

# Wales Enclosed Farmland Ecosystem Group Priority Action

## Gower Arable Priority Area

The cultivated agricultural land of south-east Gower coast is home to a highly diverse arable plant community. Unlike many good arable plant sites in Wales, this community bears more similarities to the typical “rare arable plant community” found in Britain, because it is often developed on a limestone substrate. The Gower arable plant communities are notable for their species richness as well as a number of Section 42 species such as Broad-fruited Cornsalad (found here at its’ only Welsh site) and Small-flowered Catchfly. Several other arable S42 species, Shepherd’s-needle and Red Hemp-nettle, are found nearby but are no longer in truly arable habitats.

Arable plants are one of the biggest declining and most threatened groups of plants in Wales (Dines, 2005). Their decline is related to a) the increase in pasture and decline in arable, b) the increased used of herbicides, c) the increased use of fertilizers, d) an improvement in seed-cleaning technology and e) the use of high density cropping with modern cereal crop varieties. Although figures do not exist for Gower, the decline in arable farming and consequent increase in pasture in Ceredigion is well documented, where 15% of farmland was arable at the start of 20th century, but this fell to 3% by end of century; in the same period, sheep numbers increased by 275% and cattle by 182% (Chater, 2010). Currently, there is about 2000 ha of arable land within the Swansea LBAP area, representing 3% of the total resource in Wales (Jones *et al.*, 2003).

Today, most arable cultivation in Gower is restricted to the coastal strip on the south of the peninsula. Crops are principally winter and spring barley and wheat, maize, and small-scale production of root crops including potatoes. Due to the mainstream use of herbicides and fertilizers, the better arable plant communities are generally restricted to field entrances and field headlands. Tir Gofal has, however, encouraged farmers to undertake more sympathetic management, such as leaving field margins fallow, growing unsprayed root and cereal crops and leaving winter stubbles. Uptake of these options is not high in Glamorganshire, however, with just 688 ha of land under prescriptions beneficial to arable plants (7.0% of the land in Tir Gofal in Glamorganshire, Morris *et al.*, 2008). Of this area, though, only 29 ha is under the most beneficial prescription for arable plants, fallow field margins. Some “arable” options, such as undersown cereals, establishment of grass headlands and wildlife cover crops can be damaging to arable plant populations, and these account for 271 ha of land in Glamorganshire (3% of Tir Gofal land in the county, Morris *et al.* 2008).

Despite the challenges of the modern, intensively farmed landscape, some farms and fields on the Gower coast retain rich arable plant communities. Particularly good examples can be found at the Vile National Trust Farm near Rhossili, where a superb arable flora is preserved along with an ancient strip field system, and at Hunt’s Farm near Pwlldu Head. This latter site, a small private farm that is in Tir Gofal, includes a very large population of Small-flowered Catchfly and is currently the only site for Broad-fruited Cornsalad in Wales. The arable plant diversity gives the fields an Important Arable Plant Area score over 45 (Byfield & Wilson, 2005), making them of national significance. Nearby, Shepherd’s-needle is found in a private garden located on a housing estate on former arable farmland, and Red Hemp-nettle occurs on the shingle of Pwlldu Bay, one of only two surviving sites for this species in Wales. The main challenges for this project area are the high proportion of permanent pasture still in place in the surrounding landscape, the threat of inappropriate management of arable plant sites that are not progressing into Glastir, and the small number of sites (arable and non-arable) for surviving arable Section 42 species.

## Action required

1. Agree targets for proportion of unsprayed and fallow arable in the project area (15% is suggested).
2. Publicise the importance of the site, the IPA status of the site and the benefits of increased low-input arable for plants and other wildlife to the local public and landowners.
3. Liaise with National Trust to increase the amount of low-input arable on their land holdings on Gower. Encourage the production of detailed management plans.
4. Encourage Tir Gofal farmers to enter into Glastir and provide support and advice to enable them to do so. Lobbying WAG regarding the threat to S42 species if this does not happen.
5. Liaise with other landowners to increase the amount of low-input arable on their land holdings through entry into Glastir.
6. Lobby WAG for mandatory arable prescriptions and a higher weighting for Arable Special Project Areas. This should increase the number of agreements in the areas and ensure they all include appropriate arable prescriptions.
7. Collate survey records and improve monitoring and reporting of the S42 priority species in the area.
8. Consider re-introduction of Shepherd's-needle and Red Hemp-nettle to appropriate arable farms that are in Tir Gofal/Glastir.

Whilst action may be focused on the priority arable habitat, it is important to maintain the full range of semi-natural habitats at a landscape level, especially some component of grassland pasture and coastal habitats for farmland birds. Coastal heathland of varying quality is developed in some sites, and wind-pruned scrub and woodland is found in some of the small river valleys. It may be necessary to manage these habitats appropriately as these are important in their own right they should be maintained at the landscape scale. A long-term framework is therefore needed for the coastal landscape as a whole which includes a mosaic of arable habitat, grazed pasture, coastal heathland and grassland, based on the network models developed to link and optimize species and habitats.

## Species Interest

### *Key Section 42 species*

Small-flowered Catchfly	<i>Silene gallica</i>
Broad-fruited Cornsalad	<i>Valerianella ramosa</i>
Shepherd's-needle	<i>Scandix pecten-veneris</i>
Red Hemp-nettle	<i>Galeopsis angustifolia</i>
Yellow hammer	<i>Emberiza citronella</i>
Linnet	<i>Carduelis cannabina</i>
Skylark	<i>Alauda arvensis</i>

### *Other Section 42*

Brown hare	<i>Lepus europaeus</i>
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## References

- Chater, A.O (2010). *Flora of Cardiganshire*. Chater: Abersytwyth
- Byfield, A.J. & Wilson, P.J. (2005). *Important Arable Plant Areas: identifying priority sites for arable plant conservation in the UK*. Plantlife International: Salisbury
- Dines, T.D. (2008). *A Vascular Plant Red Data List for Wales*. Plantlife International: Salisbury.

Jones P.S., Stevens, D.P., Blackstock, T.H., Burrows, C.R., Howe, E.A. (2003). *Priority habitats of Wales: a technical guide*. Countryside Council for Wales: Bangor.

Morris, A.J., Smart, J., Lamacraft, D., Bialynicki-Birula, N., Luxton, K-J., Haysom, K., Rasey, A., Williams, C., Hobson, R., Dines, T.D, Parry, R.J., Wilberforce, E.M., Chapman, C. (2008). *Potential for Biodiversity Delivery by Welsh Agri-environment Schemes*. RSPB: Cardiff.