Escape panels in trawls – a consistent management tool?

Reducing discards of unwanted sizes and species which have a low survival rate is one of the major challenges in fisheries worldwide today. Numerous devices and fishing gears aiming at improving both species and size selectivity have been developed and implemented by various fisheries. Selective gears are often developed in collaboration between scientists and fishers. Part of the development is a controlled scientific test documenting the selectivity effect. In this study, we compared two versions of a mandatory escape panel that were introduced into the mixed species fishery in the Skagerrak in 2013: the version implemented in the legislation (pre-implementation version) and the version the industry was using one year after its implementation, the post-implementation version (post-version). The post-version went through some simple adjustments that resulted in a panel section with a larger vertical distance between the upper panel (escape panel) and the bottom panel compared to the pre-version. Both designs are legal and considered identical. The results of this study showed significantly higher catches (lower selectivity) for the post-version for all five species examined; cod (Gadus morhua), saithe (Pollachius virens), haddock (Melanogrammus aeglefinus), plaice (Pleuronectes platessa) and Norway lobster (Nephrops norvegicus). Thus the modification by fishers of certain gear properties not specified in the legislation can significantly influence the efficiency of an escape panel. We discuss to what extent catch quotas instead of the former landings quotas could provide the economic incentives for fishers to actively use selective gear designs more optimally and thereby play an active role in the management of fisheries.