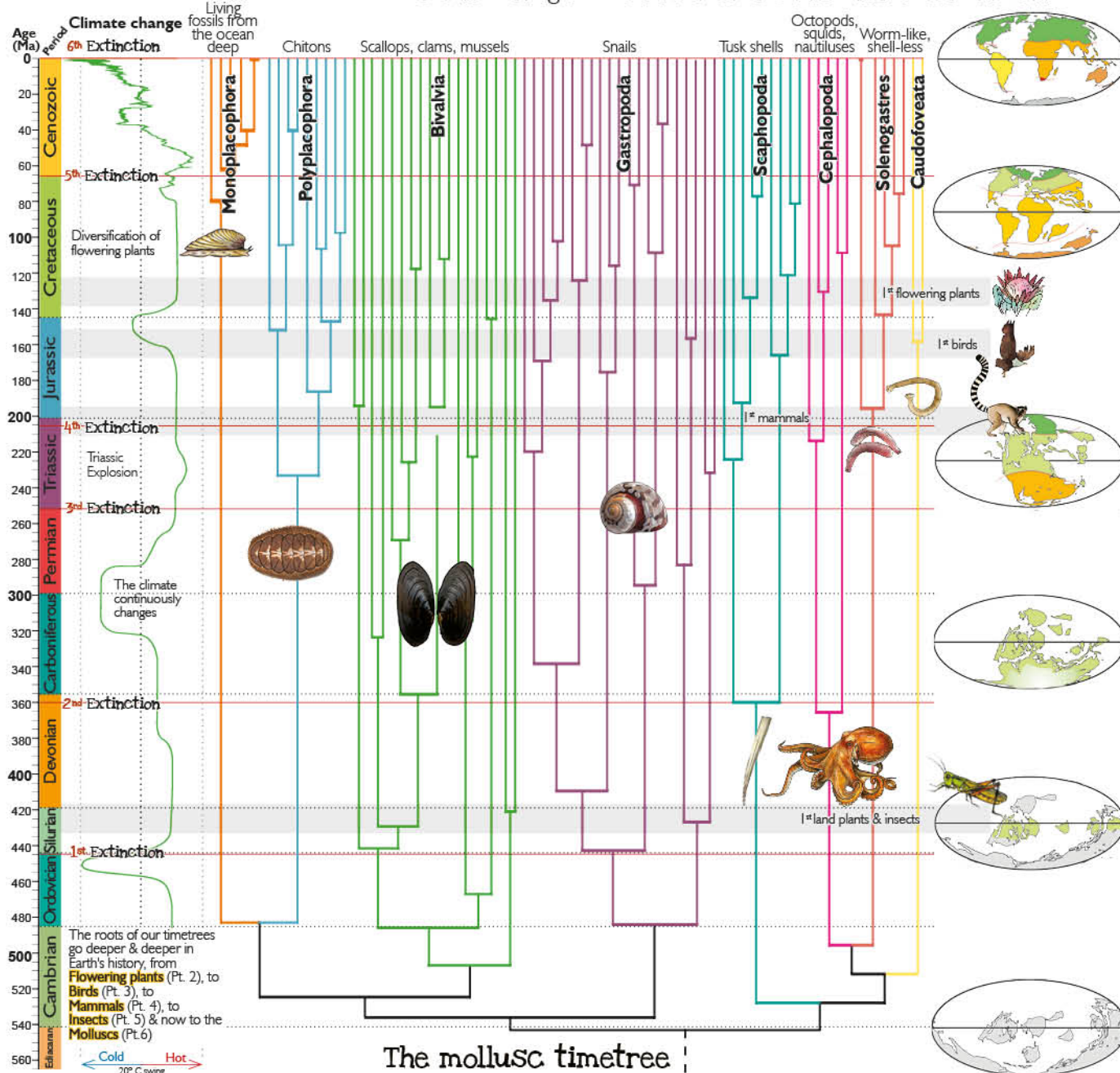


Biodiversity & Extinction

Part 6 Molluscs

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The molluscs first appeared way back in the Cambrian Explosion of life some 540 million years ago. They're a whole lot older than even the insects (Part 5). We're now moving our attention to the coastlines and oceans of the world.



Diversity of Molluscs

Typical marine species are illustrated below (and the common garden land snail)

Known living diversity
Phylum: 1
Classes: 8
Orders: 8
Families: 8
Genera: 100 000
Species: 100 000

Marine - 60 000
Freshwater - 10 000
Land (terrestrial) - 30 000

Monoplacophora
Living fossils from the ocean deep
31 species

Polyplacophora
Coat-of-mail shells
1000 species

Scallop
Tellin

Oyster
Cockle

Clams
Bivalvia
Scallops, clams, mussels
20 000 species

Mussels

Scaphopoda
Tusk shells
500 species

Solenogastres
Worm-like, shell-less
200 species

Caudofoveata
Worm-like, mainly deep sea
120 species

Gastropoda
Snails
70 000 species

Garden snail

Cephalopoda
Octopods, squids, nautilus
900 species

Octopus

Cuttlefish

Nautilus

Squid

How do we recognise a mollusc?

- Mostly by their **external shell** (after all, they are called shells).
- Then by more difficult things like:
 - Mantle**: cloak-like muscle, with cavities for breathing and secreting.
 - Radula**: rasping tongue with chitinous teeth.

Where do they live?

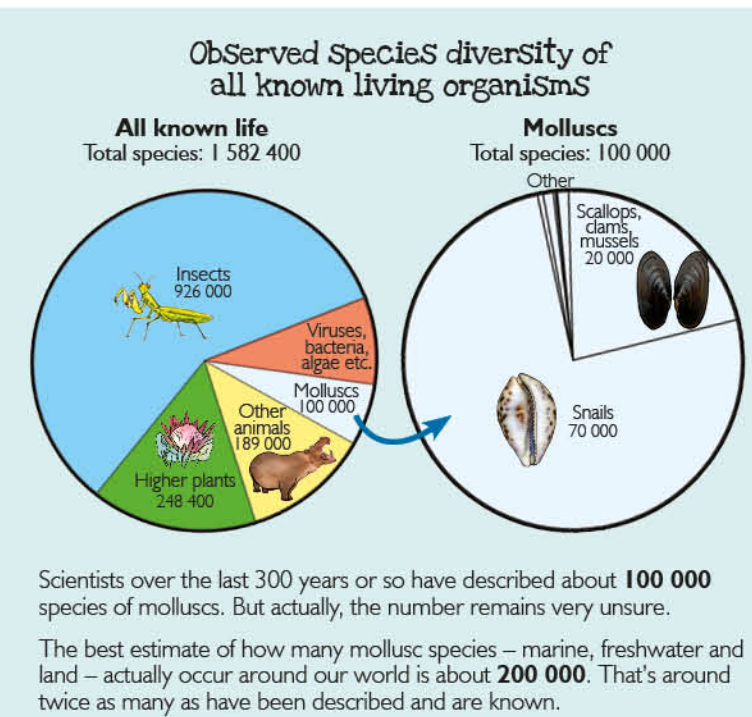
They are most common and diverse in the salty water of the oceans, especially the coastlines. They are also widespread in freshwater and on land.

Activity

Have you ever sung the song, 'Cockles and mussels alive alive o'? If not, do try and find the music on the Internet. It's beautiful.

Did you know?

Would you have thought that the **snail** in your vegetable patch and the **octopus** out at sea were this closely related?



6th Extinction

Humans have destroyed over 80% of the habitat in the 34 continental biodiversity hotspots on Earth (see Part 2 of this series).

Do we have any idea how much damage we've done to the oceans?

About 42% of all extinctions recorded since 1500 AD are of molluscs – mostly land snails from islands like Hawaii.

In terms of extinction, the freshwater and land species are by far the most threatened – with about 2000 or so species listed as endangered (by IUCN). Only about 40 marine species are listed.

The surface of our planet is made up of some 71% of water, mostly the oceans. We really do have to think a lot more about keeping them clean. No more garbage from ships! No more oil spills!

Let's see that the seas and oceans are filled with their rich diversity of life. The 'shells', fish, whales and all the others need a decent home, just like us!