

# Biogeography. Lecture 20

Alexey Shipunov

Minot State University

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# Outline

## Biogeography of the World

### Holarctic region I: Nearctic North America

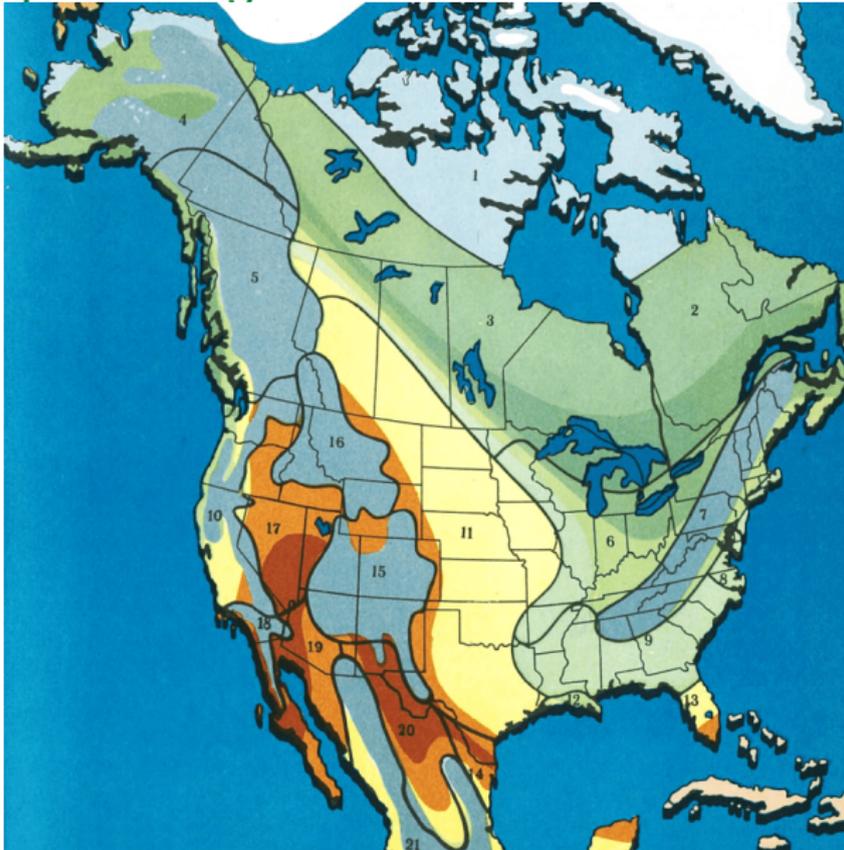


# Biogeography of the World

## Holarctic region I: Nearctic North America



# Biogeographical regions



# North America: 21 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



## 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*)



# Some Alaskan photos

[http://msubiology.info/shipunov/ph/20140810\\_ak/](http://msubiology.info/shipunov/ph/20140810_ak/)



## Regions 6, 7 and 8: eastern states

- ▶ Eastern USA forests are much closer to Neogene than most of Eurasian forests: much richer and also contain the dominant level (tulip tree, *Liriodendron*; sweet gum, *Liquidambar*; black tupelo, *Nyssa* (a bit smaller)) which disappeared in Europe
  - ▶ Striking diversity of autumn colors
  - ▶ Hot spots of animal diversity in Appalachians (crayfish, salamanders, tree frogs, butterflies and many others)
  - ▶ Appalachians are “destroyed” mountains, consequently they have many caves and rich underground life
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- ▶ One piece of Appalachians is going west to Great Plains: Ozark plateau
  - ▶ Many Neotropical elements (opossum, tanager birds, troupials like red-winged blackbird, hummingbirds and others)
  - ▶ China/Japan — East coast disjunctions for many plant genera (like *Magnolia* or *Trillium*, shrubby blueberry *Vaccinium*, the latter occurs also in westernmost Europe and Caucasus) and even species
  - ▶ Swampy/sandy Atlantic shore hosts unusual things: swamp false cypress (*Chamaecyparis*) forests; and nesting places for living fossil **horseshoe crab** (*Limulus polyphemus*), marine invertebrate closest to extinct trilobites



## For Further Reading



I. Sanderson.

*The Continent We Live On.*

1961.

Mode of access: [http:](http://www.biodiversitylibrary.org/item/71734#page/7/mode/lup)

[//www.biodiversitylibrary.org/item/71734#page/7/mode/lup](http://www.biodiversitylibrary.org/item/71734#page/7/mode/lup)



North America.

[http://en.wikipedia.org/wiki/North\\_America](http://en.wikipedia.org/wiki/North_America)



A. Shipunov.

*Biogeography* [Electronic resource].

2014—onwards.

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



A. Shipunov.

*Introduction to Biogeography and Tropical Biology* [Electronic resource].

2017—onwards.

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intr\\_biogeogr\\_trop\\_biol/intr\\_biogeogr\\_trop\\_biol.pdf](http://ashipunov.info/shipunov/school/biol_330/intr_biogeogr_trop_biol/intr_biogeogr_trop_biol.pdf)

