Invasive Species: Water Hyacinth



**Introduction:** China (1950s)

**Origin:** South America

**Facts:**

* Water Hyacinths grow very rapidly. The population can double between 6 and 12 days
* It also produces large quantities of seeds, and these are viable up to thirty years
* Water hyacinths may rise above the surface of the water as much as 1 meter in height.

**Uses:**

* To feed pigs.
* The stems are dried and the fibres are woven to make hats, footwear and bags.

**Consequences:**

**Physical**

* They block waterways, causing rivers and streams to change course
* They interfere with human activities such as boating, swimming and fishing

**Ecological**

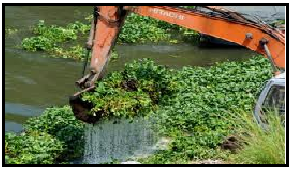
* Water hyacinths are so dense they prevent sunlight and oxygen from reaching the water and submerged plants
* Water hyacinths degrade water quality by blocking photosynthesis, which greatly reduces oxygen levels in the water. This creates a cascading effect by reducing other underwater life such as fish and other plants.
* They crowd out other native aquatic plants, and severely reduce the biological diversity in aquatic ecosystems.
* China has suffered a decline in fish species in the lakes of Guangdong, Yunnan, Jiangsu, Zhejiang, Fujian and Shanghai
* Due to great difficulty in controlling their growth, they cause severe biological pollution

**Economic**

* In 2003, the direct economic loss caused by invasive species that year totalled 19.9 billion yuan (US$2.9 billion); the indirect economic loss on the ecosystem, species and genetic resources amounted to 100 billion yuan (US$14.6 billion). Combined together, the two occupied 1.36 percent of China's GDP that year.

**Solutions:**

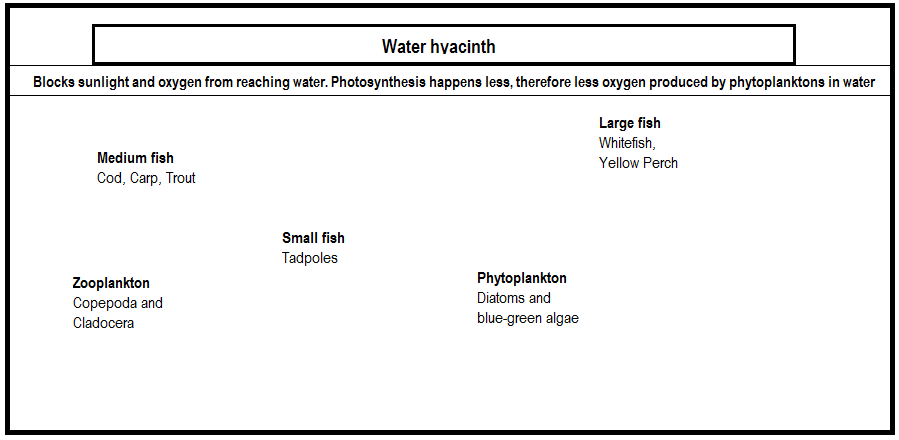
**Chemical Control**

The application of herbicides for controlling water hyacinth has been carried out for many years and it has been found that there is a good success rate when dealing with small infestations.

**Physical Control**

Physical control is performed by land based machines such as bucket cranes, draglines or by water based machinery such as aquatic weed harvester, dredges, or vegetation shredders.

**Biological Control**

In 2010, authorities in eastern China released20 million algae-eating fish into one of the nation's most scenic lakes that has been ravaged by water hyacinths.