

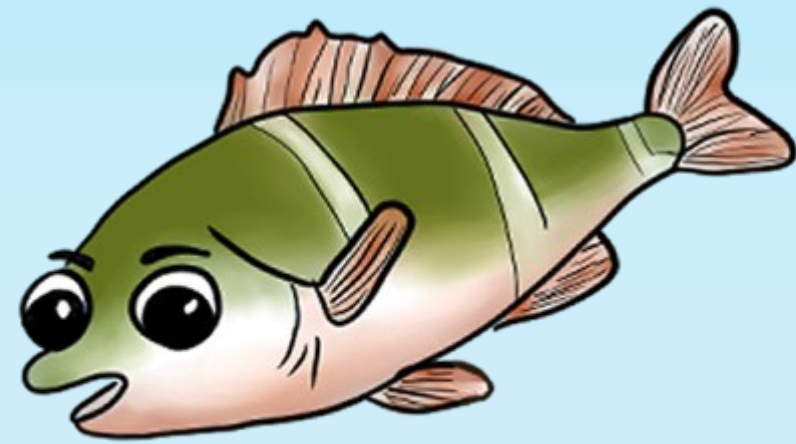
Coping mechanism 1: Migration

Migration is a natural response many species use to avoid extreme temperatures, including marine heatwaves. It involves moving from one habitat to another—temporarily or permanently—to find more favorable conditions.

Who Can Migrate?

Mobile species like fish, and some marine invertebrates can relocate.

Sessile or slow-moving species (e.g. corals, mussels, plants) cannot migrate, making them more vulnerable to heat stress.

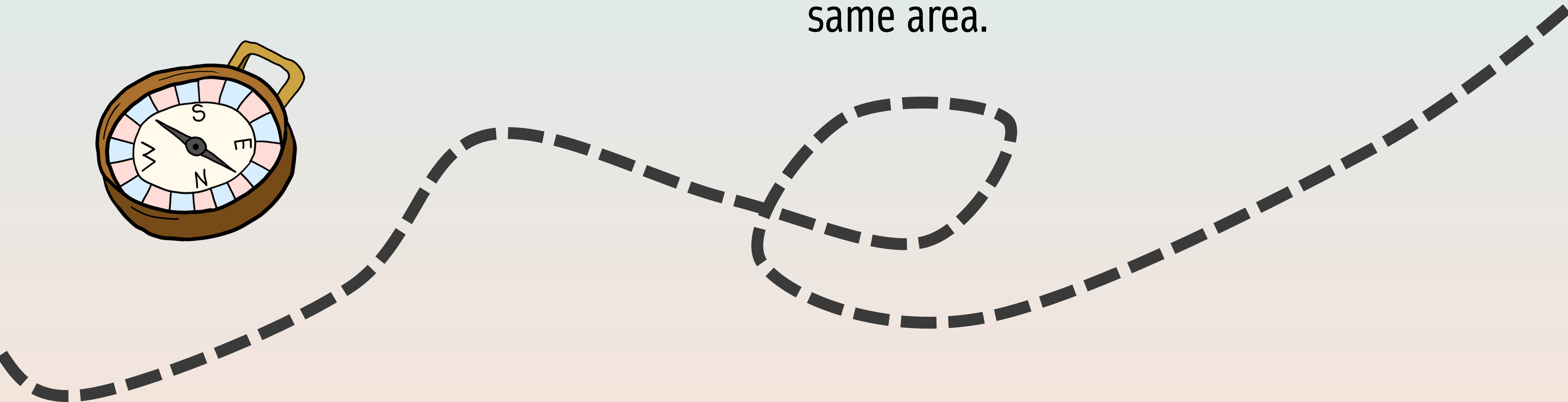
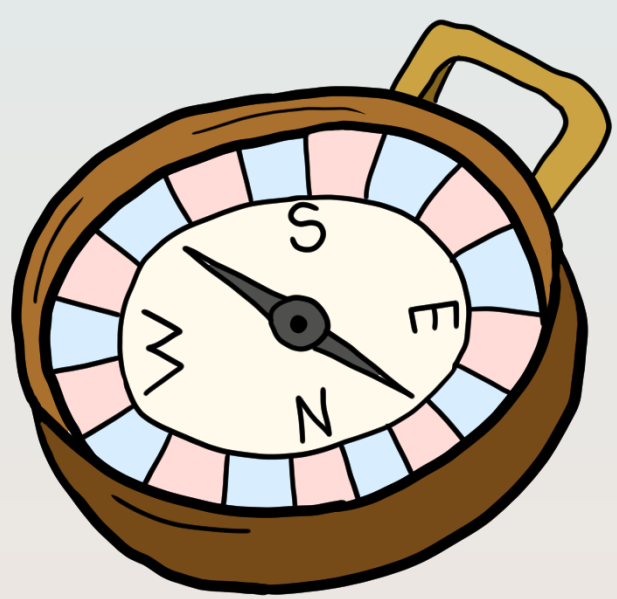
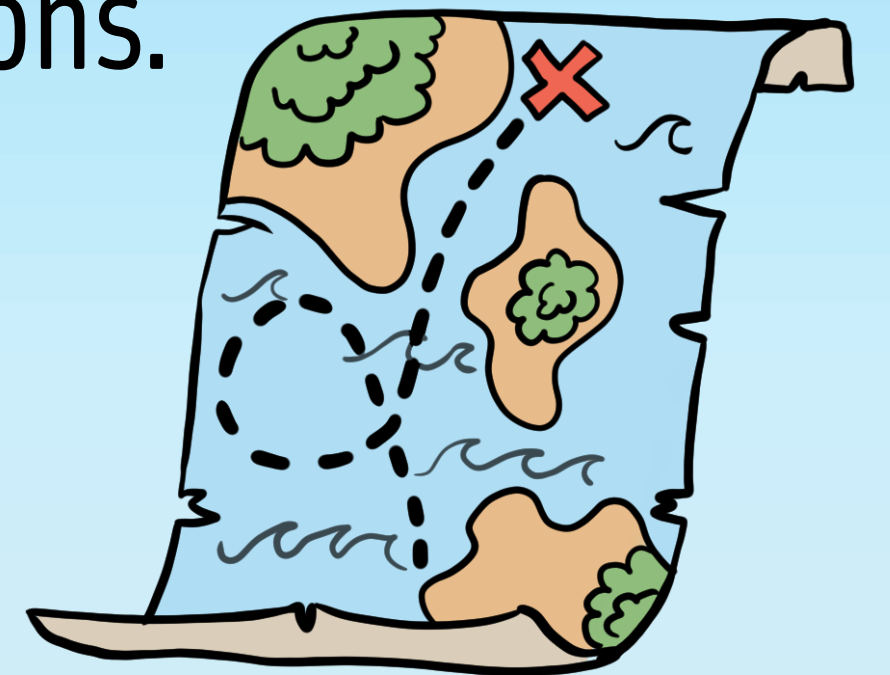


Types of Migration:

Latitudinal migration: Moving north or south to cooler regions.

Vertical migration: Moving deeper in the water column or underground where temperatures are more stable.

Microhabitat shifts: Seeking shaded, sheltered, or cooler spots within the same area.



In the **Baltic Sea**, the **European perch** has a remarkable ability to adapt to changing conditions. Perch are **trophic generalists** and can live in a wide range of habitats.



While perch are not known for long-distance migrations like salmon, they can **shift locally**—meaning they have the capacity to move to **deeper or shaded waters** during heatwaves to escape elevated surface temperatures. This kind of **short-range migration** can help them avoid thermal stress and maintain access to food and oxygen. But as heatwaves grow more intense, cool refuges may become scarce, putting pressure on perch and the ecosystems they support.