



Report of the Gower AONB Team Leader
Gower AONB Partnership Steering Group – 15 March 2021
Dark Sky Monitoring Report

Dark Sky Monitoring Report

As part of Gower AONBs pending application for Dark Sky Community Award with the International Dark Sky Association (IDA), we are required to undertake annual monitoring of sky quality within the AONB.

The latest of these was undertaken on the evening of 9 January 2021. The survey period was moonless and was for the most part cold and clear with excellent visibility, with only light cloud early on during the first part of the survey.

Sky Quality Meters (SQMs) were used to collect readings at 42 locations across Gower. Precise monitoring locations have shifted between years. The 2020 exercise established a more robust and repeatable set of locations, and all except one of these was moved for the 2021 exercise. SQM readings were converted to Naked Eye Limiting Magnitude (NELM) for ease of understanding. Annex 1 (attached) is a summary table of results from 2019-2021 for comparison.

NELM is an expression of the darkness of the night sky – higher values equate to a darker sky, allowing an observer to see more of the fainter stars. For reference, in a city centre with lots of light pollution, the only star visible maybe Polaris and NELM may only be around 2.0. Some of the darkest skies in Wales may achieve NELM values of 6.4.

The 2021 results for Gower appear broadly comparable with the results of previous years. Locations furthest west – further from Swansea and less-populated – are consistent in producing the best readings. NELMs of 5.5+ were observed at most monitoring locations across the AONB, but even village centres in the west recorded NELMs of 6.0+ (e.g. (24) Llangennith - 6.2)

Readings from monitoring points 1-8 (all locations from Bracelet Bay westward along south Gower) were all poorer than in previous years, but with no apparent cause. Monitoring in 2022 will consider this further.

These monitoring reports will form part of the Gower AONB formal application to the IDA for it Dark Sky Community Award; this is pending whilst the revision of Gower AONB Design Guide is completed by its adoption as Supplementary Planning Guidance.

Appendices: Annex 1 - Monitoring Results 2019-2021

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8 March 2021