

Journey to the end of the Earth

This year marks the 200th anniversary of the discovery of Antarctica. Let's take a look at some of the daring explorations to the last-discovered continent that made us redraw the world map

Sighting

The history of Antarctic discovery is riddled with claims and counter claims. The belief that there must be land down south to balance land up north is said to have existed since the time of Greek geographer Ptolemy. However, it would not be until several centuries later that humans got close to the elusive land. In 1773, British explorer James Cook became the first to cross the Antarctic Circle. But, no 'sighting' of the land yet. That happened in 1820. Two different teams on an expedition – one each from Russia (with explorer Fabian Gottlieb von Bellingshausen) and Britain (with naval officer Edward Bransfield) – claim to have first sighted the ice-covered place in January. Though it's debated who exactly saw Antarctica first, it is certain 1820 was the year the continent first became visible to humankind.



Explorers

Since 1820, several explorations have been taken up, leading to a better understanding of the continent. Some people in these explorations have stood out for pioneering efforts, while some for sheer grit and stories of survival or tragedy. Here are a few such.

James Weddell: In 1823, this British explorer crossed what is now named after him – the Weddell Sea. That was the first time anyone had ventured so far into the south.

James Clark Ross: Having located the north magnetic pole in 1831, British naval officer James Clark Ross was chosen to lead the voyage to locate the south magnetic pole in 1841. He returned over four years later to England without being able to complete his mission. But his ground-breaking effort paved the way for many other explorers to journey on.

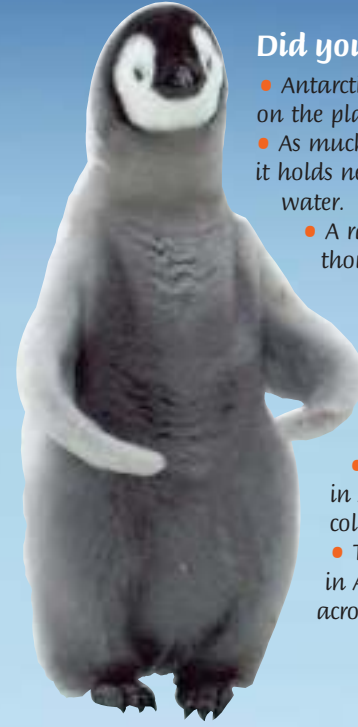
Robert Falcon Scott: After a first expedition in 1901, this British naval officer set off again in 1910 with the desire to become the first one to reach the South Pole, since he'd heard someone was already at it. He did make it to the South Pole, but sadly, he was neither the first nor did he make it back alive from the continent.

Roald Amundsen: This Norwegian was the winner of the famous "race to the South Pole". He reached the South Pole in December 1911, at least a good month before competitor Scott did.

Ernest Shackleton: No discussion on Antarctic explorations is complete without mentioning Irish explorer Ernest Shackleton, who made three expeditions to the continent. The third expedition is the most celebrated. He set sail with 27 others in 1914 on the vessel Endurance. The team hoped to traverse the continent. However, Endurance got trapped in ice. After a journey marked by boating and trekking in unimaginable conditions, Shackleton found help, and every single person in the expedition was rescued.

How did Antarctica get its name?

The word has Greek origins. Ant (against or opposite) and arktikos (Arctic) essentially mean 'opposite to the North', because, remember the Greeks were pretty sure there was land down south? What is even more interesting is the origin of the word Arctic itself. This word originates from the Greek word for bear – arktos referring to the bear constellation seen in the northern hemisphere.



Did you know?

- Antarctica is the driest, coldest, windiest place on the planet.
- As much as 99% of Antarctica is covered by ice; it holds nearly three-fourths of the Earth's fresh water.
- A range of mountains running to thousands of feet and many lakes lie buried in Antarctic ice.
- Mount Erebus is the southernmost active volcano on the planet.
- Antarctica's largest native land animal is a flightless insect! The Antarctic midge is under a cm long.
- Penguins are the most abundant birds in Antarctica; many species live in large colonies.
- Though there are no permanent residents in Antarctica, researchers and scientists from across the globe reside in research stations.

Can we visit Antarctica?

Yes, we can! Several tours are operated to Antarctica which sees thousands of visitors every year. But remember, due to its extremely pristine environment and fragile ecosystem, we may also put the wildlife there at risk.



TECH BYTES

Tips to stay safe on social media

1. Keep personal details such as name, age, location, email address, and phone number private. Do not share them publicly with anyone.
2. Be wary of starting conversations with strangers and do not share your personal details with them.
3. Do not post personal pictures or share them with anyone. If you want to share them with your friends, do so in a private window.
4. Avoid checking in your current location as this can help people track you.
5. Update your privacy settings from time to time and ensure you have control over who views your post.
6. Do not post anything that can defame others. It can go against you, especially during interviews.
7. When you doubt any account or content posted on social media, immediately report it and inform your parents about the same.

ARTIVITY



If you have original artwork related to current, trending issues, share them at school@thehindu.co.in with the subject - Artivity. Select entries will be published. Please mention your name, class, school and city.

QUEST

Explore and enjoy Science

How can one tell the age of a tree? What are rare earths? Find out...

Telling a tree's age

Most trees grow a layer of wood each year. When the tree is cut down, the layers can be seen as rings in the trunk. And counting the number of rings tells you how old the tree is!

Tree rings also speak of the weather changes that have occurred during the life of a particular tree. In a season of good rainfall, the rings will be thick and during drought, the growth is slowed down and the rings will be thinner. Trees like the bristlecone pines, sequoias and redwoods of California are living records of variations in climate for the last 9000 years!

Studying the changes in tree ring patterns is a science called dendrochronology. Dendrochronology is the dating of climate changes in the past through study of tree rings. Botanists and archaeologists together have been studying tree rings to understand life in ancient times.



Mineral mystique

Seventeen minerals, called rare earths, have important applications in science and technology, though only a few are actually rare!

If you happen to come across a euro currency note, take a closer look. It contains tiny amounts of europium, a hard silvery metal that makes it difficult to counterfeit. Europium is today mined in a handful of places but until colour television was invented, no one was really interested in it. In the early days of TV, the blues and yellows were muted because no one could find a method to reproduce a rich red colour. To balance the whole picture, all the colours had to be toned down. Then europium's ability to produce a brilliant red in television and computer screens was discovered. There was a mad rush to mine the mineral in the few places it was found — in Russia, China and one small holding in California.

One element that is really rare, and thus valuable, is dysprosium from the Greek dysprositos, aptly meaning hard to get. It is a soft metal that is indispensable for the electric motors used in ecologically friendly electric vehicles, and in wind turbines that are powered by windmills. (Content provided by Amrita Bharati)



LEISURE CORNER

A heart-warming tale

Through this column, we explore books that you must read before turning 17...

Between 1908 and 1939, Lucy Maud Montgomery wrote seven books about an imaginative, talkative, high-spirited girl named Anne Shirley. Set in the 20th century, in a fictitious town of Avonlea on the tiny Canadian province of Prince Edward Island, "Anne of Green Gables" is the most popular book in the series. And no wonder. It is pure joy to read.

What it's about: The book follows the adventures of Anne, a sweet-natured and cheerful girl with bright red hair. An 11-year-old orphan, she is mistakenly sent to live with the Cuthbert family, who had originally intended to adopt a boy. Anne has a quirky imagination and a vivacious manner, which makes her a likeable character. As she gets into hilarious mishaps and merry mischief, you will find yourself rooting for this red-haired girl!

Did you know: Like Anne, Montgomery too grew up on Prince Edward Island. The author had a lonely childhood. Raised by her stern grandparents, Montgomery came up with imaginary friends to keep her company. One of these friends was her own reflection in her grandmother's china cabinet.



TAKE THREE

Three top picks from the world of sports...



Kohli is like Federer, Smith is more of Nadal: De Villiers

NEW DELHI: Virat Kohli's natural talent makes him a cricketing equivalent of Roger Federer while Steve Smith's mental fortitude matches that of Rafael Nadal, said South African swashbuckler AB de Villiers comparing the two contemporary greats.

In an Instagram chat with former Zimbabwe seamer Pommie Mbangwa, de Villiers spoke about the two batsmen.

"It's a difficult one," de Villiers said.

"In tennis terms, I'd say he's (Kohli) more like a (Roger) Federer whereas Smith is like a (Rafael) Nadal. Smith is mentally very strong and figures out a way of scoring runs." PTI



IPL cancellation could cost half a billion dollars

NEW DELHI: Scrapping the money-spinning Indian Premier League this year because of the coronavirus pandemic would cost more than half a billion dollars, but cutting players' pay was not yet being considered, a top official has told AFP.

"The BCCI is looking at a big revenue loss. In case the IPL does not take place, the loss would be close to 40 billion rupees (\$530 million), or even more," said Board of Control for Cricket in India treasurer Arun Dhimal (above).

Dhimal also said India's tour of Sri Lanka, scheduled to begin in June, would only go ahead if the pandemic eases.

"The safety and health of our cricketers is paramount and any shred of doubt, we will not shy away from calling it off," AFP

