

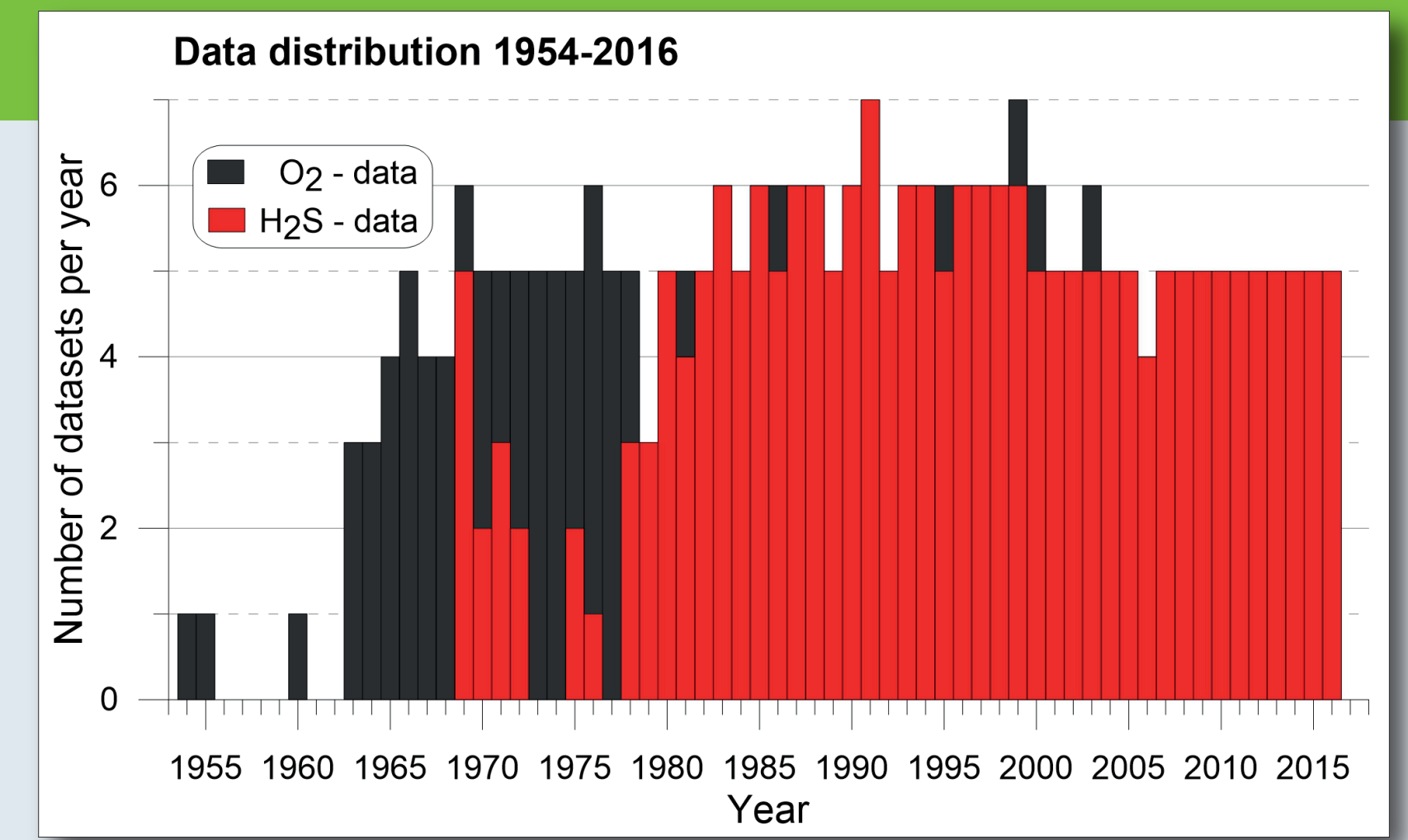
Processing 50 years of oxygen and hydrogen-sulphide observations in the Baltic Sea

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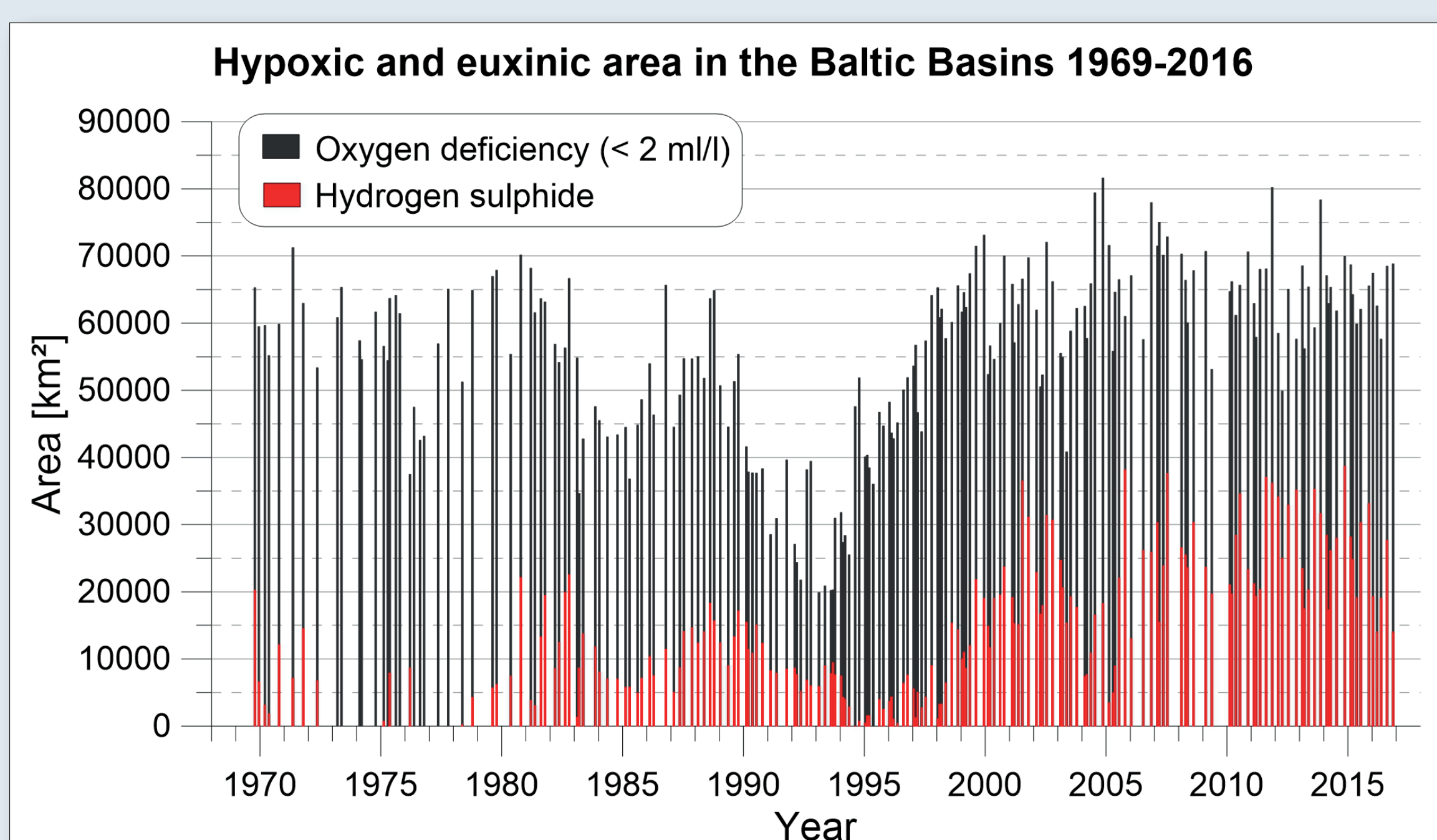
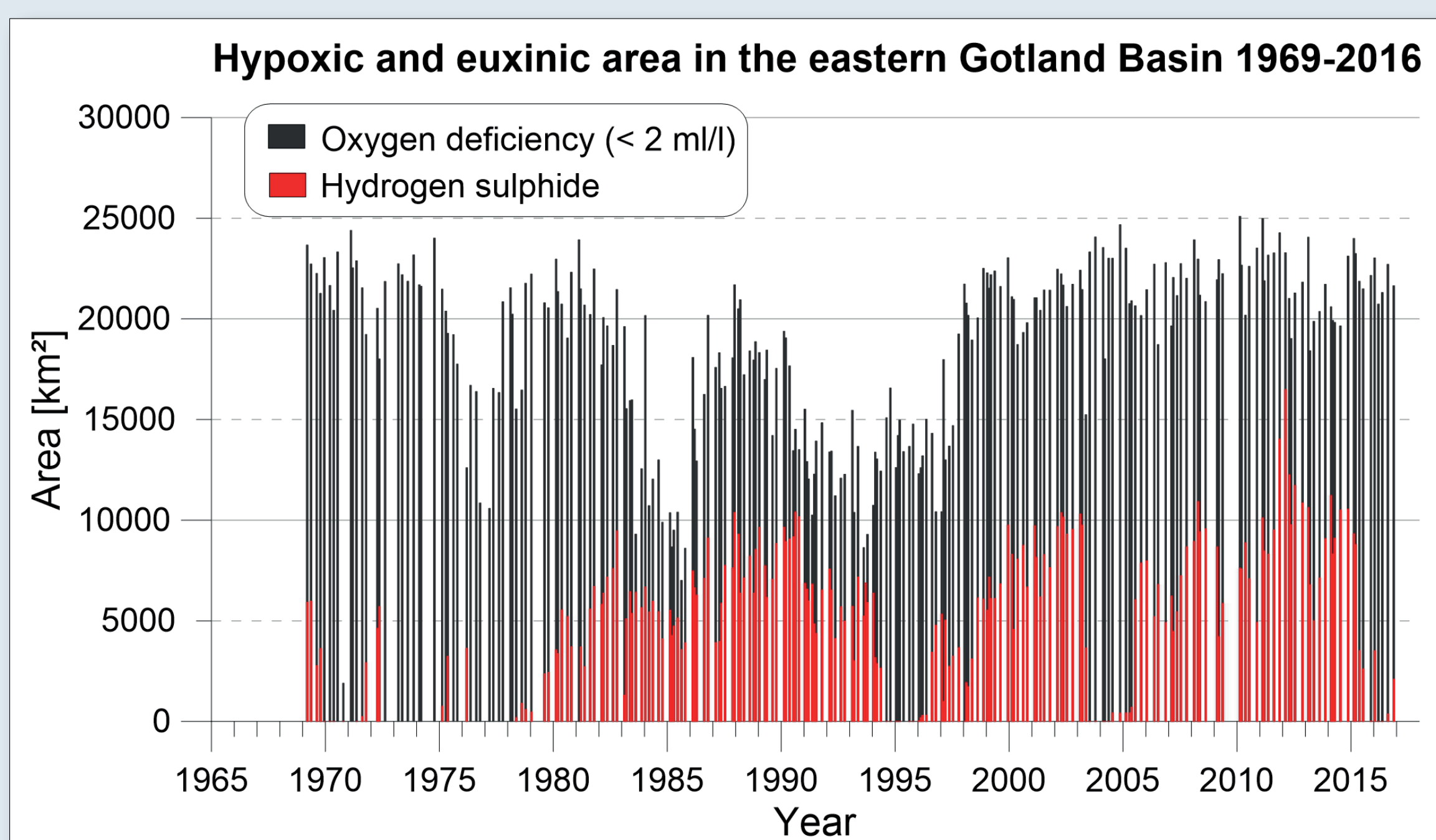
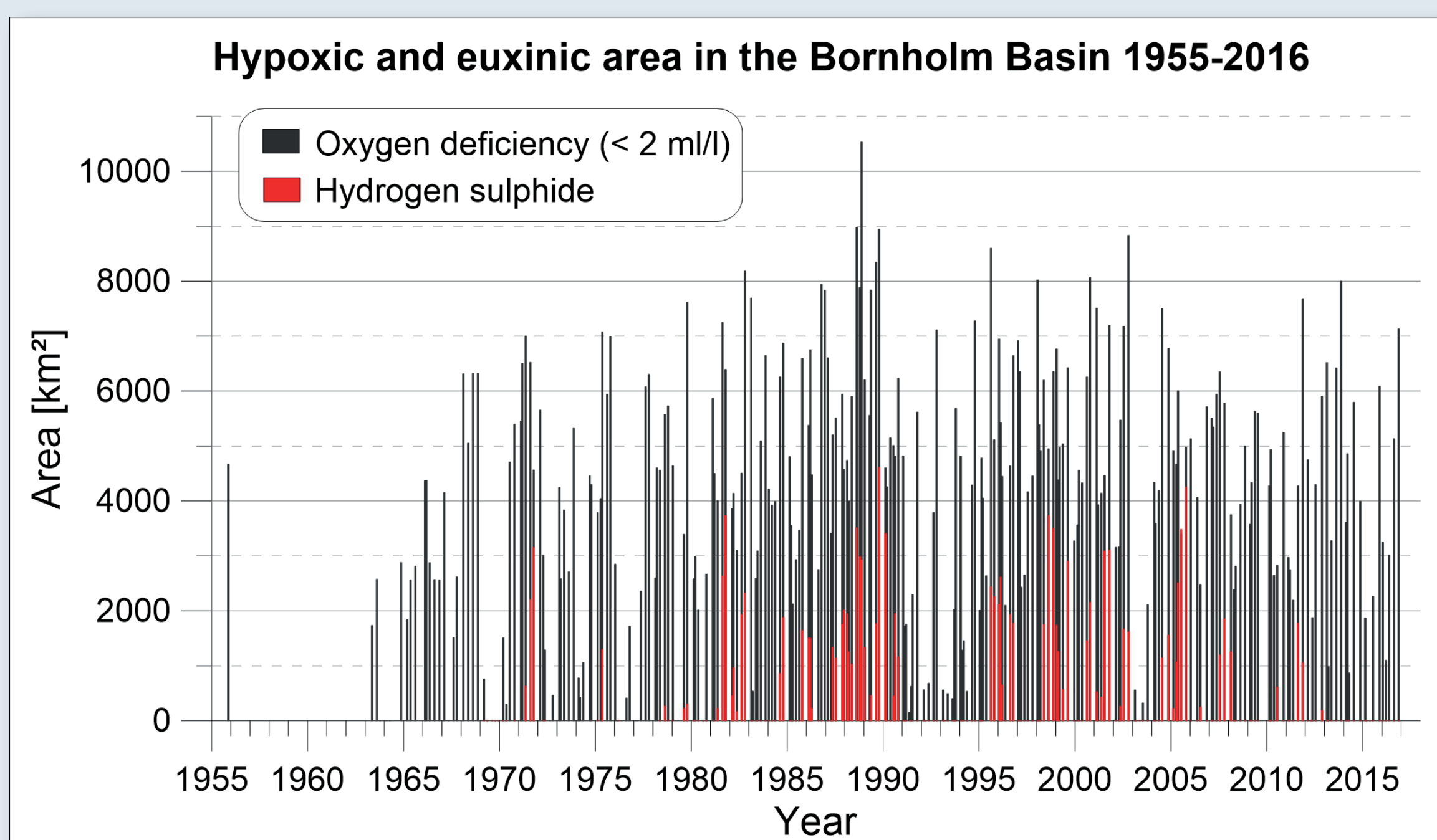
The most comprehensive dataset currently available

Lateral property **distribution maps** published in 2016 by Feistel et al. allow an **evaluation of occasional inflow events**, of the **progress of oxygen-consuming processes** and of the development of **hydrogen sulphide distributions** over longer periods of time. The oceanographic database IOWDB serves as a central primary data source and contains harmonized, quality-controlled oxygen and hydrogen-sulphide data from **regular seasonal monitoring cruises** that have visited the western and central Baltic Sea **since 1969**. Furthermore, our research task combines IOW long-term data with those from cooperating **partner institutions in Sweden and Poland**.



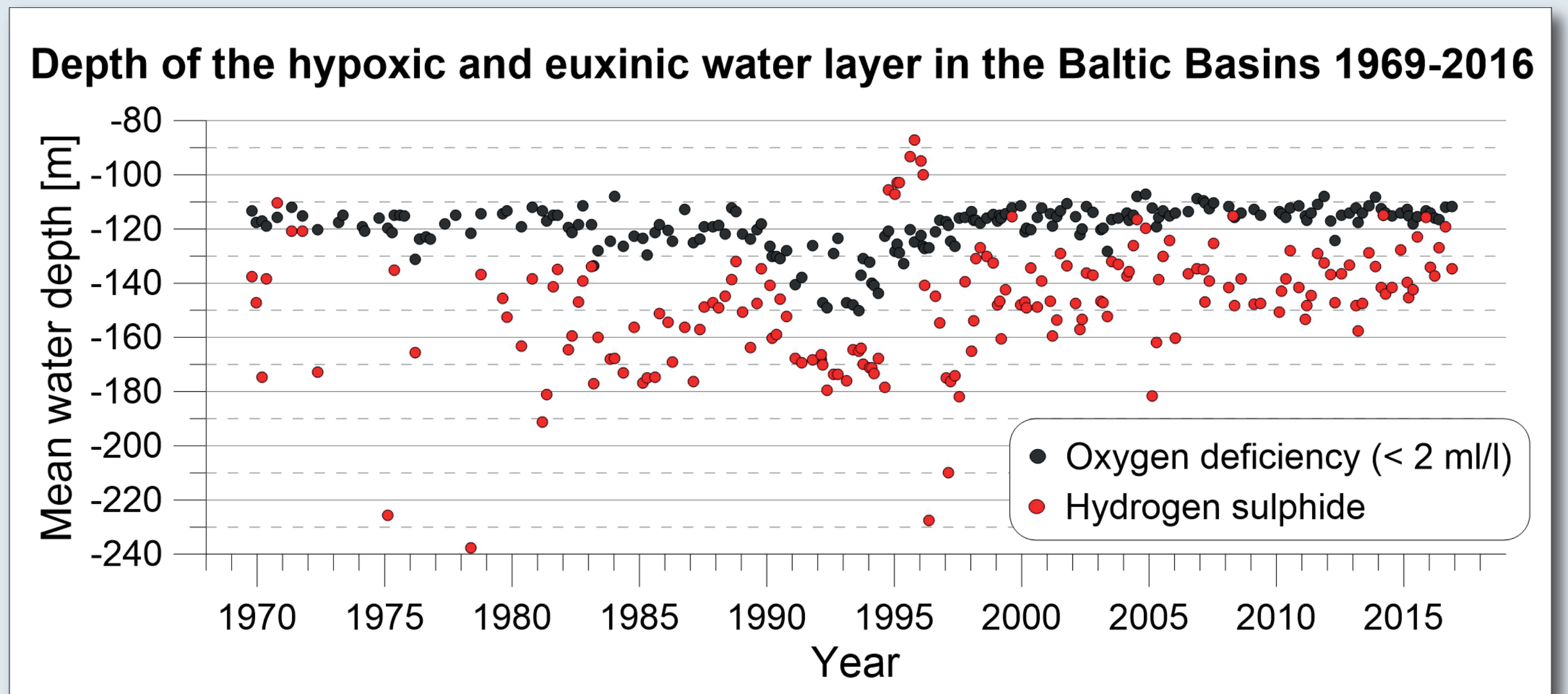
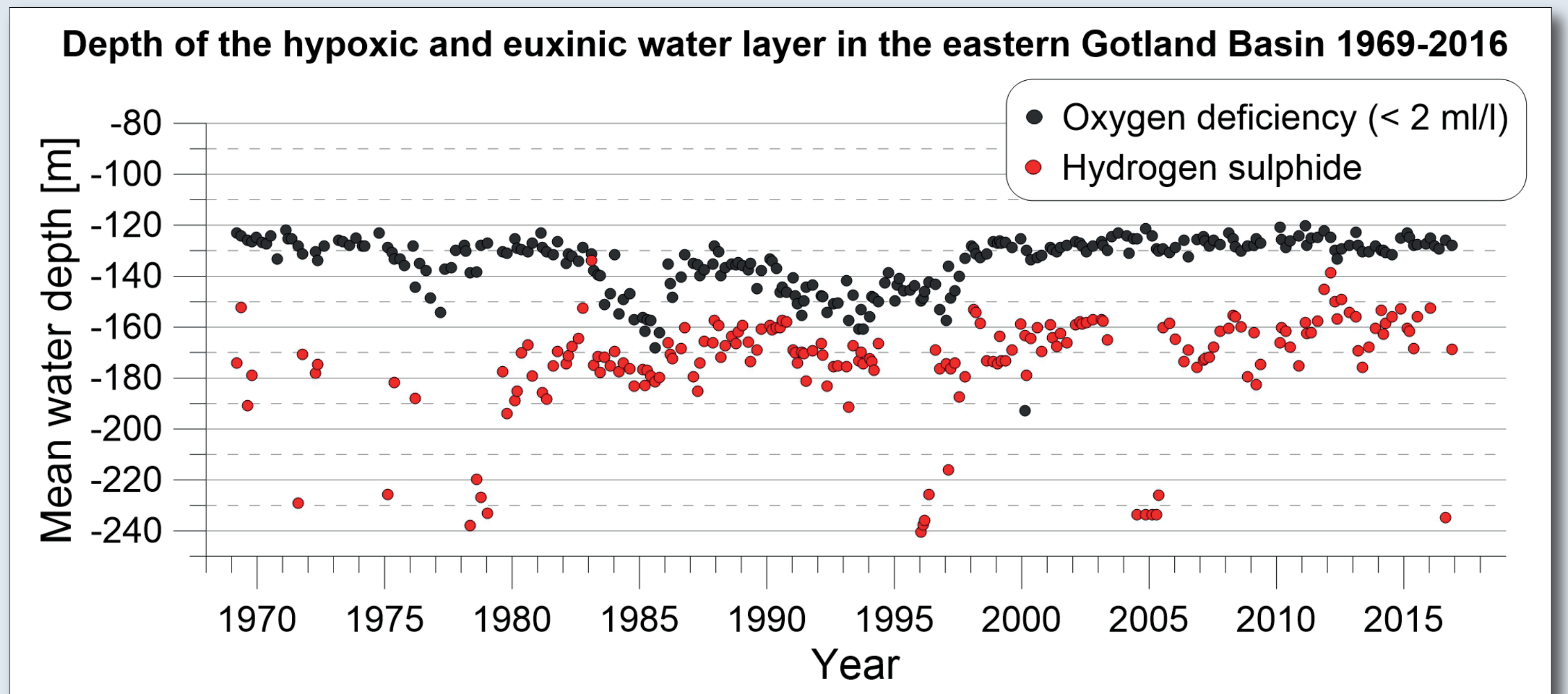
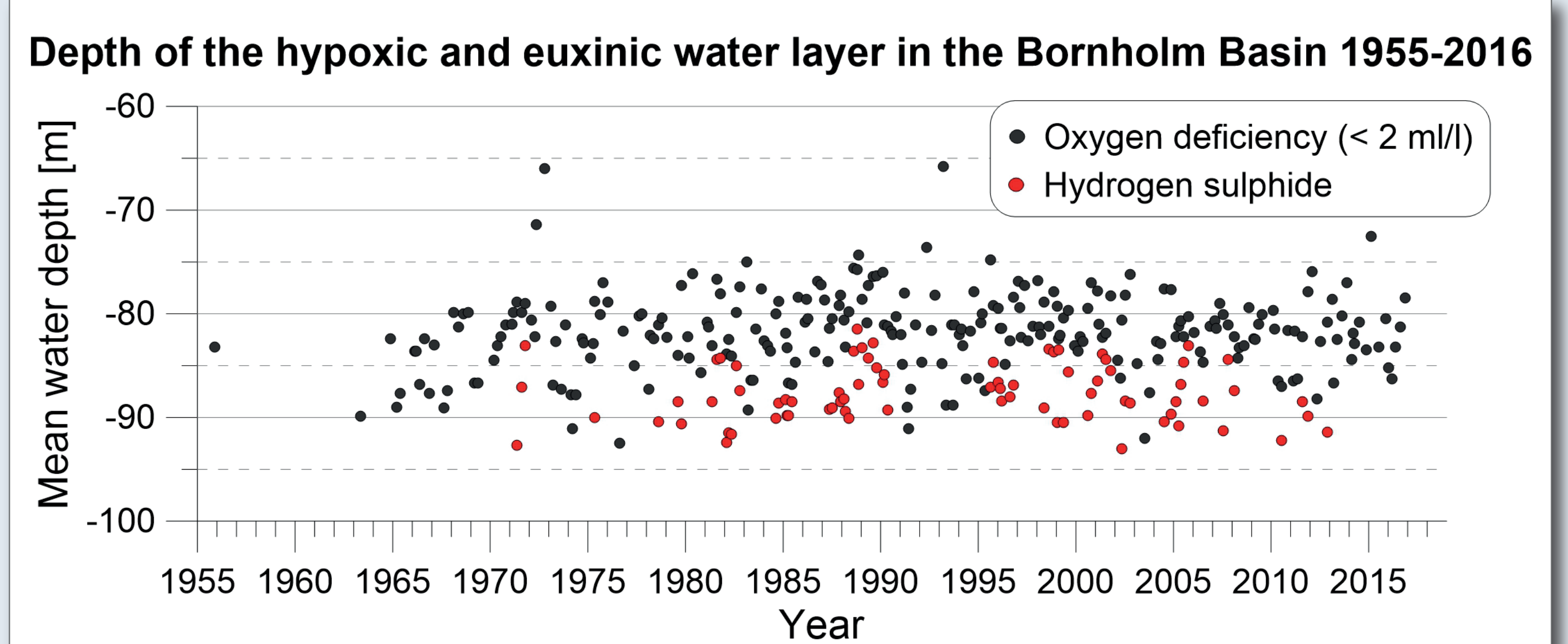
Spatial analysis: area

Interpolated shapefiles allow the calculation of hypoxic and euxinic areas, either total area for all Baltic basins or separated into single basins.



Spatial analysis: depth

The overall mean value of water depth for oxygen deficiency varies at around 120m, whereas hydrogen sulphide measurements spread between 120 and 180m. Exceptions occur during inflow events when „old water“ is lifted up.



Development of new tools & methods

1969: hand-drawn

2001: software based

2014: database

2016: GIS based

2016: shape file

2019: ?

