

New method for freezing and storing coral larvae

December 27, 2022

In news—Recently, Scientists have freezed Great Barrier Reef coral in a world-first trial.

Key updates-

- Scientists have trialled a new method for freezing and storing coral larvae they say could eventually help rewild reefs threatened by climate change.
- The Great Barrier Reef has suffered four bleaching events in the last seven years, including the first-ever bleach during a La Niña phenomenon, which typically brings cooler temperatures.
- **Cryogenically frozen coral can be stored and later reintroduced** to the wild but the current process requires sophisticated equipment including lasers.
- Scientists say a **new lightweight “cryomesh” can be manufactured cheaply and better preserves coral.**
- In a recent lab trial, the world’s first with Great Barrier Reef coral, **scientists used the cryomesh to freeze coral larvae** at the Australian Institute of Marine Sciences (AIMS).
- The coral had been collected from the reef for the trial, which coincided with the brief annual spawning window.
- The cryomesh was previously trialled on smaller and larger varieties of the Hawaiian corals. A trial on the larger variety failed.
- **The mesh technology, which will help store coral larvae at -196°C (-320.8°F),** was devised by a team from the University of Minnesota’s College of Science and Engineering.

What are corals?

- Corals are marine invertebrates within the class Anthozoa of the phylum Cnidaria. They typically form compact colonies of many identical individual polyps.
- Coral species include the important reef builders that inhabit tropical oceans and secrete calcium carbonate to form a hard skeleton.
- Coral reefs are large underwater structures composed of the skeletons of colonial marine invertebrates called coral.
- The coral species that build reefs are known as hermatypic, or “hard” corals because they extract calcium carbonate from seawater to create a hard, durable exoskeleton that protects their soft, sac-like bodies.
- Other species of corals that are not involved in reef building are known as “soft” corals.
- These types of corals are flexible organisms often resembling plants and trees and include species such as sea fans and sea whips.
- Each individual coral is referred to as a polyp.