



Atmospheric modes influence on the inter- annual variability of the Iberian Poleward Current from 1985 to 2006

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The inter-annual variability of the Iberian poleward current (IPC) along the northwestern coast of the Iberian Peninsula (IP) (40- 43N) and its intrusion in the Cantabrian Sea (Navidad, 6- 8W) were analyzed. The January Sea Surface Temperature (J SST) was obtained from the advanced very high resolution radiometer (AVHRR) NOAA satellite from 1985 to 2006. In addition, the dependence of IPC SST on the most representative regional patterns with some influence upon the eastern North Atlantic region was analyzed by means of correlations between November- December atmospheric modes and J SST. The considered modes were: North Atlantic Oscillation pattern (NAO), Eastern Atlantic pattern (EA), Eastern Atlantic Western Russia pattern (EA/WR), Polar/Eurasia pattern (POL) and Scandinavia pattern (SCA). In the present study it has been highlighted that: (1) there are several years (1986, 1987, 1992, 1995, 1997, 1999, 2004 and 2005) during which water in the IPC region is colder than the oceanic one remarking a weak or inexistent IPC during these Januaries and (2) three atmospheric patterns (N-D NAO, N-D EA/WR and N-D POL) are responsible of the main variability of the J SST in the IPC region of the western IP and only two indices (N-D EA/WR, N-D NAO) have shown to be significant to explain the variability of the J SST in the IPC region of the northern IP region.