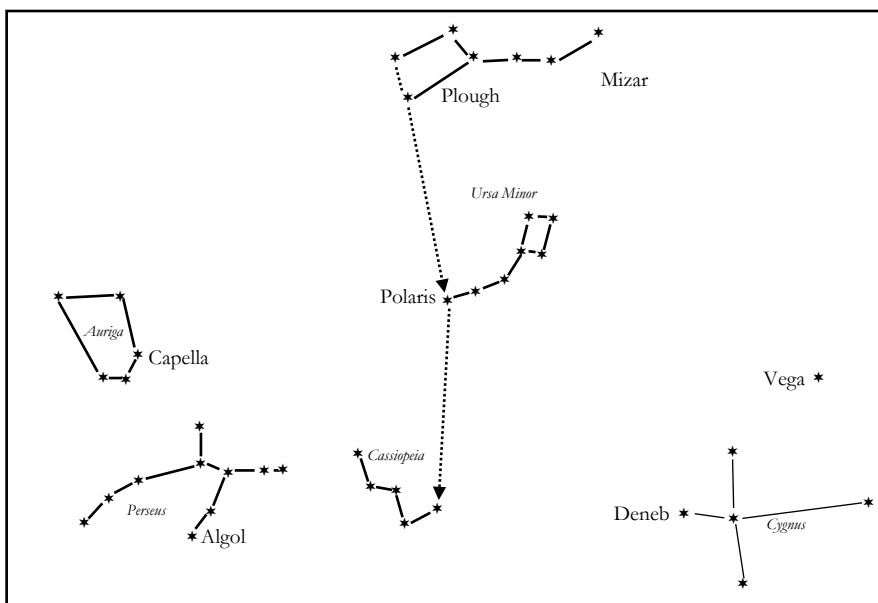


# Dark Sky in June 2024

The sky never gets dark enough to see the stars at their best this month. Mars and Saturn can be seen in the east before sunrise, but that is about it.

# Dark Sky in July 2024

Like June, the sky never gets dark enough to see the stars at their best this month. The morning sky is best with Saturn in Aquarius, Mars and Jupiter in Taurus. Saturn is close to the Moon on July 25. The Perseid meteor shower is active from July 25 to August 20.



With fewer stars in the sky, stargazing becomes less complicated and this is a good time to learn your way around the heavens. Then return in the autumn and winter to see the sky at its best.

Start by looking due north. All these stars are always visible in the night sky of Southern Scotland but as the Earth spins on its axis these stars circle around Polaris, the Pole Star, so you will have to rotate this diagram to match their position.

You can find Polaris by first seeking out The Plough. These seven stars are known as an asterism because they form an easily identifiable pattern but are not a constellation as such - in fact they are part of the constellation of The Great Bear (astronomers call it Ursa Major). The fainter stars of the rest of the constellation are not always seen in the summer. Two stars in the Plough are known as The Pointers because they point to Polaris (The Pole Star).

Follow the line from the Pointers, through Polaris and the easily recognisable shape of the 'W' of Cassiopeia can be found. The constellation is slightly larger than the 'W' asterism - but that is a technicality.

To the left of Cassiopeia can be found the constellation of Perseus. Algol, its brightest star, is not one but three stars. Every 2.86 days the fainter star passes directly in front of the brighter two, turning a bright magnitude 2.1 star into a dim magnitude 3.4 and the eclipse lasts for about ten hours.

In Auriga, the constellation of the Charioteer, its brightest star, Capella, never sets, but is highest in the sky during the winter.

To the right of Cassiopeia are the bright stars Deneb in Cygnus, and Vega in Lyra. These are two stars in the Summer Triangle.

Polaris is the brightest star in the constellation of the Little Bear (Ursa Minor), and it is like a smaller version of the Plough, but with the tail up instead of down, as in the case of the Great Bear. Polaris is not directly above the Earth's north pole but only  $0.66^\circ$  away. About a hundred years from now it will be at its closest to the pole at only  $0.45^\circ$ .

# Dark Sky in August 2024

All times are in British Summer Time (UTC+1)

		Duration of Dark Sky			
		Date	Time from	Time to	Date
<p>The Perseid Meteor shower is active between July 23 and August 20, with its maximum on August 12.</p> <p>Perseid Maximum</p>		1	00:29	01:55	1
		2	00:29	02:23	2
		3	00:29	02:23	3
	New Moon	4	00:00	02:23	4
		5	00:00	02:23	5
		6	00:00	02:52	6
		7	00:00	02:52	7
		8	23:32	02:52	9
		9	23:32	02:52	10
		10	23:32	02:52	11
		11	23:32	02:52	12
	First Quarter Moon	12	23:32	02:52	13
		13	23:32	03:21	14
		14	23:04	03:21	15
		15	23:04	03:21	16
		16	Moonlight all evening		
		17	00:00	03:21	17
		18	01:56	03:21	18
	Full Moon	19	Moonlight all night		20
		20	Moonlight all night		21
The Moon passes in front of Saturn starting at 04:27 and finishing at 05:13. Try and get some photographs just before the event when the Moon and Saturn will be in the same field of view.	21	Moonlight all night		22	
	22	Moonlight all night		23	
	23	Moonlight all night		24	
	24	Moonlight all night		25	
	25	22:34	23:02	25	
The Last Quarter Moon passes in front of the Pleiades Star Cluster. See the stars suddenly reappear from 04:14. A telescope will be required to observe the phenomenon. By about 5:15 the sky starts to get too light.	26	22:34	23:31	26	
	27	22:34	23:59	27	
	28	22:34	00:57	29	
	29	22:34	01:55	30	
	30	22:05	03:21	31	
	31	22:05	04:19	1	

# Dark Sky in September 2024

All times are in British Summer Time (UTC+1)

	Duration of Dark Sky			
	Date	Time from	Time to	Date
Mars and Jupiter in the constellation of Taurus before sunrise	1	22:05	04:19	2
	2	22:05	04:19	3
New Moon	3	22:05	04:19	4
	4	22:05	04:19	5
Mars moves into the constellation of Gemini and gets brighter as the month progresses	5	22:05	04:19	6
	6	22:05	04:19	7
	7	21:36	04:19	8
	8	21:36	04:19	9
	9	21:36	04:47	10
	10	21:36	04:47	11
Saturn at its closest to Earth in Aquarius. First Quarter Moon	11	21:36	04:47	12
	12	21:36	04:47	13
	13	23:03	04:47	14
	14	Moonlight all evening		
	15	00:58	04:47	15
	16	02:53	04:47	16
The Moon and Saturn are close in the sky on 16 <sup>th</sup> and 17 <sup>th</sup>	16	Moonlight all night		17
Full Moon	17	Moonlight all night		18
	18	Moonlight all night		19
	19	Moonlight all night		20
	20	Moonlight all night		21
	21	Moonlight all night		22
The Moon close to the Pleiades star cluster.	22	Moonlight all night		23
	23	21:08	22:04	23
The Moon, in its last quarter, is close to Jupiter before sunrise	24	21:08	23:02	24
	25	21:08	23:59	25
The Moon and Mars close to stars Castor and Pollux in Gemini	26	21:08	00:57	27
	27	20:39	02:23	28
	28	20:39	03:50	29
	29	20:39	04:47	30
Mars forms a triangle with Castor and Pollux	30	20:39	05:16	1