The explorations for the 'ideal' reference situation (that is ~1954 but without the organic waste load) and compared to the real 2005/2006 situation shows an overall decrease in the species biomasses of -16.6% LR, -13.5% MR and -8.5% DO.
The preliminary final conclusion is that the recent dredging operations and river deepenings have caused a deterioration in the quantitative ecosystem structure that is more severe than that of 'one of the world's largest organic waste loadings' in connection to exactly the same ecosystem.

Abstract 3

CYCLIC BEHAVIOR OF A SHOAL-CHANNEL SYSTEM IN THE WESTERN SCHELDT ESTUARY

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Many tidal embayments feature shoals that cyclically form and migrate in a specific direction. The period between successive formations of shoals varies among the tidal embayments. This cyclic behavior characterizes many ebb-tidal deltas seaward of tidal inlets. However in tidal estuaries such as the Western Scheldt, cyclic behavior occurs as well. This is shown in Figure 1, which presents the morphological evolution of the seaward area of Western Scheldt near Vlissingen between 1974 and 2012. Initially, a shoal detaches from the northern part of the shoal "Hooge Platen", which starts to migrate towards north until it merges with the northern shoal ("Spijkerplaat"). Subsequently, a new shoal detaches again and start to move north. The period between the successive shoal detachments is approximately 30 years. Beside shoal migration, the adjacent northern channel ("Schaar van Spijkerplaat") also migrates in the northern direction (indicated by the circles). The northern migration of the shoal-channel system is also visible in Figure 2, which shows the evolution of the bedlevel along a cross-channel transect (red dashed line in Figure 1) between 1964 and 2014.
While previous research has mainly focused on understanding the cyclic behavior of shoals in tidal inlet systems, little is known about the mechanisms underlying the cyclic behavior of shoals and channels in estuaries. The overall aim of this study is to quantify the physical mechanisms that are responsible for the observed migration of the shoal-channel system in the Western Scheldt.