



## Horizontal distribution of dominant pelagic fish eggs in West African waters

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### Abstract

Early life stages of dominant West African pelagic fishes, most of which are commercially important, are rarely studied especially in Senegalese and Mauritanian coastal waters. The aim of the present study is to examine the horizontal distribution of pelagic fish eggs of Atlantic sardine (*Sardina pilchardus*), anchovy (*Engraulis encrasicolus*), sardinella (*Sardinella aurita*) and horse mackerels (*Trachurus trachurus*.) in late winter and summer. The two seasons revealed two contrasting environmental conditions. While in late winter a permanent upwelling shaped the environmental conditions, in summer a warm tropical influx of surface water towards Mauritania was observed. We collected fish eggs in both seasons along the shelf coasts of Mauritania and Senegal. These data were then related to the sea surface temperature obtained at each sampling position from a conductivity-temperature-depth (CTD) instrument. This study showed that eggs of most species are concentrated in the coastal waters in front the Banc d'Arguin, in Saint-Louis and along the Petite-côte of Senegal. Moreover, it has been shown that spatial distribution of fish eggs is controlled by several factors such as temperature and also by the role of the continental shelf-break, as a mechanism of retention of fish eggs and larvae.



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