

BASIC KNOWLEDGE IN MARINE SCIENCES

Edited by

Normawaty Mohammd-Noor



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Introduction

Sand-dwelling dinoflagellates are dinoflagellates that can be found in sediments. Among the types of sediment where dinoflagellates can be found are in sand, rock and mud. Sediments can be found almost everywhere, including harsh and stressful environments. These conditions force sand-dwelling dinoflagellates to develop several characteristic in order to successfully adapt to their surroundings. Most of them are small, have unusual thecate plate and are flat. These help them to swim easily or to attach themselves onto the sediment particles.

Sand-dwelling dinoflagellates are important because they are part of the intertidal food chain. However, they also include potential toxic species which are known to form blooms and discolor sediment particles. This phenomenon had been reported at several sandy beaches (Faust, 1995 and Hoppenrath *et al.* 2007). Studies on sand-dwelling dinoflagellates have gained much attention lately and many new species have been described. Several dinoflagellates are potentially toxic such as *Gamberdiscus toxicus*, *Ostreopsis lenticularis*, *Prorocentrum lima*, *Prorocentrum mexicanum*, *Amphidinium carterea*, *Gambierdiscus belizeanus*, *Ostreopsis labens* and *Coolia tropicalis* (Faust,1995).