

CEFAS
The Centre for Environment
Fisheries & Aquaculture Science

1. Flesh monitoring, where shellfish samples are collected from commercially active harvesting areas and tested for algal biotoxins, and
2. Water monitoring, where water samples are collected from selected harvesting areas and examined for potentially toxic algae species. It is this programme which is described here.

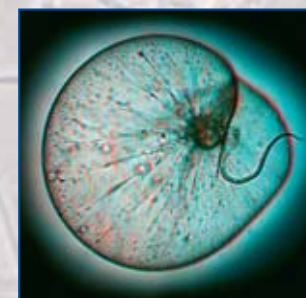
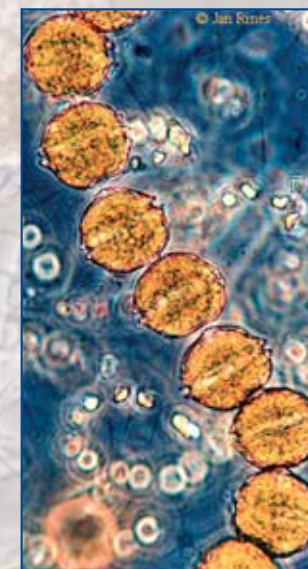
1. Attempt to give advanced warning of toxins being accumulated in shellfish flesh and
2. To limit the distribution of contaminated shellfish before they cause widespread human health problems.

- Water samples are collected from about one third of the commercially active shellfish harvesting areas (in England and Wales) in any one year (approximately 20 sites).
- Environmental Health or Port Health officers of Local Authorities (LA's) collect samples fortnightly from April to September and monthly during the winter period.
- Whenever possible, samples are taken from over the shellfish beds at high water using a tube sampler. Failing this, a surface water sample is taken from as close to the shellfish beds as possible.
- The samples are sent to the Plankton Laboratory at CEFAS, Lowestoft where they are analysed on the day of receipt (usually within 3 days of collection).

- The water samples are analysed for all potentially toxic phytoplankton species known to occur in UK marine and estuarine waters.
- In addition, to the enumeration of toxin producing species, phytoplankton are also identified which are potentially harmful to fish or which cause aesthetic problems (see table below).

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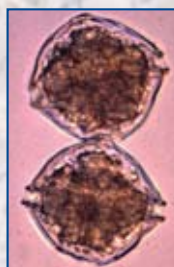
Chaetoceros

*Noctiluca scintillans*

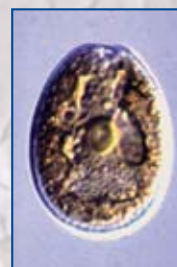
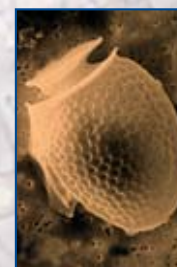
Alexandrium catenella



Phaeocystis



Alexandrium tamarense

*Prorocentrum lima*

Dinophysis



Dinophysis rotundata



Pseudo-nitzschia spp.

- i) Presence of *Alexandrium tamarense*. – PSP
- ii) 100 cells per litre of *Dinophysis* spp. – DSP
- iii) 100 cells per litre of *Prorocentrum lima*. – DSP
- iv) 150,000 cells per litre of *Pseudo-nitzschia* spp. – ASP