

ABSTRACT

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Does a narrow coastal jet current exist off Tsitsikamma (Eastern Agulhas Bank) and what are the implications for larval transport ?

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A bottom mounted ADCP has revealed that the surface current along the Tsitsikamma Coast is mainly eastward (70%) and can reach maximum velocities of 100 cm.s^{-1} . Progressive vector plots indicate potential transport distances of 600km in a month, suggesting that ichthyoplankton and squid paralarval are commonly transported towards Algoa Bay. This region is known to have offshore flows which link into the Agulhas Current, and therefore represent high risk in terms of larval loss from the Agulhas Bank ecosystem. It is therefore important to establish the region of influence of this Tsitsikamma current. Some results of an analysis of ship-borne ADCP data show that at times a narrow (~ 10km) coastal current is found along the Tsitsikamma coast but terminates in the vicinity of St Francis Bay. Sea level data however, indicate that this current should continue into the Algoa Bay region. This will be validated once the ship-borne ADCP data analysis has been completed and presented.