



## **High resolution diatom record revealing the river input of the Tagus (Lisbon latitude, Portugal) for the last century**

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In order to reconstruct the input of the Tagus River (Lisbon latitude, Portugal) to the sea, diatom analyses are conducted over the box-cores PO287-26-1B and PO287-28-1B. The Tagus is a major river crossing the Iberian Peninsula, and its input can be assessed by the determination of diatom assemblages, as marine and fresh water species are present in the marine sediment. Moreover, diatoms only dominate the phytoplanktonic communities during the upwelling season from spring to summer along the Portuguese margin and their abundances are indicative of it. The Tagus flow is also strongly influenced by the North Atlantic Oscillation (NAO), as a negative NAO, by bringing more precipitation over the Iberian peninsula, is supposed to increase its flow, while Northeasterly and Northerly winds that prevails during the upwelling season corresponds to NAO positive situation. Finally, the age model based on  $^{210}\text{Pb}$ , and confirmed by  $^{14}\text{C}$  dating at the base of the box-core, reveal a sedimentation rate of 0.5 cm per year, allowing a further comparison of the high resolution diatom record with the instrumental data.