

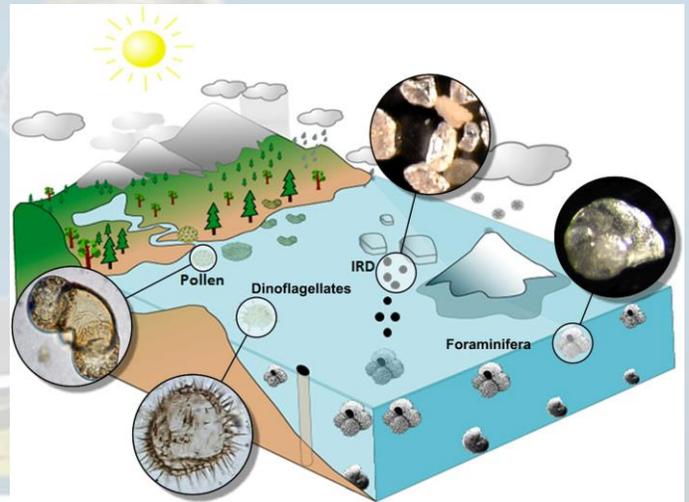
Pollen dating & Gigantopithecus blacki

- The extinction of the largest known primate, a giant ape from China, resulted from its struggle to adapt to environmental changes, as per a paper published in Nature.
- These findings fill a key gap in our understanding of why this species failed to survive where other, similar primates persisted.
- Gigantopithecus blacki was a species of great ape found in China between 2 million and 330 thousand years ago, after which the species became extinct.

What is pollen dating?

- Pollen dating is done by comparing the pollen zones in different rock layers or strata, comparing older, deeper layers to newer ones on top.
- The pollen zone is the particular time frame where specific species of plants release more pollen into the air than others.
- Using this, archeologists can determine climate changes, deforestation, or changes in the use of land hundreds of years ago such as the association between European settlement in North America and an increase in the amount of ragweed pollen found.
- Specific locations can even be determined as the origins for many rare or uncommon pollens.

- Pollen can come in a variety of distinct shapes and sizes depending on the plant it is coming from.
- These microscopic grains are incredibly sturdy with outer shells made from sporopollenin, an incredibly inert substance.



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Biodiversity hotspots and trees extinction

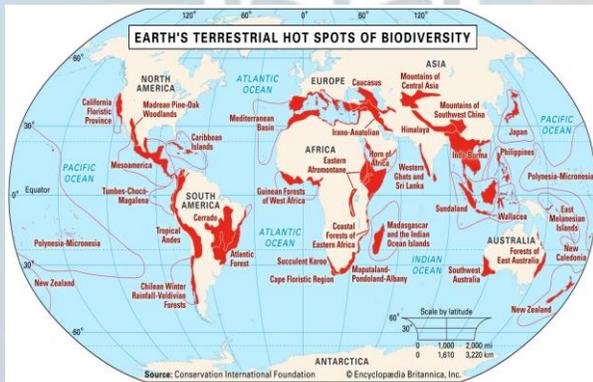
- A comprehensive analysis of tree species' conservation statuses across Atlantic Forest trees reveals high extinction risks.
- According to the study, roughly two-thirds of the 4,950 tree species living in this biodiversity hotspot are threatened with extinction.
- This includes 82% of endemic species, which have quite limited geographic ranges.
- The researchers suggest that the conservation status of tropical forests may be worse than previously believed.

Biodiversity Hotspot

- Biodiversity hotspots are places on Earth that are both biologically rich and deeply threatened.

To qualify as a biodiversity hotspot, a region must meet two strict criteria:

- It must have at least 1,500 vascular plants as endemics which is to say, it must have a high percentage of plant life found nowhere else on the planet.
- A hotspot, in other words, is irreplaceable. It must have 30% or less of its original natural vegetation. In other words, it must be threatened.



- Arctic seals have evolved many adaptations to cope with their frosty environment.
- Researchers report that these structures help the seals retain heat and moisture as they breathe in and out.
- The seals' ability to warm and moisten air during inhalation and to reduce heat and moisture loss during exhalation.
- In cold, dry environments, animals lose heat and moisture just by breathing. Most mammals and birds have complex bones called maxilla turbinate's inside their nasal cavities that help to minimise this risk.
- These porous, bony shelves are covered with a vascularized layer of mucosal tissues that humidify inhaled air, which is important for lung function and reduces the amount of heat and moisture lost during exhalation.

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All about ICJ

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What gives ICJ jurisdiction?

Arctic seal survival



- The ICJ is the principal judicial organ of the United Nations. The statute that created it makes it clear that only states may be parties in cases before the Court.
- Both South Africa and Israel are signatories to the Genocide Convention of 1948, which has now been invoked by South Africa.
- Provisional measures are interim rulings of the ICJ aimed at preventing

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either party from doing irreparable harm to the main case.

- Proceedings instituted before the ICJ usually take years to disposal.

What is the Genocide Convention?

- The Genocide Convention, 1948, was the first human rights treaty to be adopted by the UN General Assembly.
- It primarily arose from a commitment to 'never again' allow mass killing of people such as the Holocaust.
- South Africa's case is based upon Article II which says genocide means acts such as killing members of a national, racial, ethnic, or religious group; causing serious bodily and mental harm to the members of the group; and deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part.
- It has also accused Israel of causing hunger, dehydration, and starvation in Gaza by impeding sufficient humanitarian assistance, cutting off water, food, fuel, and electricity, and failing to provide shelter or sanitation to Palestinians in Gaza, including its 1.9 million internally displaced people.
- South Africa put the death toll at 23,000, 70% of them being women and children.

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