

The nearly meridional band, which has the highest mean temperatures on given latitudes, passes up the Atlantic, along the west coast of Europe. In latitudes below 30° , the difference between the temperatures on this line of greatest heat, and those of America and Asia, though perhaps always sensible, is slight; but on arriving in high latitudes, the contrast is somewhat startling. Upsal, in latitude 60° N., has about the same mean temperature (42°) as Quebec, in lat. 47° . The isothermal line of 32° crosses the North Cape in lat. 70° , and from this vertex of curvature descends southward by the south side of Iceland, and the south part of Greenland, to the north point of Labrador, almost to lat. 60° . This is the most southerly part of the curve, which then bends to the north, and reaches 65° at Great Bear Lake, beyond which its course has not been completely traced. In the other direction, from the North Cape, this line deviates to the south, till it crosses the Lena below lat. 65° . Thus on the line of 32° it rises in the meridian of Norway 10° of lat. further north than in America, and 5° further north than in Asia. Nearly similar results follow from tracing the other isothermal lines determined by Humboldt in high northern latitudes, but the difference above stated is more than the average. In the same latitudes, Europe is warmer than North America by 5° Fahr. or more, but in particular situations this difference is much greater, amounting, in extreme cases, to 11° , or even to 17° . Such uncommon differences, however, are unimportant in a general argument.

Some portion of the great difference of the Atlantic and the continental climates may safely be ascribed to the gulf stream, which carries the warmth of Guinea even to Spitzbergen (according to Scoresby); but without this aid, a deep polar ocean communicating to equatorial seas must always mitigate the cold of the Arctic zone along the main channel of connexion, as a mass of Arctic land lowers the mean annual heat of the temperate zones, by collecting an eternal covering of