

Migration

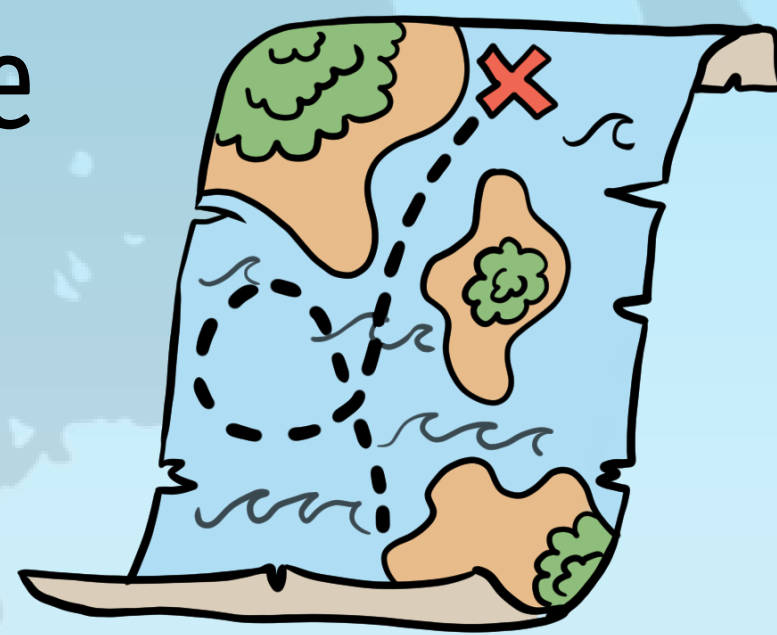
Migration is a natural response many species use to avoid extreme temperatures, including marine heatwaves. It involves moving from one habitat to another, temporarily or permanently, to find more favorable conditions.



Who can and can't migrate?

Mobile species like fish, and some marine invertebrates can migrate

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

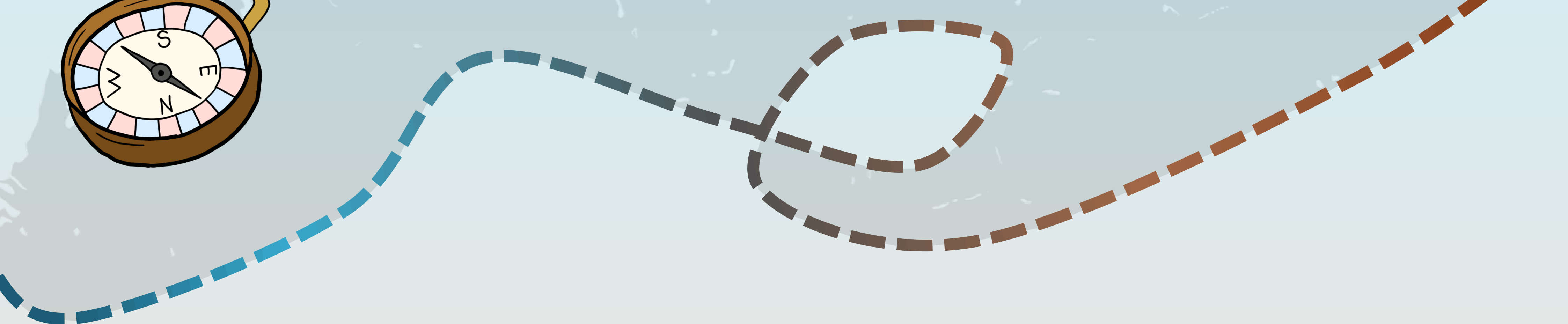
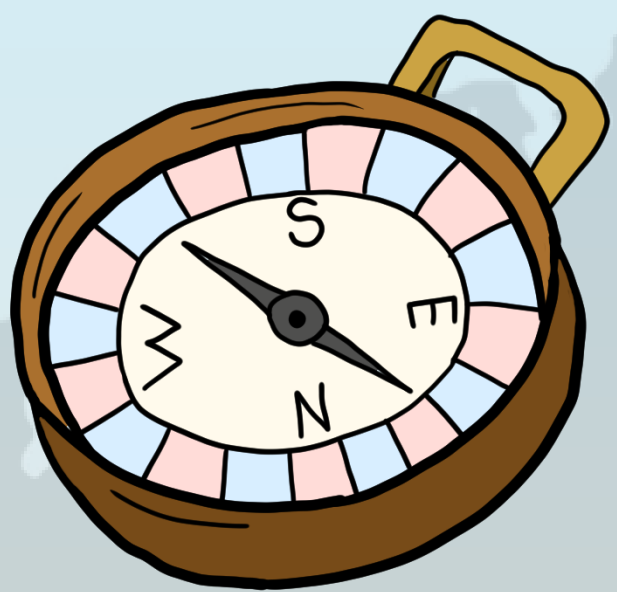


Types of migration:

Latitudinal migration: Moving north or south to cooler regions.

Vertical migration: Moving deeper in the water column or underground.

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



In the **Baltic Sea**, the **European perch** (*Perca fluviatilis*) can adapt to changing temperature 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 grow scarcer.