Reduction of discards in the bottom trawl fishery: fishing selectivity and effect of the morphology and size of the species

M. CARRETERO, E. VELASCO, J. L. SÁNCHEZ-LIZASO, J. VALEIRAS

Research of fish stocks requires the study of the composition of species, sizes and ages of the catches, which should be similar to those of the population. Therefore, it is very important to know the selectivity of the gear and of the species, since in this way it is easier to establish regulatory measures in the fisheries and allows studies on the populations and their degree of exploitation to be more precise. The objective of this work has been to study whether the morphology and size of the individuals of the different species studied European hake (Merluccius merluccius), blue whiting (Micromesistius poutassou), mackerel (Scomber scombrus), horse mackerel (Trachurus trachurus) and four spotted megrim (Lepidorhombus boscii) is related to the selectivity of the fishing gear. Therefore, we analyzed the shape of the fish, its size and features related to swimming capacity which influence their catchability and, therefore, the selectivity of the gear. These species were selected since they are the main commercial ones caught in the bottom trawling north Iberian fishery, all of them having their respective fishing quotas and subject to “landing obligation” regulation. Knowledge of the selectivity-related characteristics of the different species (flatfish, circular shape, pelagic swimming) is important for the establishment of adequate technical measures in mixed fisheries that target a large number of demersal species.