

Development of a Regional Programme on Marine & Coastal Invasive Species in the East Asian Seas Region

Concept by the COBSEA Secretariat



What are invasive alien species?

- **Alien Species** – a species that has been intentionally or unintentionally introduced to a location, area, or region where it does not occur naturally.
- **Invasive Species** – a species that has established and spread outside its natural distribution range causing harm to the environment, economy or human health.
- **Invasive alien species (IAS)** – an alien species that causes, or has the potential to cause, harm to the environment, economies, or human health. Because the majority of invasive species are alien, this term is widely used by practitioners in the field.
- **Marine and coastal invasive species (MIS)** – invasive species in marine and coastal environments.

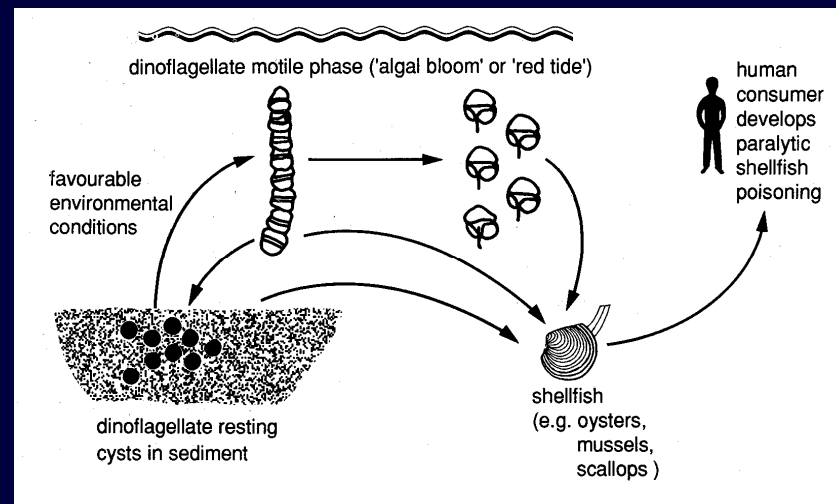
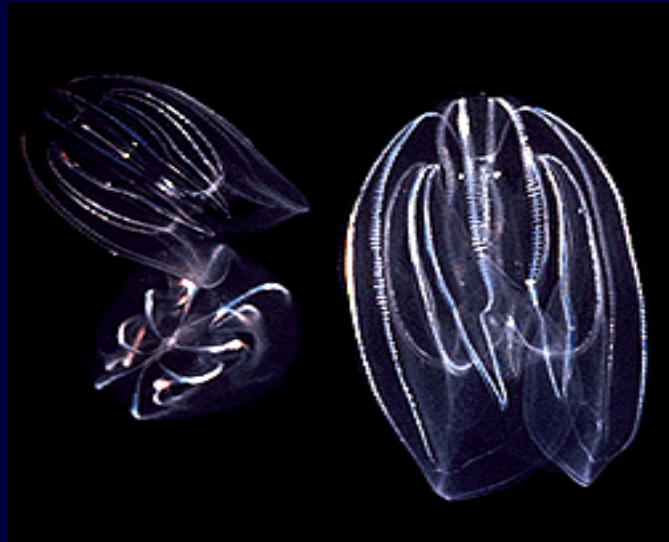
Invasive Alien Species



- One of the greatest threats to biodiversity globally
- Documented in 84% of marine ecoregions and 1 of 4 major threats to world's oceans
- Other 3 major threats are:
 - land-based sources of marine pollution,
 - overexploitation of living marine resources, and
 - physical alteration /destruction of habitat.

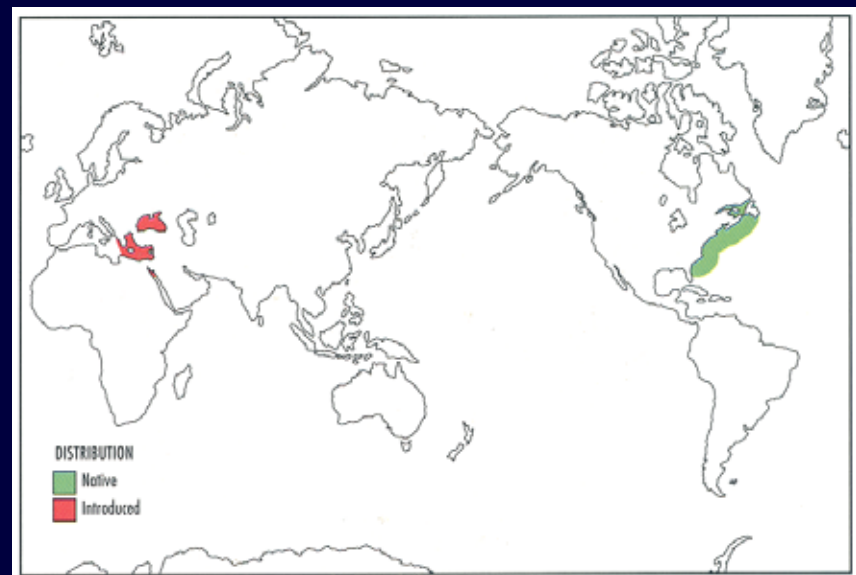
Impacts fall into 3 main categories:

- Economic
- Ecological
- Health



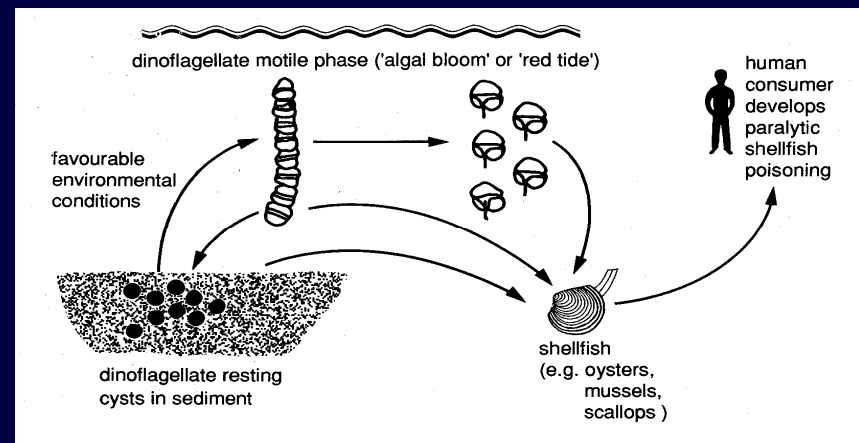
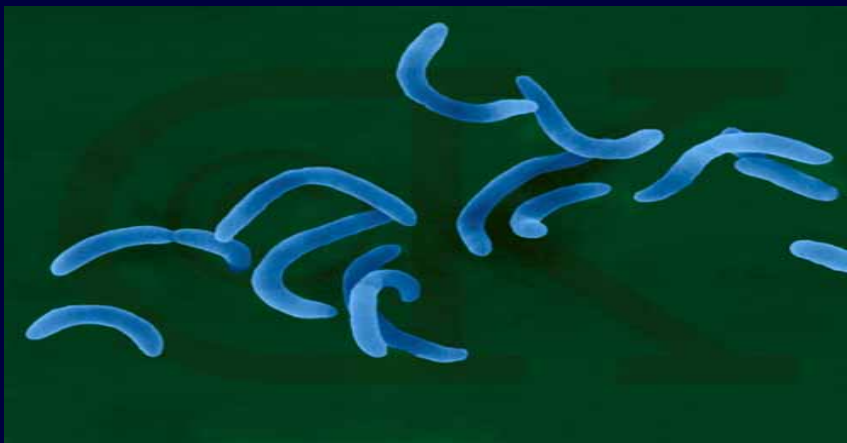
Comb jelly in the Black Sea

Originated on the US East Coast
Introduced via ballast water
Led to collapse of Black Sea
fisheries
Losses of ~ US\$ 500 mill/year



Human Health Impacts

- Species which are often found in ballast water include:
 - Viruses, bacteria and fungi (e.g. cholera)
 - Species such as toxic dinoflagellates which give rise to harmful algal blooms (HABs).



Pathways for introduction

- **Intentional introductions:**
 - fisheries/mariculture
- **Unintentional:**
 - canal developments
 - marine debris
 - escape or release from aquaria,
 - shipping (hullfouling & ballast water)



https://www.yunbaogao.cn/report/index/report?reportId=5_14505

预览已结束，完整报告链接和二维码如下：



S in East Asian Seas

Information available

Operations of shipping in

largest areas for
globally

systems as well

vulnerable to

and as an emerging
New Strategic
for COBSEA
January 2008.

