

Wales Enclosed Farmland Ecosystem Group Priority Action

Ceredigion Mwnt Arable Priority Area

The cultivated agricultural land of the south Ceredigion coast is home to a highly specialized arable plant community. This differs markedly from the typical “rare arable plant community” found in Britain, which is characteristic of base-rich, usually chalky, soils of southern England. In western Wales the community is developed instead on very freely draining (and therefore very nutrient poor) acidic soils. The Ceredigion arable plant communities are notable for their species richness as well as a number of Section 42 species such as Small-flowered Catchfly and Annual Knawel.

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 use 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. In Ceredigion, the decline in arable farming and consequent increase in pasture is well documented. At the start of 20th century, 15% of farmland was arable 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 2200 ha of arable land within the county, representing 4% of the total resource in Wales (Jones *et al.*, 2003).

Today, most arable cultivation in Ceredigion is restricted to the coastal strip in the south-west of the county. 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 growing unsprayed root and cereal crops and leaving winter stubbles. Uptake of these options is not high in Ceredigion, however, with just 472 ha of land under prescriptions beneficial to arable plants (3.3% of the land in Tir Gofal in Ceredigion, Morris *et al.* 2008). Of this area, though, none 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 592 ha of land in Ceredigion (4% 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 Ceredigion coast retain rich arable plant communities. In a series of exceptional fields between Aberporth and Gwbert, 83 species of arable plants have been recorded in the last 20 years (Chater, 2010). This diversity gives the fields an Important Arable Plant Area score of 73 (Byfield & Wilson, 2005), making them of international significance, and for this reason seven of the best fields on three separate farms have been notified as a SSSI (Caeau Crug Bychan, Ty Gwyn a Llwyn Ysgaw SSSI), the first fields to be notified for their arable plants in Wales. Management plans are in place for these seven fields, but the main challenge remains the high proportion of permanent pasture still in place in the surrounding landscape (89% of fields in the area are Phase 1 improved grassland).

Action required

1. Agree targets for proportion of unsprayed and fallow arable in the project area (15% is suggested) and identify and minimize potential impacts on Chough.
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 at Mwnt and Llwyn Ysgaw. Encourage the production of detailed management plans.

4. Liaise with other landowners to increase the amount of low-input arable on their land holdings through entry into Glastir.
5. 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.
6. Collate SSSI survey records and improving monitoring and reporting of the SSSI.
7. Integration of coastal access and habitat management to ensure that people's enjoyment of the "wild" nature of this stretch of coast is enhanced without impacting on habitats and species.

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 Chough, which have breeding and feeding sites along this coast. Coastal heathland of varying quality is developed in some sites, and some 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>
Annual Knawel	<i>Scleranthus annuus</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>
Chough	<i>Pyrrhocorax pyrrhocorax</i>

Other notable arable plants recorded from the site

Bugloss	<i>Anchusa arvensis</i>
Corn Marigold	<i>Chrysanthemum segetum</i>
Dwarf Spurge	<i>Euphorbia exigua</i> (Near Threatened)
Tall Ramping-fumitory	<i>Fumaria bastardii</i>
Sharp-leaved Fluellen	<i>Kickxia elatine</i>
Henbit Dead-nettle	<i>Lamium amplexicaule</i>
Cut-leaved Dead-nettle	<i>Lamium hybridum</i>
Weasel's-snout	<i>Misopates orontium</i>
Cornfield Knotgrass	<i>Polygonum rurivagum</i>
Small-flowered Buttercup	<i>Ranunculus parviflorus</i>
Corn Spurrey	<i>Spergula arvensis</i> (Near Threatened)
Field Woundwort	<i>Stachys arvensis</i> (Vulnerable)
Narrow-fruited Cornsalad	<i>Valerianella dentata</i> (Endangered)

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.

