Fish reaction to trawling noise: The significance for trawl sampling

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Abstract
The reactions of fish during trawling were observed with a stationary echo sounder as a trawling vessel passed close to the transducer. Several strong, downward avoidance reactions of haddock (Melanogrammus aeglefinus) were recorded. At depths greater than 100 m, however, the reaction pattern was weak and irregular. A comparative analysis of echo-integrator data at random bottom-trawl sampling sites indicates that fish avoidance occurs between the surface and 200-m depth, even before the vessel arrives. At greater depths, such pre-vessel avoidance reactions are not significant.

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information during research trawling and was tested during an annual ecosystem survey in the Norwegian Sea. The reactions of shoaling adult cod to a pelagic trawl. ICES Journal of Marine Science 69: 303-312. Paper II. Trawl samples are used to classify the observed backscatter layers to species and size composition and to collect specimens of Pacific hake and other organisms. The number and locations of 4. trawl sets are not pre-determined – other than an allowance for an expected total number of tows for each area based on past surveys – but are dependent on the occurrence and pattern of backscattering layers observed at the time of the survey. Our goal is to obtain catches that were representative of the species composition and the size distribution of organisms detected acoustically in as many areas as ... this depth hake are above the noise threshold for their entire geographic range.