

Biogeography. Lecture 24

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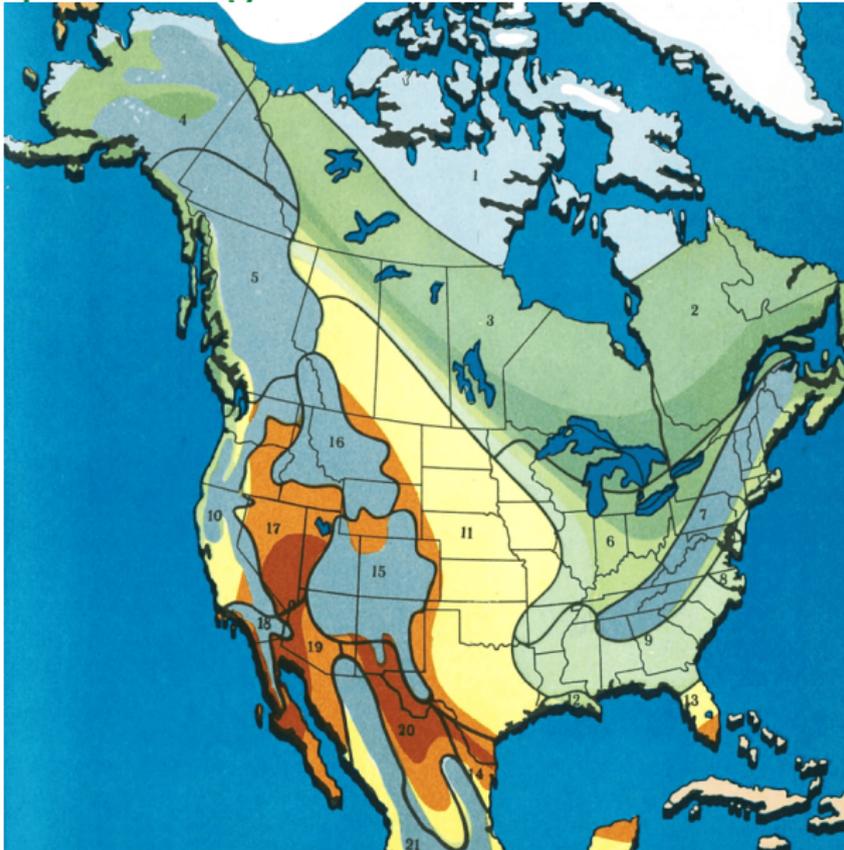


Biogeography of the World

Biogeography of North America



Biogeographical regions of North America



North America: 21 biogeographical region

1. Arctic Islands and Greenland
2. Labrador, Sr. Lawrence Valley
3. Canadian Northwest
4. Alaska
5. Yukon and British Columbia
6. Great Lakes and Central Lowlands
7. Appalachians
8. East Coast
9. Coastal Lowlands
10. Central Pacific Coast Ranges
11. Great Plains
12. Mississippi delta
13. South Florida
14. South Texas
15. South Montane region
16. North Montane region
17. Great Basin
18. Southern California
19. Sonora
20. Chihuahua
21. Mexican Sierras



Region 1. Tundra

- ▶ Very similar to Eurasia, almost all species are same
- ▶ Few mammals (reindeer, musk ox, lemmings), only migratory birds, no reptiles and amphibians
- ▶ Forest border is supported mostly by lowest temperatures and permafrost
- ▶ Lichens and mosses are more competitive than flowering plants



Regions 2 and 3. Taiga: boreal conifer forests

- ▶ Again, very similar to Eurasia
- ▶ Typical trees: deciduous *Larix* (larch) and evergreen *Picea* (spruce); North American boreal forests are richer than Eurasian.
- ▶ Forest interleaves with “muskegs”, swampy areas shaped mostly by peatmoss (*Sphagnum* spp.)
- ▶ Food chains are based on large herbivores (deers, moose, elks).
- ▶ Many warm-blood vertebrates will follow the **Bergman rule**: representative of northern species are bigger, and representatives of tropical species are smaller.
- ▶ Plus fact which is still unexplained: for some reason, American species of many genera are bigger in size than Eurasian (moose, bears, beavers and many others including plants)



Regions 4 and 5: wet northwest

- ▶ Anomalous high temperatures and precipitation rates. **However:** almost no rain in July-September so broadleaved trees are not surviving there.
- ▶ Flora and fauna have many connections with Siberia and Eurasian East due to Beringian landbridge. However, some elements (like porcupines) are clearly Neotropical.
- ▶ Rich coastal life: salmon, seabirds, bears, walruses, sea otters (the only species of marine weasels)
- ▶ Vast amount of conifer species, e.g. different cedars like *Pseudotsuga*; and ferns



Sea otter (*Enhydra lutris*)



For Further Reading



A. Shipunov.

Biogeography [Electronic resource].

2014—onwards.

Mode of access:

http://ashipunov.info/shipunov/school/biol_330



I. Sanderson.

The Continent We Live On.

1961.

Mode of access: <http://www.biodiversitylibrary.org/item/71734#page/7/mode/1up>



North America.

http://en.wikipedia.org/wiki/North_America

