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# Effect of deoxygenation on fish biology and fisheries in an enclosed brackish marine ecosystem

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Increased deoxygenation has affected worldwide the biology and behavior of fish and invertebrates, and the structure and functioning of marine ecosystems. Hypoxia can affect organisms through several direct and indirect mechanisms, which are not mutually exclusive and whose effects may sum up to lead to the observed changes. The species that are directly affected by deoxygenation are often highly important commercial species with large consequences on the fisheries relying on these resources. The effects of low-oxygen conditions on the fishery can span from lower quantity and quality of the catches as well as increased fishing efforts and changes in exploitation areas and gears. In some areas, such as the brackish Baltic Sea, deoxygenation has also coincided with an increased difficulty to determine fish age using otoliths, hampering the reliability of stock assessment estimates that are used as base for management advice. This has made the Baltic cod fishery losing its quality certification and eco-labelling with potential repercussions on the industrial revenues. In this talk, an overview of the effects of increased hypoxia on exploited fish species and the industry will be provided with focus on the Baltic Sea.

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