

# Gulf Stream at weakest in a millennium

The Gulf Stream is at its weakest in more than 1,000 years, with new data suggesting that global warming is slowing the pace of the powerful ocean current that controls much of the Atlantic

**GULF STREAM:** Warm current around 100-200km wide is part of global conveyor belt circulating water in oceans

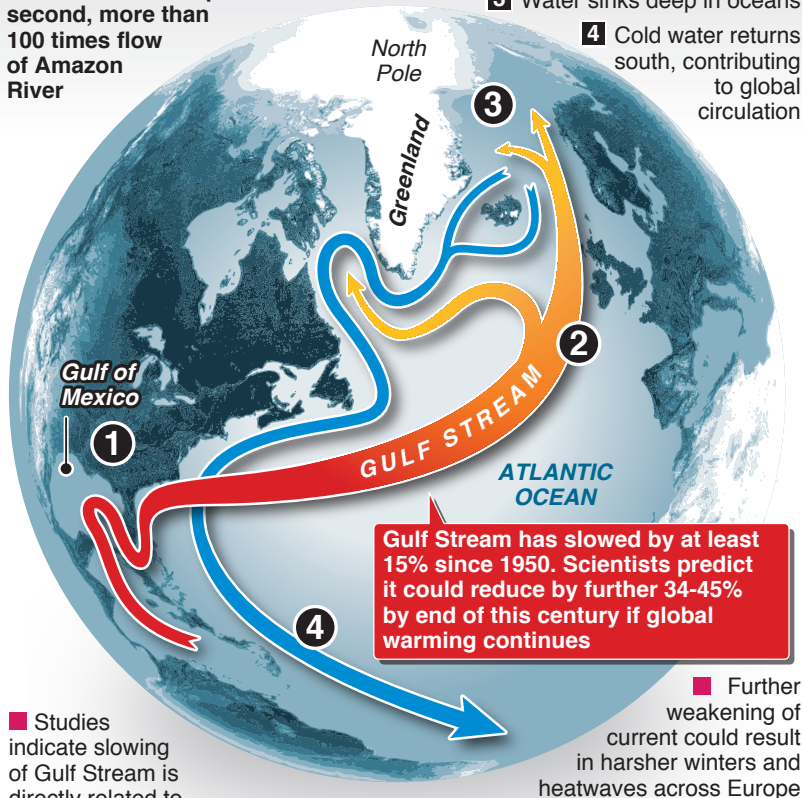
It carries as much as 20m cubic metres per second, more than 100 times flow of Amazon River

**1** Warm waters from tropical regions carried up to North Atlantic

**2** Water cools as it moves north. Evaporation increases salinity and density, causing it to sink

**3** Water sinks deep in oceans

**4** Cold water returns south, contributing to global circulation



■ Studies indicate slowing of Gulf Stream is directly related to human-induced climate change, as melting ice alters balance of northern waters

Gulf Stream has slowed by at least 15% since 1950. Scientists predict it could reduce by further 34-45% by end of this century if global warming continues

■ Further weakening of current could result in harsher winters and heatwaves across Europe

■ Scientists warn that Gulf Stream could shut down entirely if pace of global warming accelerates