

Prime Meridian (117) November 30, 2019

The world's second warmest October on record was cool, wet and windy in South East England. Determined climate protestors gathered outside Downing Street in the pouring rain.

On the afternoon of October 26, 2019, rain and fallen leaves at Hartley, Kent, S. E. England.



Above and below: October 1, 2019 saw towering clouds after rains. Fields on the hill at Hartley, Kent, England.

Seasons in South East England

October 2019

Everywhere across the UK was colder than average, except our region, which was the warmest in the UK, and was exactly average. October 2019 was a decidedly cool month across most of the UK. The provisional UK mean temperature was 9.0°C (0.5°C *below* the 1981-2010 long-term average). The mean for England was 10°C (-0.4°C). Here in SE and central S England, the mean was 11.1°C (0.0°C). If we use the 1961 to 1990 values, our region would then be 0.2°C warmer than the norm. On October 1, the UK's maximum temperature for the month was 21.3°C at Trawsgoed, Dyfed, Wales.

Next page: October 17, 2019. New Ash Green, Kent. Rainfall, a puddle and berries of a rowan.





Above: Leaves of vines were turning autumnal colours.
Near West Kingsdown. Kent. October 18.



Monthly means for SE and central S England. Max. temp.: 14.7°C (-0.1°C); min. temp.: 17.5°C (0.1°C). Hours of sunshine: 85.6 (75 %). Rain: 121.1 mm (130%). Anomalies re. 1981-2010 norm in brackets. Date obtained from Met Office on-line monthly reports. <https://www.metoffice.gov.uk/research/climate/maps-and-data/regional-values>

Below. A murmuration of starlings (*Sturnus vulgaris*) gather near their roosts. The British Trust for Ornithology (BTO) notes populations in UK have fallen by 66 per cent since the mid-1970s. Near West Kingsdown. Oct. 18.





The day of Halloween saw autumnal scenes. Above: The colours of autumnal trees near New Ash Green, Kent. Left and below: *Amanita muscaria* (fly agaric) in the birch wood in Beacon Wood Country Park, Bean, Kent. A chalked notice asked visitors not to damage these hallucinogenic and other seasonal fungi. Below right: Halloween lanterns lit up on the evening of Oct.31. New Ash Green, Kent.

October 31 saw the month's minimum temperature of -6.2°C (Altnaharra, Sutherland, Scotland).

At Heathrow, Greater London, the coolest temperature was much warmer at 6.5°C .

<https://www.weatheronline.co.uk/>).





Sunset, October 2, 2019. Green Street Green, Kent.



Moon from New Ash green, Kent.

Full Moon, Hunter's Moon. Oct. 13, with an atmospheric ice crystal halo. Waning Moon Oct. 25.



Sunrise. New Ash green, Kent. Oct. 28, 2019.



Afternoon low Sun with sun dog at left. Oct. 28. 2019



Extinction Rebellion: A rather wet October 8, 2019.

It was ironic that the cause to save a burning world was being pursued by protestors in the rain. They refused to be put off and continued in waterproof jackets and umbrellas. The crowds had gathered in Trafalgar Square and Whitehall (next to 10 Downing Street, home of the Prime Minister), making their stand for Planet Earth. The police were accompanied by observers, as they carried away and arrested people from sit-in protests.









Above: The afternoon of October 28, 2019. Kent.

Global climate: The second warmest October on record.

The USA's National Oceanic and Atmospheric Administration stated:

“The combined global land and ocean surface temperature departure from average for October 2019 was the second highest for October in the 140-year record at 0.98°C . . . above the 20th century average 14.0°C This value is just 0.06°C . . . shy of tying the record warm October set in 2015. The 10 warmest Octobers have occurred since 2003; however, the five warmest Octobers have all occurred since 2015. The Octobers in 2015, 2018, and 2019 were the only Octobers with a land and ocean temperature departure from average above $+0.90^{\circ}\text{C}$ This was also the 43rd consecutive October and the 418th consecutive month with temperatures, at least nominally, above the 20th century average.”

Source: *NOAA National Climatic Data Center, State of the Climate: Global Analysis for October 2019*. Published online. Data is provisional. All the anomalies quoted are positive. Readers can obtain further information from NOAA: <https://www.ncdc.noaa.gov/sotc/global/201910>

The weather across the planet varies from place to place and despite the warm October globally, the USA experienced a cold time. According to NOAA:

“October 2019 was coolest in 10 years as U.S. continued its wettest year to date”

“October 2019 was rather cool across the contiguous U.S., ending as the coldest October in a decade. The nation’s soggy streak also continued, with a record-wet year to date.”

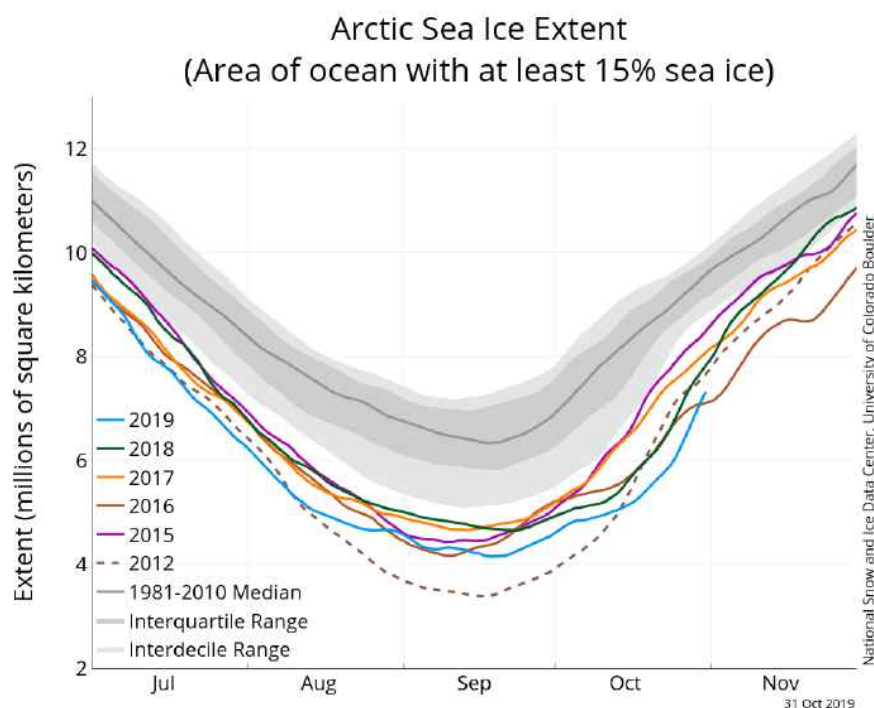
<https://www.noaa.gov/news/october-2019-was-coolest-in-10-years-as-us-continued-its-wettest-year-to-date>



Above: Autumn leaves in the road at Hartley, Kent on October 26, 2019.

The shrinking arctic sea ice - the story continues.

While protestors are making themselves seen and heard on the streets of London and cities around the world, the news from satellites watching the poles show that there fears are well justified. Earth's climate is changing.

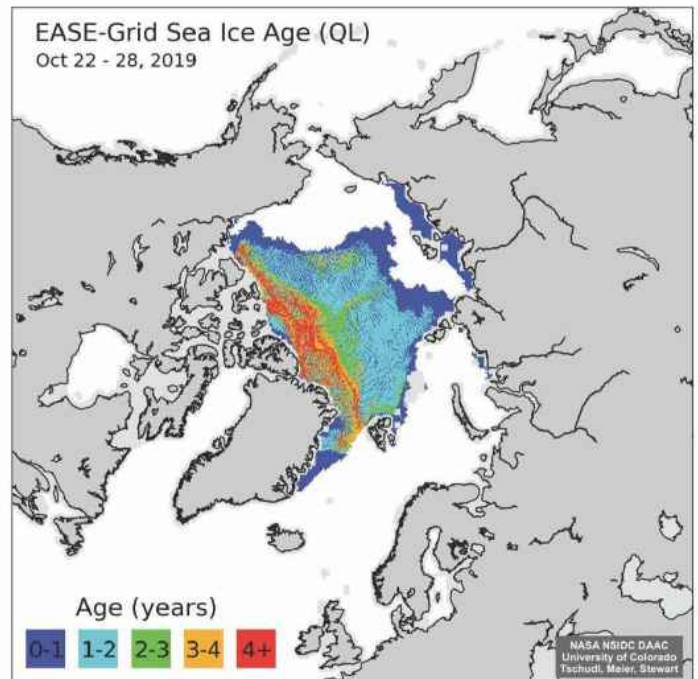
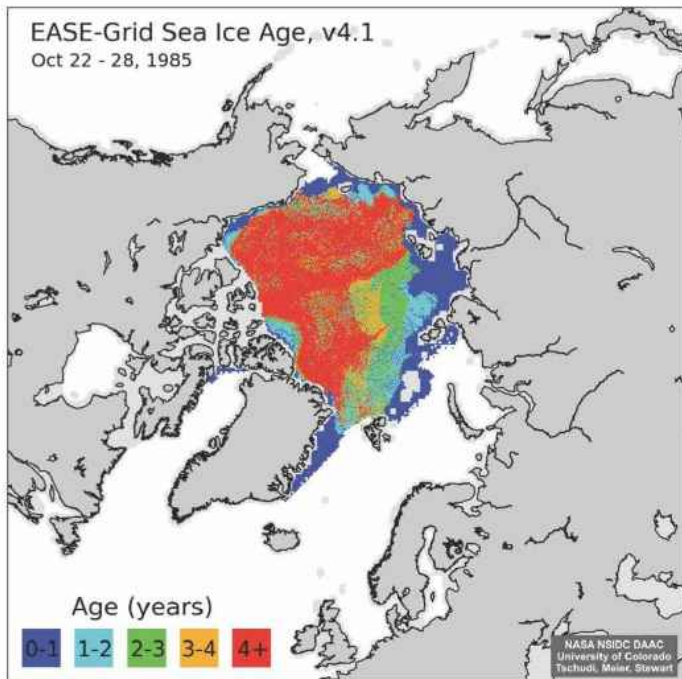


Information published by the USA's National Snow and Ice Data Center reveals that the arctic sea ice continues to disappear.

Since the satellite record began in 1979, the sea ice extent has been reduced. This can be seen in the summer months. Although its extent re-grows in the cold winter months (this begins in September), its extent is diminishing in the summer as temperatures climb.

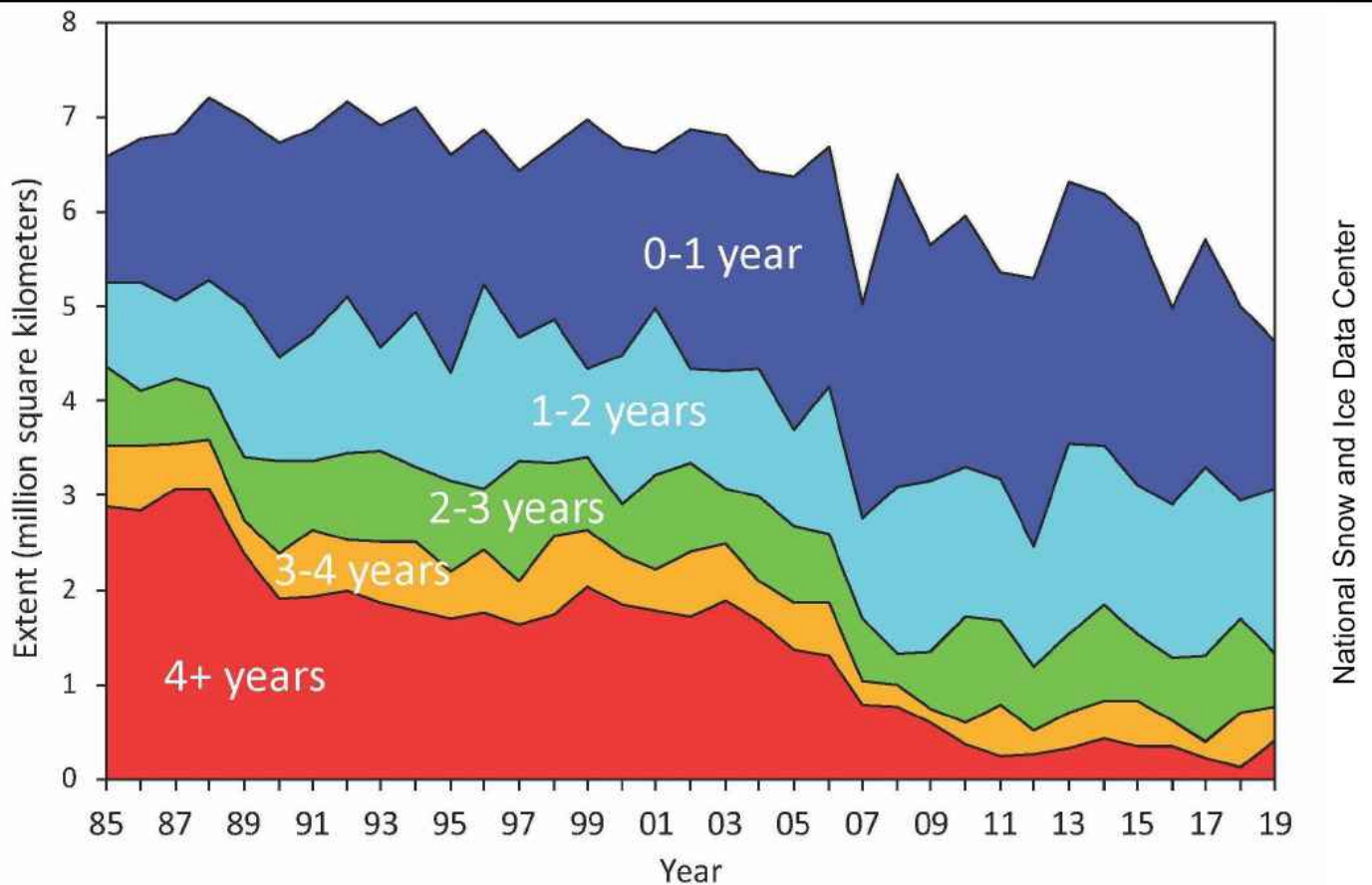
As the graphic left shows, it appears to be a matter of time before summer extent shrinks below the all-time 2012 minimum.

Sea Ice Age 1985 - 2019



A major long term concern is that not only is the summer extent of sea ice becoming smaller, but the older, thicker ice (which is more stable against summer warming) is being lost as the decades unfold. The graphic below reveals how ice of 4+ years has undergone very substantial loss since in the period mid-1980s to 2019.

<http://nsidc.org/arcticseaicenews/>





Above: Intense winds were felt on October 25, 2019, and this old tree at Hartley was found snapped and fallen on October 26. Right: Field maple (*Acer campestre*) at North Field, New Ash Green, Kent. October 26.

Prime Meridian.

Prime Meridian is published by the Ecospheres Project, a research and media collaboration. It follows global environmental issues alongside the cycle of the seasons in South East England. It steps back to look at the Earth in its astronomical context and it pursues the search for other habitable worlds.

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