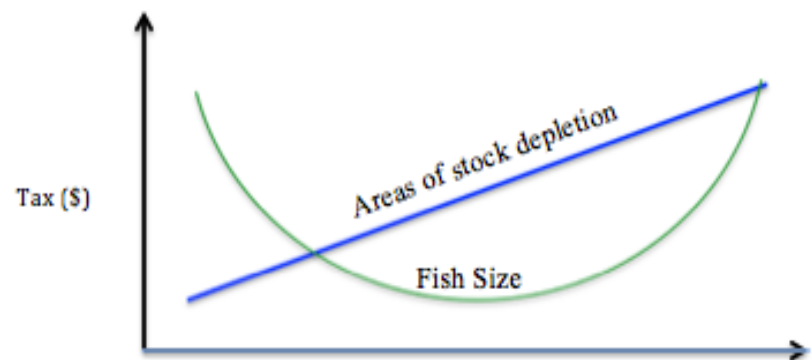
This **catch-tax-system** is no harder to implement than monitoring the catch, which is currently required by the quota-based system. To achieve a solution to overfishing, we must define the maximum sustainable yield for global stocks, determine this numerically, and ensure fisheries are only fished up to this level. Numerical data can be obtained through fish tracking, population surveys, and other methods and technologies, estimating the total population and health of oceanic ecosystems, resulting in **location-specific** information for global fish stocks. Thus, this tax-based system would be scientific knowledge, and could directly **penalize** overfishing on site.³



Fisherman returning an undersized lobster.⁹

Beginning with biologists dividing the ocean into distinct regions, using fish population data to assess the health of fisheries and determining risks to overfishing. Such information would then be relayed to economists who would set taxes based on their findings. The **tax** will drive up the price of fish for consumers, and eventually decrease the quantity of demand, decreasing the number of fish needed for the consumer **demand**. Moreover, fishermen would be pushed to stay within the maximum profit point because if they catch few fish, they generate little revenue from selling the fish, but if they overfish, the taxes will largely detract from this revenue. Ultimately, the market-based control on fishing makes overfishing economically **unsound** for fishermen.³

Q: How would the tax be staggered?



This distribution would help penalize overfishing, especially fishing early in the season on young fish, which is our sole hope for future generations of fish.²

More than preventing overfishing:

If the **DFO** begins this implementation on the Canadian Lobster Fishery, this **future** of this system could provide additional **state revenues** to fund research on fluctuating stocks and to find ways of **improving** the marine environment.²

References

1. How to stop fishermen fishing. (2012, Feb 25). *The Economist*.
2. Becker, G. S. (1995, Sept. 17). How To Scuttle Overfishing? Tax The Catch. *Bloomberg*.
3. Mission 2011. (2011). *Global Taxes As A Long Term Management Strategy*. Retrieved from Mission 2011 Saving the Oceans: <http://web.mit.edu/12.000/www/m2011/finalwebsite/about/about.shtml>
4. WWF. (2017). *Fishing problems: poor fisheries management*. Retrieved from World Wildlife Fund (WWF): http://wwf.panda.org/about_our_earth/blue_planet/problems/problems_fishing/fisheries_management/
5. Government of Canada. (2015). *Fisheries Sustainability*. Retrieved from Fisheries and Oceans Canada: <http://www.dfo-mpo.gc.ca/fm-gp/sustainable-durable/fisheries-peches/index-eng.htm>
6. Government of Canada. (2015). *Fisheries Sustainability: Lobster*. Retrieved from Fisheries and Oceans Canada: <http://www.dfo-mpo.gc.ca/fm-gp/sustainable-durable/fisheries-peches/lobster-homard-eng.htm>
7. Mandel, C. (2016). Canada's fishery in severe decline, warns ocean watch group. *National Observer*.
8. Schell, J. www.naturepl.com (cover photo on page 1)
9. Bukaty, R.F. The associated press. (photo on page 2)