

Biogeography. Lecture 19

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Outline

Holarctic region I: Nearctic North America



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



Some Alaskan photos

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
- ▶ One piece of Appalachians is going west to Great Plains: Ozark plateau
- ▶ Many Neotropical elements (opossum, tanager birds, tropic birds 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



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

