



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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