

Nearshore circulation in a coastal upwelling site off the Northern Humboldt current system

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We report on direct current measurements on a nearshore location, Peninsula Mejillones, within the Humboldt current system (HCS) in the Eastern South Pacific. Currents and hydrography were measured in a 23-station grid on three surveys (October 1998; January and October 1999). We show that the nearshore environment of the HCS is dominated by a poleward flow and a shallow, Ekman dynamics. Upwelling filaments, characterized by AVHRR images, are advected only offshore. These coastal oceanographic conditions generate a rapid recirculation environment. © 2001 Elsevier Science Ltd. All rights reserved.