

**Improving fisheries management by increasing selectivity: Results from the CelSelect project**

Marianne Robert (IFREMER), Fabien Morandeau (IFREMER), Marion Fiche (Les pêcheurs de Bretagne).

**Abstract:**

The demersal mixed fisheries in the Celtic sea is an economically important fishing ground for European fleets which target a diversity of species (whitefish, flatfish, nephrops, ...) implying important mixed fisheries issues. Discarding practices of target and non-target species in relation to small sizes fish, quota exhaustion and low market value are known to occur to various extents depending on several drivers such as area, period, gears, environment, population dynamics and management measures. The CelSelect project, in collaboration between scientists and fisherman from Producers organization « Les Pêcheurs de Bretagne » aims to improve selectivity patterns of twin trawls operating in this area in response to the landing obligation. Over the three devices tested, the 100mm T90 extension and codend showed a significant decrease in catches of non-target species such as boarfish and pelagic fish. For the main target species such as haddock and whiting, results show significant escapement of under size fish but also fish above minimum landings size. In the new CFP context and knowing the current onboard selectivity ogive, the commercial loses seem to be acceptable for fisherman, at least for some boats included in the program. This device is now implemented on various vessels during commercial trips on a voluntary base which highlights the success of this collaborative project. A scientific trip realized in November, 2015 allowed determining the selectivity curve of the standard trawl and the trawl equipped with a 100mm T90 device that can be used to assess bio-economic impacts and long term considerations of consequences for fish stocks.

**Keyword :** Landing obligation, mixed fisheries, Celtic sea, selectivity, Generalized linear mixed models, fishermen and scientists collaboration.

**Contact author:** Robert Marianne, Laboratory of Fisheries Technologies and Biology, IFREMER France, Marianne.robert@ifremer.fr