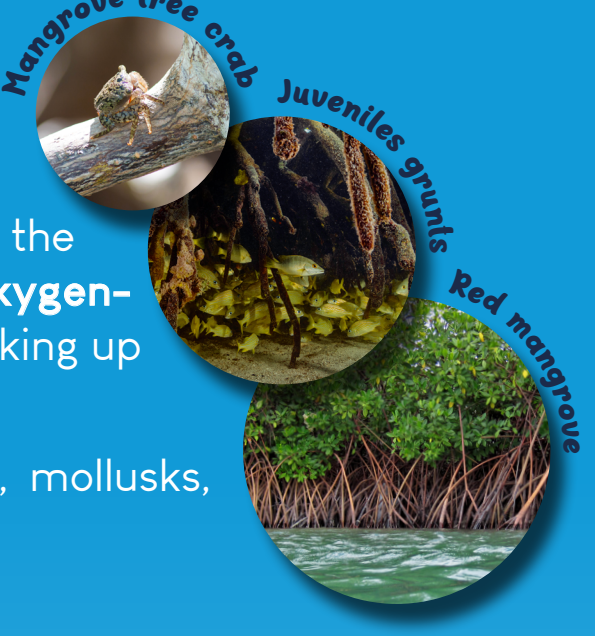
MANGROVES



Mangroves are **coastal tropical forests** that grow in calm waters along the coastlines. They are composed of trees perfectly adapted to this **salty** and **oxygen-poor environment**. In the **Caribbean**, mangroves cover about 22,000 km², making up **15% of the world's mangrove surface.**

Between land and sea, mangroves shelter a **high diversity of species**: fish, mollusks, sponges, insects, gastropods, crabs, birds, bats...

FUNCTIONS AGAINST NATURAL HAZARDS

Coastal protection

- Their dense network of roots and branches forms **physical barriers** which reduces the **energy of the waves**;
- During floodings, they act like sponges by capturing **large volumes of water**;
- The dense canopy of branches and leaves act as a **windbreak**.

Mitigation of erosion

- **80% of the sediments** coming from the coast are **captured by the mangrove**. This **natural filter** ensures the healthy development of **seagrass beds** and **corals** nearby.

Climate regulation

- Mangroves are important **carbon sinks**: **one hectare** can store nearly **4000 tons of carbon**... the annual emissions of 2600 cars! They help mitigate **climate change**.

THREATS

- Human activities — **Coastal development, deforestation...**
- Overfishing
- Natural hazards — **Cyclones, sargassum, eutrophication...**
- Climate change
- Coastal pollution — **Agricultural runoff, poor wastewater management, oil spill...**
- Invasive alien species (IAS)

SOLUTIONS

- Protection: **Protected areas, regulations**
- Rehabilitation: **Restoration of hydrological conditions, control of IAS/sargassum/waste, wastewater management, natural self-recovery...**
- Restoration: **Transplantation, seeding, nurseries...**

Text & illustration: Julia Bos | ecodyssey