



# Black John - the Bogus Pirate

## Black John the Bogus Pirate



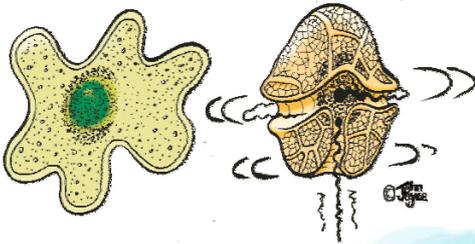
Lopy the Parrot

### The Ocean supports a great Diversity of Life and Ecosystems

*The Fifth Principle of Ocean Literacy* tells us that the Ocean covers some 70% of our planet and is its largest physical feature. It stretches from beneath the frozen wastes of the North Pole, down through the warm waters of the Equator and southwards to the shore of Antarctica. With all that space, depth and variety of habitats, it is no wonder that the Ocean should be home to a breath-taking diversity of life.

Most of this life, both in terms of numbers and 'biomass' (weight of living matter) belongs to the trillions and trillions of microbes at the bottom of the food chain – microscopic animals and plants – that live in the Ocean. While these are so small as to be invisible to the human eye, their sheer numbers make them vitally important to life on Earth. The microscopic plants produce almost half the oxygen in the Earth's atmosphere and the microscopic animals provide the foundation

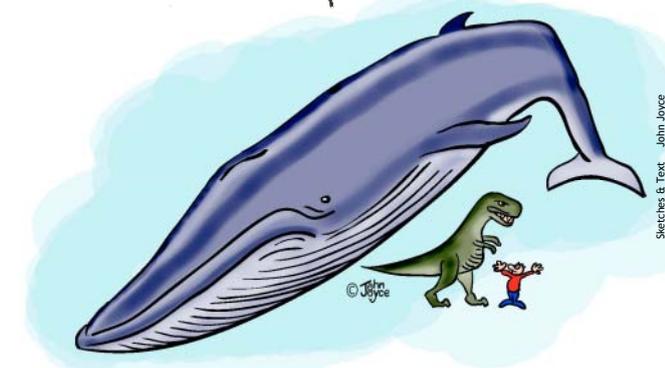
for most of the 'food chains' in the Sea.



In spite of its vast size, the Ocean does not contain an even distribution of life. Most of the living things that inhabit it, tend to congregate along shorelines and estuaries, around coral reefs or in dense congregations in the open ocean. This is because the microscopic animals and plants which larger animals feed on also congregate in fertile inshore waters such as coral reefs, estuaries and mangrove swamps, or as 'plankton blooms' in the open sea where nutrient rich water is heated by the Sun.

Recent advances in deep water exploration have also revealed communities of animals living in complete darkness along volcanic ridges in the abysses of the Ocean. All the energy and nutrients they need is provided not by sunlight, but by superheated seawater that brings heat and chemical nutrients from the underlying volcanic rock up into the waters of the deep ocean.

But you don't have to travel to the open ocean or dive to the mid-Atlantic ridge to see a diverse range of marine life in a small space. Pay a visit to any rocky seashore at low tide and you will see an incredible array of animals and plants all adapting to the changing conditions of temperature, salinity and exposure which takes place as the tide goes in and out.



Sketches & Text John Joyce

But you won't need a microscope to see its largest inhabitant, the Blue Whale. This is the largest living thing that has EVER lived on this planet. The largest specimen ever caught was 29 metres long and weighed 158 metric tonnes. Its heart was the size of a small family car and its aorta (the large blood vessel that leads from the heart) was wide enough for a person to crawl through. The largest land animal that ever lived – the Brontosaur – was only 30 tonnes (a quarter of the size of a fully grown Blue Whale!).

Check out the Principles of Ocean Literacy at <http://oceanliteracy.wp2.coexploration.org/>

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