

{rokbox title=|Example 38-kHz echogram with the seabed alias interference :: Image: Authors|thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-collecting-quality-echosounder-data-inclement-weather-jech-et-al-2021-thumb.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-collecting-quality-echosounder-data-inclement-weather-jech-et-al-2021.jpg|/rokbox}

J. M. Jech, M. Schaber, M. Cox, P. Escobar-Flores, S. Gastauer, K. Haris, J. Horne, T. Jarvis, Y. Lacroix, R. O'Driscoll, G. Pedersen, **M. Peña**, T. Ryan, S. Sakinan, R. Thomas, H. Viehman, C. Wall, and T. Whitton, 2021.

[Collecting](#)

[Quality Echosounder Data in Inclement Weather.](#)

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**Abstract:** Echosounder data are widely collected and employed to address multitude scientific questions, from characterizing pelagic marine ecosystems, to investigating the behaviour and dynamics of marine organisms, and estimating the abundance and biomass of marine resources. Acoustic data are collected from a variety of platforms that are influenced in different ways by the environment, weather, and sea state. These factors can affect vessel motion in many ways, which, in turn, affects the quality of echosounder data through (i) the movement of the transducer emitting sound pulses into the water column, (ii) bubbles at the transducer face, and (iii) increased electrical, mechanical, and acoustic noise. A reduction in data quality will directly affect the outcome of quantitative estimates based on echosounder data, such as stock assessments. Therefore, procedures for collecting and processing quality echosounder data in inclement weather situations need to be developed. However, the diversity of platforms employed for collecting echosounder data, and the enormous variability of individual platform responses to inclement weather, render it highly challenging and complicated to develop a universal set of procedures and recommendations that can be applied to all platforms. Accordingly, all recommendations need to be driven by acoustic data, rather than by weather conditions or the response of individual platforms to such conditions. The practical aims of this CRR are to (i) review current knowledge and experience on the impact of weather conditions on acoustic data collected with a variety of echosounders operating on research vessels at common acoustic frequencies used in fisheries acoustics; (ii) develop standard procedures and methods for identifying unsuitable survey conditions, i.e. situations that are considered too degraded to continue collecting acoustic data; and (iii) propose methods for dealing with degraded data.

Keywords: