

Alexandrium minutum

SYSTEM

Marine

COMMON NAMES

English: red tide phytoplankton, red tide dinoflagellate

DESCRIPTION

Alexandrium minutum is a toxic single-celled armoured dinoflagellate that is well characterized morphologically in Balech, 1995. Cells are spherical in shape and small-sized, 15 to 29 µm in diameter. The cell is green-brown in colour with a theca (clear protective covering). Small details on this theca differentiate *A. minutum* from other *Alexandrium* species. Cysts of *A. minutum* are from spherical to slightly flattened in shape and from circular (25–35 µm diameter) when seen from above to oval (28–35 µm long, 20–30 µm wide) in lateral view. The most common cell content is granular material and a more or less condensed yellow–orange accumulation body. Nevertheless, globular content is also observed in some cysts (Bravo et al., 2006).

KNOWN INTRODUCED RANGE

ASEAN: Malaysia

WORLD: Atlantic – Northeast, Denmark, Ireland, Mediterranean and Black Sea, Portugal, Sweden, Turkey, United States, Australia, Egypt, New Zealand, Spain, Taiwan, United Kingdom

PATHWAY

Transport – Ship/boat Ballast Water

REASON FOR INTRODUCTION

The red-tide dinoflagellate may be accidentally transferred with ballast water (Hallegraeff and Bolch 1992, NIMPIS, 2002).

IMPACTS

Alexandrium minutum produces toxins which are toxic to some zooplankton and fish and can reduce copepod reproduction. The toxins are bioaccumulated in zooplankton, shellfish and crabs, the consumption of which can lead to paralytic shellfish poisoning (PSP) in humans and other mammals.

Source: Global Invasive Species Database (GISD) 2015. Species profile *Alexandrium minutum*. Available from: <http://www.iucngisd.org/gisd/species.php?sc=1023> [Accessed 09 September 2019]