LOFOTEN LIGHTS

SHORT GUIDE TO THE NORTHERN LIGHTS

Magic, Lights, Emotions. Lofoten... for you.

This small guide is meant
to help you to understand
one of the most magnificent
and fascinating show of the planet!

...ENJOY THE READING!

by Lofoten Lights Staff

WHAT ARE THE NORTHERN LIGHTS?

On a very basic level, the phenomenon itself is quite simple to explain. The aurora is actually the result of a collision among electrically charged particles from the sun (know by scientists as a coronal mass ejection) which enter the atmosphere.
The lights, which are also called 'aurora borealis', show up at night when the sky is dark and clear. If the solar activity is strong, also a partially cloudy sky is enough to have the chance to observe the northern lights dancing.

You should also avoid the period with full moon as its brightness could make it difficult to observe them with naked eyes. Usually, the northern lights can see any time during the day. However, statistically speaking, the occur between 10 pm and 2 pm the most.
The northern lights are an atmospheric phenomenon which takes place when energized particles from the sun called solar wind hit our atmosphere.

Fortunately thanks to Earth's magnetic field, we're protected from the impact down here on the surface. The particles travel along the magnetic field towards the poles of the planet, where an energy exchange produces the colourful lights in the sky. The northern lights occur both in the northern and the southern hemisphere and they are called respectively Aurora Borealis and Aurora Australis, Northern Lights and Southern Lights.

WHICH PERIOD CAN BE CONSIDERED THE LUCKIEST?

Solar activity usually reaches the peak around the fall and spring equinoxes (September and March, respectively), but you can always see the northern lights throughout the winter any time from September to the middle of April, when the sky starts to be too bright and the nights slowly disappear.

WHILE PLANNING YOUR AURORA TRIP, DO NOT FORGET THAT IN SUMMER THE NORTHERN LIGHTS CANNOT BE SEEN IN THE ARCTIC REGIONS AS WE ARE DELIGHTED BY THE MIDNIGHT SUN WHEN THE SUN NEVER SETS AND IT SHINES 24 HOURS A DAY.

WHAT ABOUT THE COLOURS?

- Why do the northern lights have different colours?
- What does make them different?

The color depends on which gas the solar particles collide with. During the auroral displays that can be observed with naked eyes, oxygen emits a greenish-yellow color, while nitrogen gives to the northern lights a purple color.

There are several reasons why the northern lights can have different colours and shades. The explanation easy: they are related to what molecules, atoms, ions combine in the atmosphere. According to the distance, we can also have different colours which are directly related to it.

When blue and purple,
the northern lights are closer
than 95 km from us ;
green lights from 95 to 241 km away
from us while red light is more than 241 km away
The Northern Lights come not only
in many colours, but also in many different shapes.
They different shapes are partly
caused by the position of the aurora
in relation to the magnetic zenith.

MYTHOLOGY

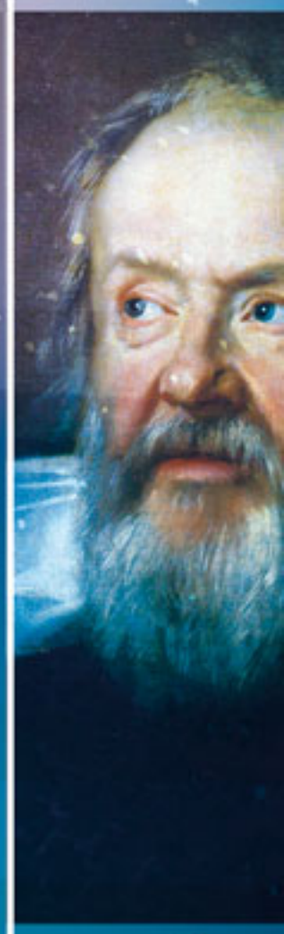
- What about the aurora in the past?
- What about when the science didn't have the instruments to explain this phenomenon?
- What did the ancient population believe?

The Northern Lights have been the connected to myths and mysteries ever since people started inhabiting the North. We know that already 30.000 indigenous witnessed this amazing phenomenon when cave drawings were found.

Did you know that In the early 17th century, the astronomer and scientist Galileo Galilei named this phenomenon Aurora Borealis?

Aurora was the Roman goddess of dawn, and Boreas was the Greek name for the north wind. Galilei thought that an aurora was caused by the sunlight reflected from the atmosphere.

In ancient times, and especially in the northern hemisphere where the aurora occurred more frequently, the aurora borealis got a specific meaning.



NORWEGIAN mythology

The Vikings believed the Northern Lights illuminating the sky were the reflections of the Valkyries armour as they led the warriors to Odin. In some legends, they claim the Aurora was the breath of brave soldiers who died in combat.

FINNISH mythology

Finnish indicates the northern lights as a fox fire. The Finnish word for the Northern Lights is 'revontulet'. This word literally means "fox fire". The story goes that as the revered fox would run through the snow, he'd sweep his tail back and forth and the sparks created by this would rise into the sky.

SWEDISH mythology

Swedish did believe Swedish fishermen often checked very attentively the sky and looked for the Northern Lights before going fishing. They saw the light dancing across the sky as a reflection of massive shoals of fish. It was a clear sign of a very productive fishing.

GREENLANDIC mythology

In Greenland, people believed that the lights were the spirits of children, who had died in childbirth, dancing across the sky.

ICELANDIC mythology

In Icelandic folklore, they believed the Northern Lights helped to ease the pain of childbirth, but pregnant women were not to look directly at them or their child would be born cross-eyed.

CAN YOU HEAR THE AURORA?

Indigenous truly believed its arrival was accompanied by soft rustling noises. Until recent times, scientists couldn't explain them as we know it is located in the Earth's upper atmoosphere where the air is too thin to carry sound waves. Recent studies indicate that a sort of disturbance can be heard when the aurora is closer to the ground.

"I want to see the northern lights
and i want to visit the
marvellous arctic Lofoten island."

...IS IT POSSIBLE TO SEE IT IN LOFOTEN?

...of course!

Lofoten is one of the best place to see the lights because the Lofoten Islands are located in the arctic circle at 67 and 68 degrees north. This is also within what is known as the 'aurora oval'- the latitude(s) around the earth where to have visible northern lights is more frequent.

The measuring of intensity of the northern lights is done using a scale called the KP index.

67 - 68° NORD

Do not forget that, despite the KP index, if you want to see the lights, you have to:

- CHECK THE AURORA ACTIVITY.
- HAVE A CLEAR OR PARTIALLY CLEAR SKY
- STAY AWAY FORM LIGHT POLLUTION
- AVOID THE FULL MOON (ALTHOUGH AMAZING NORTHERN LIGHTS HAVE BEEN OBSERVED WHILE FULL MOON AS WELL).
- BE PATIENCE. THE NORTHERN LIGHTS ARE NOT A SHOW, A MOVIE, THEY DON'T APPEAR IF YOU WANT; THEY ARE A NATURAL PHENOMENON WHICH FOLLOWS ITS RULES. PATIENCE, LOVE, DEDICATION, PASSION WILL HELP YOU TO FULFIL YOUR DREAM.

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IT'S SO COLD OUT THERE. WHAT DO WE HAVE TO WEAR?

We are above the Polar Circle and despite the Gulf Stream, in winter the temperatures can sink significantly, do not forget the arctic wind blowing!
Dress properly and you won't feel cold.

Norwegians say:

"det finnes ikke dårlig vær, bare dårlige klær»

which means
« if you wear properly, you won't be cold".

By the way...use:

1. Warm shoes
2. Thermal socks
3. Thermal shirts
4. A good fleece
5. A good winter jacket, possibly waterproof
6. Do not forget a warm hat and 2 pairs of warm gloves you will use while not making stunning Northern Lights pictures
7. Bring snacks (lots of snacks) and hot drinks! They can be useful during a possible long waiting !

Never give up aurora chasers :)

"I would like to photograph the northern lights"

COULD YOU GIVE ME SOME TIPS?

...of course!

1. Don't forget a stable tripod to be used while shooting.
2. Set your camera focus on infinity.
3. Set you camera on manual mode and set the aperture as wide as possible. So at 2,8 if you have a f2,8 lens or f4 if you have a 4 lens.
4. Care the exposure time.
5. The exposure time depends on how slow the aurora dances that night.
6. 12/20 seconds are perfect when it moves slowly. If it's more dynamic, I'd suggest 8/10 seconds. Sometimes also 2 seconds are enough. Good luck!
7. To set the right ISO is also important. And again its setting depends on the aurora power. When the aurora is bright, 800 ISO are enough to get a good capture.
8. Otherwise from 1600 to 3200 when it is darker.
9. If you are not a professional photographer yet, it is possible you won't shoot in RAW, So to get good pictures, yoi need to set the function: white balance.

GOOD LUCK AND DO NOT FORGET THAT EVERYBODY CAN LEARN, ESPECIALLY IF YOU HAVE PASSION AND ARE WILLING TO CAPTURE THE UNIQUENESS OF ONE OF THE MOST AMAZING SHOW ON THE PLANET.

We hope this brief and easy
guide was helpful.
We did it by hearth for you all.

an unforgettable experience

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