

## **Threats to Posidonia**

### **Trawling**

The nets capture everything in their path and damage the meadows, in figures they can reach up to 1000 kg of leaves (dry weight) per hour. It also causes turbidity, anoxia (oxygen deficit) and excess of nutrients. It is illegal in depths inferior to 50 meters.

### **Boat anchoring**

With permanent structures or with anchors and chains, which tear the posidonia away from its substrate and release paint and antioxidants that are toxic.

### **Construction**

Sport and fishing ports, breakwaters, artificial beaches and other buildings on the coastline. They destroy the meadows, modify the hydrodynamism, potentially intensifying water flows, and the sediments trigger the burial of the plant and turbidity, which hinders the arrival of light, preventing the posidonia from carrying out photosynthesis and dying.

### **Seafood fishing**

Large extensions of vegetation are eliminated to allow the growth of mollusks.

### **Dredging**

The extraction of sediments directly causes the complete loss of the seagrasses and, indirectly, mobilization of remains, turbidity and excess nutrients.

### **Waste**

Plastics and toxic products commonly used, such as sunscreen. The desalination plants spill harmful products and brine, increasing the salt concentration in areas with the presence of posidonia, exceeding its tolerance threshold. In summer, the population increases due to massive tourism, which is why the sewage treatment plants saturate themselves above their capacities and release the water without being sufficiently purified. Large concentrations of reduced compounds of nitrogen (ammonium) and sulfur (hydrogen sulfide) are toxic to plants and inhibit photosynthesis. Posidonia stores the surplus of nitrogen, reducing the carbon reserves that will be necessary in times of less luminosity.

### **Climate change**

Global warming and heat waves increase the temperature of the air and the sea, which decreases the amount of available oxygen, decreases the growth of the leaves and rhizomes and when it exceeds 28°C triggers the death of posidonia.

The rise in sea level causes the displacement of the seagrasses towards the coastline. The amount and intensity of storms increase. It can increase the salinity and the turbidity of the waters. It is a chain effect, since posidonia is key to absorb carbon dioxide and climate change reduces its extension, decreasing the amount of posidonia to sequester CO<sub>2</sub> and accentuating climate change even more.