



GCSE BIOLOGY

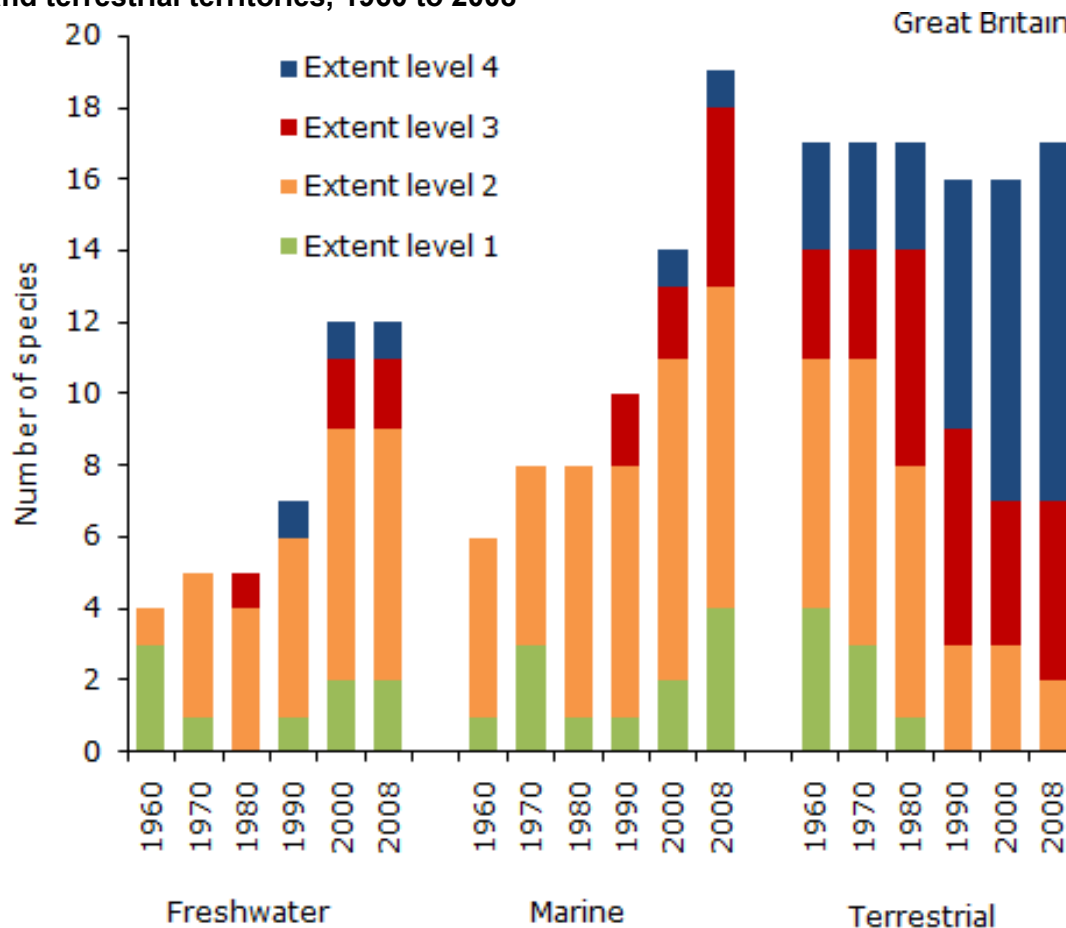
COMPONENT 2
Applications of Biology
HIGHER TIER

RESOURCE BOOKLET
for use in Section A

ALIENS HAVE LANDED

Every year new 'alien invaders' are being found in Britain. These invasive species have been introduced either deliberately or by accident into habitats where they do not usually live. In the 1990s, conservationists estimated that 600 alien species were breeding in Britain. Since then, the number has increased by 80%.

Figure 1 Changes in the extent of invasive non-native species in marine, freshwater and terrestrial territories, 1960 to 2008



KEY: Extent levels are defined as follows:

Extent level 1	Present in territory and have not spread more than 10 km from their source
Extent level 2	Established populations represent less than 10% of territory
Extent level 3	Established populations represent 10 to 50% of the territory
Extent level 4	Established in more than 50% of the territory

Black swans are an example of an invasive species. They originate in Australia. They were first introduced to England in 1791. Now the species has a wide geographical spread throughout the British Isles. Black swans are regarded as pests by farmers, because of their grazing and fouling grass and eating crops. The species is also known to be aggressive and can out-compete native species of wildfowl. Adult black swans mainly feed on aquatic plants. Their cygnets (young swans) will also eat small insects.

Figure 2 A black swan in its natural habitat in Australia

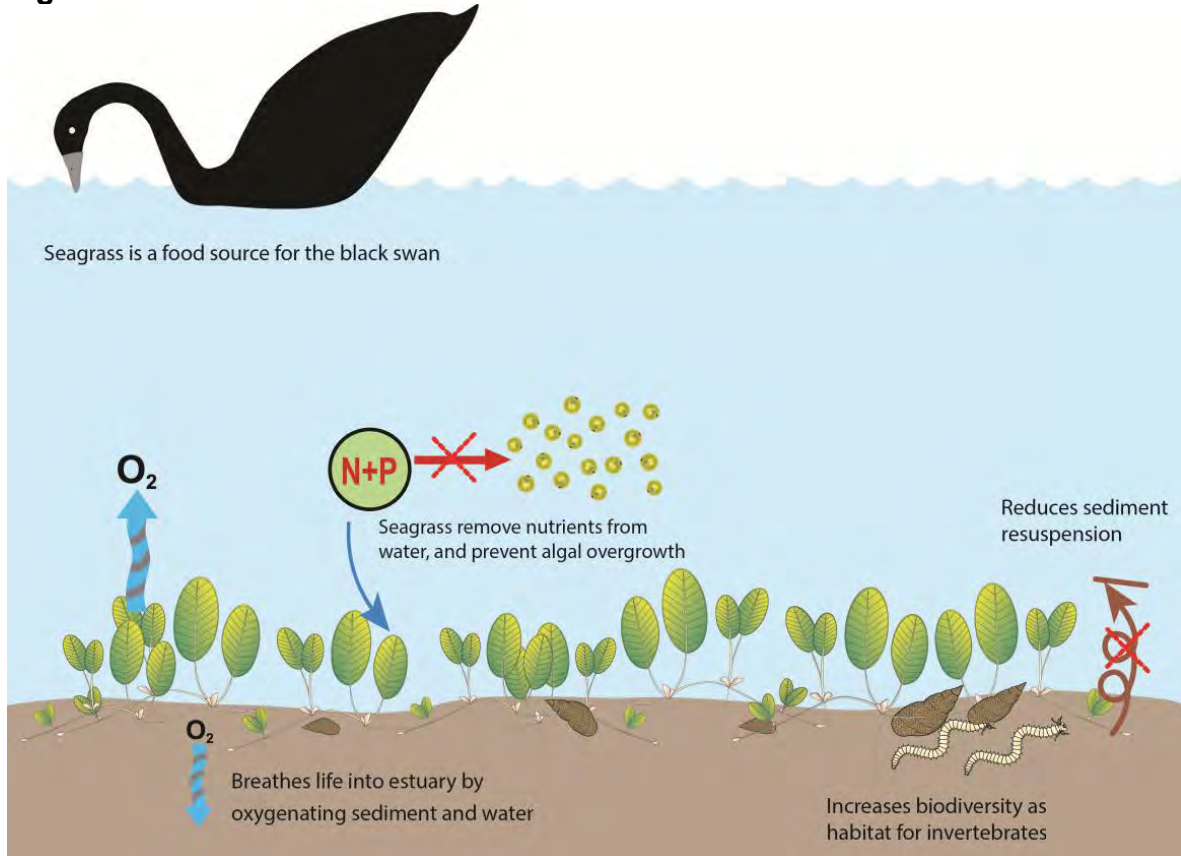


Figure 3 An aquatic food web in the UK

