



Sea Lettuce

Ulva

Ulva is derived from the Greek for “twice spread;” a blade of Ulva is only 2 cells thick (distromatic).

WHERE IT’S FOUND

The various species of *Ulva* live along ocean coastlines throughout the world.

MEET THE SEAWEED

The leafy, vibrantly green sea lettuce is, unsurprisingly, part of the green category of seaweed (division Chlorophyta). Green algae, like *Ulva*, use chlorophyll in the same way as plants on land: for photosynthesis, the process of turning sunlight, water, and carbon dioxide into glucose, a sugar that plants use as food, while off-gassing oxygen. And, like the translucent nori, a blade of sea lettuce is only two cells thick.

Although sea lettuce thrives in deep waters, beachcombers find it most often around freshwater outlets and in the shallow tidal zone nearest the top of the beach.

INSPIRING A NEW THEORY

In the 1960s, scientist Lynn Margulis examined marine algae like the humble sea lettuce to propose a new theory of *endosymbiosis*. This theory suggested that bacteria and higher-order cells engulfed smaller algal cells to form new, more efficient, and stable organisms.

Margulis’ theory challenged the hierarchy of traditional taxonomy. Traditional taxonomy posits that organisms evolve from a single common ancestor, while in symbiosis, one organism partners with another to create new life. Genetic testing has since confirmed Margulis’ assertion. The emergence of mitochondria and chloroplasts in cells are a well-known example of the endosymbiotic process.

