

Seasonal evaluation of the constituents and approximate color of water at the mouth of the Sassandra river (western Cote d'Ivoire)

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Apparent optical properties of water from Seawifs images of the Obview 2 satellite, including remotely sensed reflectances, were used to evaluate the constituents of water (concentrations of chlorophyll (CHL), dissolved organic matter (CDOM) and detritus) at the mouth of the Sassandra River from 2003 to 2007. Coming from favorable wavelengths (443, 555 and 670 nm), they were used to calculate the percentages of the contribution of constituents of water by marine season. By coupling the relative proportions of the different constituents with the flow rates of the river, we note two possible origins of these constituents, namely the upwelling phenomenon for most of the CHL but also for the detritus and the terrigenous inputs for CDOM. CHL and detritus. Approximate colors of waters in different marine seasons according to the prevalence of the constituent were determined thanks to the method of chromaticity. As a result, water changes from greenish to orange-yellowish and orange-reddish depending on the season. In addition, the typology of water that is divided into two by combining geomorphological data, concentration of the different constituents as well as the color of the water was determined

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