

IDA - Annual Report 2018

Snowdonia National Park Authority

Introduction and General Overview

Snowdonia National Park is the second area in Wales to be designated as an International Dark Sky Reserve by the International Dark Sky Association (IDA). This is a highly prestigious award, given only to places with outstanding Dark Sky Quality and ones which make real efforts to preserve them. The Snowdonia National Park Authority (SNPA) staff along with various partners worked hard to build public support for the idea of protecting Snowdonia's night skies, and since its designation as an International Dark Sky Reserve back in December 2015, have subsequently made great strides in educating locals about the fragile state of dark skies in the Park and its value both as a natural resource and a tourism draw.

The whole reserve extends over more than 2,100 square kilometres, equating to around 10% of the total land area of Wales. Together with the Elan Valley Dark Sky Park, the Brecon Beacons Dark Sky Reserve, and a string of Discovery Sites along the Pembrokeshire Coast Wales has around 17% of its land committed to taking action towards the preservation of its night skies. The designation as an IDSR is not only an opportunity to protect the environment and enhance biodiversity but also an opportunity to advance further by highlighting features which link the stars to our history and our culture here in Wales.

2019 sees a dedicated Dark Sky Officer joining the National Park team who will be responsible for driving forward new dark sky initiatives and activities alongside supporting local AONB's who are striving to achieve Dark Sky Community Status. The SNPA and AONB's (Anglesey, Llŷn Peninsula and Clywydian Hills and Dee Valley) have joined forces to create a Dark Skies Partnership who will work to conserve dark skies right across North Wales.

This report provides a brief summary of our shared efforts and achievements, in compliance with the IDA guidelines for IDSR, over the past year. If you have any enquiries, wish to share any thoughts or ideas, or want to get involved in any way, please get in touch using the contact details listed below:

Contact details

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Lighting Developments



Gwynedd Council Opts for Dark Sky Friendly Lighting

Gwynedd Council and the North and Mid Wales Trunk Road Agency have been installing Led Lantern schemes in the Rural areas in Conwy from Llanrwst along the A470 to Dolwyddelan and A5 to the border with Gwynedd to Capel Curig and Maerdy this includes the towns and villages of Snowdonia National Park.

The LED lanterns are manufactured by TRT Lighting and provide a horizontal lighting cut off they are dimmed to 50% between 12.00 and 5am and have the following advantages:-

- Less upward light from LED to give darker skies
- Lighting Levels have been assessed at different locations to reduce lighting pollution further and are controlled bespoke to accommodate the community needs.
- Energy consumption for 2018 has produced Carbon reduction of 29 % and Electricity savings of 11%.
- It has been proven that dimmed lighting provides a better security and safer roads.

If part night was an option, it was taken. Not all the lights could be part night, as the junctions would have to remain lit for public safety. The next phase of the project starts on April 1st 2019 and will incorporate the villages and towns of Eglwysbach, Glan Conwy, Trefriw, Dolgarrog, Tal y Bont, Llanbedr y Cennin, Tyn Y Groes, Henryd and Rowen. The project is due to end March 31st 2020 with the potential to apply for more Salix funding if deemed necessary.

National Park Authority Publishes Supplementary Planning Guidance on Obtrusive Lighting

This document is one of a series of Supplementary Planning Guidance Notes (SPGs) which provides further detailed information in support of the policies contained in the Eryri Local Development Plan (ELDP). The purpose of the Supplementary Planning Guidance on Obtrusive Lighting is:

- To provide detailed Guidance about the manner in which the National Park Planning Authority will deal with those planning applications in which the developments proposed require exterior lighting which may have a harmful effect on the night-time character and wildlife of the National Park.
- To encourage developers, architects, lighting designers and ecological consultants to provide non-obtrusive lighting designs when preparing proposals for any development which incorporates an element artificial lighting outdoors. Consideration should also be given to possible obtrusive lighting from interior lights.
- To provide Guidance to assist officers and members in determining planning applications
- You can find the guidance [here](#);



The revision of Eryri Local Development Plan acknowledges the designation of the Dark Sky Reserve. Also, a reference to the Reserve will be made in Development Policy 2: Landscape, to ensure that any exterior lighting required in a new development will not be obtrusive and cause light pollution nuisance to neighbours, harm to biodiversity and landscape interests. It will also seek to protect those areas of Snowdonia with the darkest skies. The policy will be presented and hopefully adopted by the Parks Authority Committee on February 6th 2019.

Sky Quality Monitoring

Sky Quality Meter Readings

One of our efforts to support the preservation of the night sky is regular monitoring of the quality of the night-time sky. Using hand-held Unihedron Sky Quality Meters (SQM) we record measurements of the relative brightness of the night-time sky at various locations across the DSR, we then input this data into a spreadsheet allowing us to monitor for any changes. To date, we have identified and monitored 70 sites across the Dark Sky Reserve with an additional 10 being added in 2019 to include the AONB areas. We have created a QGIS layer with the data so far making an easy-to-use map highlighting the darkest and best spots for stargazing. This map will be updated year on year as we gather new readings.



Steering the Way Forward

Dark Sky Steering Group

Following the designation as an IDSR, there has subsequently been a formation of a Dark Sky Partnership. The Partnership is made up of individuals who represent organisations, charities, businesses or authorities across the board who meet to share ideas, thoughts, developments and opportunities relating to dark skies within their sector. This steering group will now be chaired by the Dark Sky Officer. SNPA also attended the European Dark Sky Places Conference which saw members from all over the globe gather to share good practise and ideas.

Community and Media Relations

Social Media

Twenty-five posts involving the Dark Sky Reserve designation were posted on the Snowdonia National Park Authority's Facebook page between February 2017 and December 2018. These post together generated a reach of 60,723, and 3,402 of clicks/actions.

The short film promoting opportunities to enjoy the night sky in the National Parks of Wales has been uploaded onto YouTube and has received a total of 119 views (English - 98, Welsh – 21). These numbers are likely to increase significantly with the appointment of the Dark Sky Officer and having the resources in place to promote the video.

Discovery in the Dark Wales - <https://www.youtube.com/watch?v=vedqg7nqHtg>

Profi Tywyllwch Cymu - <https://www.youtube.com/watch?v=glsruhQAQfcQ>

Dedicated Dark Skies social media pages will be set up this coming year with the aim of raising the profile of Dark Sky conservation and to promote events throughout the SNP and the surrounding AONB's.

Press

The Snowdonia Solar System Trail was widely publicised and received a lot of attention in local media, appearing in local newspapers and the launch was filmed live for Welsh language TV show, Heno. It was incredibly well received locally and has garnered praise from the local community and businesses alike.

<https://www.northwaleschronicle.co.uk/news/17243464.the-sun-will-never-set-in-blaenau-ffestiniog/>

<https://www.bbc.co.uk/cymrufyw/46376886>

<https://gostargazing.co.uk/events/snowdonia-solar-system-trail-launch-event/>



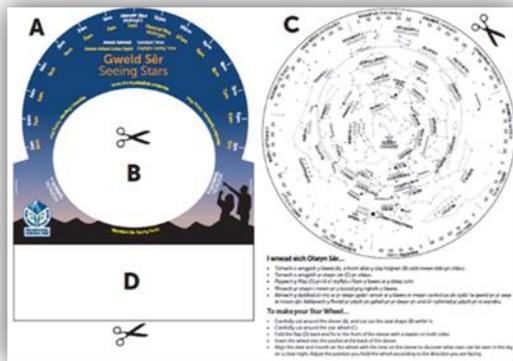
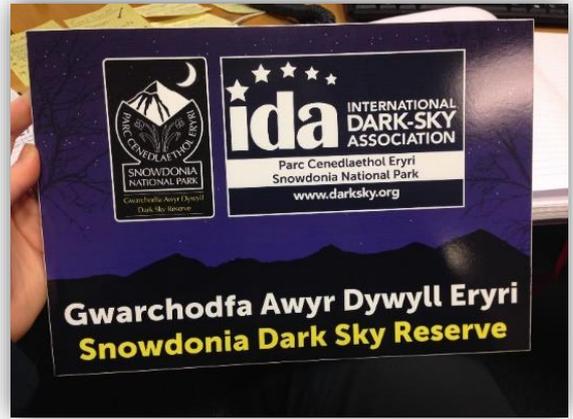
Stocking up on Dark Skies

Dark Sky themed gifts are now on sale in SNPA Tourist Information Canters across the National Park. These take home gifts include a 'Dark Sky' Candle Making Kit which have been carefully selected and branded with the Dark Sky Reserve Logo, and aim to increase awareness of the Dark Sky Reserve, even after returning home.

Croeso / Welcome!

Since the designation the Snowdonia National Park have designed and printed 15 aluminium signs which inform the public of the Dark Sky Reserve Status (Picture on the right). Each sign is identical and contains the IDA Dark Sky Reserve Logo all signs are now in place with a few spare for any new stargazing sites designated this year.

Additionally, the SNPA have developed both a pocket sized guide to the night sky and a leaflet with an introduction the the Dark Sky Reserve, its importance and significance.



Dark Skies at the Eisteddfod

The National Eisteddfod is the national festival of Wales, its language and culture. This arts festival is also Wales' oldest festival; with the first Eisteddfod dating back to 1176. The festival visits North and South Wales on alternate years, takes place for eight days at the start of August, and the central festival field is a vibrant one, teeming with stands, stalls and shops, food, music, arts and crafts, design and architecture. It attracts around 160,000 people each year, from all over the world.

2018 saw the National Eisteddfod take place in Cardiff, the Welsh Capital in the South. 2019 sees the festival return to the North. The dark sky officer intends to attend the festival and run engaging, educational activities to boost knowledge of Wales' dark skies and increase attendance at future events. This will also raise the level of awareness locally on the importance of conserving dark skies and the benefits in doing so.



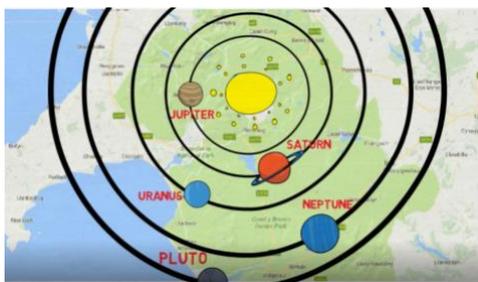
Spreading the Biodiversity Word

Conservation lies at the core of the SNPAs existence, thus biodiversity has remained a strong theme in Dark Sky communication with the public, communities and schools. Several events encouraging the public to learn about nocturnal species have taken place including moth trapping sessions. There are a number of events planned for 2019 to tie in with International Bat Weekend, Earth Hour and National Mammal Week.



Astrophotography

Astrophotography continues to rise in popularity with even the most amateur of photographers able to capture night sky images with fairly basic photography equipment. Social media has really helped this popularity develop, the SNPA will have a dedicated Dark Skies social media account on Facebook, Twitter and Instagram to share the images taken locally and encourage people to 'discover' the pastime, tying in with Visit Wales' theme of 'Discovery' for 2019. The winner of the Dark Sky photography competition will now be supported by the dark sky officer to begin an astrophotography club for amateur photographers, with the hope to hold talks and workshops from professional photographers and astronomers.



Snowdonia Solar System Trail

December 2018 saw the launch of the Snowdonia Solar system; An innovative and interesting way to get businesses and the public excited about Dark Skies. Created by local artists and children, the trail placed planets around local businesses in Gwynedd in a representation of a scaled down Solar System (140 million to one). Placing the planets in different businesses around the area encourages people to travel to businesses and parts of Gwynedd they haven't been to before, learning about the planets along the way. This is a cooperative project from Arloesi Gwynedd Wledig and Snowdonia National Park. 63 people attended the launch night and the creation of the planets saw 150 children take part. You can see the project here; <https://cysawderyri.cymru/>

Future Plans

Onwards and Upwards

- *Lighting Inventory / Good Practice Guide* – We aim to create a user friendly ‘Good Lighting Guide’ which we can hand out to businesses and residents within the IDSR to advise on Dark Sky friendly outdoor lighting fixtures. The SNPA have recently had initial discussion with Siemens, located on the outskirts of the Dark Sky Reserve Boundary, who hope to change their current outdoor lighting fixtures to accommodate for the Dark Sky quality.
- *Dark Sky Photography Club* – The Dark Sky Photography Competition winner has agreed to run a series of photography workshops during 2019.
- *Dark Sky Quality Meter Readings* – New areas will be included in our meter readings to encompass the AONB’s, giving us a much wider appreciation of the quality of night sky across North Wales.
- *Dark Sky Events* – A number of events will be held throughout the year promoting the conservation of Dark Skies with themes tying in with National weeks/days such as WWF’s Earth Hour.
- *Mobile Observatory* – SNPA have put in a funding bid with the Enabling Natural Resources and Wellbeing fund and are awaiting a decision.
- *Visit Wales* – Potential to promote astro-tourism through the current Year of Discovery 2019.
- *Dark Sky Rangers* – Working in partnership to provide dark sky training for ‘Dark Sky Rangers’ who will educate and inspire the public
- Develop a Dark Skies Wales festival across the National Park and AONB’s to promote new stargazing sites.
- Work closely with other National Parks and Dark Sky areas in the UK and elsewhere in the world to share ideas and thoughts, creating a stronger Dark Sky Community

Making Connections

In light of all past and present developments and in anticipation of potential future Dark Sky developments, the Snowdonia National Park Authority wish to thank everyone who have supported and driven the designation forward. It is clear that our Dark Skies are becoming increasingly recognised as a valuable quality, which need to be protected; for biodiversity, for tourism and for our health, wellbeing and enjoyment. Here are a few of the organisations, groups and authorities that we have worked with over the last few years.

