28th November 2024

Technical Note: Dormouse Habitat Suitability Assessment

Site: Woodland at Pen yr Englyn, Treherbert

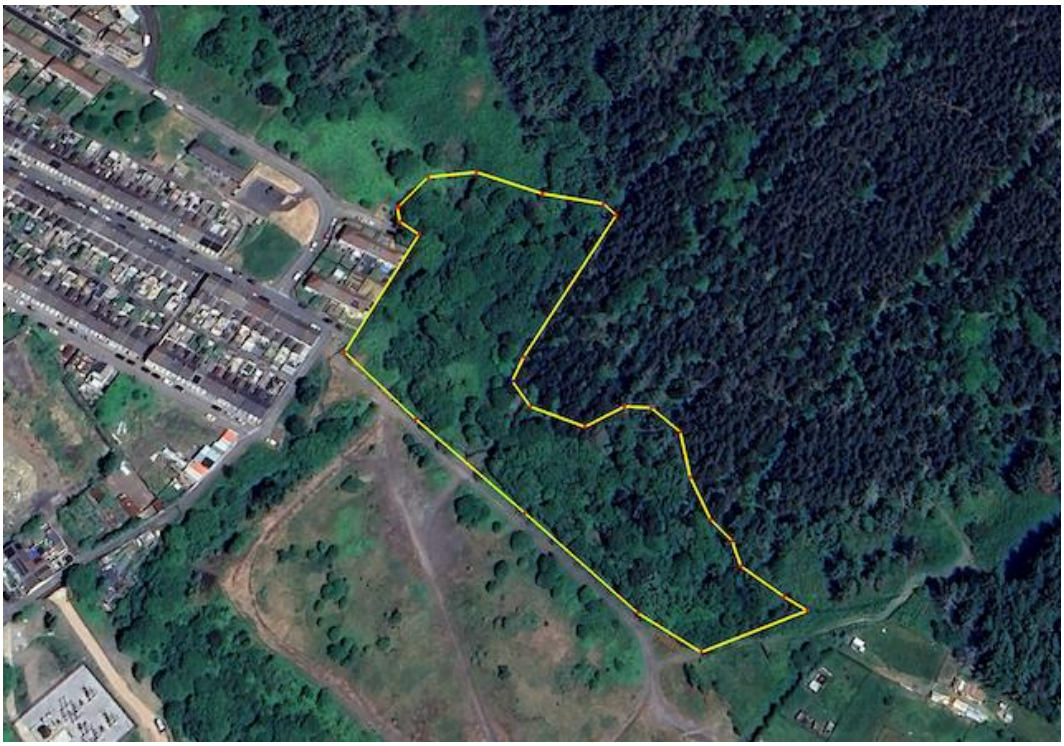
Author: Siân Musgrave BSC (Hons) MCIEEM Principal Ecologist AEC Ltd

Introduction

Amber Environmental Consultancy Ltd was commissioned by I&G Ecological Consulting to undertake a habitat suitability assessment for dormouse at woodland in Pen yr Englyn, Treherbert, Rhondda Cynon Taf.

The site lies to the east of Herbert Street on the side of the mountain with clear felled forestry to the north and an access track with an open area of land used by off road bikes to the south. The central grid reference for the site is SS 94752 97986. See Figure 1 for a site location plan.

Figure 1: Site location



Site visit 22 November 2024

A site visit was undertaken by Siân Musgrave BSc MCIEEM on 22nd November 2024 to assess the site for suitable dormouse habitat. Siân has been a consultant ecologist since 2008, previously working in nature conservation and land management and has held a NRW dormouse licence since 2014.

The site is around 1.5ha in size consisting of willow dominated woodland on the side of the mountain with small streams and seepages running throughout. The terrain is steep with dips and hollows within which the wet woodland has developed over time. There were forestry plantations above which have now been felled and the timber removed.

The woodland can be roughly divided into two parcels, divided by a forestry track that goes up onto the mountain behind the woodland. The western parcel is longer and narrower than the eastern parcel, and from an open 'bowl' of bramble at the bottom with a ring of trees around it, runs in a strip up the side of the mountain with a very steep slope to the east and a gentler slope to the west.

The eastern parcel has an access track along the bottom with a bank and stream alongside with undulating land above with streams running through it between drier bracken covered banks. It is shorter and wider than the western block. (Figures 2–7).

Figure 2: Willow woodland

Figure 3: Felled forestry block above

Figure 4: Forestry track dividing the two parcels

Figure 5: 'Bowl' of bramble at bottom of western parcel

Figure 6: Small stream/ seepage

Figure 7: Drier banks with Bracken


Habitat description

The site consists of self-seeded established scrub woodland dominated by Willow *Salix spp.*, with some Silver Birch *Betula pendula*, Alder *Alnus glutinosa*, Holly *Ilex aquifolium*, Oak *Quercus robur* and Hawthorn *Crataegus monogyna*. It looks dense from the edges, but when inside it is sparser than it seems.

The understorey consists of Bramble Rubus fruticosus agg., with Gorse *Ulex europaeus*, Bracken *Pteridium aquilinum* and Rosebay Willowherb *Chamaenerion angustifolium* with some ferns in the drier areas, and Ivy *Hedera helix* on the ground. There are numerous seepages and small streams running throughout the site from the mountain above and the woodland is very wet in places with Hemlock Water Dropwort *Oenanthe crocata*, Creeping Buttercup *Ranunculus repens*, a variety of sedges including Common Sedge *Carex nigra*, Wood Sedge *Carex sylvatica*, and Pendulous Sedge *Carex pendula*. There is a stand of Japanese Knotweed *Reynoutria japonica* on the western side of the track which divides the two parcels. (Figures 8-11).

Figure 8: Woodland with sparse bramble understorey

Figure 9: Seepage/stream

Figure 10: Sparse slope vegetation

Figure 11: Area of Japanese Knotweed


Site habitat suitability assessment for dormice

Dormice are generally to be found in areas of mixed woodland (particularly larger woods) that are linked by a network of hedgerows although more unusual habitats can include reed beds, heathland, and plantation woodland. Dormice populations exist at very low density and when present will tend to favour use of better quality habitats over those that are sub-optimal. It is possible that dormice may occasionally use sub-optimal habitat but the chances of any individual being present in such habitat on any one occasion is low.

Methodology

An assessment of suitability of habitat for dormouse was made of all potential dormouse habitats in the survey area including woodland and scrub.
Potential suitable habitat features for dormice include:

- Type of habitat and size
- Tree, shrub and climbing species and their abundance
- Density of the canopy layer
- Degree of continuity in the shrub layer
- Degree of connectivity with other areas of potential habitat
- Presence of potential summer and winter nests sites, such as tree holes, deep litter layers, wood piles and tangled woody vegetation
- Evidence and stocking density of grazing animals
- Evidence of likely presence of competitors and predators such as squirrel and cats
- Evidence of woodland management techniques such as coppicing

Criteria for assessment for potentially suitable habitat is shown in Table 1[1] below.

Table 1: Criteria for habitat suitability assessment for dormouse

Category	Examples
Negligible	Annually cut hedgerows in arable landscapes. Small (<5ha) area of woodland which is isolated from others by 500m or more and lacks two or more key features.* Woodland or scrub which floods in winter.

[1] table from Thompson Ecology survey report ref ABAW105/006/001/003, from info extracted from Dormouse Conservation Handbook 2nd edition

Low	Annually cut hedgerows in wooded landscapes. Small (<5ha) area of woodland which is isolated and lacks up to one of the key features. Moderate (5–20ha) or large areas (>20ha) of woodland or scrub which lack two or more of the key features.
Good	Moderate areas of woodland or scrub (5–20ha) with all the key features but which are isolated from other areas of high suitability woodland. Large areas of woodland (>20ha) which lack one of the key features. Infrequently cut hedgerows that are relatively isolated but have some connectivity to other areas of suitable dormouse habitat.
Excellent	Small and moderate areas of woodland with all the key features and well connected to other areas of suitable dormouse habitat. Large areas (>20ha) of woodland or scrub with all the key features. Infrequently cut hedgerows either in dense networks or linking areas of high suitability woodland. Large area (>20ha) of young plantation with good connectivity to other areas of suitable dormouse habitat.

* Key Features for dormouse:

- Mixed vegetation comprising a high proportion of at least three of these species: Hazel *Corylus avellana*, Oak *Quercus sp*, Honeysuckle *Lonicera periclymenum* and Bramble *Rubus fruticosus agg.*
- A dense shrub layer
- No or relatively open tree canopy (above the shrub layer)
- Scattered old trees with hollows, dense tangled vegetation, nest boxes or other suitable nest sites, such as dense leaf litter and
- Tree stumps with cavities at around ground level or other suitable hibernation sites.

Results

- The site is a small block of scrub woodland that was once connected to a much larger area of plantation forestry. This has now been felled leaving the site totally isolated with no connectivity to any suitable surrounding habitat.
- The woodland comprises mainly of Willow with very few other species present. No honeysuckle or other climbing shrubs were noted apart from Ivy on the ground.
- The canopy cover is in dense patches with clearings between where trees have either fallen over or been removed/felled.
- The shrub layer is generally continuous but mainly very sparse Bramble, with a denser area in the 'bowl' type area of the first block, with some Bracken on the drier ridges.
- The site is now isolated and the very gappy strip of scrub woodland leading down the stream to the area above the Electricity sub-station to the south is separated from the site by an open area of track some 6m+ wide. This scrub woodland to the south is very gappy, comprises predominantly of Willow and has streams and seepages running through it.
- There is a deep leaf litter layer in places, but small streams and seepages run through the whole block making it wet underfoot. There are a few windblown trees with root

plates attached. As the Willow are mainly single age with a few more mature Alder, there are no tree holes/splits/cracks suitable for hibernation. There are no woodpiles and the only area of dense tangled vegetation is the denser Bramble in the 'bowl' area of the first block.

- There is no evidence of grazing.
- A local resident remarked on the number of cats around that stalked in the woodland and brought in small mammals. It is also used frequently by the public as evidenced by remains of fires, dumped materials and dogs also roam into it from dog walkers on the track below.
- There is no evidence of any woodland management other than a tree tag on some of the larger Alder on the edge of the woodland.

Conclusion

Given the above, when measured against the criteria, the scrub woodland has **negligible** habitat suitability for dormouse.

It is small and isolated, is wet in winter, and lacks two or more key features, namely mixed vegetation, a dense shrub layer, no or relatively open tree canopy, scattered old trees with hollows, dense tangled vegetation and other suitable nest sites, and suitable hibernation sites.