

# SKYMATTERS

Blackrock Castle Observatory [www.bco.ie](http://www.bco.ie)  
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**APRIL 2021**

## Things to watch out for

### April 12

The New Moon falls on this date this month. The Moon will be located on the same side of the Earth as the Sun and will not be visible in the night sky. This is the best time of the month to measure the levels of light pollution in your sky, as there will be no moonlight to interfere.

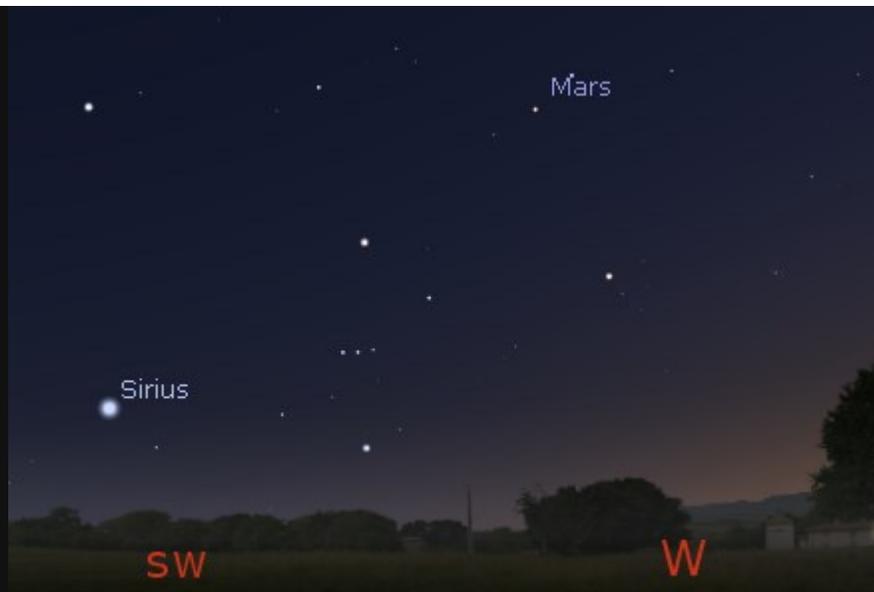
### April 22/23

The Lyrids Meteor Shower will peak this month on the night of the 22nd and early morning of the 23rd. The Lyrids is an average shower, usually producing about 20 meteors per hour at its peak. The shower runs every year from April 16-25. These meteors can sometimes produce bright dust trails that last for several seconds. The close-to-full Moon may block many of the fainter meteors on the night of peak activity. More meteors will be visible under dark skies without light pollution.

### April 27

The Full Moon will fall on this date and it will also be a Supermoon, the first of three in 2021. The Moon will be located on the opposite side of the Earth as the Sun and its face will be fully illuminated. The Moon will be near its closest approach to the Earth and may look slightly larger and brighter than usual, this effect is slight and best seen through photographs.

To the right, we see sunset on April 4th at 9:30pm. Mars will be visible at sunset all month, but only for a few hours. Here, it is visible high in the horns of Taurus, high above the red star Aldebaran. Orion is visible in the south-southwest, with the bright star Sirius above the southwest. The Pleiades are faintly visible above the sunset at the western edge of the image.



Below we see sunrise on April 27th at 5:00am. The full Moon is visible in the extreme southwest of the image, with Jupiter at the opposite edge past the southwest, along with Saturn above the south-east. Both planets will be visible all month. In the south-southwest, the constellation Scorpius is visible, while Sagittarius is visible just past south, between Scorpius and Saturn.





Top left we see the constellation of Leo the Lion, as it would appear from a city like Cork, with all the light pollution that entails, on April 12th, the night of the New Moon. Top right is the same constellation, on the same night, but without the light pollution, as if we were seeing it from the countryside. Leo will be reasonably high in the south-southeast at around 10 o'clock for most of this month. The bottom image shows the Milky Way stretching from south over the east at around half 4 in the morning. The Milky Way is only visible with this much clarity in Dark Skies.

## Dark Sky Week

The week of the 5th of April is International Dark Sky Week! It is a week dedicated to celebrating dark skies, and raising awareness about light pollution and how to fight it. Light pollution is a problem for astronomers all year round, not to mention animals and plants, and dark skies can give you a better view of the universe around us no matter the time of year. Dark Skies Ireland is a national group that works to raise the same awareness all year round. However, taking a week to really concentrate our efforts can help introduce other people to the damage light pollution can do, and the stunning improvement a darker sky can be.

For quite a while now, engaging in events the traditional way has been difficult, and of course people around Ireland, and the world, are doing their best to make their events remote. Luckily, Dark Skies Week is one of the easiest events to engage with, especially seeing as its emphasis is on raising awareness. All you really need to do is spread the word and, if possible, show off the beauty dark skies can bring. Or, if dark skies aren't available to you, show off how annoying light pollution can be! Of course, raising positive awareness may be better, or at least feel less like complaining, but light pollution is something we need to complain about, and not just in terms of astronomy. Besides blocking out our Milky Way, bright streetlights can interrupt our sleep, disturb animals, and even endanger drivers and pedestrians due to glare. If you can't avail of dark skies, or regularly have to squint against the glare of lighting just to look out your own window, you can help raise awareness simply by speaking out.

Preferably, if you do have a nice clear view of the sky, you can take a picture to share, giving people a chance to compare your view of the sky to theirs. If you live in an area that has received new streetlights, aimed to minimize light pollution, you could show everyone how that looks and the difference it makes. It's also a great opportunity to contribute to the Globe at Night citizen science campaign, by counting how many stars you can see in the constellation Leo, pictured above. Furthermore, keeping apart is no reason not to make it a group activity. If you have friends or family that live far away to visit, there is a good chance that they have a different level of light pollution to you. This is a great time of year to pick a clear night to go out and compare. You could even use the Globe at Night web app to calculate the level and see who really has the best view out of your friends and family.

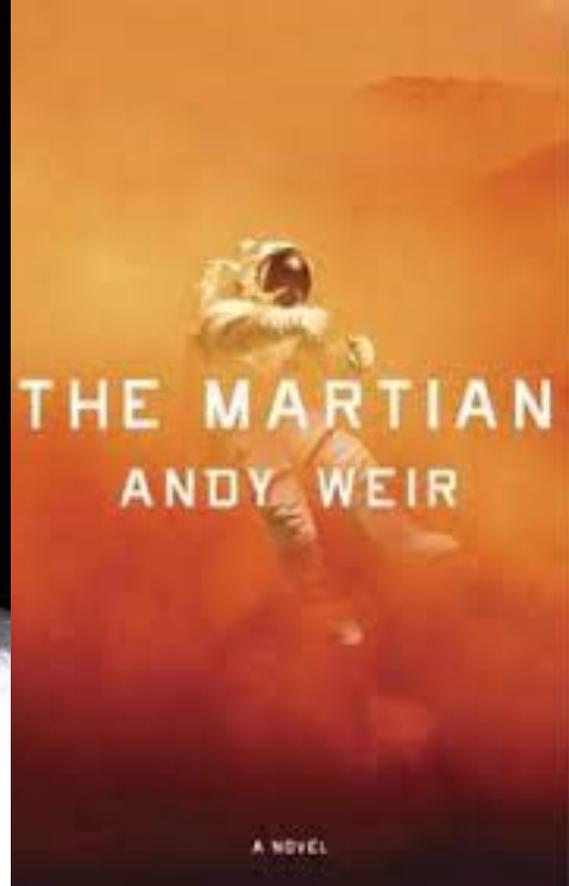
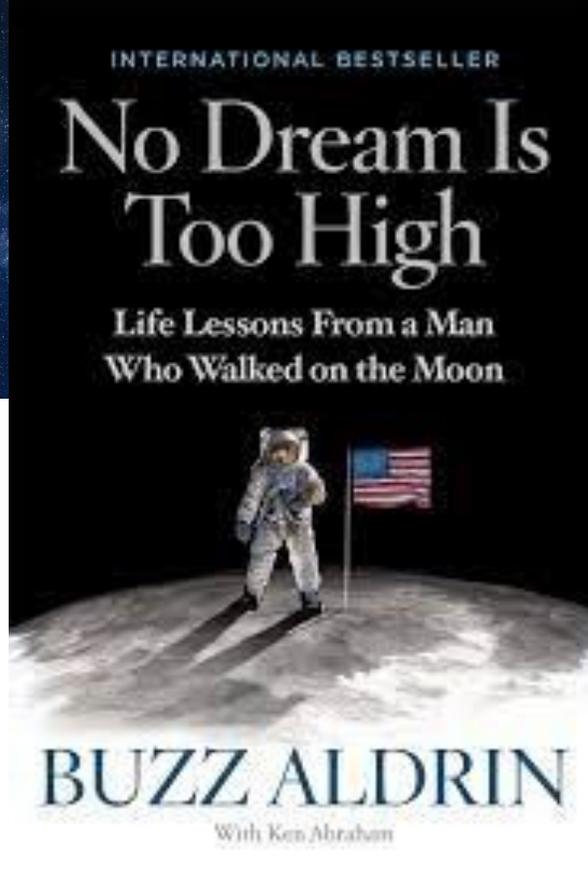
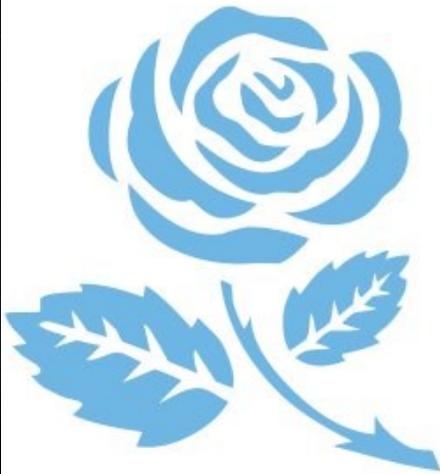
Lastly, stargazing is one of the easiest activities to do from your own home. Whether it's from a backyard, a balcony or just a window, all you need to do is wait for darkness, turn out the lights, and enjoy the view. If you haven't taken to chance to spend some time enjoying the free show provided by the stars and planets, not to mention the many satellites and meteors that grace our skies, now is possibly the best opportunity. It's also a great excuse to ask your friends and family to look out their own windows. Regardless of the distance, we are all under the same sky, even if we are looking at a different part of it. Even though we may not be able to physically get together and enjoy the stars, we can still share the views that we get with everyone around us, and hopefully introduce some people to the idea, and importance, of dark skies and light pollution.



## DISCOVER THE NIGHT

International Dark Sky Week 2021

April 5-12



Top right we have a banner for Dark Sky Week from the International Dark Sky Association, running from the 5th to the 12th of April. Bottom left we have the logo for the Irish Society for Autism, one of the many charities that supports the UN recognized Autism Day on April 2nd. The middle image is the cover of No Dream Is Too High by Buzz Aldrin, one of our recommended Space Reads, for Space Week and World Book Night, followed on the left by another of our Space Reads, The Martian by Andy Weir. World Book Night falls on April 23rd.

## Books on space and other April Events

As well as Dark Sky Week, April has many other international and national Days and Weeks dedicated to various subjects. Many are unofficial, though some are supported by international bodies such as the UN and UNESCO. Some of these events are aimed at raising awareness for various causes, such as World Autism Awareness/Acceptance Day on Friday the 2nd of April, while others are primarily celebrations, such as International Jazz day on Friday the 30th of April. Both of those days are promoted by international bodies, but many more are supported by charities and foundations more specific to the cause. For example, all of April is International Irritable Bowel Syndrome (IBS) Month, which is supported by the International Foundation for Gastrointestinal Disorders (IFFGD), as well as being Parkinson's Awareness Month, which is supported by the Parkinson's Foundation.

With so many groups organising days, it can be hard to keep track, further compounded by popular and well publicised national days in other countries, such as National Asparagus Day, on April 23rd in the UK, and National 404 Day on April 4th in the USA (this refers to the common 404 error and its relationship to censorship). Of course, some of these can be worth celebrating, such as National Chocolate Mousse Day and National Jellybean Day, both celebrated in the USA, or National Pet Month celebrated in the UK. Luckily, most of these celebrations have been able to continue unabated, while some have been cancelled or postponed, such as International Pillow Fight Day, which is normally celebrated by massive pillow fights on April 4th.

Some international weeks and day's can overlap or conflict with pre-existing national ones, such as World Book Day / World Book Night. Here in Ireland and the United Kingdom, World Book Day is a charity event celebrated in March. However, World Book and Copyright Day, also known as the International Day of the Book, is the UNESCO equivalent, and it falls on the 23rd of April. Enter World Book Night, celebrated in Ireland and the UK on April 23rd, after all, there doesn't seem to much reason not to double up on the amount of book related celebrations. Furthermore, International Children's Book Day is on the 2nd of April, sponsored in the USA by the International Board on Books for Young People (IBBY), giving us plenty of opportunities to read. Some national level celebrations simply run along with international ones, such as World Space Week (with many partners, such as the United Nations Office for Outer Space Affairs, or UNOOSA) mirrored by Irelands national Space Week, lead by Blackrock Castle Observatory, with partners such as the Science Foundation Ireland (SFI), both running in October.

Besides the enjoyment of reading a good book, whether it's a thriller or a romance, reading is also one of the best ways to learn, whether it's expanding your vocabulary with fiction or truly reading for reference. For this reason, most scientists and educators are big fans of reading. Here at BCO, we put together a list of Space Reads for our yearly Space Week, to encourage reading as well as fostering an interest in space. Of course, the books are just as relevant for World Book Day/Night this month. The full list is available on the Space Week website, the address is our website of the month at the back of this issue of Skymatters. The list includes both fiction (like "The Martian" by Andy Weir) and non-fiction (such as "No Dream Is Too High" by Buzz Aldrin), with books for all ages, from "Rosie Revere Engineer" by Andrea Beaty to "Black Holes: The Reith Lectures" by Stephen Hawking.

## Tips for Sharing Dark Skies

Participating in any events remains hard for most of us, but luckily Dark Sky Week is particularly easy. All you need to do is grab some snaps of the sky and share them, in whatever way is easiest for you. To help ensure that we reach people who haven't been exposed to the ideas of light pollution before, social media is an especially good choice.

First, decide what kind of image you are going to take. Do you have access to a beautiful dark sky, or is the annoying glare of streetlights an easier target for you? Remember that Dark Sky Week is both about the beauty of dark skies and the damage light pollution can cause.

Secondly, use the area around you. Are there floodlights or other major sources of light pollution nearby? You can compare the view from near them to your view from further back. If you live near the edge of a city or town, light pollution may drop dramatically only a short distance from your house. Dark Skies may not be as far away as you think.

Thirdly, exploit social media, don't just use it. Many social platforms (such as Instagram and Twitter) have background algorithms, dealing with what hashtags are popular and which ones need to be promoted. It can be hard to get something trending on your own, but for Dark Sky Week there will be people all over the world sharing images on the same topics and with the same tags. This can help "trick" the algorithms involved into pushing that topic even more.

Lastly, you can always share your images with our social media platforms here at BCO, and we'll share them with our connections, who will hopefully do the same. Together, we can ensure that every one hears about Dark Sky Week somehow.

## Website of the month

<http://www.spaceweek.ie/for-organisers/space-reads/>

Here you can find the full list of recommended Space Reads, as compiled by the team at BCO.

<https://idsw.darksky.org/>

At this address you can find details on how to take part in International Dark Sky Week.

## Quote of the month

**"A reader lives a thousand lives before he dies... The man who never reads lives only one."**

**George R. R. Martin, A Dance with Dragons: A Song of Ice and Fire: Book Five (2011)**

## Some Upcoming Events at MTU Blackrock Castle Observatory

Here at BCO, we are one of many event organisers running our events remotely for Dark Sky Week this year. We will be broadcasting a discussion panel on light pollution and the many varied ways it can affect us, and this will go out live on our website at 7 pm on Friday the 9th of April, further details are available on our website at [www.bco.ie/events/light-pollution/](http://www.bco.ie/events/light-pollution/)

The panel will include Astrophotographers, like our own Cian O'Regan, as well as Astrophysicists, such as Dr. Niall Smith, founder of Blackrock Castle Observatory. Far from just blocking out stars, light pollution can have deleterious effects on our physical and mental wellbeing, as well as our safety and the environment around us. Tune in to learn more.

**Public Opening Hours are subject to change due to COVID-19 mitigation measures.**

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**Blackrock Castle Observatory is operated by Munster Technological University and is a partnership with Cork City Council.**