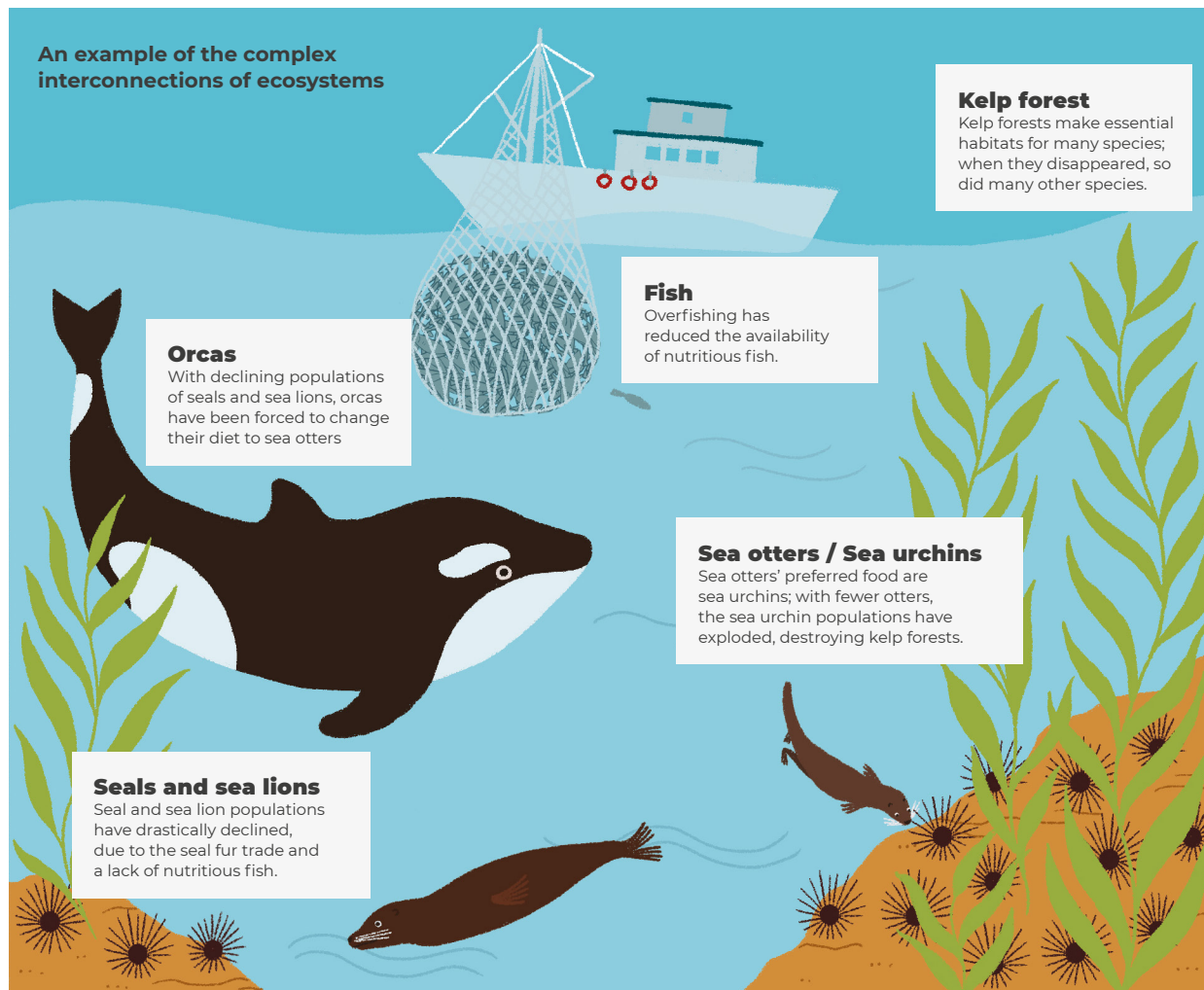


## The Ocean: a great unknown, full of life

The Ocean is still a great unknown; approximately **95% of it is still unexplored**. Its physical conditions make exploration difficult (much of it is dark and under extreme pressure): we know more about the planet Mars' surface than about our own Ocean! **Many Ocean species are yet to be discovered**. The total number of species living in the Ocean is still unknown, but scientists estimate that between one-third and two-thirds currently remain undiscovered.

In any event, nearly **230,000 marine species are known**, comprising a great diversity of major groups of organisms. Together, these species shape **complex ecosystems**, interlinked with multiple relationships, where **each species plays a crucial role**: from primary producers (plant species) to top predators. These roles are responsible for maintaining a healthy and balanced ecosystem, since **species regulate their populations through trophic relations** (food-related relations). The role of predators is fundamental here. When predators disappear, a **trophic cascade** may occur: this is an ecological concept that defines an alteration in the food web dynamics, which may affect different trophic levels. The balance of ecosystems is frequently unknown, and the effect of induced alterations tends to be unpredictable.

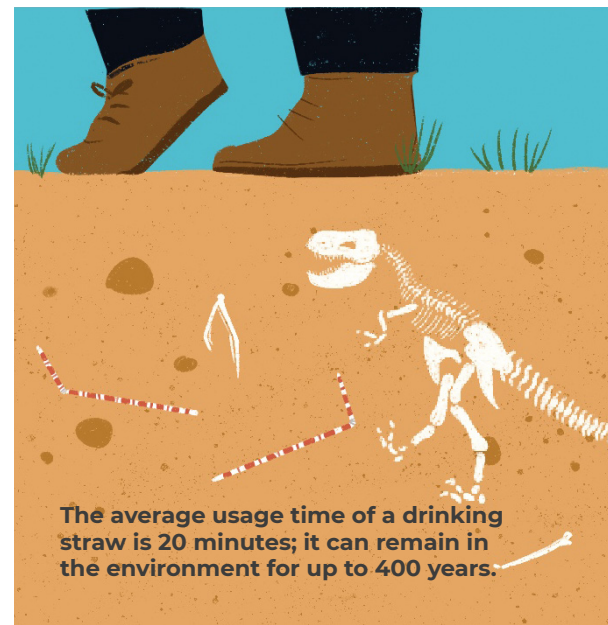


## Litter in the Ocean

Marine litter has become one of the main issues affecting the Ocean. **Every year, 10 million tonnes of rubbish are dumped into the marine environment world-wide –that is one truck load of rubbish every minute. 80% is plastic. 80% of marine litter comes from land** and is transported through water and wind into the Ocean, where it accumulates.



London alone uses  
**2 million single-use  
plastic bottles a day!!**



**The average usage time of a drinking  
straw is 20 minutes; it can remain in  
the environment for up to 400 years.**

Marine litter negatively interacts with marine animals due to ingestion or entanglement: **around 1 million seabirds die from plastic each year.** But that is not all: microplastics (microscopic pieces of plastic from when larger ones degrade) **are now an element of the marine food chain, and consequently, our own food chain.** Plastic has already been found in our

bodies and **is present in 90% of the sea salt we consume**, as well as in seafood. The long-term effect of plastic on humans still remains unknown, but concerns about the impact of plastic consumption on human health are on the rise, and with good reason.

Marine litter also entails huge economic consequences, since it has a direct effect on many activities. For example, marine transport, fishing, aquaculture or tourism. **The total global economic costs of the impact caused by marine litter in different industries have been estimated at over €7 billion/year**, which gives an idea as to the magnitude of the problem.