



## Sea extent in Brittany and Normandy during the last interglacial: implications

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Sea ice activity is a normal feature for the shaping of tidal platforms at high latitudes. Anchored ice forms temporarily during cold winter of the Holocene in Western Europe, like in 1962-63. Many beaches anomalies have been found in Brittany and Normandy during the last 30 years: two marine high stands at 120 (+5m above the HWM) and 117 ka (at the present HWM), ice rafted basaltic cobbles from SW Iceland (Hallégouët & Van Vliet-Lanoë., 1989; Van Vliet-Lanoë et al., 2006) and erratic blocks of more local origin. The first high stand is associated with warm temperate vegetation with *Pterocarya* and warm marine foraminifer. The second high stand is associated with boreal foraminifer and temperate continental fauna. Winter Sea ice extended to the South, reaching 45°S along the southern coast of Brittany. Basaltic blocks are found as well in Cotentin as inside the Bay of Brest. It is associated with walrus, and vegetation shift on Europe. It corresponds to the Mid Eemian Cooling. The recurrent activity of sea ice on the littoral platform of Western Europe must be considered as a major factor for platform shaping during Quaternary in Western Europe.

Bellon H., Chauris L., Hallégouët B., Thonon P., 1988. Norois, 35: 331-335.  
Hallégouët B. & Van Vliet-Lanoë B., 1989. Géogr. Phys. & Quater., 43 (2): 223-232.  
Van Vliet-Lanoë B. et al., 2006. Quaternaire, 17 (3): 203-254.