Effects of environmental parameters and fishing practices on long-line swordfish catches in the eastern Mediterranean

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Abstract

Surface long-lines are extensively used for swordfish fishing in the Mediterranean and a large proportion of their catches is composed of juvenile individuals. It has as been repeatedly stressed during various ICCAT meetings that the reduction of the number of juveniles in the Mediterranean swordfish catches is essential to ensure the sustainability of the stock. In order to obtain a full picture of the swordfish vulnerability in the commonly used long-line gear, a series of fishing trials with long-lines equipped with temperature depth recorders (TDR) and hook timers (HT) were carried out in the eastern Mediterranean. The effects of temperature, depth and time of capture on swordfish size were studied by means of Generalized Additive Models (GAMs), considering also the moon phase prevailing during each trial.

Keywords: Swordfish, Mediterranean, Longline fishery

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