Subarctic/ boreal deciduous coniferous forest

**LARCH (*Larix gmelinii*, SYN. *L. DAHURICA*) FOREST IN THE FALL
UPPER KOLYMA REGION, ARCTIC NORTHEAST SIBERIA, RUSSIA
BY ANATOLY V. LOZHKIN (NORTHEAST INTERDISCIPLINARY RESEARCH INSTITUTE, RUSSIAN ACADEMY OF SCIENCES, FAR EAST BRANCH) [PUBLIC DOMAIN], VIA WIKIMEDIA COMMONS**

Vegetation

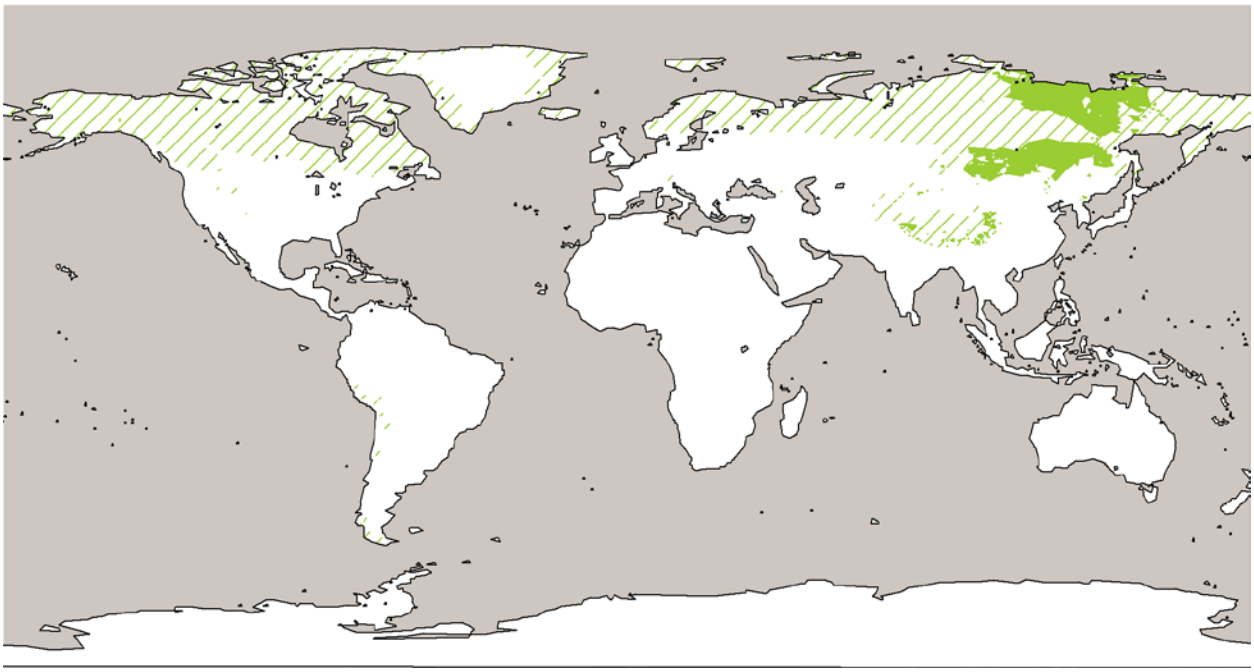
Subarctic/ boreal deciduous coniferous forests are dominated by larch (*Larix*), which are conifers that loose their needles during the winter.

Climate

Subarctic/ boreal deciduous coniferous forests are found in very cold climates, with temperatures of the warmest month averaging below 22°C (72°F) (Köppen-Geiger climate system zones Dfc, Dwc, Dsc, Dfd, Dwd, Dsd, ET).

Potential Distribution

This distribution map illustrates the climate zones in which this ecosystem type occurs, with stippled areas indicating climate zones where it is rare. It is not present in all parts of its climatic range.



Climate regulation value

The average greenhouse gas value for ecosystems of this type is 389 metric tons CO_2-equivalents per hectare over a 50 year time frame (t CO_2-eq ha^{-1} 50 yrs^{-1}). This includes 252 t CO_2-eq ha^{-1} 50 yrs^{-1} from storage of organic matter that would result in greenhouse gas release if cleared and 137 t CO_2-eq ha^{-1} 50 yrs^{-1} from ongoing greenhouse gas exchange between the ecosystem and the environment.

When biophysical effects are taken into account, the average climate regulation value for ecosystems of this type is 163 metric tons CO_2-equivalents per hectare (t CO_2-eq ha^{-1} 50 yrs^{-1}). This is a 58% decrease relative to the value based on greenhouse gas regulation alone.

Considering an average car, emitting 1.1 lb CO_2 per mile driven, clearing 100 square feet (9.3 m^2) of this ecosystem type would, on average, be equivalent to driving 723 miles/1,164 km (counting greenhouse gasses only). Counting biophysical effects, clearing the vegetation would be equivalent to driving 302 miles/487 km.