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Upwelling changes along the Atlantic Coast of the Iberian Peninsula.

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Upwelling events have been largely studied along eastern boundary coastal systems all over the world. This phenomenon is commonly attributed to the wind action along a coast, which generates an Ekman drift directed either onshore or offshore, to which the coast stands as an obstacle. The drift is offshore if the wind blows with the coast on its left (right) in the Northern (Southern) Hemisphere. If this is the case, water depletion occurs in the upper layers, and a low pressure sets in, forcing water from below to move upward and replenish the space vacated by the offshore drift. The major upwelling regions of the world in terms of primary production are the Canary Current System, the California Current System, the Benguela Current, the Peru-Humboldt Current and the Somalia Current. Upwelling processes tend to trigger intense phytoplankton blooms since they are responsible from the major injection of new nutrient salts into the euphotic layer.

Changes in upwelling systems induced by global warming are a major concern nowadays due to their impact on productivity. Different data bases (wind regime provided by QuikSCAT and sea surface temperature –SST- provided by NOAA's satellites) will be considered to describe the evolution of upwelling patterns along the Western Iberian Coast (northern part of the Canary Upwelling System). These data will be complemented by in situ measurements along the Galician Coast (NW, Spain).