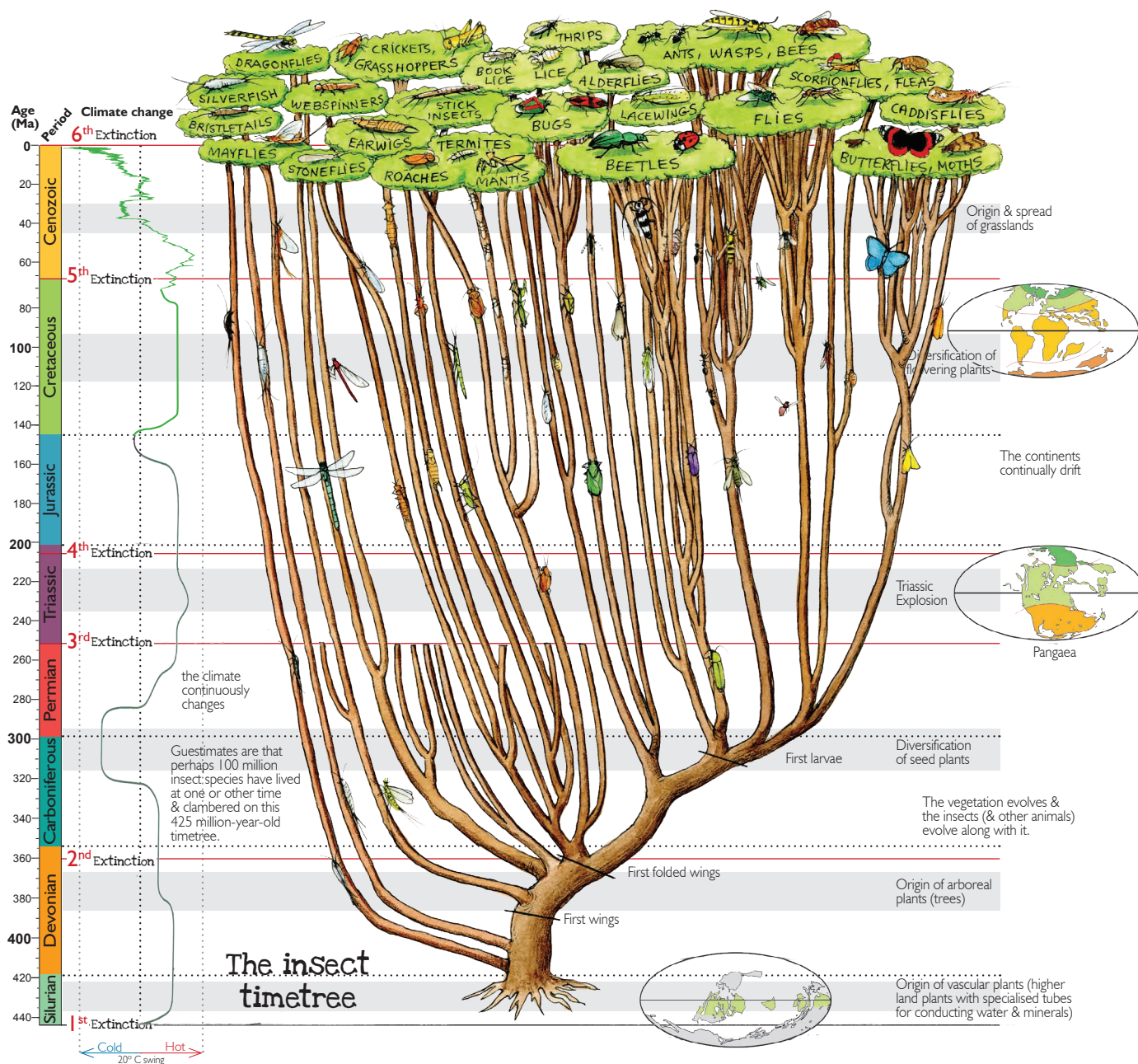


Biodiversity & Extinction

Part 5 Insects

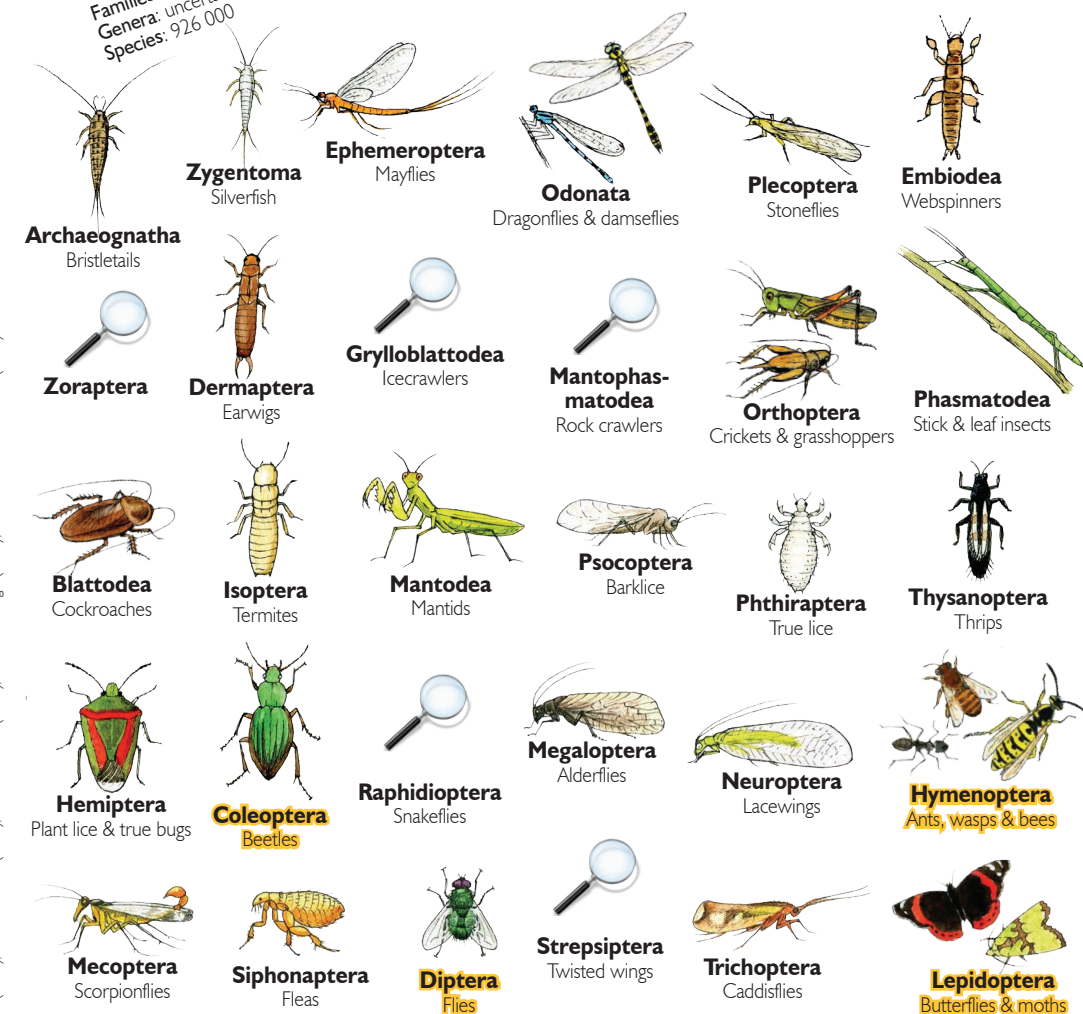
Compiled by Drs John Anderson, Clarke Scholtz (UP) & Connal Eardley (ARC, Pretoria);
Illustrations by Hannah Bonner (Mallorca);
Layout by Ditshego Madopi

The insects first appeared some 425 million years ago (in the Late Silurian). They're a good deal older than the flowering plants, birds and mammals that we've already looked at. And they're by far the most diverse group of organisms around.



Known living diversity
Class: 1
Orders: 30
Families: 600
Genera: uncertain
Species: 926 000

Diversity of Insects



How do we recognise an insect?

- 6 legs
 - spiders have 8
 - mammals have 4
- external skeleton
 - ours is internal
 - jellyfish have none
- 3-part body
 - we have only head & torso

Where do they live?

Just about everywhere on the continents; from forest to woodland, from grassland to desert. Though they're rather rare in the oceans.

Activity

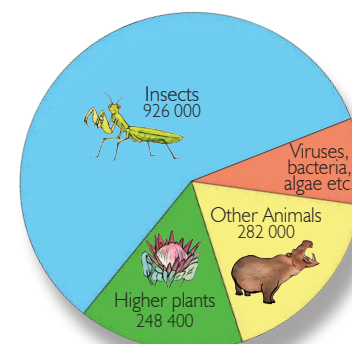
See if you can find images for these 5 rare, strange or less-known orders. You won't find them on our timetree.

"The Big Four"

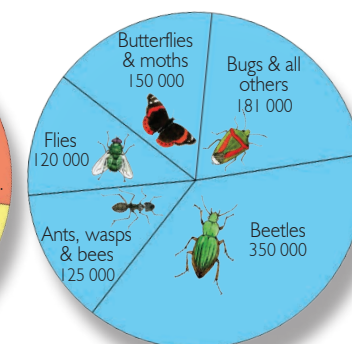
They're the four major pollinating orders; and include 80% of all insect species.

Observed species diversity of all known living organisms

All known life
Total species: 1 582 000



Insects
Total species: 926 000



6th Extinction

As we still know nothing at all about 80% of the different kinds of insects living out there, it is impossible to know how many we have already caused to go extinct.

But just think of this. We humans have destroyed over 80% of the habitat in the 34 biodiversity hotspots on Earth (see Part 2 of this series). It is certain then, that we have already wiped out a vast number of insect species: before even knowing they ever existed.

Yet the insects in general are the greatest survivors! They survived the previous 5 global extinctions and they'll survive the 6th: if we remain unconcerned enough let it run its course!

The insects are crucial to the health of our environment. Yet most of us are not very friendly towards them and destroy them without too much thought at all.

How about chatting to your parents about preserving rather than cutting down the trees around us. And how about loving the wonderful diversity of Nature!

Scientists over the last 300 years or so have described close to **1 million** species of insects.

But the best estimate of how many insect species actually live in our world is about **5 million**. So, very remarkably, 4 out of every 5 insects living in our forests, woodlands and grasslands are still unknown.