# The Commercial Groundfish Integration Program: *Catch Monitoring*

Pete Wyness

The catch monitoring component of the Commercial Groundfish Integration Program (CGIP) provides DFO with accurate information on harvesting practices, catch composition, and location of fishing. This information is essential to assess the status of fish stocks and ensure the conservation and long-term sustainability of fish resources. The monitoring component of the program consists of two parts: 100% At Sea Monitoring and the Dockside Monitoring Program (DMP).

**100% At Sea Monitoring** is accomplished through two methods:

An **at-sea observer** is onboard to verify and record the catch by species (retained and released). The observer completes an observer log (ASOP) which is the official at-sea catch record. This method is primarily used in the groundfish trawl fishery.

An **electronic monitoring system (EM)** is used onboard which captures sensor data and video footage. The system consists of multiple cameras and sensory devices. A GPS receiver measures vessel speed, location, and behaviour. A hydraulic pressure transducer, and drum rotation sensor monitor the use of fishing gear.

- A crucial part of the video footage taken from the cameras onboard is imagery of catch being released back into the water. Each fish must be held in front of a measuring board in clear view of the camera, which allows for size verification, and species identification prior to release. This allows for mortality to be attributed to any catch of legal size that is released.
- The EM system is a less expensive method that can be used by hook and line fisheries. Data from the system is used to audit logbooks completed by harvesters to ensure that catch is accurately represented.

The **Dockside Monitoring Program** is used to further verify retained fish. Harvesters offload their catch at a designated port in the presence of a dockside validator who identifies the species harveseted and counts each piece of fish, and also derives a weight estimate.

The following processes take place for every fishing trip:

- Prior to departure, the vessel makes arrangements for an at-sea observer or an EM system to be onboard.
- On departure the vessel hails out with Archipelago Marine Research Ltd. (AMR).
- While fishing, the harvester fills out the logbook and ensures that the EM system is working (if applicable).
- Once fishing has completed, the vessel hails in.
- AMR monitors the offload (Dockside Monitoring Program) and collects the at sea monitoring data; the observer logbook if an at-sea observer was used, or the EM system hard drive if an electronic monitoring system was used.
- Data from the Dockside Monitoring Program and EM system are used to audit the harvester's logbook to ensure its accuracy. If an at sea observer is used, the observer logbook is taken as the official catch record.

**If the logbook passes the audit of 10% of the logbook material, a Groundfish Quota Status Report (QSR) is developed using the logbook as the official catch report. The QSR is then sent to the skipper.**

**If the logbook does not meet standards or is not found to represent actual catch, the audit is forwarded to Groundfish Management Unit. This may result in full review of the video footage at the skipper's expense.**

Dan Edwards