

Laboratory of Phycology



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Algae are the most important organisms in both marine and freshwater ecosystems due to their role as primary producers. Algae are autotrophic organisms that produce oxygen and nutrients via photosynthesis, and all aquatic organisms depend on them. Recent environmental issues, such as global warming and water pollution due to human activity, have influenced algal growth. Many algae species have disappeared, and the current focus of our lab is on the endangered marine algal species distributed around Nagasaki City.

The aim of our research is to observe variation in the number of seaweed species along several coasts around Nagasaki City, which we have been monitoring for the past 15 years, and to conserve endangered species of marine and freshwater macroalgae.

Our research interests include:

1. Studies involving the marine algal flora around Nagasaki City.
2. Life history and growth characteristics of an endangered freshwater green algal species, *Blidingia ramifera*. Growth in this species is highly dependent on salinity.
3. The regeneration of natural populations of a rare marine green algal species, *Ulva tanneri*.
4. Conservation of an endangered freshwater red algal species, *Nemalionopsis tortuosa*.



Nemalionopsis tortuosa in Unzen City,
Nagasaki Prefecture



Blidingia ramifera in Nikko
City, Tochigi Prefecture