

# Coping mechanism 2: Microclimates

The climate of a very small/restricted area that differs from the climate of the surrounding area. Just like on land, the ocean has microclimates—small areas where conditions differ from the surrounding water. These can be cooler, more shaded, or better oxygenated, offering refuge for marine life during extreme events like marine heatwaves.

## Microclimates can form:

Under seaweed canopies (like *Fucus vesiculosus*)

In crevices or shaded rocky areas

At greater depths, where water warms more slowly

Near freshwater inflows, which can cool surface layers

For species with limited mobility, these microhabitats can mean the difference between survival and stress. But as heatwaves become more intense, even these safe spots may become less effective.

