

# Shellfish at Work: Nutrient Bioextraction



Researchers and UW-Tacoma students examine a mussel line and record growth measurements in July 2013.

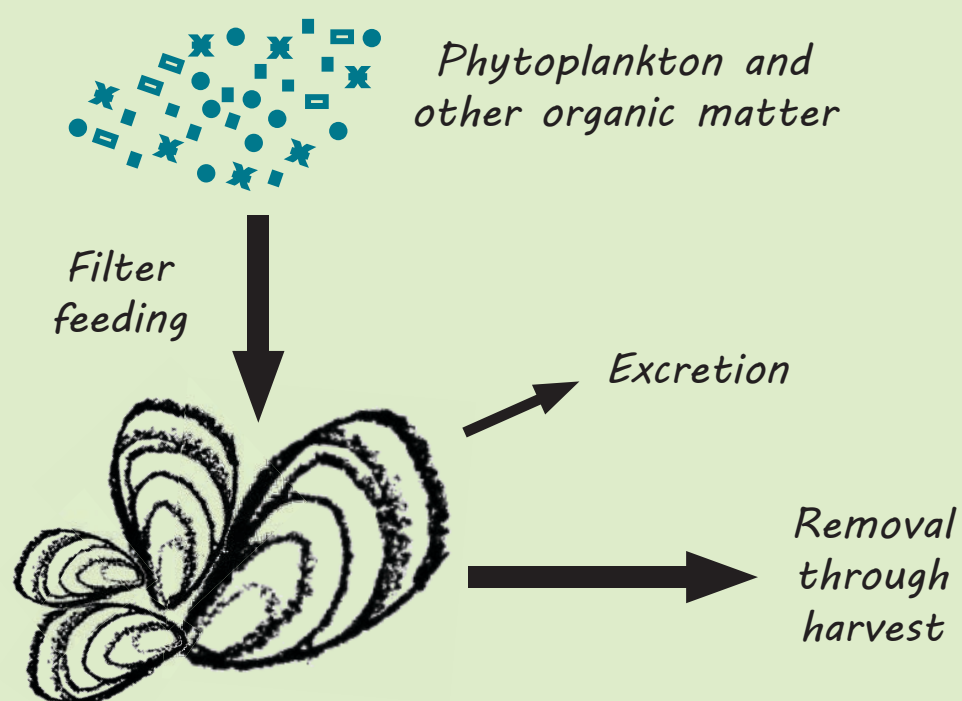
Under this dock thousands of mussels are growing. A single mussel can filter 13 gallons of water in a day, improving water clarity and incorporating nutrients into their tissues.

As part of an innovative research project here in Budd Inlet, these mussels will be harvested, tested and turned into rich compost. Researchers will then be able to calculate the amount of nitrogen and phosphorus removed from Budd Inlet.

## Nutrient Bioextraction:

Growing and harvesting shellfish or seaweed to remove nutrients from natural water bodies. Also called nutrient bioharvesting.

## Nutrient Removal by Shellfish



Budd Inlet experiences low dissolved oxygen in late summer and early fall, similar to Hood Canal. Low dissolved oxygen, or hypoxia, can be harmful to marine life and raises concerns about Budd Inlet's overall health. Low oxygen levels occur when excess nutrients stimulate the growth of microscopic phytoplankton. When they die, the decay process depletes oxygen levels in the water column.

## You Can Help Reduce Nutrient Pollution

- 1 Choose organic, slow release fertilizers & phosphate-free cleaning products
- 2 Properly dispose of pet waste: Scoop it, Bag it, Trash it!
- 3 Maintain septic systems & responsibly manage farm manure



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Fostering sustainable shellfish resources  
and a healthy marine environment  
through research and education

