

Candidate name: JIRI CIZEK

Date of birth: 26 Jan 1999

School name: Gymnazium

Address: Ceska 64

City: Ceské Budejovice

State: Czech Republic

Zip: 370 01

Presentations: Catch a Star

Teacher name: Mgr. Zuzana Syslova

What is worse light pollution or dark sky?

Light pollution means quite a serious problem these days not only for astronomers because it complicates astronomical observation.

Excessive lighting disturbs biorhythm of human being but also biorhythm of animals which causes all sorts of illnesses. Light pollution has an influence on observational conditions. Dark and light changing has been a base for life from everlasting.

We determine so called limiting magnitude for quality review. This means in fact to determine the weakest magnitude I am able to see with my eyes.

I have performed observations in a city and in Sumava mountains. These were not difficult observations. Still I was really surprised with this research. While there was hardly nothing to observe in city because there was not much of sky to see. I only saw hundreds of stars around.

I also wanted to find the opposite – sky full of stars. And I managed. In National Park Sumava not far from Luzny mountain in Breznik near Modrava village.

I was really surprised with this research. I was looking for a place without disturbing lights and I found it. There is real deep darkness > 7.5 mag. It actually gives the impression that this is the only place in Czech Republic where we have this supernatural energy straight from the universe. To be able to watch thousands of stars is always fantastic. I intentionally don't send any photographs because to see this with your own eyes is an experience till the end of time.

I visit this place quiet often, when I have weekend off or during my holiday. There is „No entry“ during winter. I am looking forward to come back again. Looking up to the stars fills me up with unbelievable energy. I hear people around me saying there is no real sky full

of stars anymore but that is not a truth. When you follow your dreams and don't give up you will find what you were looking for. I have found it and want to share it with you.

Hopefully the scientists will also find it along with satellite pictures and careful examination will penetrate the deep of space.

We now have three national parks of dark sky in the Czech Republic. First of these since 2009. It is the Izera Dark Sky Park. Next one was Beskydská Dark Sky Park in 2013 followed by Manetin Dark Sky Park one year later. Their target is evident. It is to protect darkness. And so Czech Republic is becoming important state that is active about light pollution problem. Sky full of stars is a great natural wealth for all of us. But not everything has been explored in space so far. Raw mineral will be the most important research.

I only wanted to write about light pollution at first but it is better to praise and show people that the untouched nature still exists. People should think about themselves. It is another challenge for astronomers to explore what has not been discovered yet. When we tell and show people how beautiful nature is they will realise and will behave differently. We will save sky full of stars!

I would like to thank Czech Space Office Milan Halousek and Pavel Suchan both from Czech Astronomical Society, for their finding of new and talents interested in astronautics and natural science and for working with them. They are enthusiastic and make true work with young people.

Jiri Cizek