



Prime Meridian

(134) December 31, 2020

In this issue, we look back at the month of November. According to climate scientists at the USA's National Oceanic and Atmospheric Administration, November 2020 will be remembered for having been the 2nd warmest November in a global record dating back 141 years.

Water droplets dripping from a browning oak leaf. Hill at Harley, Kent. running with, Dec.7, 2020



A look back on November 2020.

The month of November carried us through the cycle of the seasons, which we follow here from close to the Prime Meridian South East England.

In many ways, it seems, our pictures for November will be reassuring. Life, has continued with the ups and downs of weather, and we can drift into a false sense of security.

Above, a low afternoon Sun is looking through the trees at Beacon Wood, Kent, where the trees are rich in their autumnal colours (Nov. 5). To the right, near the end of the month (Nov. 28), we see the sky after sunset through bare trees at the hill at Hartley, Kent.

There is a bigger context, however, in which global climate continues to change.





Above: Work on a farm on the hill at Hartley, Kent, had ceased for the night. Nov. 22, 2020.

Climate change has been a major issue discussed in the agricultural community, and its consequences will become even more pressing in the years ahead.

Earlier this year *Countryside* (25 June 2020) explained: “The issue of climate change has never been more topical, with the UK government committed to reducing greenhouse gas emissions by at least 80% by 2050. British farming has a role in tackling climate change and the NFU - which represents 55,000 British farmers - recently outlined its aspiration for net zero agriculture by 2040. Many British farmers are already taking measures to reduce their impact on the environment and many more are ready to play their part in minimising climate change by striving to achieve the net zero aspiration.”

<https://www.countrysideonline.co.uk/food-and-farming/protecting-the-environment/how-are-british-farmers-helping-to-tackle-climate-change/>

Compassion in world farming sees this from its own perspective. Its recent statement “Food and farming key to tackling climate change” on Nov. 26, 2020: “Last week, 25 NGOs signed a letter co-ordinated by Compassion, to the UN Secretary General, UNFCCC Executive Secretary, Prime Ministers of the UK and Italy (co-hosts of COP26), and President of the European Commission. It urges these world leaders to ensure that food and farming are given high priority in discussions at the upcoming December 2020 Climate Summit and the 26th UN Climate Change Conference of the Parties (COP26) in November 2021 in Glasgow.

The letter highlights the fact, that despite the food system generating around 26% of global greenhouse gas emissions, these events typically focus on energy, fossil fuels, transport and industry. Food and farming are substantial factors that go unnoticed, and their environmental impact must be acknowledged.”

<https://www.ciwf.org.uk/news/2020/11/food-and-farming-reform-key-to-tackling-climate-change>



Global climate: The 2nd warmest November 2020 saw the 4th warmest

A statement from NOAA, the USA's National Oceanic and Atmospheric Administration explained "The combined global average temperature over the land and ocean surfaces for November 2020 was 0.97°C . . . above the 20th century average of 12.9°C This was the second warmest November in the 141-year global record, behind the record warm November set in 2015 (+1.01°C . . .). The 10 warmest Novembers have all occurred since 2004; the five warmest Novembers have occurred since 2013."

Data is provisional. All the anomalies quoted are positive.

Check out NOAA data on: <https://www.ncdc.noaa.gov/sotc/global/202011>

Above: November 15, 2020 was half way through the month. 11:52:54 UT. The image was taken by the DSCOVR (Deep Space Climate Observatory) space craft (NASA/NOAA), using its EPIC (Earth Polychromatic Imaging Camera) system.



Seasons in South East England

NOVEMBER 2020

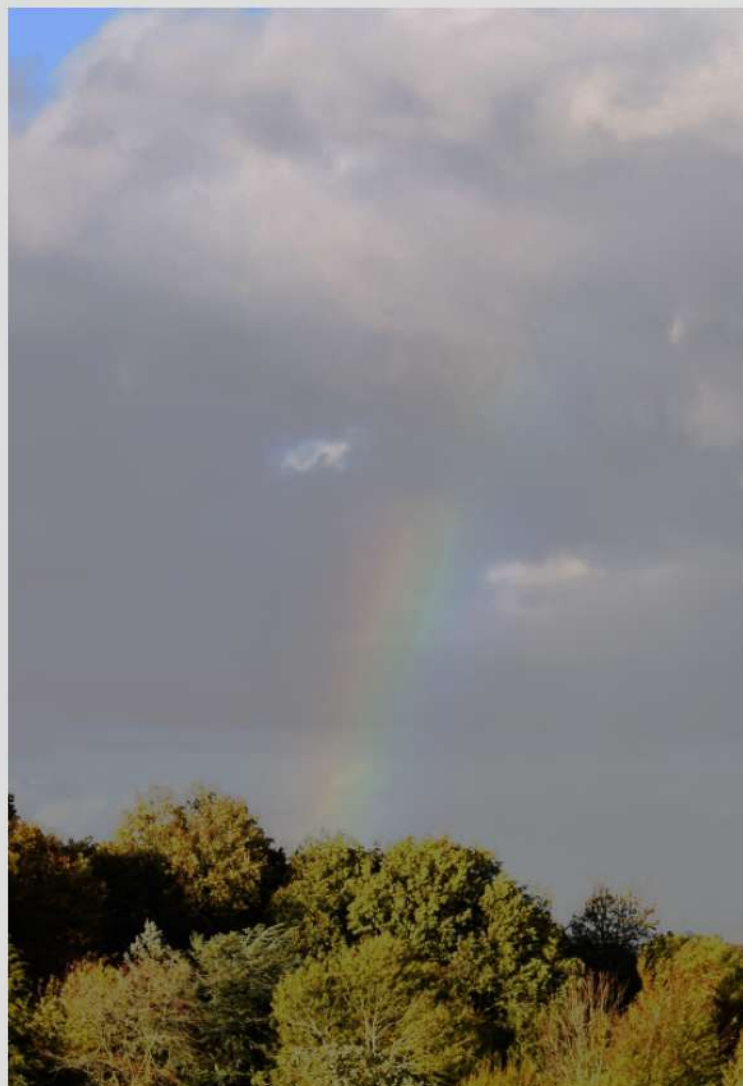
Our region had duller, drier and warmer conditions than normal.

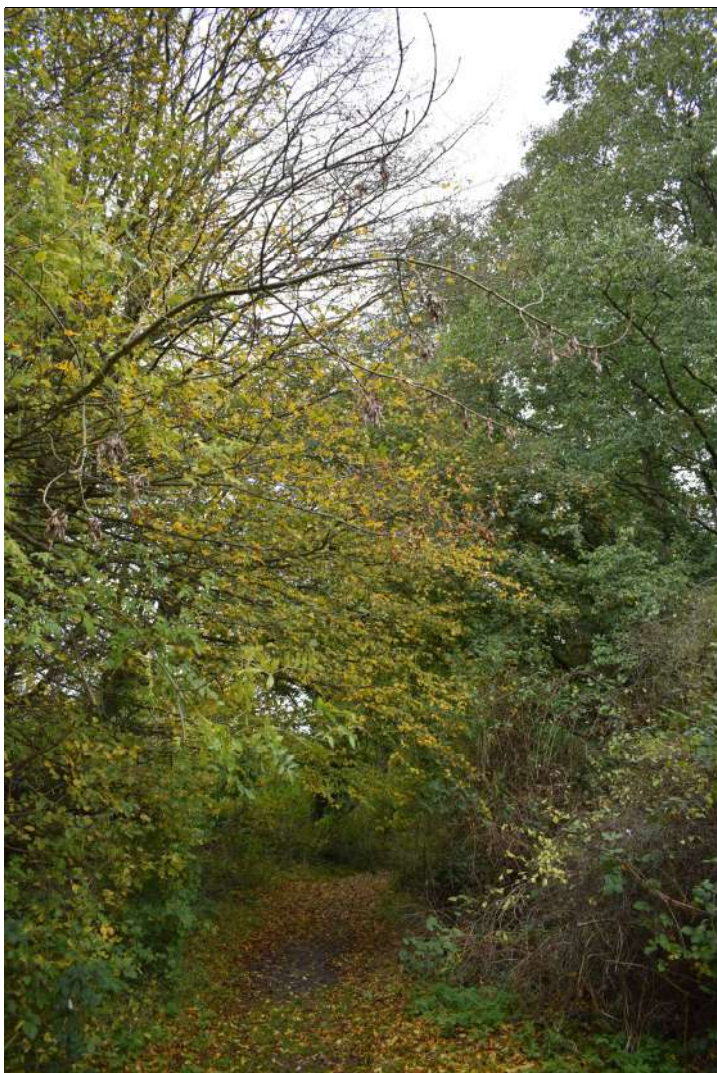
The provisional UK mean temperature was 7.7°C, which is 1.5°C above the 1981-2010 long-term average. The mean temperature for England was 8.4°C (1.6°C). As is often the case, it was our region England SE & Central S that was the warmest mean temperature for the UK at 9.1°C (017°C). It also had the warmest maximum temperature over the month, yet it was cooler than expected for the 1981 to 2010 average.

The UK's highest temperature was 18.4°C on November 1. This was recorded in two places. These were at Thornes Park, in West Yorkshire, England and Hawarden, in Clwyd, Wales. The minimum temperature, Nov. 29, was recorded as a decidedly cold -6.1°C at Aboyne in Aberdeenshire) and Cromdale in Morayshire, Scotland.

Above: This picture of an autumnal oak tree on the first day of the month was taken after the Sun had set. Ash, Kent.

Right: A rainbow was seen from the fields on the hill at Hartley, Kent. November 2020. Hartley, Kent.





Left: Autumnal trees. New Ash Green. Nov. 1.

Max. temp.: 12.3°C (1.6°C); min. temp.: 5.9°C (1.7°C); Hours of sunshine: 60 (84%). Rain: 62 mm (71%). Anomalies re. 1981-2010 norm in brackets. Date obtained from Met Office online monthly reports.

<https://www.metoffice.gov.uk/research/climate/maps-and-data/regional-values>

Centre: Low Sun on the afternoon of Nov. 3. Hawthorn in hedgerow on the hill at Hartley.

Below: Red berries of common hawthorn in a hedgerow on the hill at Hartley, Kent. Nov. 2.





November's annual commemorations took place without the usual public gatherings, due to the pandemic. The traditional bonfire night of (or close to) November 5 saw no public firework displays this year, due to the global pandemic. The pictures on this page were from a private and nearby event at New Ash Green, Kent, on the evening of the fifth. Another annual event is Remembrance Day on Nov. 11. Below left: The event had been recalled at Ridley, Kent. Nov. 5





Above: Bonfires were being lit in many places on Nov. 5 adding smoke to a misty evening. From the high ground above a distant firework display could be glimpsed. Explosions of fireworks in the distance.

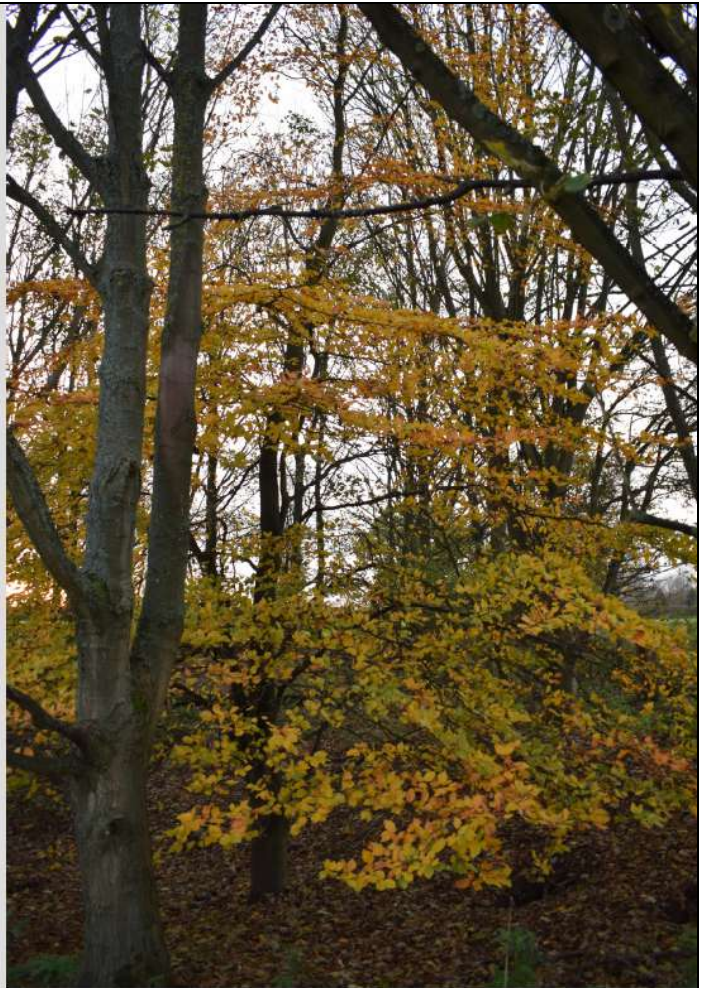
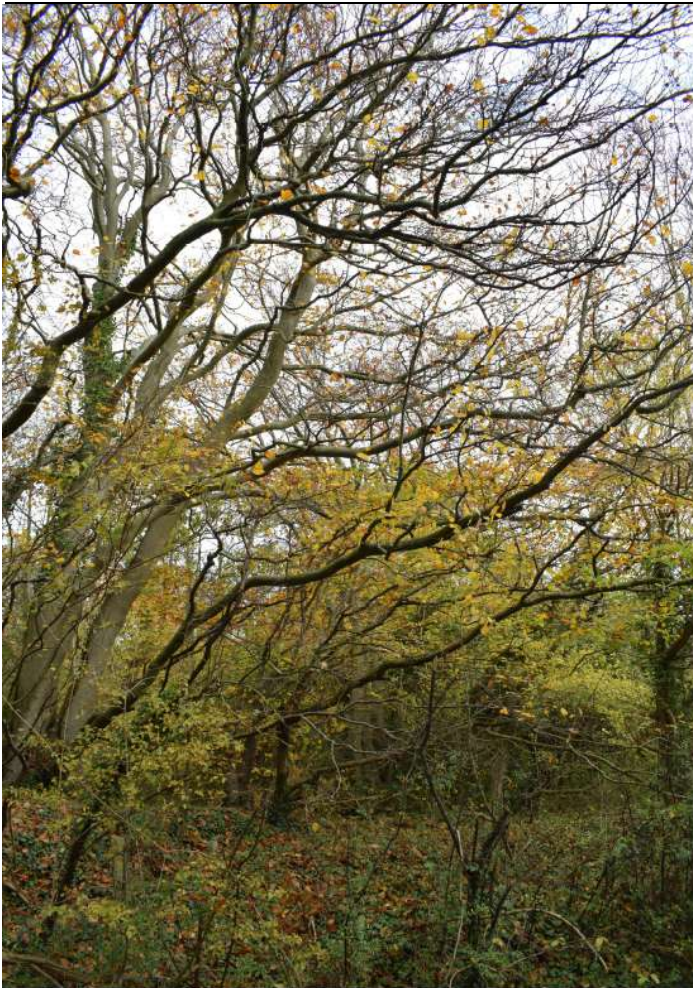
Centre: On Nov. 13, the sinking Sun behind trees. Ash, Kent. Below: Rain clouds from the hill at Hartley and, shortly after, rainbow from Longfield, Kent. Nov. 15, 2020.





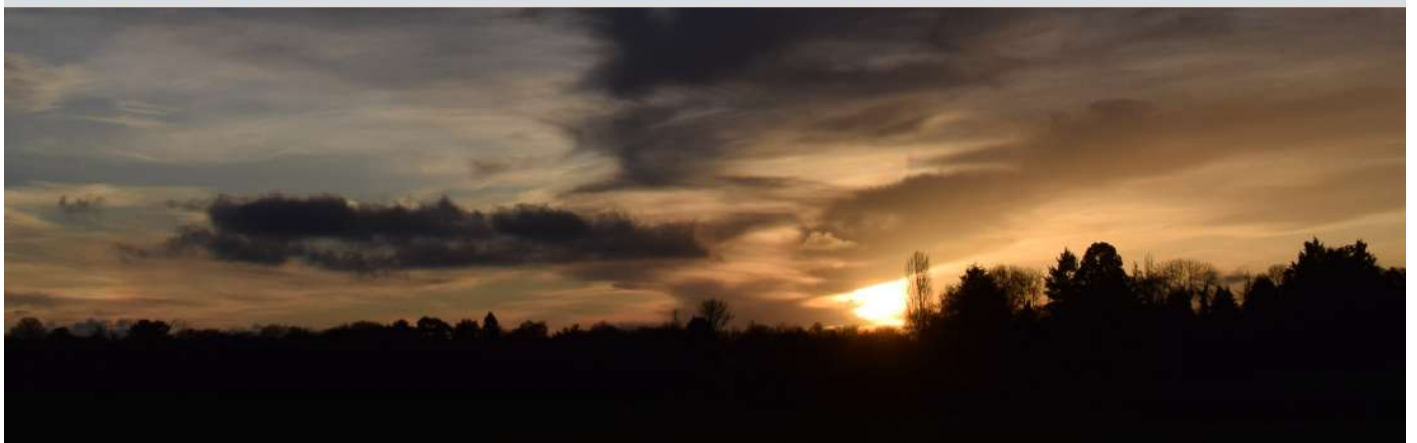
Above: The waxing crescent Moon (left) and the setting Sun (right) from the hill at Hartley Hill. Centre: Mars among the clouds as the day came to an end. Below: The day has ended and we see the Moon with Earthshine beside Saturn (upper) and Jupiter (lower). New Ash Green. Kent. Nov. 19, 2020.

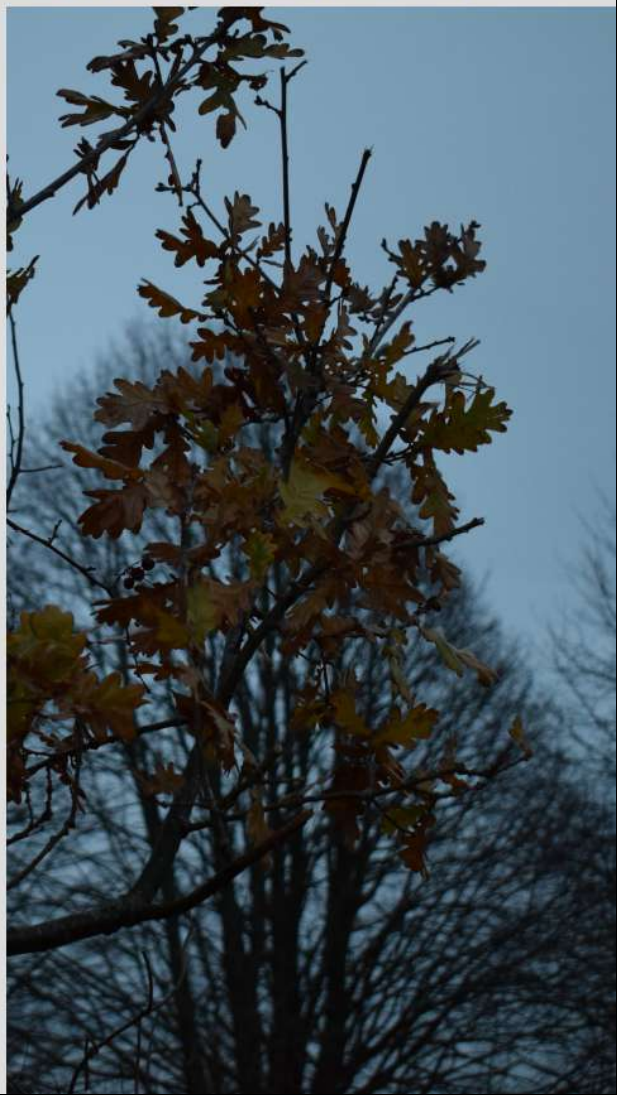




Above: The autumnal colours in a wood and hedgerow above the hill at Hartley. At right, the yellowing leaves of the beech. Nov. 13. Below: A fallen oak leaf after rain. Next pages: Oak leaves at top and centre, loosing autumn's leaves at woodland edge. Nov. 22. Lower, we see sunset, with a faint sun dog to the right. Ash, Kent. Final page: Woodland at hill, Hartley on Nov. 20 and with brown oak leaves on Nov. 30 at Ash, Kent.









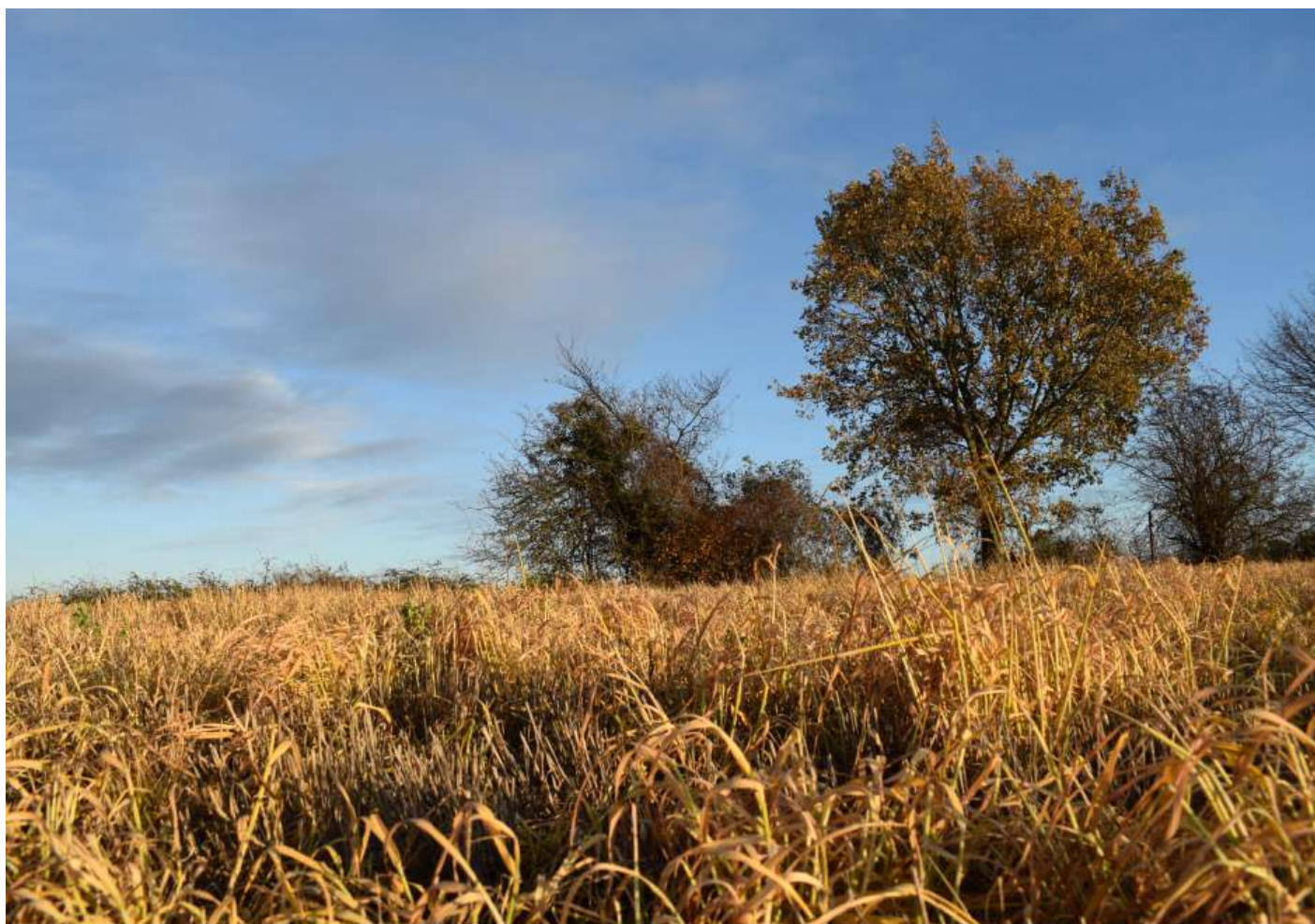
Left: Venus in the dawn sky. New Ash Green. Nov. 23.

Centre: Sun descending on Nov. 24, behind trees and hedgerows. Ash.

Below left: A corona (called an *aureole* if a complete ring) around the Moon. This is caused by diffraction of moonlight by small water droplets in cloud. Mars to the upper right of the Moon. Nov. 26. Hill at Hartley.

Below right: Full Moon of Nov. 30, 2020. New Ash Green, Kent.





Above: Across a field at the hill above Hartley, Kent. November 22, 2020.

Prime Meridian.

Published by the Ecospheres Project, a research and media collaboration. This newsletter looks outwards from the Prime Meridian.

We follow the cycle of the seasons in South East England alongside global environmental issues. At the same time, we step back to look at the Earth in its astronomical perspective and the search for other habitable worlds, which help us to understand the Earth in its larger context.

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Our thanks to everyone who has assisted our production of Prime Meridian and our other projects during 2020.