

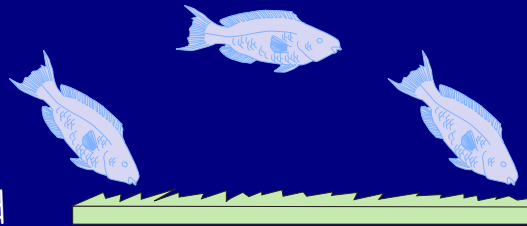
# What drives herbivory on reefs?

## Mapping links in the chain

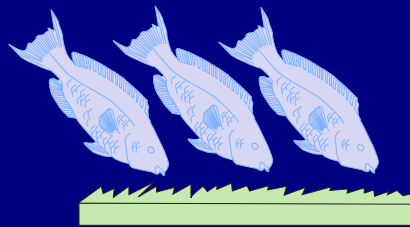
The impact of herbivorous fish on coral reefs is driven by fish behaviour (bite rate and how bites are dispersed), and the size and abundance of herbivores - these are proximal drivers. But what drives these drivers (distal drivers)? What are the links in the herbivore impact chain? In the Philippines, we explored which factors, such as reef condition, management status and fish community composition affected the proximal drivers of herbivory on coral reefs, and so ultimately influence herbivore impact.

### Proximal Drivers of Herbivore Impact

**Dispersion of bites**  
larger movements = bites more dispersed



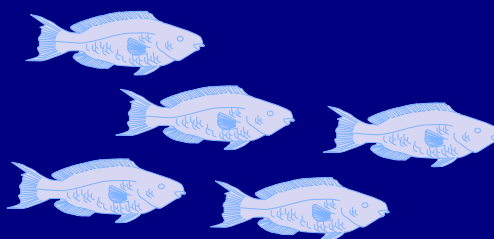
**Bite rate**  
more bites = more algae removed



**Herbivore size**  
larger fish = more algae removed



**Herbivore abundance**  
more fish = more algae removed



### Distal Drivers of Herbivore Impact

**Reef Condition** → Dispersion  
larger movements on degraded reefs

**Management & Species** → Bite Rate  
fish bite faster in no-take areas  
some species bite faster than others

**Species** → Size  
some species are larger than others

**Management** → Abundance  
more fish in no-take areas