

# Biogeography. Lecture 2

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# Outline

## Basics of physical geography

### Main categories



# Around biogeography

- ▶ Geography + ecology + taxonomy = biogeography
- ▶ Geography + ecology = geographic ecology, Earth biomes
- ▶ Geography + taxonomy = floristics and faunistics
- ▶ Ecology + taxonomy = autecology, ecology of species



# Basics of physical geography

## Main categories



# Physical geography

- ▶ Geodesy, cartography and spatial science
- ▶ Climatology
- ▶ Palaeogeography
- ▶ Geomorphology
- ▶ Glaciology
- ▶ Hydrology and limnology
- ▶ Oceanography



# Main parts of Earth: vertical

- ▶ Atmosphere: troposphere (lowest 20 km) and stratosphere
- ▶ Hydrosphere
- ▶ Biosphere
- ▶ Lithosphere

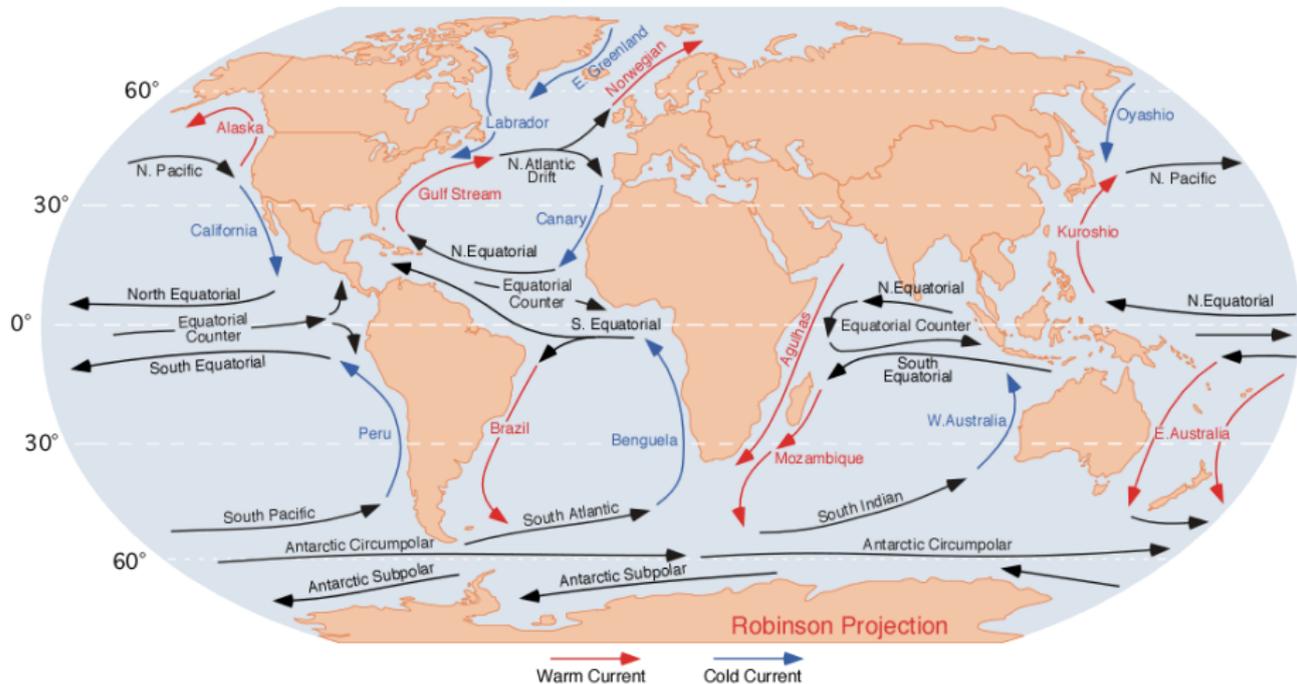


## Main parts of Earth: horizontal

- ▶ Continents and islands: Greenland criterion, Panama isthmus, isthmus of Suez, Europe-Asia border (Sea of Marmara – Black Sea – North Caucasus – Caspian Sea – River Ural – Ural mountains); Madagascar, Indonesian archipelago
- ▶ Oceans and seas: Arctic ocean criterion, different approaches, Tethys traces (Mediterranean, Marmara, Black, Caspian and Aral seas)
- ▶ Lakes and rivers: Great Lakes, Great African lakes, Baikal, Lake Eyre, Lake Chad
- ▶ Mountains and depressions: Himalayan ridge, Andes and Cordilleras, European ridges, Puerto Rico depression, Mariana trench
- ▶ Straits and currents: Gibraltar, Torres and Magellan straits; Gulf stream, Labrador and North Pacific current, equatorial currents, circumantarctic currents



# Ocean currents



# Summary

- ▶ For biogeography, the most important geographical sciences are geodesy, climatology and palaeogeography.



# 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)



## Physical Map of the World.

<http://www.shadedrelief.com/world/>



## Major circles of latitude.

[http://en.wikipedia.org/wiki/Circle\\_of\\_latitude](http://en.wikipedia.org/wiki/Circle_of_latitude)

