

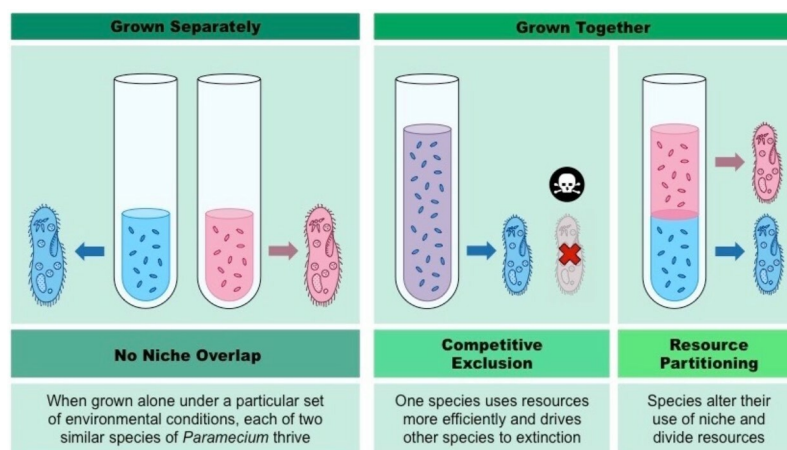
Ecosystems, organized entities resulting from the action of ecological factors: the structure of ecosystems



[cf. EV14-Ecology-v3.mp4]
 [cf. EV14-Ecology-v4.mp4]
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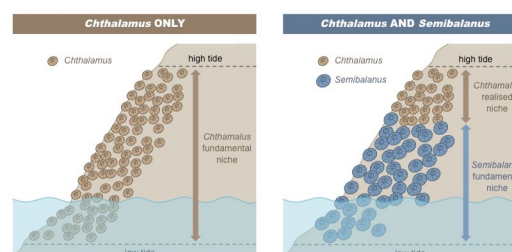
More about ecological niche :

In this picture you have an example of niche differentiation with bacteria.



Source of the image : bioninja.com

<|> Some species may not be able to occupy their entire niche due to the presence or absence of other species.



Ecologist Joseph Connell studied two species of barnacles - *Balanus balanoides* and *Chthamalus stellatus* - that have a stratified distribution on rocks on the Scottish coast.

In nature, *Balanus* species does not survive on the top of rocks because *Balanus* does not resist to desiccation (drying) incurred at low tide. Its niche is similar to its fundamental niche. However, *Chthamalus* species is usually concentrated on the upper rock strata. To determine the fundamental niche of the species, Connell he took back *Balanus* species from lower rock strata.

When Connell took back *Balanus* population from lower rock strata, *Chthamalus* population spread in this area.

The fact that *Chthamalus* had invaded this area, free from *Blanus* population indicates that the real niche of *Chthamalus* species is smaller compare its fundamental niche because of competitive exclusion.