

Grazing marsh

1. A Definition

The term Grazing Marsh is used to describe seasonally waterlogged grassland (and associated ditches) which is grazed by stock and forms part of a wetland system, including wet grassland and floodplain meadows, agriculturally improved or unimproved in nature. Grazing marsh occurs in inland and coastal situations, although this plan excludes saltmarsh, which is dealt with in the estuaries plan.



Commonly this land has been 'reclaimed' from the sea by enclosing intertidal areas such as salt marshes behind a sea wall which were then drained using a network of ditches. Sluices control the water levels in the ditches which also act as wet fences giving these areas a characteristically wide and open appearance with few fences or hedges.

2. Why an Action Plan?

Grazing marsh has always been of limited extent in Devon, especially when compared to other parts of Britain, like Somerset or East Anglia for example, because the natural geography of Devon's riverine floodplains, coasts and estuaries does not lend itself to the formation of this habitat.

Grazing marsh in Devon is only found in association with river estuaries. Because of this natural paucity in Devon the loss of grazing marsh, which has occurred in common with the rest of the Country since the Second World War, has left Devon with critically small amounts of the habitat.

3. Characteristic wildlife



Grazing marsh frequently becomes flooded with freshwater in winter and spring and this keeps the land temperature warmer than it would otherwise be. This creates ideal feeding conditions for a range of over wintering bird species which feed in the soft mud and on plant material. In the spring grass growth begins early providing valuable early grazing as water levels are lowered. From around this time many species of wader are able to breed in the grassland which if managed extensively can include a diverse range of grasses and other plant species.

The ditch systems of grazing marshes provide extremely important habitats for assemblages of submerged, floating, emergent and bank-side plants; as well as aquatic invertebrates.

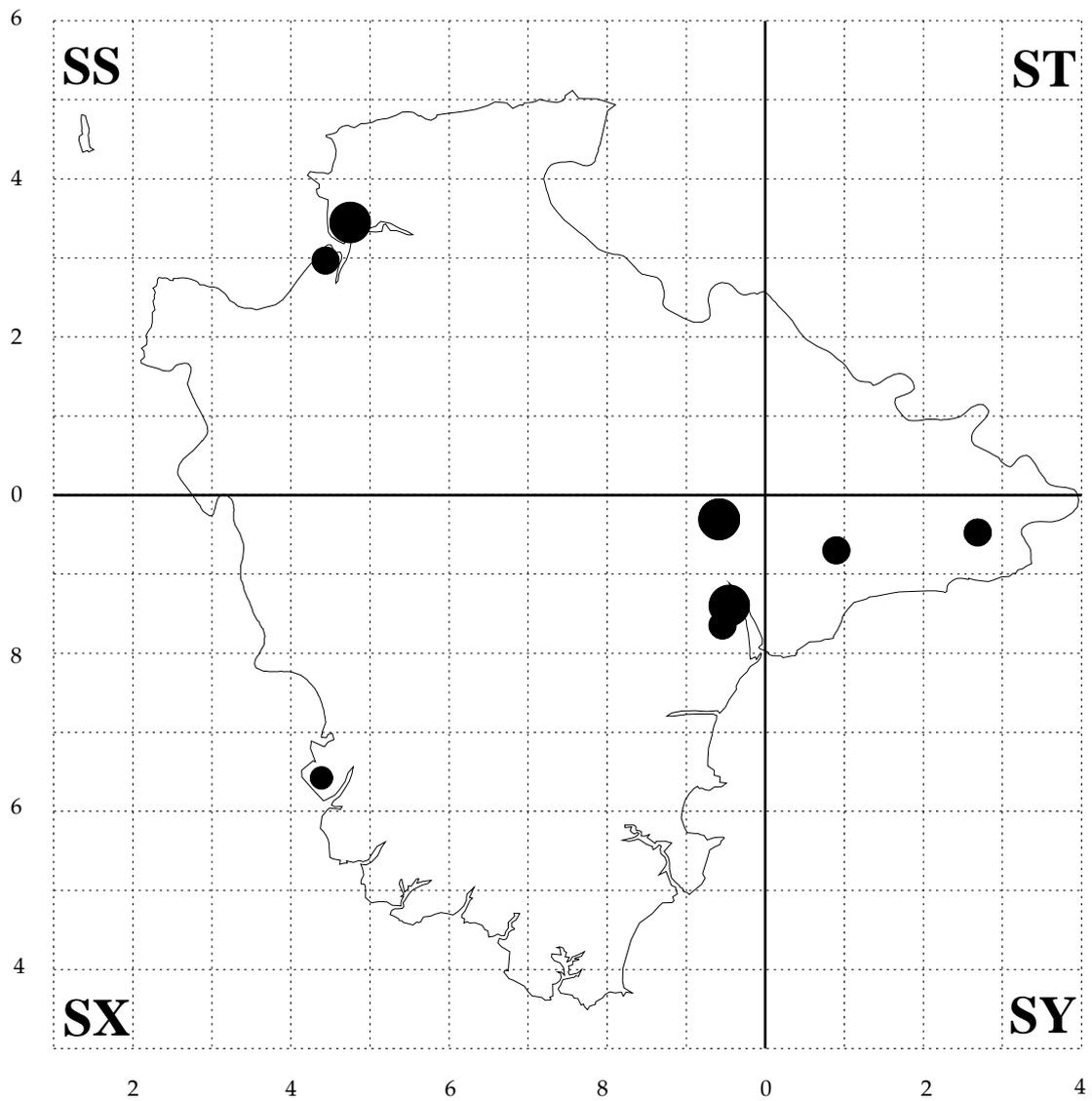
Amphibians are characteristic of grazing marshes which at certain times of the year are an important component of an otter's diet.

4. Special species

The following species of conservation concern are associated with grazing marsh in Devon. Species marked (p) are 'Species of Principal Importance in England' (NERC Act, S.41).

- **Birds**: curlew (p), golden plover, lapwing (p), black-tailed godwit (p), redshank, snipe, gargeny, shoveler, wigeon, dark-bellied brent goose (p), reed bunting (p), skylark (p) reed warbler, sedge warbler, Cetti's warbler, barn owl.
- **Dragonflies**: hairy dragonfly, ruddy darter
- **Flowering Plants**: flowering rush, parsley water-dropwort, corky-fruited water-dropwort frogbit, marsh arrowgrass
- **Mammals**: otter (p), water vole (p)

5. Grazing marsh distribution in Devon



Grazing marsh distribution and area

● ≤ 50 ha ● 50 - 100 ha ● 200 - 500 ha

(Data supplied by English Nature)



6. Current extent (1998)

Approximately 300 hectares on Braunton Marsh, 350 hectares on Exminster Marshes and 70 hectares on the Axminster marshes, plus other smaller systems that are no longer managed traditionally.

7. Current problems for grazing marsh in Devon (1998)

- Land development for roads, industry and housing continues to pose a threat of loss of grazing marsh.
- Habitat loss and degradation through agricultural improvement and or intensification is widespread. The use of artificial fertilisers has led to a reduction in biodiversity of these grasslands and associated habitats. High stocking levels during the bird breeding season causes nest losses to ground nesting birds.
- Management of ditch systems is often either neglected or too severe for maximum benefit to the plants and animals that are dependent on them. Profiles and water levels that create effective wet ditches as well as the best conditions for many aquatic plants are not maintained.
- Nutrient enrichment of ditches comes from the use of fertilisers, either directly on the marshes themselves or indirectly by run off and drainage from other agricultural land. Another source of pollution and nutrient enrichment is from sewage discharge; again, this can be either nearby or remote. As a result of nutrient enrichment plant communities have altered



to those species that can tolerate and thrive in eutrophic conditions, such as pondweeds *Lemna* spp. and filamentous algae *Enteromorpha* spp. with the associated loss of more sensitive submerged and emergent aquatic plant species such as frogbit. These species block the light to invertebrates and plants living beneath the water and have a serious effect on species such as the hairy dragonfly.

- Disturbance to feeding and roosting birds from wildfowling in winter and other recreational activities such as dog walking and bird watching may cause problems in certain areas.
- The use of grazing marshes for flood water storage can cause conflict with nature conservation interests. These issues will be addressed in the forthcoming water level management plans for the Exe and the Erme.

- The predicted rise in sea level may cause existing sea walls to fail, leading to inundation of grazing marshes with salt water and a consequent loss of this habitat with many of its associated species. Where so-called “managed retreat” is practised, and a new sea wall is created further inland, measures should be taken to create new grazing marsh as well as to preserve as much of the existing habitat as possible.

8. Recent changes in extent (1998)

At present there is incomplete information especially for smaller non-designated areas, and historic sites that have been lost. For example grazing marsh lost to development and arable farming at Marsh Barton, Exeter. Most recent losses include: Taw/Torridge Estuary (Horse Island), 40 hectares ploughed in 1997, Exminster Marshes, 25 hectares ploughed in 1995, Seaton Marshes, ditch infilling and drainage works possibly affecting up to 10 hectares in 1996.



9. Current site protection (1998)

The Exe Estuary is a Ramsar Site, designated under the Convention on the Conservation of Wetlands of International Importance, and a Special Protection Area, designated under the EC Directive on the Conservation of Wild Birds.

Greenaway, Freshmarsh, and Braunton Swanpool are SSSIs.

10. Biodiversity planning context

National BAP Context

Habitat of principal importance in England (NERC Act, S.41):

- Coastal and floodplain grazing marsh

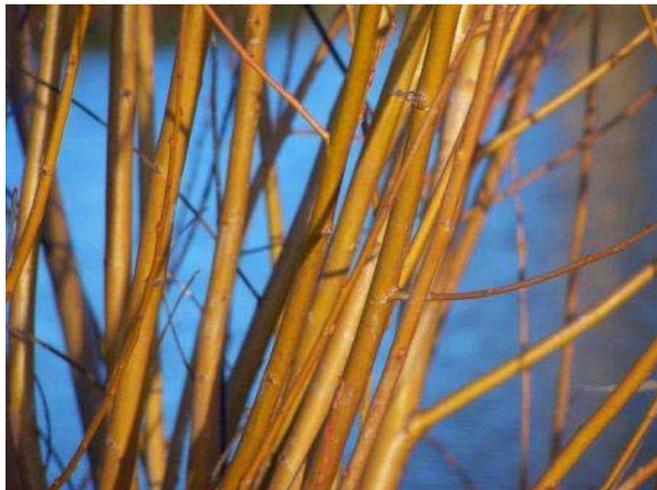
Current national BAP targets can be viewed on the [Biodiversity Action Reporting System](#) (BARS).

Regional Plan Context

Regional targets for priority BAP habitats can be found on the website of [Biodiversity South West](#).

Associated Action Plans within the Devon BAP:

- Rivers, streams, floodplain and fluvial processes
- Estuaries
- Curlew
- Water vole
- Barn owl
- Otter



11. Biodiversity objectives and targets for grazing marsh in Devon

Please note: preliminary review of objectives and targets undertaken in 2004. Requires further examination.

Objective 1

Arrest the decline of grazing marsh in Devon.

Targets:

- Maintain current extent of approximately 600 hectares and improve condition of grazing marsh in Devon.
- 95% of SSSI grazing marsh to be in favourable or recovering condition by 2010.

Objective 2

Actively restore grazing marsh within Devon.

Target:

- Restore 100 hectares of grazing marsh in Devon which has become too dry or is intensively managed by the year 2010.

Objective 3

Expand the resource by recreating it where it has been lost and create new areas where opportunities arise *e.g.* as part of managed retreat.

Target:

- Create 100 hectares of grazing marsh from arable land by the year 2010.

12. Wider benefits from pursuing these objectives

The pursuit of the objectives and targets set out in this plan will not only benefit the biodiversity of grazing marsh. Conservation has wider benefits

and advantages for society, by providing a resource that is the basis of many aspects of the local economy, and by adding to the quality of life of the people of Devon in ways that are beyond financial measure. Thus enhancing the interests of biodiversity will also enhance the interests of society as a whole. Also, floodplains provide a natural, efficient and cheap means of flood defence.

13. Priority or indicative actions for grazing marsh in Devon

Action	Key Partners
1. Ensure that existing grazing marsh is appropriately managed by use of agri-environment schemes, WES, etc. (to include grazing regimes and water level management).	EA; RSPB; Site owners; IDBs
2. Promote the expansion of grazing marsh adjacent to existing sites where appropriate through agri-environment schemes and other funding sources.	EA; EN; DEFRA; RSPB; DWT; FWAG
3. Provide land managers with advice on management techniques for grazing marsh ditches which encourage a rich diversity of wildlife. Advice to include the management of water quality and levels.	EN; EA; FWAG; RSPB; DWT; HCS; Site owners
4. Seek to monitor water quality in ditch systems.	EA
5. Encourage research into recreation of grazing marsh on former arable land (including issues relating to reducing enrichment and suitable livestock breeds).	IGER; Universities; DEFRA
6. Raise the profile of grazing marsh as a buffer in flood plains to help reduce flooding.	EA; EN; DEFRA; RSPB
7. Where possible ensure there is no loss of grazing marsh in flood plains to development or inappropriate flood defence works.	LAs; EN; EA

Grazing Marsh Action Plan Champion - Royal Society for the Protection of Birds
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Abbreviations used in text and table

- BAP Biodiversity Action Plan
- BTO British Trust for Ornithology
- DEFRA Department of Environment Food and Rural Affairs
- DWT Devon Wildlife Trust
- EA Environment Agency
- EN English Nature
- FWAG Farming and Wildlife Advisory Group
- HCS Heritage Coast Service
- IDBs Internal Drainage Boards
- IGER Institute of Grassland and Environmental Research
- LAs Local Authorities
- RSPB Royal Society for the Protection of Birds

Two faces of the Lower Clyst Valley, near Topsham:

Firstly, looking downstream towards the Exe Estuary, at periods of low rainfall.



Secondly, the same land demonstrating its capacity to accommodate large amounts of flood water. This time the view is looking upstream.

