

My Experience at Sea Is No Longer “Anecdotal”

The livelihoods of commercial fishermen — owner-operators personally invested in a catch-share fishery — are irrevocably linked to the scientific analyses of the health of the fish stocks they rely on, which in turn inform harvest limits.

New England fishermen spend more time observing our ocean environment than scientists do, yet their self-reported data currently have limited impact on stock assessments and management decisions. That is unfortunate.

Electronic monitoring is changing the data dynamic. And the groundfish fishermen choosing to use EM are thrilled to no longer be considered “anecdotal,” an adjective that is scientifically accurate, but can come across as condescending to those who go to sea to help feed the citizenry.

One version of EM being tested in New England uses cameras to record all fish thrown overboard. Independent auditors check the footage against fishermen’s logbooks, verifying their self-reported data, and allowing the data to be used for quota management.

There are several additional reasons why the fishermen we work with are choosing EM with cameras to secure a sustainable future. I’ll list the most important.

First, EM levels the playing field. The groundfish fishery, which includes cod, haddock, and flounders, has not experienced the rebuilding of fish populations promised by quotas and catch shares. Instead, it continues to suffer from overfishing, likely due to lack of accountability.

Inadequate monitoring of a fishery creates perverse economic incentives. During trips with human observers, fishermen can change practices to artificially reduce the discard estimates used in stock assessments. Honest fishermen who



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report accurately are thus required to lease additional quota to cover their catch, imposing a financial cost that cheaters avoid. EM provides a cost-effective way to have high levels of monitoring to identify and prevent cheating.

Second, EM collects unbiased, verifiable information. Unreported discards and biased discard estimates put bad data into stock assessments and may result in quotas that are not aligned with the reality of fish populations, which can prevent rebuilding despite cuts in quota. Bad data can also produce overestimates in abundance, creating “paper fish” and causing price fluctuations for fish quota that can’t be caught. Fishermen hope better data will allow managers to set quotas that will help rebuild fish stocks and their businesses at the same time.

Third, EM creates a better monitoring experience. For small boats, weather windows are short and space on deck is at a premium. Not having to coordinate schedules with an observer increases flexibility. Not having an unknown person onboard increases the captain’s peace of mind: everyone on the boat knows where and how to do their jobs and there is one less person to worry about getting home safely.

Finally, EM can provide regulatory flexibility. Because EM can provide 100 percent coverage, with verifiable data, fishermen who opt into the program have been offered opportunities to fish in areas that otherwise are closed to commercial activity. In certain situations, they also can fish more than one fishery a single trip, because what they catch and how they catch it are visible. These incentives help overcome a natural resistance to cameras on deck and make EM a good choice for accountable fishermen, not punitive enforcement for scofflaws.

As more fishermen turn to EM as a tool, a few significant hurdles remain. Fishermen still have concerns about who watches their video for what purpose, how video access is controlled, and how long it is stored. The National Oceanic and Atmospheric Administration needs to build the information infrastructure to support this new data stream and make it readily available for science and management. If multiple agencies within NOAA can learn to share data infrastructure and a single data stream, there is tremendous potential for using EM to reduce the reporting burden on fishermen, streamline monitoring and reporting systems, and to improve data accuracy.