

# South Wales RIGS Group Site Record RIGS Description

| General   | South Wales                                   |  |  |
|---|---|--|--|
| Site Name: Cwm Coed Spillway  | File Number: AH_58                            |  |  |
| RIGS Number: 743  | Surveyed by: AJ Humpage                       |  |  |
| Grid Reference: SO 28410 21080<br>to 30750 21700                      | Date of Visit: 18 June 2011                   |  |  |
| RIGS Category: Scientific   | Date Registered:                              |  |  |
| Earth Science Category:   | Unknown                                       |  |  |
| Geomorphological  |   |  |  |
| Site Nature: wooded valley  | Documentation prepared by: AJH                |  |  |
| Unitary Authority: Monmouthshire CC                                   | Documentation last revised:<br>19 August 2011 |  |  |
| OS 1:50,000 Sheet: 161  | Photographic Record:                          |  |  |
|   | See images attached to this report            |  |  |
| OS 1:25,000 Explorer Sheet: OL 13                                     |   |  |  |
| <b>BGS 1:50,000</b> Sheet: 214 (Talgarth) and Sheet 232 (Abergavenny) |   |  |  |

**RIGS Statement of Interest**: This site forms part of a network of important scientific sites within the South Wales RIGS area associated with the maximum limit of the last (Devensian) Ice Age.

This site is a glacial spillway cut through Devonian Senni Formation. It is a fault controlled structure on the line of the Neath Disturbance.

It is a steep sided, narrow wooded valley with a humped long-profile, draining from its centre point at Cwm Coed-y-cerrig westwards to Pont-Yspig and the Grwyne Fawr and eastwards to Stanton and the Afon Honddu. The north-facing slope is particularly steep, whilst the south facing slope has been subject to some landsliding.

Glaciolacutrine deposits are mapped at the western end, suggesting drainage to the south west (the current route of the Grwyne Fawr river) was blocked, possibly by Usk valley ice advancing north-eastwards from Llanbedr. Similarly, drainage southwards was blocked at Bettws. This lake possible drained eastwards through the spillway to Stanton, where a fan of outwash and glacio-lacustrine deposits are mapped (BGS 2004).

This site is adjacent to the proposed Stanton Fluvio-glacial Terrace RIGS at its eastern end

### Geological setting/context:

The glacial history of the Black Mountains is not well understood, as although extensive glacial deposits have been mapped in the dip-slope valleys of the Honddu, Grwyne Fawr and Grwyne Fechan (BGS 2004), there is no evidence of mid-Wales ice incursion over the northern escarpment of the Black Mountains. This is unlike other valleys to the west and east, such as the Rhiangoll (Howard 1903-04), and the Golden Valley (Dwerryhouse and Miller 1930) where Silurian erratics derived from the Builth Wells-Aberedw area were recorded. M'Caw (1936) suggested that mid-Wales ice did breach the northern escarpment of the Black Mountains escarpment at Gospel Pass [SO 235 351] at the head of the Honddu valley at an elevation of 542m OD, although this is much higher than the proven southwards penetration through the cols at Pengenffordd (320m OD) in the Rhiangoll and The Bage (176m OD) in the Golden Valley. However, to date no erratics of mid-Wales origin have been identified in the Honddu valley. Elsewhere, a glacial diamict containing occasional striated clasts is recorded above the Hermitage in the Grwyne Fechan [SO 228 252], but the clasts are all derived from the local Devonian rocks which form the Black Mountains (Lewis and Thomas 2005), and recent inspection (see RIGS report AH 04) suggests that much of the material at this site is derived from mass movement processes.

The spillway at Cwm Coed may suggest Usk valley ice blocked the river downstream towards Llanbedr, resulting in the formation of a lake which found an outlet to the north-east towards Stanton, and thus eroded the spillway.

## References:

British Geological Survey (2004). *Talgarth. England and Wales Sheet 214.Solid and Drift Geology. 1:50,000.* British Geological Survey, Keyworth, Nottingham.

Dwerryhouse, A.R. and Miller, A.A. (1930). Glaciation of the Clun Forest, Radnor Forest and some adjoining districts. *Quarterly Journal of the Geological Society of London.* 86, 96-129

Howard, F.T. (1903-04). Notes on glacial action in Brecknockshire and adjoining districts. *Transactions of the Cardiff Naturalists Society*. 5.

Lewis, C.A. (1970) The Upper Wye and Usk Regions. In: CA Lewis (Ed). *The Glaciations of Wales and Adjacent Regions*. Longman, London.

Lewis, C.A. and Thomas, G.S.P. (2005). The Upper Wye and Usk Regions. In: CA Lewis and A.E. Richards (Eds). *The Glaciations of Wales and Adjacent Regions*. Logaston Press, Logaston, Herefordshire.

#### **SECTION B**

| PRACTICAL CONSIDERATIONS:<br>Please score Accessibility and Safety Red Amber or Green   |  |  |   |  |
|---|--|--|---|--|
| Accessibility:  |  |  | Х |  |
| Comment: Accessible where crossed by public rights of way allowing features to be viewed. Otherwise, permission will be required. |  |  |   |  |
| Safety:   |  |  | Х |  |
| Comment: Narrow road with parking places.   |  |  |   |  |
| Conservation status:  |  |  |   |  |
| Site is within Brecon Beacons National Park   |  |  |   |  |
| Part of the site is scheduled as Coed y Cerrig SSSI and it terminates at its western end with the River Usk (Tributaries) SSSI.   |  |  |   |  |

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Unknown / various

Planning Authority: Brecon Beacons National Park Authority

**Planning status/constraints/opportunities**: There are no known planning constraints or opportunities

#### CONDITION, USE & MANAGEMENT:

Present use: Wooded valley

Site condition: Generally good

Potential threats:

Site Management: Removal of some trees would open up the feature

#### SITE DEVELOPMENT:

**Potential use (general)**: detailed scientific research and geomorphological mapping, coupled with lake sediment analysis would benefit this site

**Potential use (educational)**: Good site to view and explain glacial overflow channels.

#### Other comments:

Good example of how erosion exploits fault-induced structural weaknesses.

#### **Photographic Record**

It has not been possible to obtain a representative ground level photograph of this RIGS.