# New Algal Species: Andaman & Nicobar

## Why in News

Recently, a group of botanists has discovered an **algal species** with an **'umbrella head'** from the Andaman and Nicobar Islands**.**

- The Andaman and Nicobar Islands are **home to** Coral Reefs **and are rich in marine biodiversity.**
- In March 2021 two new red algal **Seaweed** species were discovered along India's coastline.

**Algae**

- Algae are defined as a **group of predominantly aquatic, photosynthetic, and nucleus-bearing organisms** that **lack the true roots, stems, leaves**, and specialized multicellular reproductive structures of plants.
- Their photosynthetic pigments are **more varied than those of plants**, and their cells have **features not found among plants and animals.**
- They have ecological roles as **oxygen producers and as the food base** for almost all aquatic life.
- They are **economically important as a source of crude oil and as sources of food** and a number of **pharmaceutical and industrial products** for humans. The study of algae is **called Phycology.**

## Key Points

- **About:**
  - It is a bright green algae with a size as small as **20 to 40 mm.** //

  - Named after the imaginary sea mermaid, **Acetabularia *jalakanyakae*** is very primitive and is a **single-cell organism.**
    - **Jalakanyaka** in Sanskrit literally means **mermaid and a goddess of oceans.**
  - It is the **first species of the genus Acetabularia discovered in India.**
- **Characteristics:**
  - It resembles **an umbrella or a mushroom.** It has grooves on its cap measuring 15 to 20 mm in diameter.
  - It is made up of **one gigantic cell with a nucleus.** Its nucleus forms a **rhizoid**

**structure**, which facilitates the **algae to attach itself to shallow rocks.** It is **highly regenerative** in nature.

- **Rhizoids** are a structure in plants and fungi that functions like a root in support or absorption.

- **Significance:**
  - As they have a giant cell **it is advantageous for molecular biologists who study cellular processes;** they can **see it and manipulate it with naked eye.** For this reason, Acetabularia is **considered a model organism.**
- **Concern:**
  - They along with various **Coral Reefs** face the threat of sea levels rising due to **Global Warming**.
  - They are highly prone to **Ocean Acidification** caused by global **Greenhouse Gas Emissions** as the plants in the **genus Acetabularia** have rich **calcium carbonate deposits** that account for almost half their dry weight.

**Source: IE**

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