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Submarine erosion on the Prestige sinking area (SW Galicia Bank)

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The stern and bow of the Prestige are located on the southwestern edge of the Galicia Bank (Atlantic NW Iberian continental margin) at 3,565 m and 3,830 m water depths respectively. High resolution acoustic and sedimentological data allowed us mapping of the seabed geomorphology and near-surface sediments of the sinking area. This area is characterized by a N-S tectonic ridge with gradients that decrease westward; the eastern sector of the sinking area is defined by a steep slope ranging from 30 to 3º, and the western one by a gentler slope (12 to 3º). In the sinking area an intense mass wasting occurs. In this sense, the eastern slope is cut by arcuate scarps exposing old bedded sediments and rocks and carved by mass movements, that lead to formation of gullies and depositional lobes formed by different degrees of remobilized material and which become to coalesce. Some of these gullies and lobes become to prolong along the slope of the western sector forming a gully-depositional network that distally is

cannibalized by a large NE-SW valley. The flanks of these lobes are also affected by mass-wasting processes that lead to reworking of their flanks. The near-surface sediments from the gully-depositional network comprise the stacking of turbiditic events occasionally interrupted by debris flows and hemipelagic processes.