

Lecture 6

Mediterranean Sea Coast Flora

Dr. Nagwa Rabei Ahmed





Mediterranean sea coast

- ▶ **The Western Mediterranean desert** or **Mariut** is arid desert but with increased rainfall. It may be named semi-arid desert.
- ▶ The vegetation is entirely dependent on the rainfall. The density of vegetation depends on the amount of rain.
- ▶ **Mariut** comprises the coastal area from Alexandria to Sallum (575 km long, 25 – 30 km board).



Climatic features of Mariut

- ▶ Mariut nowadays is a part of the arid desert, but gains rainfall in the winter, especially in December – February.
- ▶ The total amount of rainfall is 5-20 cm yearly.
- ▶ The humidity is rather uniform, 60 – 75%, and there is dew most part of the year.
- ▶ Temperature 20-35° in summer, 10-25° in winter.





Landforms of Mariut sector

Sand
dunes

Rocky
ridges

Salt
marsh

Barely
fields



VIEW OF THE MARIUT AREA FROM NORTH TO SOUTH

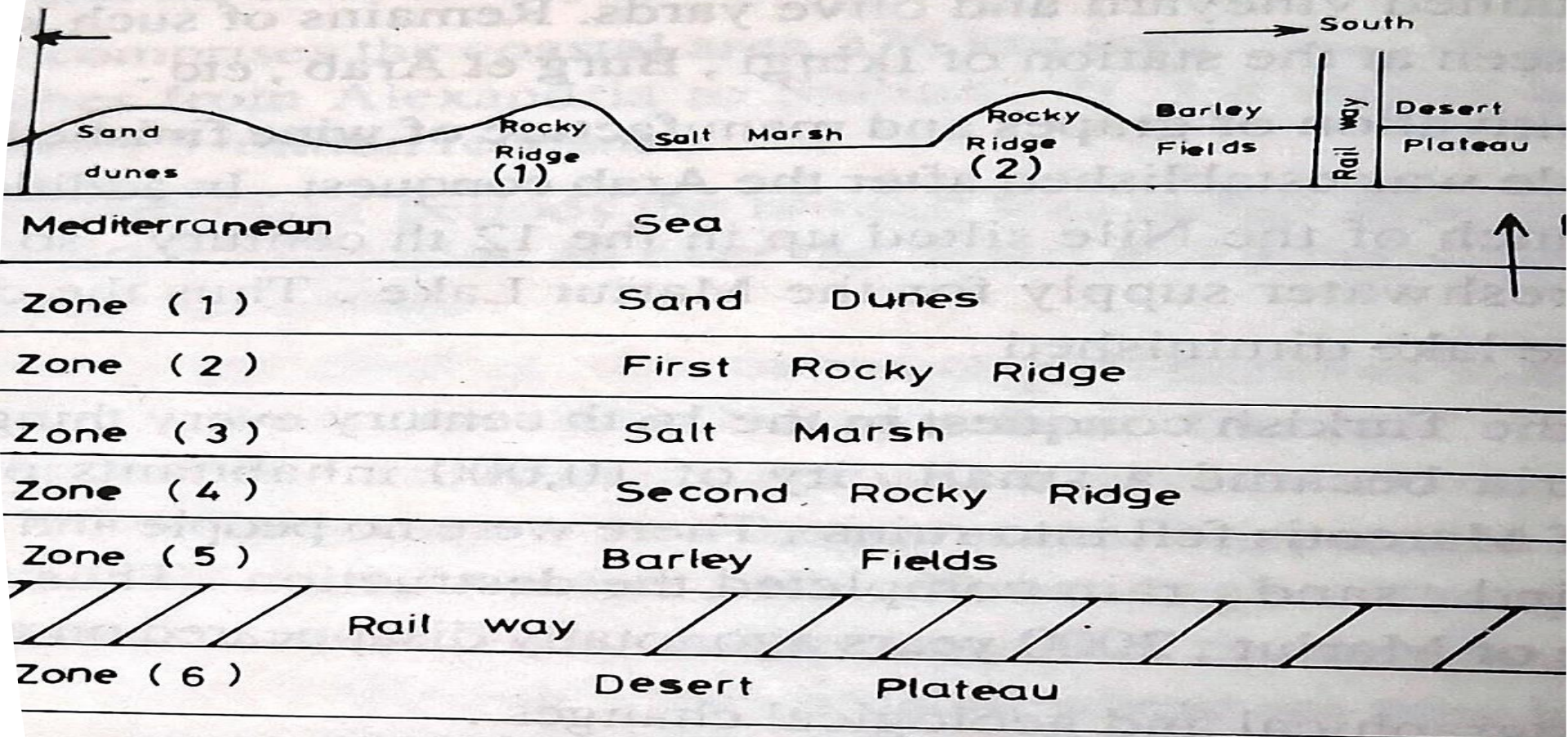


Fig (36) View of Mariut coastal Area From North to south.

Mariut is characterized by 4 main habitat types: Coastal sand dunes, Rocky ridges, salt marshes and barley fields.

1- Sand Dunes

- Next to the seashore is a **snow – white glittering sand dunes**. This area is about one mile wide.
- The sand is consisting of **calcium-carbonate granules**.
- There are different types of dunes:
 1. Small of irregular shape.
 2. Larger, of 10-20 sqm and 3-4 m high, moving.
 3. Fixed dunes, 10 m high of **cemented carbonate of lime**.



Flora on the seashore

- Number of dried algae washed by the waves.
- ***Posidonia oceanica*** (Posidoniaceae) (spherical fiber balls; **seagrass**).
- ***Ammophila arenaria*** (sand binder grass in the moving sand).
- ***Ononis vaginalis***.

In cemented dunes we see:

- ***Crucianella maritima***, ***Echium sericeum***,
Echiochilon fruticosum (endemic to Med. Coast).



Posidonia oceanica





Ononis vaginalis (Fabaceae)





Echium sericeum



Echiochilon fruticosum

Fam. Boraginaceae



***Crucianella maritima* (Rubiaceae)**



List Of Some Selected Species Of The Habitats of Mariut Coastal Area

a) Sandy Dunes

Ammophila arenaria, *Euphorbia paralias*, *Lotus argenteus*, *Sporobolus pungens*, *Crucianella maritima*, *Ononis vaginalis*, *Echinops spinosissimus*, *Silene succulenta*, *Reseda alba*, *Pancreatium maritimum*, *Hyoseris lucida*, *Launaea tenuiloba*, *Echium sericeum*, *Salvia lanigera*, *Cakile maritima*, *Plantago albicans*, *Lygos raetam*, *Agropyron junceum*, *Thymelaea hirsuta*, *Urginea maritima*, *Gymnocarpos decandrum*, *Globularia arabica*, *Plantago squarrosa* etc.

b) Rocky



2- Rocky ridges

- They are two ridges south of the dune area, of **calcareous** hills running parallel to the sea-shore, covered with **sand and clay**, with an interesting **flora of small rock species**. Examples: ***Thymus capitatus***, ***Globularia arabica***, ***Fumana thymifolia*** & ***Dactylis hispanica***.
- Along the **northern ridge (the first one)** that runs next to the sea **there is an extensive Fig** cultivation.





Thymus capitatus
Family: Lamiaceae



Globularia arabica
Fam. Plantaginaceae





Dactylis hispanica
Fam. Poaceae



Fumana thymifolia
Fam. Cistaceae





Asphodelus microcarpus

Asphodelaceae



B- Rocky ridges:

Thymelaea hirsuta, *Gymnocarpus decandrum*,
Helianthemum stipulatum

latum, *Lotus corniculatum*, *Herniaria hemistemon*, *Scorzonera alexan-*
drina, *Carduus gebulus*, *Plantago notata*, *Lygeum spartum*, *Stipa ca-*
pensis, *Limonium tubiflora*, *Medicago minima*, *Malva aegyptiaca* ,
Reaumuria hirtella , *Teucrium polium* , *Lotus creticus* , *Arisarium vul-*
gare , *Reichardia orientalis* , *Orlaya maritima* , *Nonnaea viviana* , *Mori-*
candia suffruticosa , *Thymus capitatus* , *Echinops spinosissimus* , *Pitu-*
ranthus tortuosus , *Asphodelus microcarpos* , *Hammada articulatum* ,
Anabasis articulata , *Stipa capensis* , *Noaea mucronata* etc.



Thank you

