

Mapping Russia's vegetation zones

BIOME is the name for a vegetation zone that can be mapped on a global scale, as shown below. Russia is such a large country that it contains several world biomes. In contrast, the UK is shown on the map as being home to just one single biome, due to its relatively small size. Can you identify which?

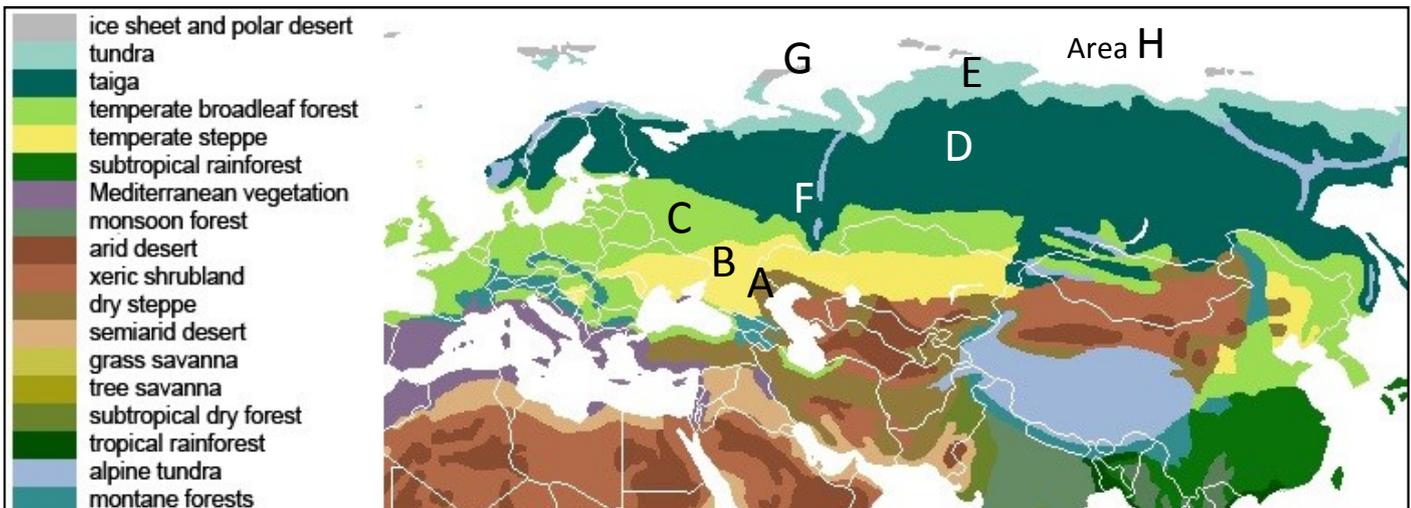
Each biome has its own characteristics. When studying a photograph of a biome, you can try to identify and describe:

- The **dominant** type of vegetation and its height
- Other plant characteristics such as **colour**
- Variations in the **type** of vegetation (perhaps the image shows the boundary between two biomes)
- Whether the plants are **densely** or **sparsely** distributed (are they close together or spread apart?)
- Other relevant **landscape** features such as the presence of rivers

LATITUDE (distance from the equator) is the most important reason why biomes change as you move northwards in Russia. Broad changes in **annual temperatures and rainfall** determine what kinds of trees or grasses can grow. Trees struggle to grow in parts of southern Russia due to **aridity** (lack of water). In northern Russia, growth stops at the **tree line**, beyond which it is too cold for trees to survive.

Russia's biomes have Russian names that you may not be familiar with :

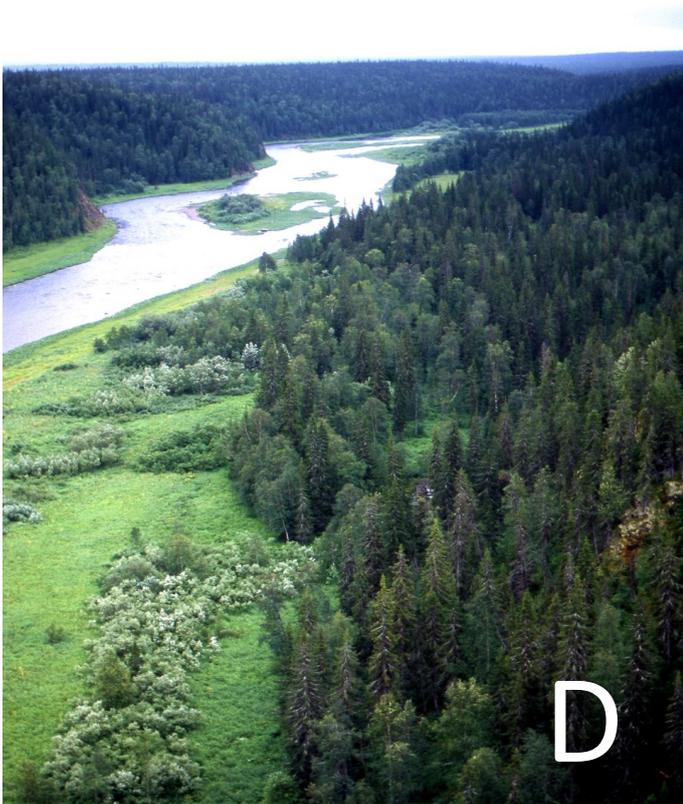
- Grassland is sometimes called **steppe**
- Coniferous or boreal forest is sometimes called **taiga**



Identify **seven** global biomes that are found in Russia.

- A.....
- B.....
- C.....
- D.....
- E.....
- F.....
- G.....

Three Russian cities are shown on the map (left). What kind of vegetation was originally found at the site of each city?



Identify **three** characteristics of the **vegetation** shown above.

- 1.....
- 2.....
- 3.....

Identify **three** characteristics of the **landscape** shown below.

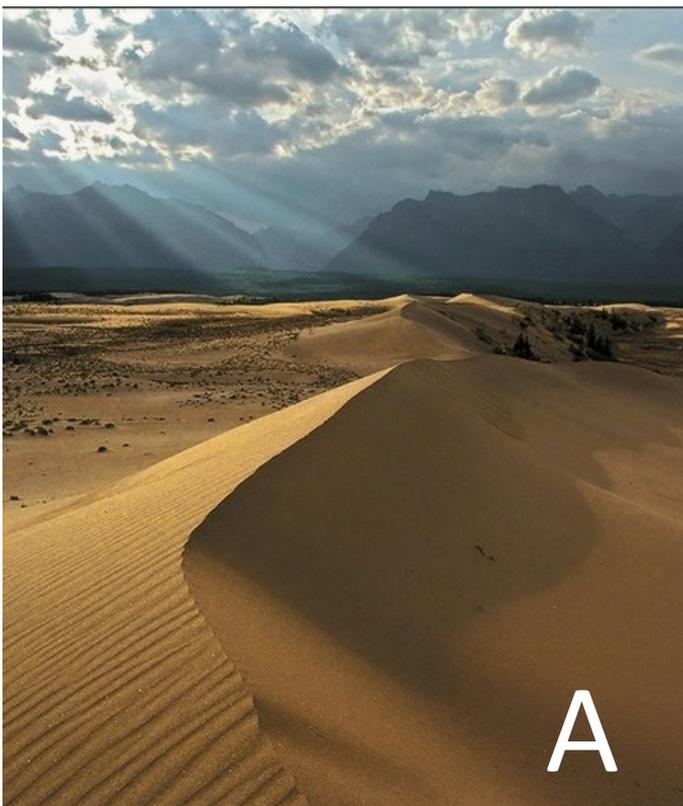
- 1.....
- 2.....
- 3.....

Identify **three** characteristics of the **vegetation** shown above.

- 1.....
- 2.....
- 3.....

Identify **three** characteristics of the **vegetation** shown below.

- 1.....
- 2.....
- 3.....





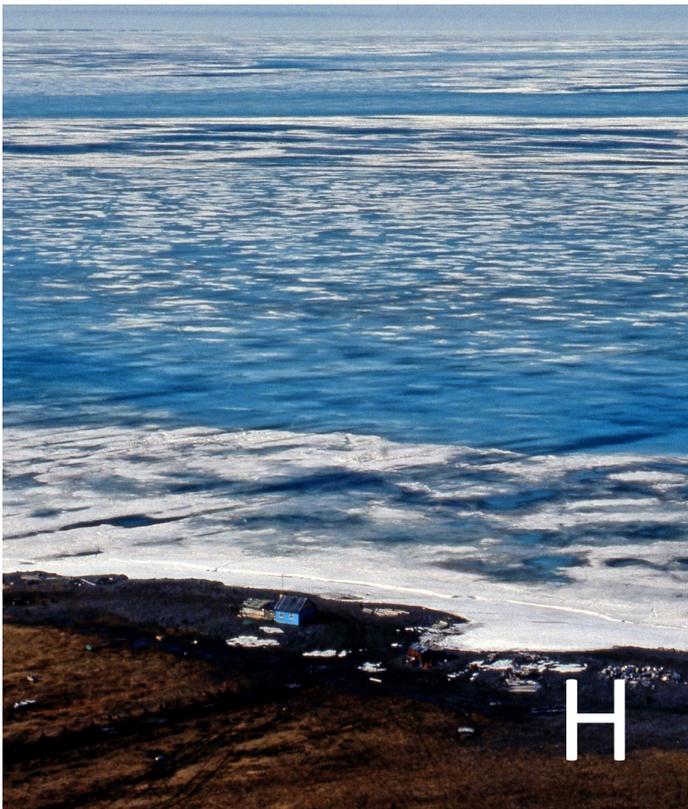
B

Identify **three** characteristics of the **vegetation** shown above.

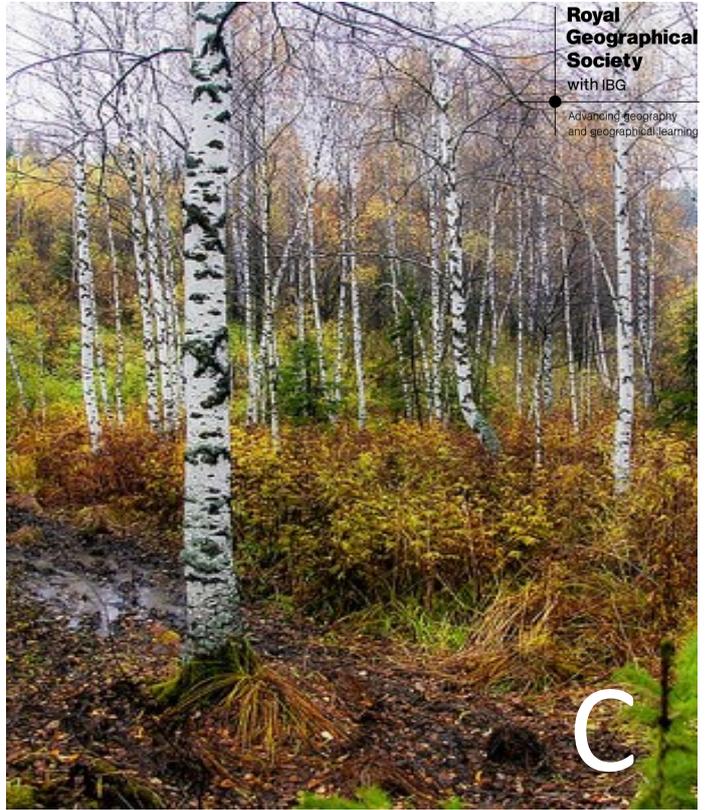
- 1.....
- 2.....
- 3.....

Identify **three** characteristics of the **landscape** shown below.

- 1.....
- 2.....
- 3.....



H



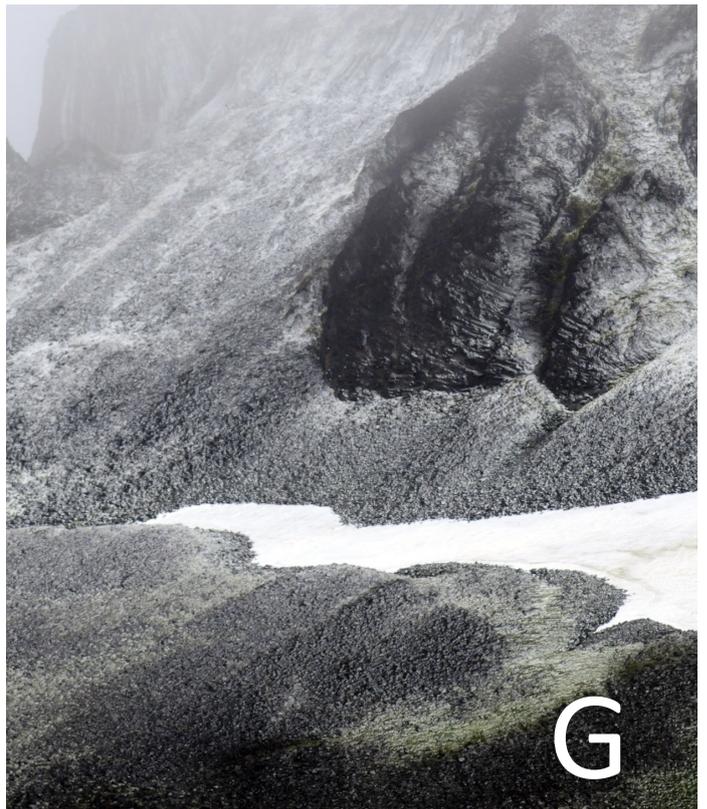
C

Identify **three** characteristics of the **vegetation** shown above.

- 1.....
- 2.....
- 3.....

Identify **three** characteristics of the **landscape** shown below.

- 1.....
- 2.....
- 3.....



G

Russia's changing Arctic environment

CLIMATE CHANGE is affecting northern areas of the world. Recorded temperatures at high latitudes are rising faster than in other places. Many scientists expect to see the tree line moving further north. Using the map and photograph below, suggest how the distribution of boreal (coniferous) forest could change in future decades and how the environment shown in the photograph might alter.

