

Inter-annual Relationship of SST and Upper-Ocean Circulation between Northern Tanzania and Northern Kenya Bank

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Abstract

The living standards of the majority of residents in Tanga, Northern Tanzania coastal waters and Malindi in the Northern Kenya Bank strongly rely on fishing activity in the East African shelf region. Thus, understanding variations of SST and its related parameters like thermocline depths and upper ocean circulation are of crucial. This study applies regional model to understand interannual spatial relationship of ocean circulation and SST between the ocean off Northern Tanzania and Northern Kenya bank. The results indicate that slight difference in variations off Tanga coast in the Northern Tanzanian shelf region and that in the Northern Kenya Bank off Malindi coast. Such small variations might have local impacts to the community in terms of fishing and primary productivity. The coastal waters off Malindi indicate stronger variations particularly in 1997 (cold SST) and 1998 (warm SST) than that off Tanga region. Off Malindi, the SST anomalies seem to be associated with thermocline and SSH while that off Tanga relate to only SSH. This knowledge provides understanding of fishing activities over these regions which may be used for planning and management of those activities in the regions.