Moroccan Water Masses along the Coastal Upwelling

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The Northwest African upwelling region is divided, at cape Blanc (20° 58'N), into two major zones: the first one is characterized by North Atlantic Central Water (NACW) and the second one by South Atlantic Central Water (SACW) (Minas et al.1982).

In Moroccan coast, the upwelling occurs year-round in north of cape Blanc till cape Boujdor and mainly in summer between cape Juby and cape Cantin. This seasonal variability has a big influence on the structure of the water column. On one hand, the water column is mixed when the upwelled water reached the surface (cape Cantin-cape Ghir and cape Boujdor), on the other hand, it is stratified when the upwelled water did not reach the surface (cape Draa and Pena Grande). Minas et al. (1982) suggest this situation is related to the weight of the continental shelf.

In this study, we'll try to show the influence of the activity of the coastal upwelling on the water column in each zone animated by this phenomenon.