

ecology

by

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Ecology of Palestine

Climate

- Coastal zone
- Mountain range
- Rift valley
- Desert

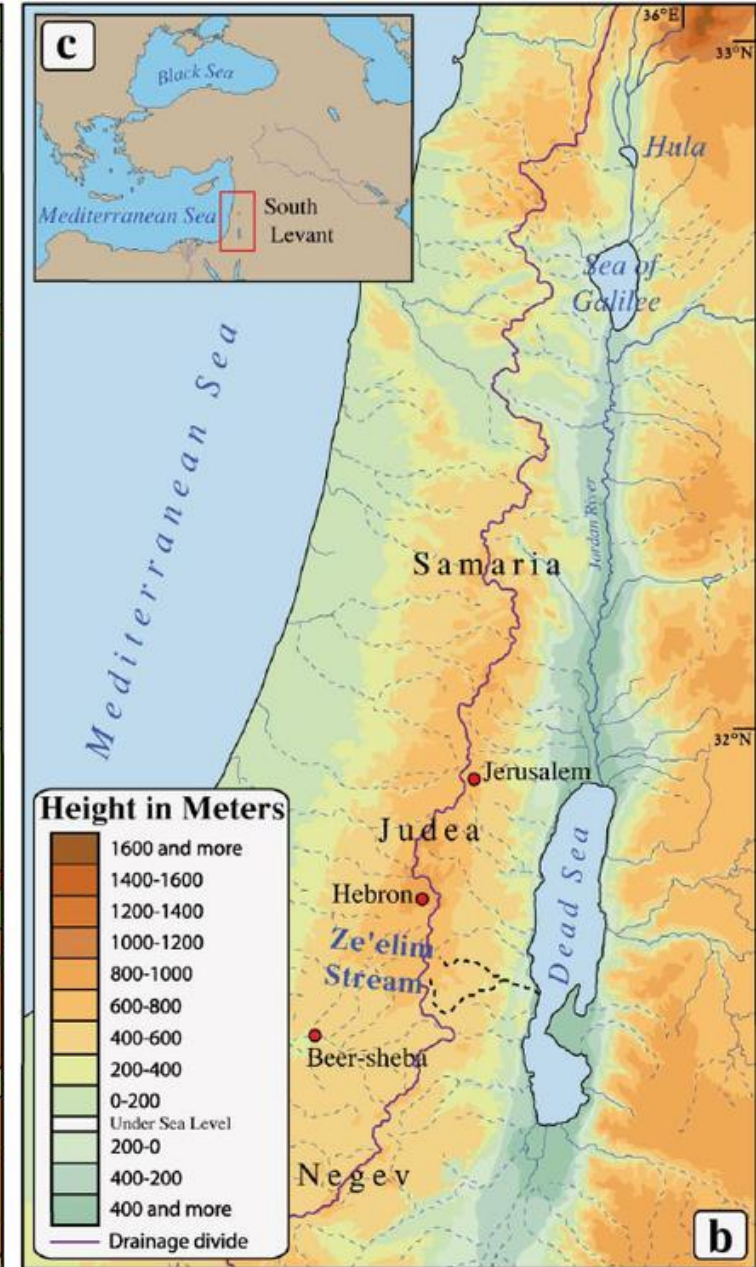
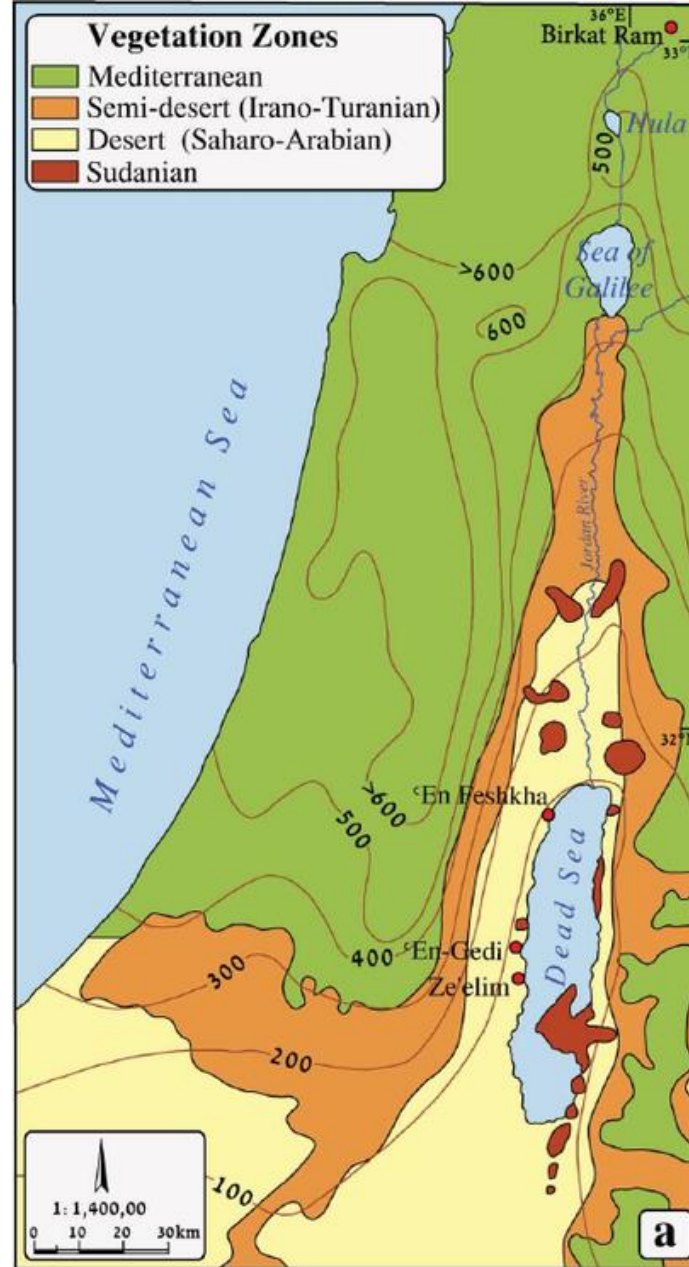
Palestine vegetation zones

Mediterranean zone

Sem- Desert (Irano tirano zone)

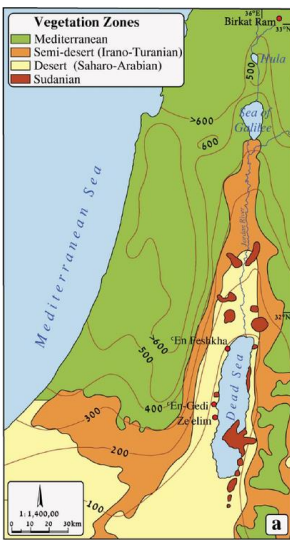
Desert (Sahara-Arabean) zone

Sudanian zone



Mediterranean zone

- Coastal plain and interior valleys
- Plateau
- mountains



- Climax vegetation (forests and high maquis) in Jarmaq mountain and upper galilee mount carme
- Different plant association depend on rainfall and bedrock type and soil type
- Quercus calliprinos, Pistacia palestina, Pistacia lentscus, Juniperus pheonica, Laurus nobilis, Arbutus andrachne, cersis siliquastrum, Platanus orientalis, Acer syriacus (acer obtusifolium)– Pinus halepensis in limestone
- In the low garrigue or batta Bushes of Cistus incanaus, Cistus salvifolius, Sarcopoteriam spinosum, calycatome villosa
- In chalk rocks and sandstone Ceratonia siliqua
- Pistacia atlatica in transition zone



- In coastal plain and interior valleys
Quercus inthaburanthis
(deciduous) climax vegetation
- *Styrax officinallis*
- *Ficus sycamorus*
- *Fragrostis bipinnata*, *Centaurea procurrens*



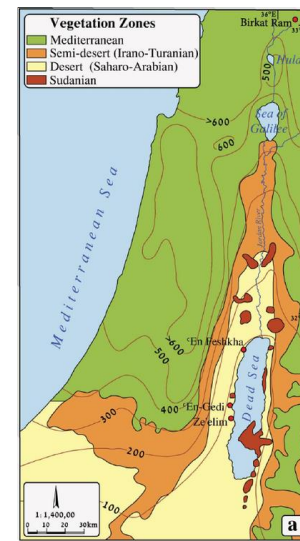
Irano Tirano zone

- Northern negab (Bir sabaa)
- Northern rift valley
- Lowest eastern mountains
- Poor soil, 200-300 mm rainfall

- Vegetation, *Artemesia herba alba* in Jerusalem desert ,
- *Salvia lonigera*, *anagalis aravensis*
- *Zizyphus Loti* basalt soil



Artemesia herba alba



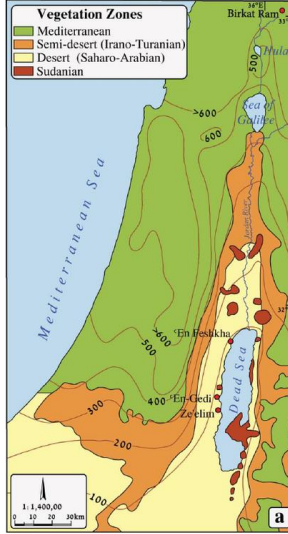
Zizyphus Loti



anagalis arvensis

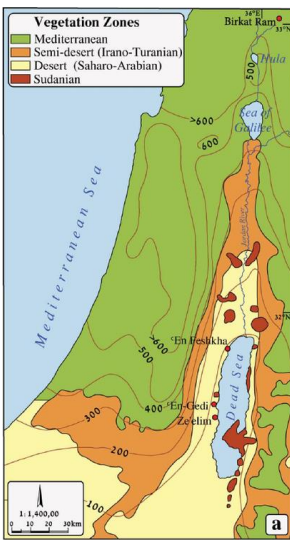


Salvia lanigera



Sahara-arabean zone

- Rift valley
- Dead sea area
- Wadi araba
- Neqab
- Jerusalem desert
- No more than 200mm
- Vegetation cover is very sparse, but large number of vegetaion
- *Zygophyllum dumosi*, *Anabasis articulata*, *Retama roetam*, shrubs
- Trees *Acacia tortilis*, *Acacia raddiana*, *Acacia Gerrardi*, *Acacia negavensis*,
- Around dead sea and wadi Araba, saline soil- *Tamarix jordani*, *Hyphaene thebaica*,
- Shore lily (*Pancratium maritimum*), beach grass *Ammophila Arenaria* on coastal dunes

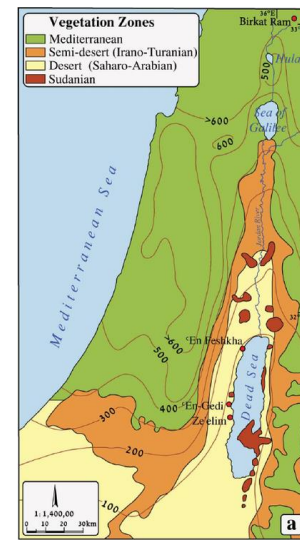


Sahara-arabeian zone

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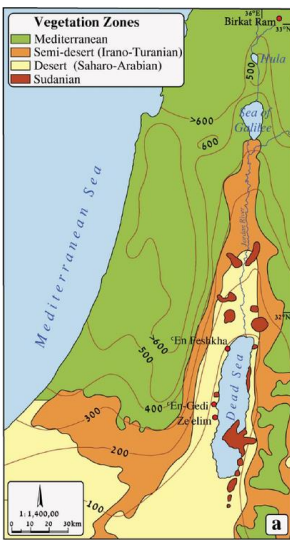
Zygophyllum dumosi



Retama roetam

Sudanese

- Some patches (oasis) in iran-tirano and sahara-arabean e.g Ein Gedi
- Zizyphus spina christi
- Oja river (yaraqon) and Hulla Cyperus papyrus, Polygonum acuminatum, Lythrum salicaria, Neriam oleander, Nuphar luteum, Nymphaea alba



Agricultural crops

Planted forests

- Eucallyptus sp
- Conifer pine, cypress

Wild life

- Animal life like plant life is largely determined by geographic conditions
- zoogeographic regions resemble vegetation regions (Mediterranean, Iran-Turanian, Arabian and Sudanese) Fauna
- There is no strict border of the region due to the ability and capability of movement of animals and other organisms. If animals move to other region they can adapt to different habitat.
- Living conditions for animals changed Due to Human activities e.g many species of water fowl have disappeared due to drying of Al Hula Lake and swaps for agricultural activities

Development of Fauna of Palestine

- History of animal life to Eocene- العصر الفجري الحديث (the area was still part of Arab-Nubian sub- continent)first animal
- In Pliocene العصر الحديث land connection was created with southeastern Europe animals came to the area
- Lower Pleistocene العصر الحديث
 - rhinoceros, hippopotamus, spotted Hayena, swine
 - from India wolves, gazelles, wild horses,
 - climatic changes during middle and upper Pleistocene up to Neolithic period (7000 years) made changes in the Local Fauna. After that no significant changes occur
 - some changes occur through hunting and destruction of forests some of animal exterminated
 - the bible mention many animals that is no longer exist such as lion, tiger, bear, deer, wild ox...etc

Marine animals

- Marine life less depleted than land life
- (Om Rashrash) construction has affected the corals and colorful fish, but still a variety of fish from different families are still there chaetodontidae, Acanthuridae, ostraciontidae
- Mediterranean coast Labridae, blenniidae fish families
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Invertebrate land animals

- Insects, spiders, crustaceans reach tens of thousands number with variety of colors and forms
- More can be found near water and warmer areas, Kinneret (Tabaria) and Hula area northern parts of the coastal line

Wild boar



Nubian ibex goat

Amphibia and reptiles

- Reptiles, snakes, frogs, turtles.

birds

mammals