NEOGENE PERIOD (23.03-2.588 Million years ago)

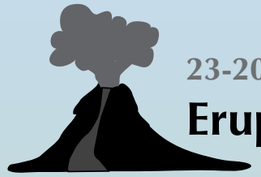
MIOCENE EPOCH

23 Ma

22 Ma

2

FLORA: Temperate rainforests (including the Wollemi Pine) covered the Kosciuszko area.



23-20 MILLION YEARS AGO:

Eruption of Mt Warning, near Tweed

Australian Government

Geoscience Australia

1 Ma

20 Ma

1

Heads, northeastern NSW

PALEOGEOGRAPHY: Australia continued its slow journey northwards towards the Equator.

CLIMATE & FLORA: wetter than today and

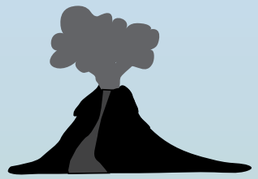
9 Ma

18 Ma

17

Australia's climate was warmer and rainforests dominated the landscape.

FAUNA: Marsupial lions, carnivorous kangaroos and thunder birds roamed the landscape.



Ma

16 Ma

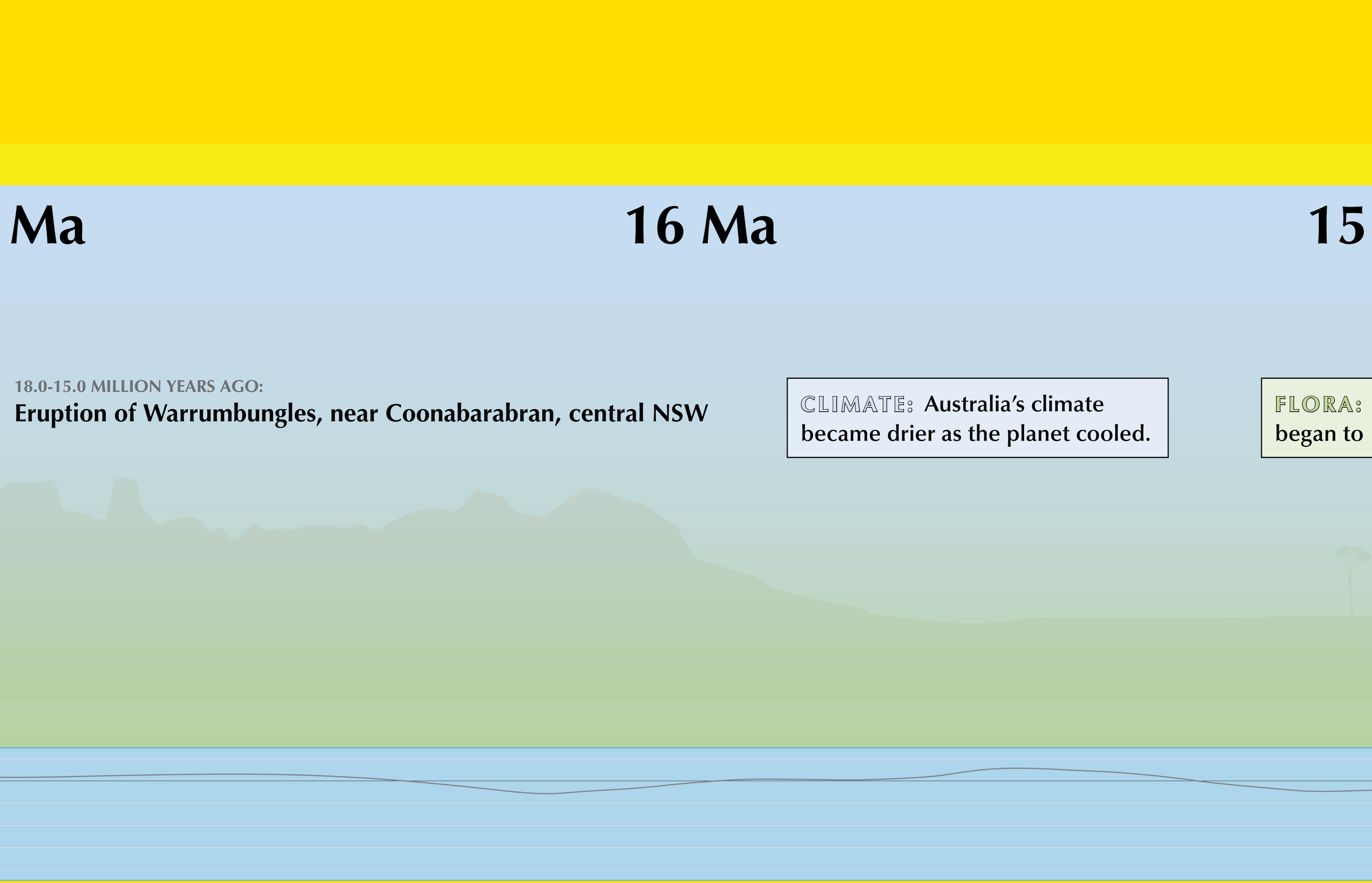
15

18.0-15.0 MILLION YEARS AGO:

Eruption of Warrumbungles, near Coonabarabran, central NSW

CLIMATE: Australia's climate became drier as the planet cooled.

FLORA: began to



Ma 14 Ma 13

Open forests and woodlands dominate the Australian landscape.

OCEAN CURRENTS: A circumpolar current developed in the expanding Southern Ocean. This separated Antarctica from the warmer waters to the north, causing Antarctica to cool.

Ma

12 Ma

11 M

13-11 MILLION YEARS AGO:

Eruption of Mt Canobolas, near Orange, central NSW

FAUNA: Some reptiles
marsupials (*Diprotodon*)

a

10 Ma

9 Ma

(Crocodiles), flightless birds (Dromornithids) and became very large, constituting the megafauna.

~10 MILLION YEARS AGO:

Flinders Ranges began uplifting

8 Ma

7 M

PALEOGEOGRAPHY: As Australia continued its drift northwards it also began to tilt down to the north by 300m.

~7 MILLION YEARS AGO:
Most recent volcanic eruption

a

6 Ma

5 Ma

6.25 MILLION YEARS AGO:

First record of felines of the 'domestic cat' lineage

on Lord Howe Island

FAUNA: The marsupial lion (*Thylacoleo*) and giant goanna (*Megalania*) joined the megafauna.

~6.00 MILLION YEARS AGO:

Human lineage separates from Chimpanzee lineage

PLIOCENE EPOCH

4 Ma

3 Ma

FLORA: Eucalypt, casuarina and wattle trees dominated Australia's flora as its climate continued to dry.

~4.2 MILLION YEARS AGO:

Oldest fossils of genus *Australopithecus* in Africa

QUATERNARY (2.588 Million years ago - present day)

PLEISTOCENE EPOCH

2 Ma

1 Ma

~2.5 MILLION YEARS AGO:
Oldest fossils of genus *Homo* (*Homo habilis*)

~600 000
Great

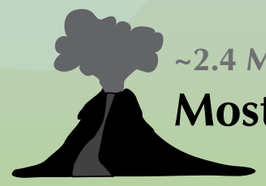
2.59 MILLION YEARS AGO:
Most recent ice age begins

PALEOGEOGRAPHY: As the ice age commenced, lower global sea levels resulted in temporary land bridges between mainland Australia and Tasmania, and Australia and New Guinea.

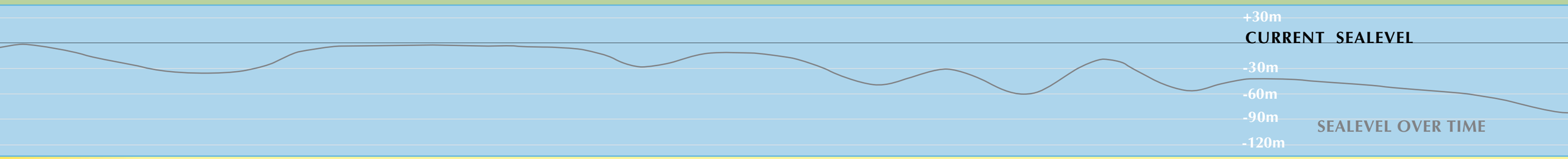
2.5 MILLION YEARS AGO:
Stone tools first used by human ancestors

~2.0 MILLION YEARS AGO:
Oldest fossils of *Homo erectus*, the first of the genus to leave Africa

~800 000
First fire



~2.4 MILLION YEARS AGO:
Most recent volcanic eruption on Norfolk Island



Geological Time Walk

Holocene

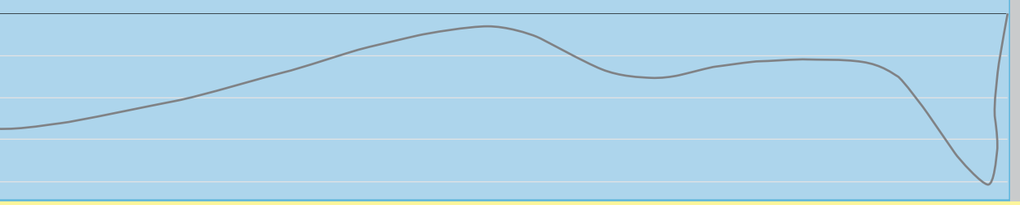
YEARS AGO:
Barrier Reef begins to grow

11 700 YEARS AGO:
End of last ice age

300 000 YEARS AGO:
Meteorite impact forms Wolfe Creek Crater (WA)

YEARS AGO:
use of controlled by *Homo erectus*

60 000 YEARS AGO:
Humans arrive in Australia

200 000 YEARS AGO:
Modern humans (*Homo sapiens sapiens*)

The fine black line represents the last 2000 years to present day