

News

No more stars in your eyes?

12 March 2007

Fewer and fewer people are able to see the natural wonder of a star filled night sky. This is the conclusion of a survey run by the Campaign to Protect Rural England (CPRE) [1] and the British Astronomical Association's Campaign for Dark Skies (CfDS). [2]

CPRE and CfDS asked people to count the number of stars they could see within the constellation of Orion – one of the most easily identified in the night sky – then tell us the number, along with the location of their observation. [3] In a truly dark sky about 50 stars might be visible to the naked eye within this constellation.

NOTE FOR EDITORS

The CPRE and CfDS *Star Count Map*, images of Orion showing the view with and without light pollution, an analysis of postal responses from the public plus this news release are available at: www.cpre.org.uk/news/media-centre.

The results confirmed that light pollution, caused by badly-designed, inefficient outdoor lighting [4], is blotting out the stars across much of the country and for most of the population.

People have been robbed of one of nature's most everyday yet awesome views – a star-filled night sky.

Nearly 2,000 people took part in the star count. Only 2% of people who responded to our online survey said they could see more than 30 stars, compared to 54% who saw fewer than 10 stars in Orion – a level which indicates severe light pollution.

Not surprisingly, the fewest stars tended to be seen in the more built up, developed areas where there is most outdoor lighting – as our map reveals.

Many people in rural areas were surprised at how few stars they actually saw, given that someone with good eyesight somewhere free of light pollution should see about 50 stars within Orion on a moonless, clear night. Light pollution can spread deep into the countryside from towns and cities. The two main causes of this pollution were poorly directed security floodlighting and sky glow from distant towns, mostly caused by street lighting.

An observer from Birmingham told us: 'I grew up in East Africa with a firmament of stars over my head – they were the roof to my world. Once a year I go to rural Wales, wait for a clear night, and then lie looking up at the stars. I don't go in until I have seen a shooting star. It's as if I have to put the roof back onto my world.' [5]

Several people mourned the loss of views of the Milky Way – our own galaxy. Most people in Britain can no longer see it in the skies around their home, due to light pollution. [6]

Number of stars counted within the constellation of Orion						
0-5	6-10	11-15	16-20	21-25	26-30	31-40
258 (14%)	729 (40%)	441 (24%)	215 (12%)	105 (6%)	47 (2%)	34 (2%)

CPRE and the Campaign for Dark Skies hope to repeat the star count in future years. We want to build up a picture of the light pollution people experience across the country and monitor change, supplementing the mapping work both organisations have carried out. [7]

Emma Marrington, CPRE dark skies campaigner said: ‘We’re very grateful to the people who took part in our star count. This evidence is a great way to show Government how badly we need the long awaited planning policy on controlling light pollution, which would help stop it spreading ever wider.’ [8]

Bob Mizon, UK co-ordinator of the Campaign for Dark Skies, said: ‘In an era when energy considerations loom ever larger, it makes a lot of sense to direct lights carefully and use sensible wattages, not just to reclaim our view of the stars but also to cut pollution and help ensure our energy stocks for the future.’

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NOTES FOR EDITORS

1. CPRE, the Campaign to Protect Rural England, is a charity which promotes the beauty, tranquillity and diversity of rural England. We advocate positive solutions for the long-term future of the countryside. Founded in 1926, we have 60,000 supporters and a branch in every county. President: Sir Max Hastings. Patron: Her Majesty The Queen.

2. The British Astronomical Association is Britain’s largest astronomical organisation, with thousands of members nation-wide. Its Campaign for Dark Skies was founded in 1989, and aims to ensure quality lighting in the UK: a well-lit environment below, and a view of the starry sky above, are not incompatible.

3. Our online survey ran during the nights of 20 December to 24 December 2006 and 14 January and 21 January this year, both periods when the moon was not visible in the evening sky which allowed an opportunity to see the maximum number of stars. We asked people to count the number they could see within the roughly rectangular shape described by four very bright stars surrounding Orion. Full details were given on the British Astronomical Association’s website.

4. Light pollution is the popular name for sky glow – a brightening of the night sky caused by artificial light being scattered by small particles in the air such as water droplets and dust. Light pollution also includes light intruding into our homes, such as a bright street light outside a bedroom window. The major sources of artificial light include street lighting, security lamps, advertising and display lighting, floodlights for sporting events and building illumination. Poorly fitted lights allow light to shine upwards, which causes sky glow. Some artificial light is also reflected upwards from roads, pavements and buildings.

5. A short article summarising the postal (as opposed to online) response to our survey can be found in CPRE's media section of the website. This quotation is taken from a response mailed in with a star count.

6. Scientists estimate more than half the UK population cannot see the Milky Way, which appears as a band of cloudy light crossing the entire night sky, near their homes because electric light is blotting it out. See *The First World Atlas of the Artificial Night Sky Brightness, published in the Monthly Notices of the Royal Astronomical Society* in 2001.

7. CPRE published UK maps of light pollution based on data collected by US military weather satellites in 2003. These showed a dramatic growth in the extent of polluted areas between 1993 and 2000. The BAA's Campaign for Dark Skies has recently collaborated in the production of Philip's Dark Skies Map of the UK.

8. Both CPRE's and the Campaign for Dark Skies' websites set out what we want local and national Government, business and the public to do in order to tackle spreading light pollution. The Government said it would produce guidance on light pollution and planning in its December 2003 response to a report on light pollution by the House of Commons Select Committee on Science and Technology published earlier that year. We are still waiting for it.

CPRE, 128 Southwark Street, London, SE1 0SW

Tel: +44 (0)20 7981 2800

Fax: +44 (0)20 7981 2899

Email: info@cpre.org.uk

Web: www.cpre.org.uk

The Campaign to Protect Rural England exists to promote the beauty, tranquillity and diversity of rural England by encouraging the sustainable use of land and other natural resources in town and country.

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