

## **AGRICULTURAL LAND**

### **Upland Hay Meadows**

Until the early 1980s Upland hay meadow (Northern hay meadow) was a feature of the WPMs. Regrettably, these attractive grasslands with their diversity of flowers and wildlife have been casualties of agricultural change – through the use of chemical fertilizers, management for silage rather than hay, and the change from mixed stocking to sheep farming or more recently intensive horse livery. They resulted from a traditional upland farming system with their vegetation types reaching back to the natural landscape.

However, relict examples survive where the application of chemical fertilizers have been limited, although, even here species diversity is often a shadow of their former glory. Typically these comprise woodland species such as Wood Anemone, Bluebell, Wood Horsetail together with Sweet Vernal-grass, Pignut, Bistort, Melancholy Thistle and importantly Lady's-mantles (*Alchemilla glabra*, *A. xanthochlora* and significantly the rare *A. acutiloba*). Other species includes Common Sorrel, Ribwort Plantain and Yellow Rattle.

Integral with these meadows are the wetter Marsh Marigold meadows. Formerly these were a spectacular sight in spring as the Marsh Marigolds came into full bloom. Again these have suffered from agricultural change but some extent survive as was apparent in the 'foot and mouth' year when some remained un-grazed, allowing a thin scatter to bloom. Other species associated with this grassland include Lady's Smock, Greater Bird's-foot-trefoil and Meadow Sweet in addition to those associated with the previous drier type. A feature of this wetter grassland was Pyrenean Scurvy-grass (not a grass but a type of Cress), which now survives mostly along upland streams.

Upland hay meadow, including the wetter meadows, is important for breeding Curlew, Lapwing, Snipe, Redshank and Skylark as well as being of principal importance for feeding Twite.

### Biodiversity delivery

All surviving examples of this habitat are of major conservation significance. Habitat management is available nationally through Defra's High Level Stewardship [www.defra.gov.uk/erdp/schemes/hls](http://www.defra.gov.uk/erdp/schemes/hls) to conserve, achieve favourable condition, restore and expansion of Upland hay meadows.

### **Lowland Meadows**

Lowland meadows may differ only subtly from Upland hay meadow and might be managed for hay or permanently grazed. They too have suffered from agricultural change and relict examples are of conservation importance. One example of this grassland type in the WPMs was recorded as late as 1990 supporting some eighty different plant species. Botanically they differ by the absence or scarcity of woodland and northern species. The grass Crested Dog's-tail is more frequent with Knapweed, Common Sorrel, Meadow

Buttercup, Red Clover, Common Cat's-ear, Betony, Yellow Rattle and Common Bird's-foot-trefoil. Types of lowland meadow tend towards acidic grassland in types with Heath Grass, Spring-sedge, Mouse-ear Hawkweed, Harebell and Bird's-foot-trefoil.

As with Upland hay meadows these grasslands are important for breeding Curlew, Lapwing, Snipe, Redshank and Skylark as well as being of principal importance for feeding Twite.

Species-rich Upland hay meadow and Lowland meadow have been largely lost or replaced in many upland situations by improved grassland or 'upland wet-rushy pasture'. This degraded grassland should not be confused with the BAP priority habitat, Purple Moor-grass- Rush pasture. Whilst 'upland wet rushy pasture' may retain some limited interest for breeding waders, a holistic approach to delivering Lowland meadow BAP objectives for grassland restoration should be the priority focus.

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#### **Lowland Fens**

Fens and swamps occur where ground water is close to ground level for most of the year and are, in some respects, the lowland equivalent of the Springs and Flushes of moorland situations. They can be comparable to Wet woodland but without trees and may form the marginal vegetation around reservoirs. They may typically comprise tall-herb, Hemp Agrimony, Hemlock Water-dropwort, Wild Angelica, Meadow Sweet, Yellow Loosestrife, Yellow Iris with Bulrush, Greater Tussock-sedge, Lesser Pond-sedge, Reed Canary-grass, Common Reed and Purple Small-reed. In other situations where the ground water is base-poor Purple Moor-grass, Common Cottongrass, Bottle Sedge, Bog Asphodel, Cranberry and Cross-leaved Heath may dominate. In some situations Common reed may dominate to form Reedbed.

Birds include Sedge Warbler, Reed Bunting and Snipe and a wealth of invertebrates.

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