



COEDWIGOEDD GLAW CELTAIDD CYMRU  
CELTIC RAINFORESTS WALES



## Conservation Grazing Case Study 1 Coed Garth Gell and Coed y Parc





## Conservation Grazing Case Study 1: Coed Garth Gell and Coed y Parc

### Location & background

Coed Garth Gell is an RSPB reserve of around 67ha, situated north of the Mawddach estuary in south Meirionnydd (SH685198). There is a mixture of habitat types within the reserve, the dominant habitat on the lower sections being H91A0 Atlantic oak woodland (“Celtic Rainforest”), with more open areas of heathland above. These woodland areas are designated as part of the Meirionnydd Oakwoods and Bat Sites Special Area of Conservation (SAC), which is particularly important for woodland birds, lesser horseshoe bats, and lower plant assemblages.

Coed y Parc comprises around 11ha of Celtic Rainforest, is also part of the Meirionnydd Oakwoods and Bat Sites SAC, and is designated as part of Cadair Idris Site of Special Scientific Interest (SSSI).

### Previous management & problems identified

There is a history of industrial use (gold mining and ore processing) at Coed Garth Gell, and both sites have dry stone walls associated with farm use.

Coed Garth Gell was grazed heavily until the 1980s, when it was purchased by the RSPB. In 2014, the Glastir Woodland Management scheme excluded grazing from part of Coed Garth Gell, and this area remains ungrazed throughout the Celtic Rainforest Wales LIFE project. Coed y Parc had historical grazing. It now has a population of dormice, who require a denser understorey, so half of this site also remains excluded from grazing.

Surveys have reported a decline in conditions beneficial to lichens; in particular shading caused by dense regeneration of holly and birch. Shading of the ground flora was also noted, by unchecked growth of bramble and bracken. There were also noted reductions in the number of recorded territories of woodland birds at the site. For example, pied flycatchers at Coed Garth Gell had 25 recorded territories in 2006, and only 17 in 2011.



The invasive alien species (IAS) *Rhododendron ponticum* is widespread across the area despite some small-scale removal having been undertaken there. Similarly, some halo thinning and holly removal have taken place in the last 20 years. However, the scale of the problem remains, and a lack of suitable grazing management was identified as a major factor for this regeneration.

## Grazing re-introduction: requirements and costs

A local grazier with Highland cattle was already known to RSPB staff. Their location meant that both sites could be added on a TLA (Temporary Land Association) – so in terms of livestock movements and surrounding regulations the sites are part of the same farm. Both sites are let on an annual peppercorn grazing licence; and a support payment is made to the grazier twice a year to cover costs associated with keeping low numbers of animals on difficult sites. The cattle also wear a GPS collar to reduce time spent looking for them on site.

On both sites, planning of fencing and gates needed to consider the needs of livestock and people – with multiple footpaths across the both, it was important to avoid any pinch points as far as possible. We also needed Gwynedd Council permission to install gates across the designated public rights of way (PRoW). We installed new bilingual signs (Welsh – English) to introduce public to the grazing animals on-site, and future interpretation boards will highlight alternative paths for people wishing to avoid cattle altogether.

Coed y Parc needed repairs to existing fencing, some new fencing along a ravine, and a simple handling pen installing. This site is grazed for a few weeks over spring or summer only. The total cost for these works was around £7,300 (for 5ha of grazed land). The calculated cost per year will depend on the lifetime of the fencing timber; the project's fencing specification states a minimum of 15 years guaranteed lifespan.

It was decided to repair the historic boundaries at Coed Garth Gell where possible; a total of 1,242 square metres of dry-stone wall was worked on. Although a much bigger investment, stone walling can be repaired after e.g. storm damage using existing materials, and could be maintained indefinitely, bringing down the calculated cost per year. There is an inherent value of these features and of supporting traditional crafts. We also added some sections of stock fencing, pedestrian access gates, plus handling facilities suitable for TB testing. This site will be grazed all year round, moved seasonally across the different habitat types. Total hectareage to be grazed is 38ha. It's important to note that grazing is being re-introduced *after* remedial works such as thinning and holly removal, as a tool for maintenance and fine-tuning.

## Grazing years 1 and 2

Coed y Parc has had two seasons of grazing (2019 and 2020), and has been relatively straightforward. Both periods have been mid-summer to early autumn. We retain the right to move the cattle off early if there is risk of habitat damage through over-grazing, or if there is not enough forage to sustain the animals. The Covid 19 outbreak in early 2020 meant that we could not assess the impact of 2019's grazing on springtime ground flora. There is an option to shift the grazing season to spring and early summer if this would give better results.

Coed Garth Gell was completed in sections. The area grazed in 2019 was mainly heath. Restrictions imposed as a result of the Covid 19 pandemic stopped works in early 2020, which delayed the rotational grazing plan. The cattle stayed in compartment 1 several months longer than planned, and were taken off



site due to failure to thrive. The impact on compartment 1 was positive, however, as there was a lot of bracken on site which needed to be trampled. Cattle returned in late 2020, as the next compartments were completed, with the very last works being complete in January 2021. 2021 will be the first full year of grazing.

## Monitoring

All project sites will be subject to Common Standards Monitoring (CSM), breeding bird, and lower plant surveys at the start (baseline) and end of the project (post interventions), which means a 6 or 7-year gap between surveys. As is generally the case with woodland restoration, it is expected that some features will be slow to react to the management changes.

In addition to the ecological monitoring, we will be undertaking fixed-point photography on sites at least twice a year which will guide planning for the following grazing season, and which will allow us to build up a more detailed picture of changes over time.

In the short term, observations by the grazier, site warden, and grazing officer influence immediate decisions within the framework of the planned season. For example, when to move the animals to the next compartment, or if weather conditions mean they need to come away early.

The project has also invested in a mobile weighing platform for cattle, with the intention to take monthly weights of woodland-grazed animals and pasture-grazed animals from the same herd. This will help us monitor the animals directly on site and give objective data on growth rates, but it will also enable comparison with similar livestock grazing different habitats. The data can be used immediately but in the longer-term builds evidence around woodland grazing.

## Expected challenges

The nature and terrain of these reserves means that it can be difficult to source contractors to undertake the infrastructure works needed at the sites – access is difficult, and many materials must be hand-carried long distances across steep ground. This often results in higher costs as the additional labour is factored into prices by contractors.

These habitats are rare and highly protected, so there is an extensive and thorough scheme for consenting works. These would include (but are not necessarily restricted to) such things as SSSI and PRow consents. Furthermore, Habitats Regulations Assessments (HRAs) must be completed for any works being undertaken within the boundaries of a Natura 2000 site, and an assessment of the likely impacts on any European protected species (EPS) must be carried out. In instances where works may impact on the status of an EPS, a licence must be obtained by the relevant statutory agency.

Liaison with neighbours was also key, both in terms of changing site use, and of access across their land. However, this has also been a fantastic opportunity to strengthen relations locally, with a positive response to re-introducing elements of traditional farming, and using traditional skills.

## Unexpected challenges



The extensive walling repairs at Coed Garth Gell were undertaken section by section, with access cleared as we proceeded. This meant that we didn't have an accurate assessment of work needed prior to signing the initial contract; instead we worked section-by-section under a framework agreement. This required a lot of management in terms of procurement and financial administration, with a few instances of confusion. Good and frequent communication with the lead contractor was critical.

There were some instances of materials shortage, leading to the specification for fencing being altered according to what was available that would be fit for purpose. This was worsened by the national shutdowns during the Covid 19 pandemic, and the extended lead times as manufacturing re-started.

The Covid 19 pandemic itself disrupted site works, as staff missed seasonal monitoring opportunities and contracted works ceased for several months. This delay has affected most aspects of the grazing project, but specifically it led to cattle staying in one compartment longer than planned, then being moved off entirely when there was risk to welfare. However, it was established from the start that animal welfare and habitat welfare were both critical for success, and early discussion of options with the grazier enabled a co-ordinated response.

## **Future plans**

Many impacts will not be seen until the end of the project. It is the intention of the grazing officer to use the project to find and overcome barriers to sustainable grazing management, so that management can continue, with anticipated changes. For example, stocking levels will need to vary according to climate and weather conditions, and as the habitat itself recovers. However, it's anticipated that climate change will lead to more vegetation growth locally. Allowance must be made for sufficient tree regeneration to sustain the woodlands – this could take the form of individually protected saplings, or grazing exclusion from certain areas, or times of zero grazing. It may be that altering the stocking density is enough to give sufficient – but not overwhelming – regeneration. The overall aim is for balance, rather than the current see-saw of over - and under- grazing.

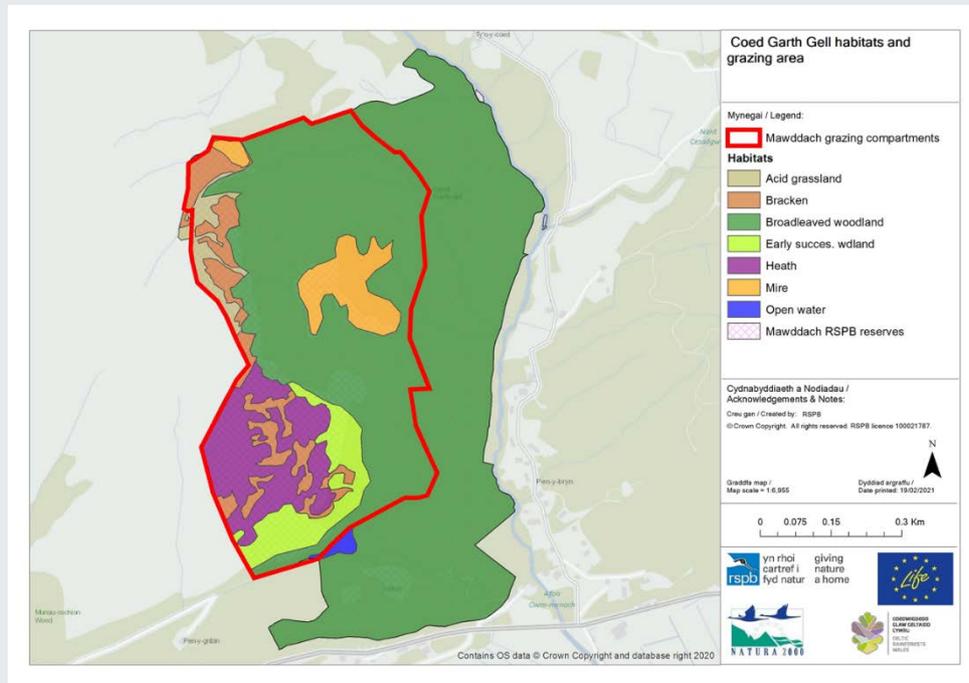


## Summary

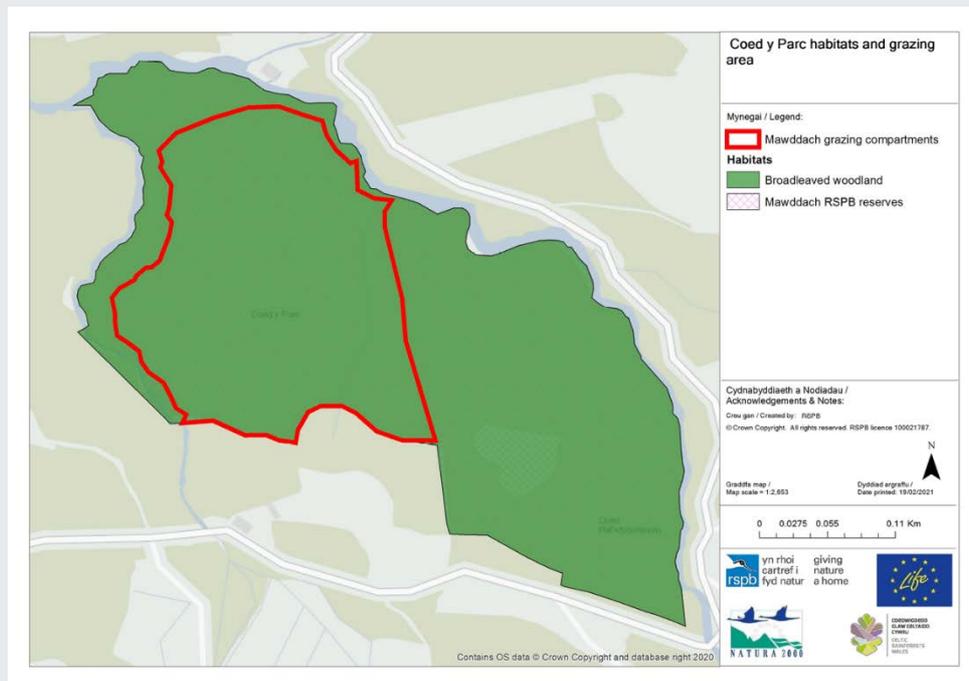
	Coed Garth Gell	Coed y Parc
Grazed area (Ha)	38	5
Season	All year	A period within spring and summer
Current or most recent number of Highland cattle	2	2
Predicted maximum number of Highland cattle, age dependent	12	3 – depends on timing
Stocking densities (Livestock Unit / ha)	LSU/ha was between 0.2 and 0.3.	LSU/ha was calculated at 0.4 for 3 months (max consented) at that time)
Outcome so far	Great impact on bracken and bramble, seasonal preference for different plants noticed, gorse taken in preference to heather, sprouted acorns being enjoyed January 2021, many small saplings pushed over – interesting effect on physical woodland structure.	Much reduced bramble but not as thorough as Coed Garth Gell. Small saplings pushed over. Ivy stripped from lower tree trunks. Some browsing of hazel. Scattered <i>Molinia</i> taken. Positive public perception.
Future considerations	Slowly increase cattle numbers to find sustainable levels. Stocking densities under review with NRW at regular intervals. Potential to expand grazing area over remainder of site.	Late summer grazing means undergrowth is still shading the ground flora for much of the growing season. Stocking densities under review with NRW at regular intervals.



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Map of Coed Garth Gell site



Map of Coed y Parc site



Coed Garth Gell photopoint,  
November 2019



Coed Garth Gell, same photopoint, November 2020: As well as the reduced bramble undergrowth in the foreground, the bracken in the background to the left has been knocked back.





Coed y Parc, August 2019

Coed y Parc, July 2020. After one season of late summer grazing there is not yet much difference.



The Celtic Rainforests Wales project has received funding from the LIFE Programme of the European Union.