

COSCINODISCUS WAILESII - A NUISANCE DIATOM IN EUROPEAN WATERS

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Abstract

The diatom *Coscinodiscus wailesii* is native to the Indian and Pacific Oceans. It was introduced to European waters and was first detected in the English Channel, near Plymouth, Devon, in 1977 (as *Coscinodiscus nobilis* Grunow). Its tolerance to abiotic factors enabled it to become established and it spread rapidly. It had reached the Atlantic coast of France by 1978 and Norway by 1979. Today it can be found along the Atlantic coast of France, through the English Channel and north to the Friesian Islands, Helgoland and Norway.

1 Introduction

As with many other introduced phytoplankton species, *Coscinodiscus wailesii* was probably introduced with discharge of ships' ballast water (Hasle 1990; Fig. 1). It can form resting cells and these have been found in sediment samples from ballast tanks (Macdonald 1995). These cells can survive long dark periods (Nagai et al. 1995a). It has also been suggested that importation of shellfish (oysters) could be a vector, with the cells being carried within the gut/pseudofaeces of the animals (O'Mahony 1993; Essink 1994).

It is a nuisance species as it forms dense blooms which produce copious amounts of mucilage and is inedible to most grazing zooplankton.

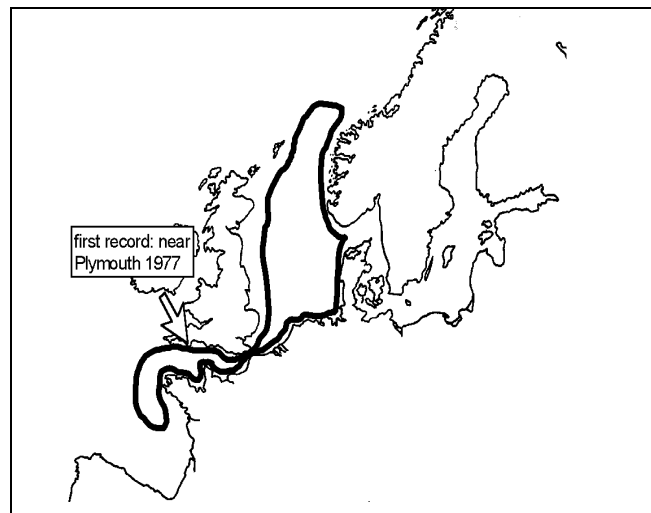


Figure 1. Map of northwestern Europe with location of known blooms of *Coscinodiscus wailesii*, not the overall distribution.