



The Antarctic ozone hole is about one-third to blame for Australia's recent series of droughts, scientists say. Writing in the journal *Science*, they conclude that the hole has shifted wind and rainfall patterns right across the Southern Hemisphere, even the tropics.

Their climate models suggest the effect has been notably strong over Australia. Many parts of the country have seen drought in recent years, with cities forced to invest in technologies such as desalination, and farms closing.

The scientists behind the new study - led from Columbia University in New York - added the ozone hole into standard climate models to investigate how it might have affected winds and rains.

"The ozone hole results in a southward shift of the high-latitude circulation - and the whole tropical circulation shifts southwards too," explained Columbia's Sarah Kang. Of particular interest was the southward migration of the Southern Hemisphere jet stream.

There is also the rising trend in carbon dioxide, and that is acting in the same direction as the ozone hole"

These high-altitude winds are key to determining weather patterns, in both hemispheres. Much of the cold weather felt in the UK over the last couple of winters, for example, was caused by blocking of the Northern Hemisphere stream.

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