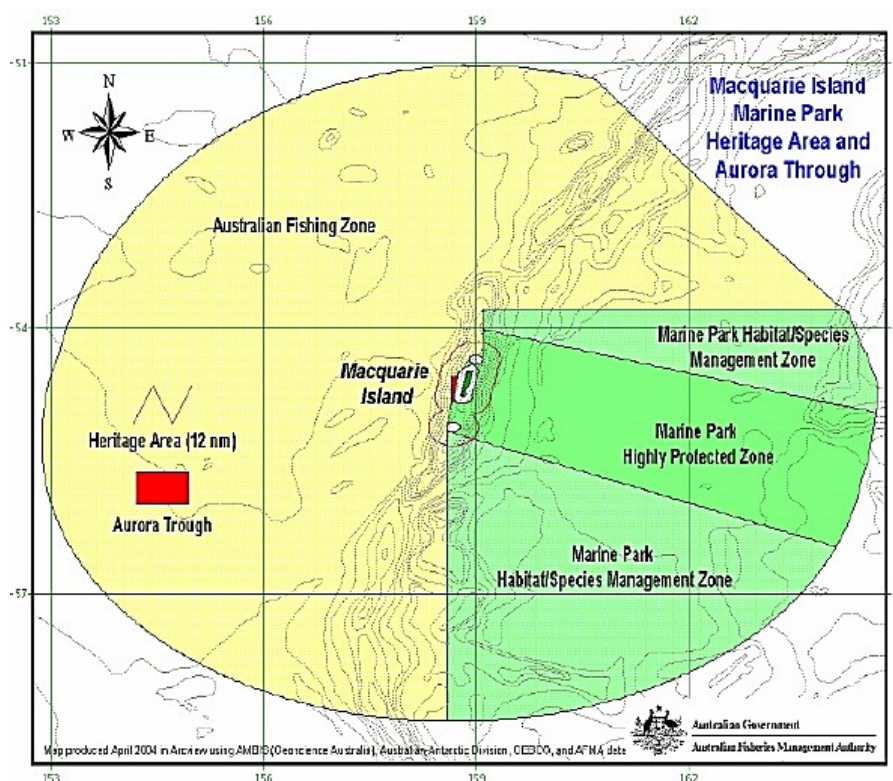


## Prelim Bits 10-03-2023 | UPSC Daily Current Affairs

### Macquarie Island

The Federal government of Australia proposed the expansion of the marine park covering Macquarie Island's Economic Exclusion Zone.

- Macquarie Island is located around 1,500km southeast of Tasmania.
- Macquarie Island is the exposed crest of the 1,600km-long undersea Macquarie Ridge.
- Macquarie Island the only piece of land in the world formed entirely of oceanic crust.
- **Oceanography** - Macquarie Ridge is one of only 3 such ridges that impede the Antarctic Circumpolar Circulation.
- This results in distinct differences between the west and east sides of the ridge, which are used in different ways by different species.
- The Sub-Antarctic Front and the Polar Front creates 3 distinct bodies of water.
- They interact with the Macquarie Ridge create at least 6 different large-scale oceanographic habitats.



- **Diversity** - It has a diverse set of habitats supporting vast variety of wildlife.
- Including 4 species of penguins and 4 species of albatross, the island recorded 57 seabird species.
- **Protection**- Macquarie Island and its surrounding seas are already protected as a Tasmanian reserve.
- The area is also a World Heritage Area.

- The Australian federal government proposed expansion of the marine park covering the island's Economic Exclusion Zone.

## References

1. [Down to Earth - Why Macquarie Island deserves a bigger marine park](#)

## Project Greensand

*Project Greensand will be the world's first cross-border carbon storage project.*

- Project Greensand is a carbon storage project in Denmark's North Sea.
- The project aims to bury vast amounts of planet-heating carbon dioxide gas beneath the North Sea floor.
- It hopes that it can help the Nordic nation and others meet climate targets.
- It reverses the traffic in the pipes by pumping CO<sub>2</sub> into the depleted reservoir of the Nini West oil field in Denmark.
- **CCS** - Capture and storage of CO<sub>2</sub> goes under the name Carbon Capture Storage (CCS).
- CO<sub>2</sub> is captured and stored underground.
- The UN climate panel points out that CCS has the potential to contribute significantly to achieving the goal of reducing CO<sub>2</sub> emissions.

## References

1. [The Hindu - Denmark hopes to pump some climate gas beneath the sea floor](#)
2. [Project Greensand](#)

## Sodium intake reduction

*The World Health Organisation (WHO) Global report on Sodium Intake Reduction shows, the world is off-track to achieve its global target of reducing sodium intake by 30%, by 2025.*

- The World Health Organisation (WHO) has set the global target of reducing sodium intake by 30% by 2025.
- Countries are encouraged to establish sodium content targets for processed foods, in line with the WHO Global Sodium Benchmarks
- Reducing salt intake has been identified as one of the most cost-effective measures countries can take to improve population health outcomes.

## Report Findings

- Only 5% of WHO Member States are protected by mandatory and comprehensive sodium reduction policies.
- 73% of WHO Member States lack full range of implementation of such policies.
- Only 9 countries (Brazil, Chile, Czech Republic, Lithuania, Malaysia, Mexico, Saudi Arabia, Spain and Uruguay) have a comprehensive package of recommended policies, according to the UN health body.
- WHO has developed a Sodium country score card for Member States based on the type

and number of sodium reduction policies they have in place.

- A sodium country score from 1 (the lowest level) to 4 (the highest level) to each member state based on the level of implementation of sodium reduction policies and other measures is allocated.
- Of the 194 WHO member states, 56 remain in score 1 in the sodium country score card.

## **Sodium (Na)**

- Sodium is an essential nutrient.
- It increases the risk of heart disease, stroke and premature death when eaten in excess.
- The main source of sodium is table salt (sodium chloride), but it is also contained in other condiments such as sodium glutamate.

## **References**

1. [TOI - World off track for 30% cut in sodium intake by 2025](#)
2. [Down To Earth - Salt to taste? Reduce your sodium intake](#)
3. [WHO - Massive efforts needed to reduce salt intake and protect lives](#)

## **Antarctic sea ice cover**

*The European Union's climate monitoring service said that the Antarctic sea ice has reached its lowest extent in the 45-year satellite data record.*

- The Antarctic Ocean area is covered by ice.
- The ocean surface covered by ice around the frozen continent shrank to 2.09 million square kilometres, the lowest level since satellite records began.
- Sea-ice concentrations during the southern hemisphere summer were well below average in all sectors of the Southern Ocean.

Antarctic Fauna	
Whales	• Ten species of cetacean either live in or frequent the Southern Ocean including humpback and killer whales.
Seals	• Antarctica is home to six distinct species of seal, several of which are found nowhere else on earth.
Penguins	• There are eight species of penguin living in the subantarctic and Antarctica, including Adélie and emperor penguins.
Seabirds	• 100 million birds breed in Antarctica including the endemic snow petrel ( <i>Pagodroma nivea</i> ).
Krill	• Antarctic krill ( <i>Euphausia superba</i> ) is a small, crustacean and a keystone species in the Antarctic food web.

- **Implications** - Polar ice caps are a sensitive indicator of the climate crisis.
- Low sea-ice have implications for the stability of Antarctic ice shelves.
- Melting sea ice global sea level and rise accelerates global warming.
- White sea ice bounces up to 90% of the Sun's energy back into space (albedo).
- When white sea ice is replaced by dark, unfrozen sea, the water absorbs a similar percentage of the Sun's heat instead.

## India and Antarctica

- India has 2 active research centres in Antarctica: Maitri and Bharati. The third centre is Dakshin Gangotri is not active and is used as a supply base.
- India enacted Indian Antarctic Act, 2022 for protection of Antarctica.
- To know more about India's Antarctica activities, [click here](#).
- **Related Topics** - [Protection of Antarctic Ecosystems](#), [Antarctica's Doomsday Glacier](#), [Antarctica Treaty System](#)

## References

1. [The Hindu - Antarctic sea ice cover at record low](#)

## Mimeusemia ceylonic

*Two researchers from Tamil Nadu have spotted a rare moth species for the first time in India in the buffer zone of Kalakkad-Mundanthurai Tiger Reserve (KMTR) after 127 years ago.*

- *Mimeusemia ceylonica* is a moth species belonging to the subfamily *Agaristinae* and family *Noctuidae*.
- The species was last sighted 127 years ago at Trincomalee in Sri Lanka in 1893.

- It was illustrated and described by English entomologist George Hampson.
- The species was rediscovered during a moth survey conducted at the Agasthyamalai Community-based Conservation Centre (ACCC) situated in the buffer zone of KMTR, Tirunelveli district in 2020.
- It was again spotted at the Vallanaadu Blackbuck Sanctuary in Thoothukudi district in 2022.

## References

1. [The Hindu - Moth found in Tirunelveli, Thoothukudi districts after 127 years](#)

