

# Biogeography. Lecture 26

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# Outline

## Biogeography of the World

Biogeography of Africa

Biogeography of Holarctic Eurasia



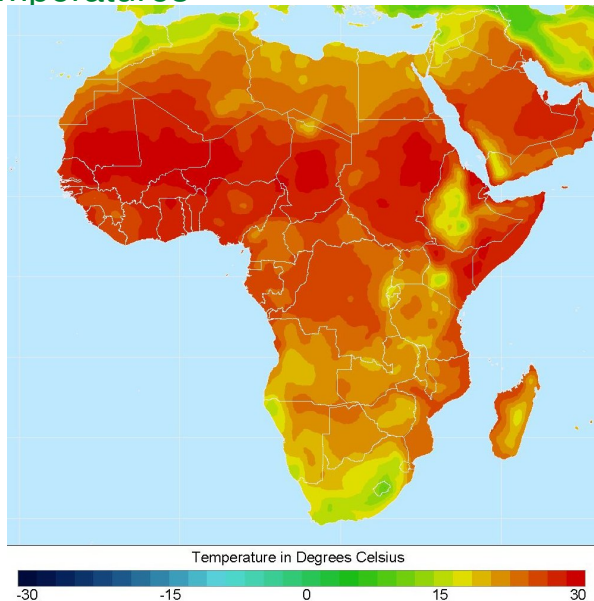
# Biogeography of the World

## Biogeography of Africa

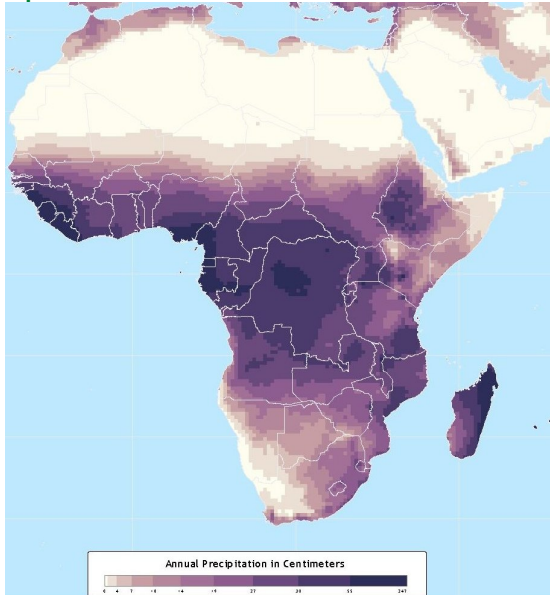




# Africa: temperatures



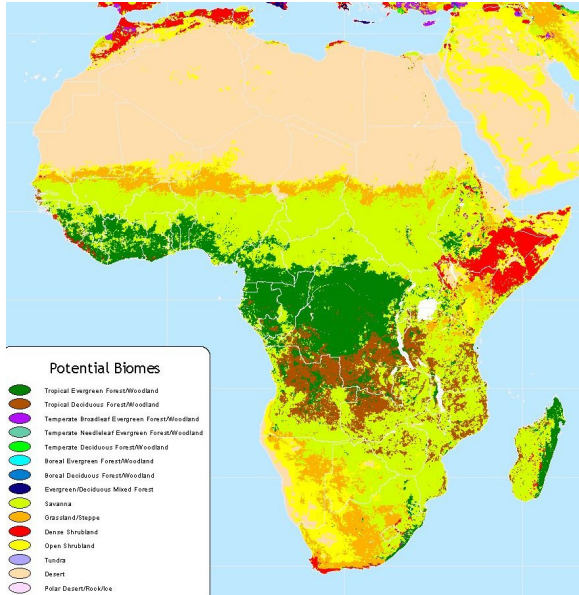
# Africa: precipitation



## Africa: geology



# Africa: potential biomes





# Africa: biogeographical regions



# Africa: 8 biogeographical regions

1. Sahara
2. Northern savanna belt
3. Ethiopian highlands
4. Kongo forests
5. Eastern savannas
6. Kalahari and other southern deserts
7. Cape
8. Madagascar



# African regions: the most significant bio-markers

1. **Sahara:** date palm (*Phoenix dactylifera*), dum palm (*Hyphaene*)
2. **Northern savanna (Sudan and Guinea) belt:** African *Acacia* trees, oryx antelopes (*Oryx*) and cheetah (*Acinonyx jubatus*)
3. **Ethiopian highlands:** gelada baboon (*Theropithecus gelada*) and walia ibex (*Capra walie*)
4. **Kongo forests:** three species of anthropoid apes, *Gorilla gorilla* (*Gorilla beringei* occurs in the next region) and *Pan troglodytes* and *Pan paniscus* and hornbill birds (Bucerotidae).
5. **Eastern great savannas:** the Great African Grassland fauna ("Safari" fauna) including African elephants (*Loxodonta africana*), lions (*Panthera leo*), giraffes (*Giraffa camelopardalis*) and rhinos (*Ceratotherium* and *Diceros*). This fauna has a lot of connections with Old World faunas (except Australia).
6. **Kalahari and other southern deserts:** *Welwitschia mirabilis*, unique gymnosperm, also aloe (like *Aloe arborescens*) and cactus-like spurge (*Euphorbia*)
7. **Cape:** amazing diversity of plant species, especially from Protea family (Proteaceae).
8. **Madagascar:** indri (*Indri indri*), tenrecs (Tenrecidae), giraffe weevil (*Trachelophorus giraffa*), panther chameleon (*Furcifer pardalis*), pygmy chameleon (*Rhampholeon*), Lac Alaotra bamboo lemur (*Hapalemur alaotrensis*), crowned lemur (*Eulemur coronatus*), fossa (*Cryptoprocta ferox*), Verreaux's sifaka (*Propithecus verreauxi*), Ward's Flycatcher (*Pseudobias wardi*), Crested Drongo (*Dicrurus forficatus*).



# Summary for Africa

- ▶ High, uniform and dry continent
- ▶ Homeland for the **majority** of recent plant and animal groups (“tropical pump”), e.g., Afrotheria (elephants Proboscidea, elephant shrews Macroscelidea, hyraxes Hyracoidea, tenrecs Tenrecidae with golden moles Chrysochloridae, sea cows Sirenia and armadillos Tubulidentata). All World grassland fauna originated in Africa. The third example of cosmopolitan mammal with African savanna origin are humans (genus Homo).



# Biogeography of the World

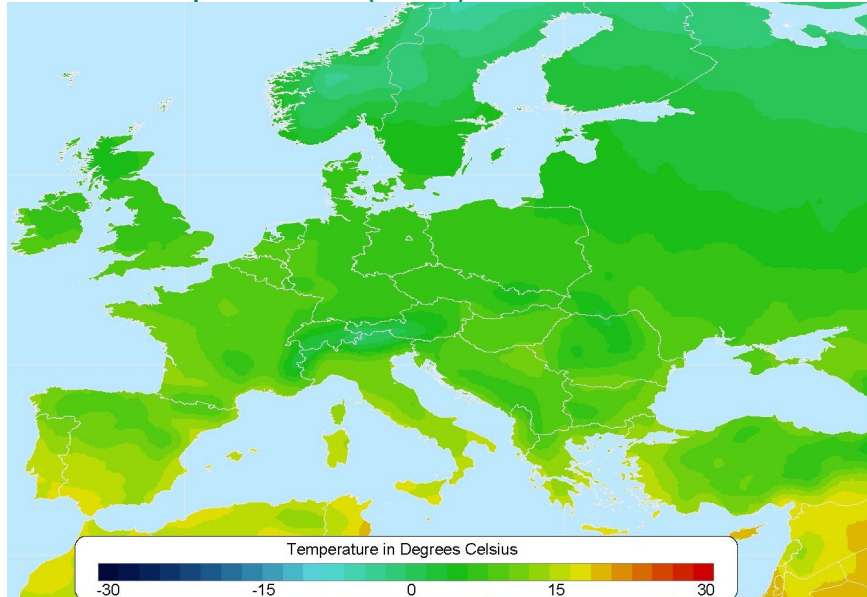
## Biogeography of Holarctic Eurasia



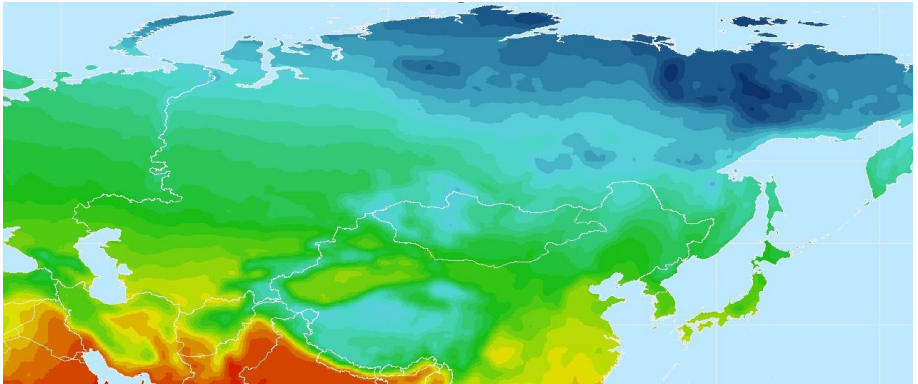


Note latitudinal mountain ranges

# Eurasia: temperatures (west)

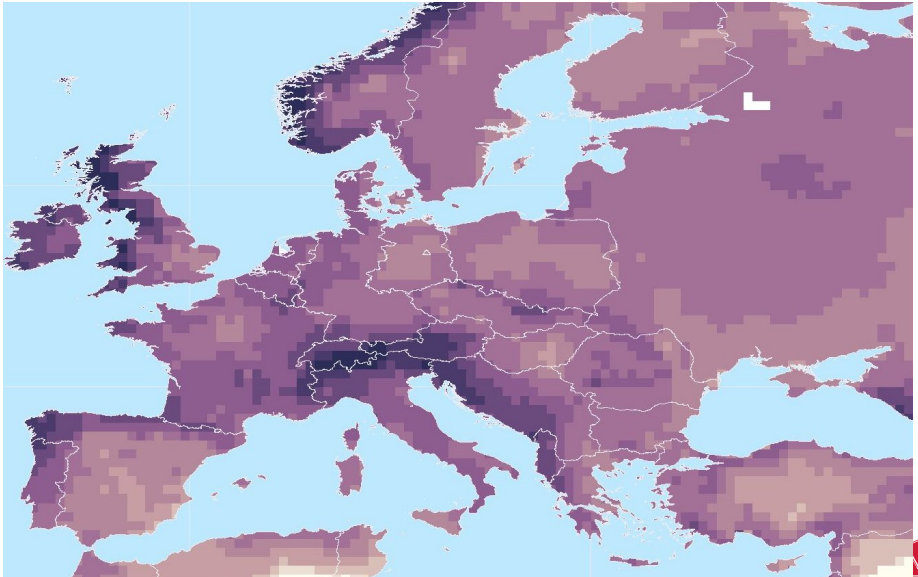


# Eurasia: temperatures (east)

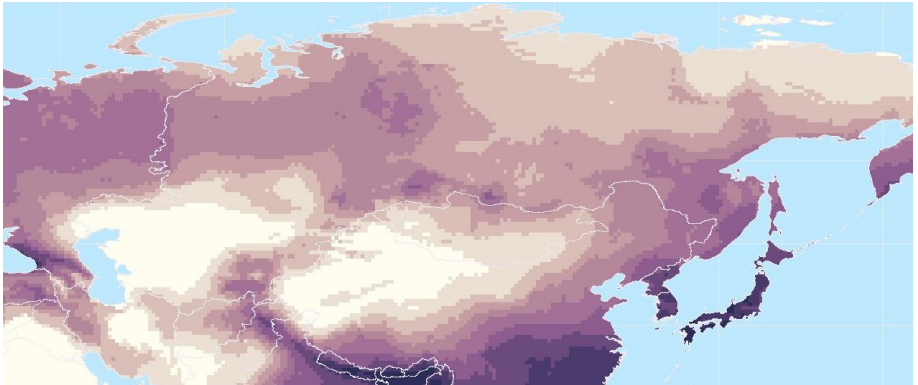




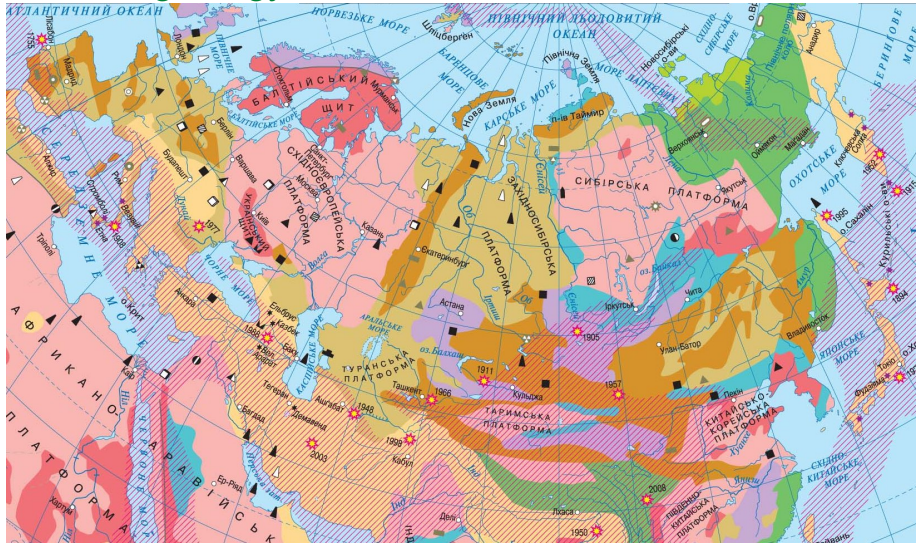
# Eurasia: precipitation (west)




# Eurasia: precipitation (east)



# Eurasia: geology



Several continental platforms and mountains on the places of collision 

# For Further Reading



A. Shipunov.

*Biogeography* [Electronic resource].

2014—onwards.

Mode of access:

[http://ashipunov.info/shipunov/school/biol\\_330](http://ashipunov.info/shipunov/school/biol_330)

