



AQUATIC LIFE LAB

Project number: 2017-1-IT02-KA201-036817



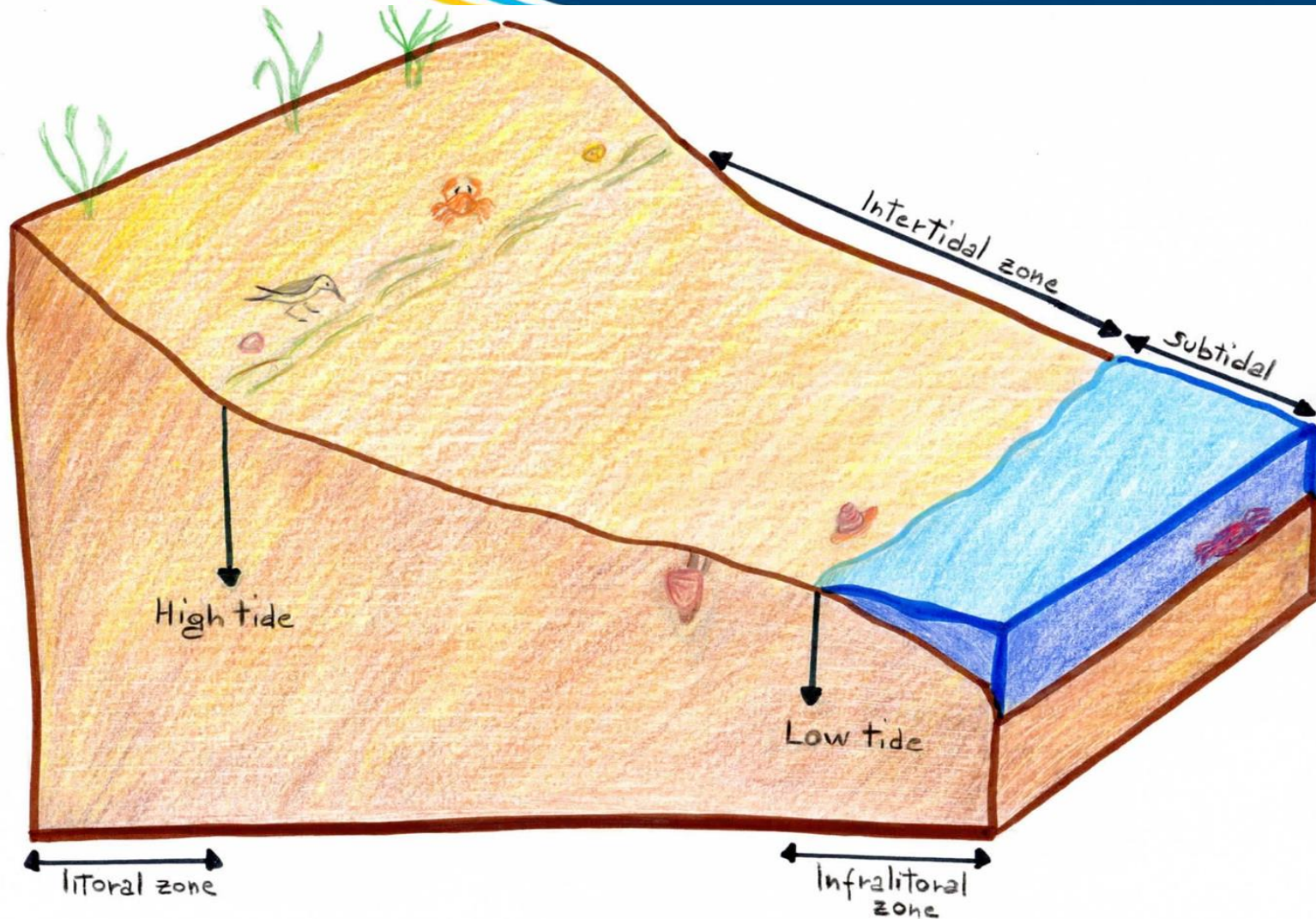
Co-funded by the
Erasmus+ Programme
of the European Union

ALL WEBINAR

CHARACTERISTIC HABITATS OF THE MEDITERRANEAN SEA

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How many floors between the sand and the sea?



Rocky coast and tidal pool

- Tidal pool: shallow pool of seawater that forms on rocky intertidal shore.
- During the summer the temperature in the tidal pools can reach 35°C with a salinity up to 300 ‰ .
- In the winter the rain dilutes the water and the salinity drops to 2-3 ‰ and the temperature reaches 4°C.





Butterfly benny (*Bavosa* sp.)



Acetabularia mediterranea

An artificial refuge between barriers and platforms

An artificial barrier is a man-made wall placed in a given area and used for:

- slowing down the coastal erosion,
- helping the fish replenishment.

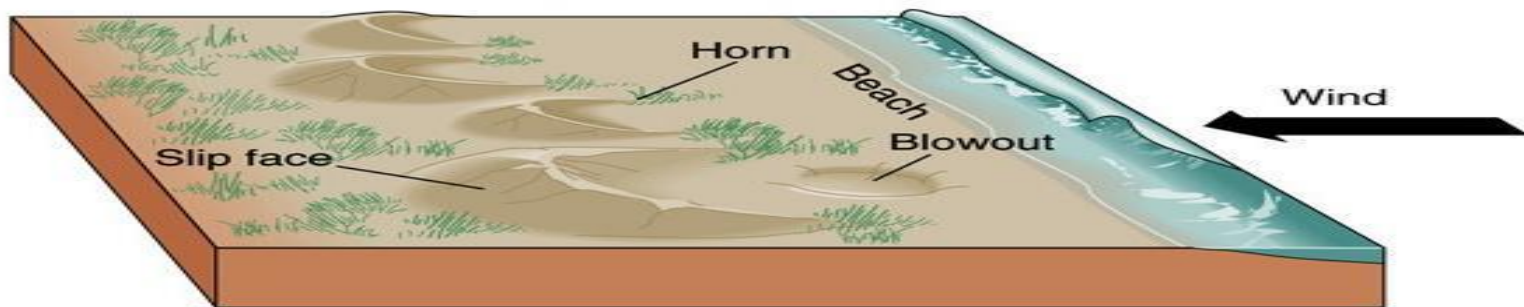
Abandoned structures like wrecks or platforms may also serve as barriers; in different periods they are quickly colonized by plants and marine animals and become particularly attractive for the pioneering species.

The material of which the barrier is made is really important, because of the degradation due to the seawater which can lead to the release of harmful substances for the life of the ecosystem.



Dune landscape

- The term **dune** indicates a buildup of sediments caused by the action of the wind; the presence of the vegetation allows its balance and consolidation. Unfortunately it is disappearing throughout the Mediterranean due to the massive anthropization of the coasts.
- The function of the dunes is to defend the coasts from erosion; they are covered in vegetation that holds the sand that would otherwise be transported away by the action of the wind and the waves. The dunes, moreover, represent a precious environment to nest and shelter for many birds, small mammals and reptiles as well as hosting an incredible variety of plant species **psammophile**.



C Parabolic dunes



Life below and in the sand

The sandy sea bottom seems almost desert, but this is only because living organisms are less eye-catching and best hidden. Fish living on the seabed have developed evolutionary adaptations that have often led to the modification of their body as a flattened form, the development of appendages to "walk", to perceive the sunken prey or to reach a shelter. Their skins also change to become a camouflage and let them blend with the sand.

Can you see the sole?





Tub gurnad (*Chelidonichthys lucerna*)

The ventral fins of this fish have changed into “little legs “ to permit an easy movement on the seafloor.

The salty environment

When freshwaters mix with marine ones, for example in coastal areas such as lagoons, coastal ponds and estuaries, the resulting ecosystem is a peculiar and unstable one.

Its characteristics are:

- variability of the physical and chemical factors
- high productivity
- high speed to return to balance when there are environmental disturbances
- very adaptable species



European eel

Quiz Time

- What's a tidal pool?
 - a. little pool on the beach for the kids or
 - b. Shallow pool of seawater that form on the rocky intertidal shore
- When artificial barriers can be important?
- What function have the dunes?