

# Case Study

# Dark Night Skies - the importance of combating light pollution

## Background

For three billion years, life on Earth existed in a rhythm of light and dark that was created solely by the illumination of the sun, moon and stars. Now, artificial lights overpower the darkness and our cities glow at night, disrupting the natural day-night pattern and shifting the delicate balance of our environment.

Most of us are familiar with air, water, and land pollution, but did you know that light can also be a pollutant? Light pollution is 'the inappropriate or excessive use of artificial light.' Components of light pollution include:

- **glare** – excessive brightness that causes visual discomfort
- **skyglow** – brightening of the night sky over inhabited areas
- **light trespass** – light falling where it is not intended or needed
- **clutter** – bright, confusing and excessive groupings of light sources.

A growing body of evidence links the brightening night sky directly to measurable negative impacts including; increasing energy consumption; disrupting the ecosystem and wildlife; and harming human health.

The good news is that light pollution is reversible and each one of us can make a difference!

Source <http://www.darksky.org/>



In May 2016 the South Downs National Park became the world's newest International Dark Sky Reserve (IDSR); 'We think our star-studded skies overhead are as valuable as our beautiful rolling landscapes and, with properly dark skies in the South East of England under threat, this is a statement that the skies of the South Downs are worth protecting.'

<https://www.southdowns.gov.uk/enjoy/dark-night-skies/>

In 2017, to celebrate the successful designation the South Downs National Park Authority (SDNPA) organised a Dark Skies Festival. Over a two week period that spanned the February half term holidays of West Sussex, East Sussex and Hampshire, 21 events were planned across the SDNP, working closely with 18 different partners.

The aims of the festival were to celebrate the designation, engage with people on the issue of dark skies, provide astronomical instruction, and to support stargazing tourism. The flagship event was held in Midhurst Rother College. Similar to BBC 'Star Gazing Live', the event provided weather proof activities, such as the Dark Night Skies Jigsaw, talks by Sussex Wildlife Trust and the South Downs Planetarium, a village of partner stands, and a 'star' party hosted by the SD Planetarium and Hampshire Astronomical Group.

The festival ran in tandem with the Tim Peake Exhibition at the Novium Museum, Chichester which won the title of best Temporary or Touring Exhibition 2017 at the Museum and Heritage Awards for Excellence.

The festival was generously sponsored by the Tesco Bags of Help Fund.

---

“Many species (including humans) need darkness to survive and thrive.”

American Medical Association Council on Science and Public Health (2012)

---

### The outcome

Although the weather played its part and caused the cancellation of some events and smaller star parties, over 3,000 people were directly engaged through the festival.

Thankfully, the weather was sufficiently clear for the ~300 people that attended the main event at Midhurst Rother College. Participants were able to view many astronomical objects, such as planets, nebulae, and galaxies through some of the many telescopes available, including the SDNPA’s own large 14” Dobsonian – “the telescope of Whoa!”

The festival received excellent media coverage, with pieces in Countryfile, The Telegraph, Radio Sussex, and AUDI magazine.

19 organisations worked collaboratively to deliver a comprehensive programme of events, achieving far more than they could working alone.

The festival was an ideal vehicle for the SDNPA’s public engagement programme drawing attention to the problems associated with light pollution and promoting simple solutions to mitigate it, including a few tips on how you can encourage more night-time wildlife into your garden;

- ✓ Turn off lights when not needed
- ✓ Buy lamps under 500 lumens
- ✓ Plant polar flowers to attract night-time insects
- ✓ Install a bat box

**The South Downs National Park Partnership Management Plan (PMP) 2014–19** sets out a shared vision for how we all would like the National Park to be in the future. It includes 11 long-term outcomes, and provides a framework for communities, landowners, charities, businesses and public bodies to work together to make this vision and these outcomes a reality.

Outcome 1: Policy 3: Protect and enhance tranquility and dark night skies.

[southdowns.gov.uk/wp-content/uploads/2015/01/SDNP-Partnership-Management-Plan-2014-19.pdf](https://www.southdowns.gov.uk/wp-content/uploads/2015/01/SDNP-Partnership-Management-Plan-2014-19.pdf)

### The future

Due to the success of the event and the warm reception to the dark skies initiative as a whole, it is likely that the festival will continue to run in subsequent years.

The festival format provides a vibrant source of engagement and supports the SDNPA in meeting its responsibilities to maintain the Dark Skies Reserve.

Moreover, the festival provides a focus for the many astronomical societies and other partners who contributed to the DNS reserve to promote and engage with the public.

Learning from the event this year and the inclement British weather it is likely that the future format of the festival will focus on a weather-proof main event rather than providing local star parties that can still be provided by local astronomical societies supported by the SDNPA.

For further information:  
South Downs National  
Park Authority: 01730 814810

<https://www.southdowns.gov.uk/enjoy/dark-night-skies/>

January 2018