Broadland Catchment Partnership

Water Resources

Habitats and Species

The Broads is important for a huge array of species. There's a lot out there!

- 11,067 species in total
- 1,519 priority species (GlobalRDB, RDB, Nationally Notable, Birds of Conservation Concern, BAP, regional specialties)
- 19% of total designated species in the United Kingdom (based on the JNCC only), occurring in an area only 0.4% of the United Kingdom.
- 26% of the UK's BAP species, 13% of the UK's RDB, 17% of Notable and Scarce.
- Nineteen Global Red Data Book species
- A very wide range of taxonomic groups: e.g., 403 species of beetle, 251 species of flies (Diptera) and 179 species of moth
- Very large numbers of priority bird species – 85% and 94% respectively of UK Bird: Red and Bird: Amber designated species.
- 66 Broads Speciality species, 14 species entirely and 17 largely restricted to The Broads in the UK and 35 that have a primary stronghold in the region.

Grazing Marsh

- 11,400ha of this habitat in the Broads
- Water supplied from rainfall, groundwater, adjacent ‘upland’
- Most sites will function with some level of nutrient enrichment, but many won’t
- Saline influence in lower reaches
- Breeding waders need high winter levels, which gradually lower from May to reveal wet mud and food source for chicks. Most management of land (ditches etc.) takes place in autumn
- Once management complete in late October levels can rise
- IDB pumps maintain water levels in many areas



Grazing Marsh

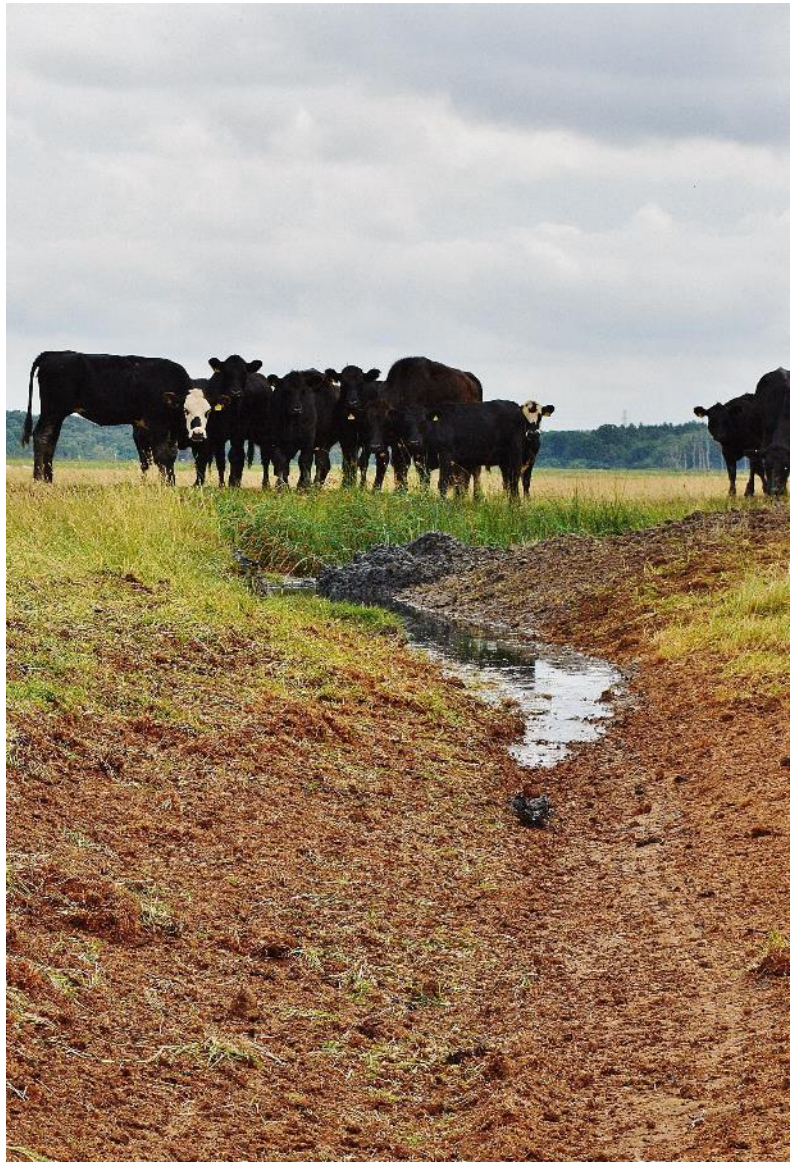
- Important for breeding waders, wintering waterfowl
- Important for scarce aquatic macrophytes e.g., Potamogeton compressus (grass wrack pondweed)
- Important for scarce invertebrates e.g., Anisus vorticulus (little whirlpool ramshorn snail)
- Important for water vole
- Requires reasonably constant water levels and active management from year to year



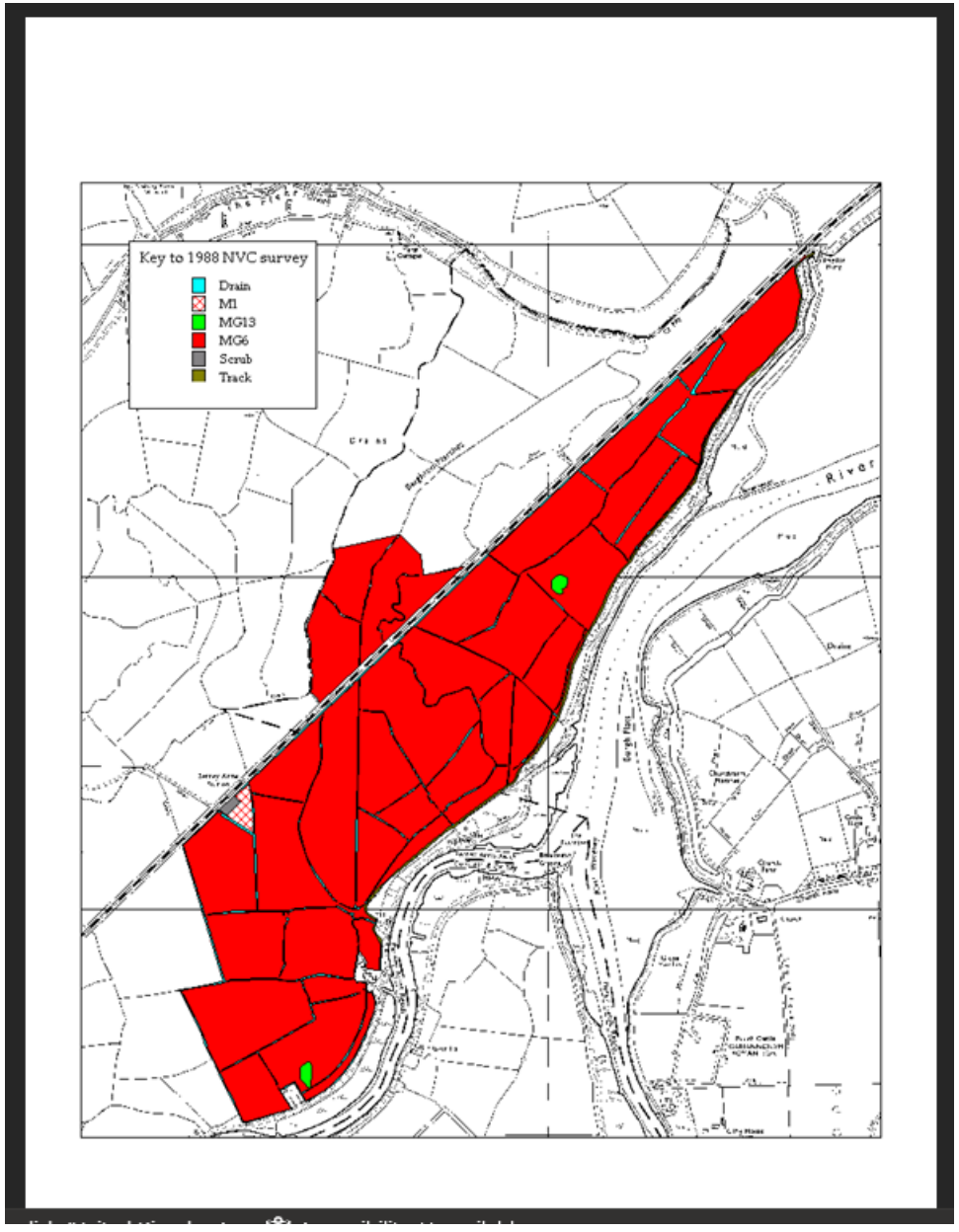


Threats to Wildlife and Conservation Aims

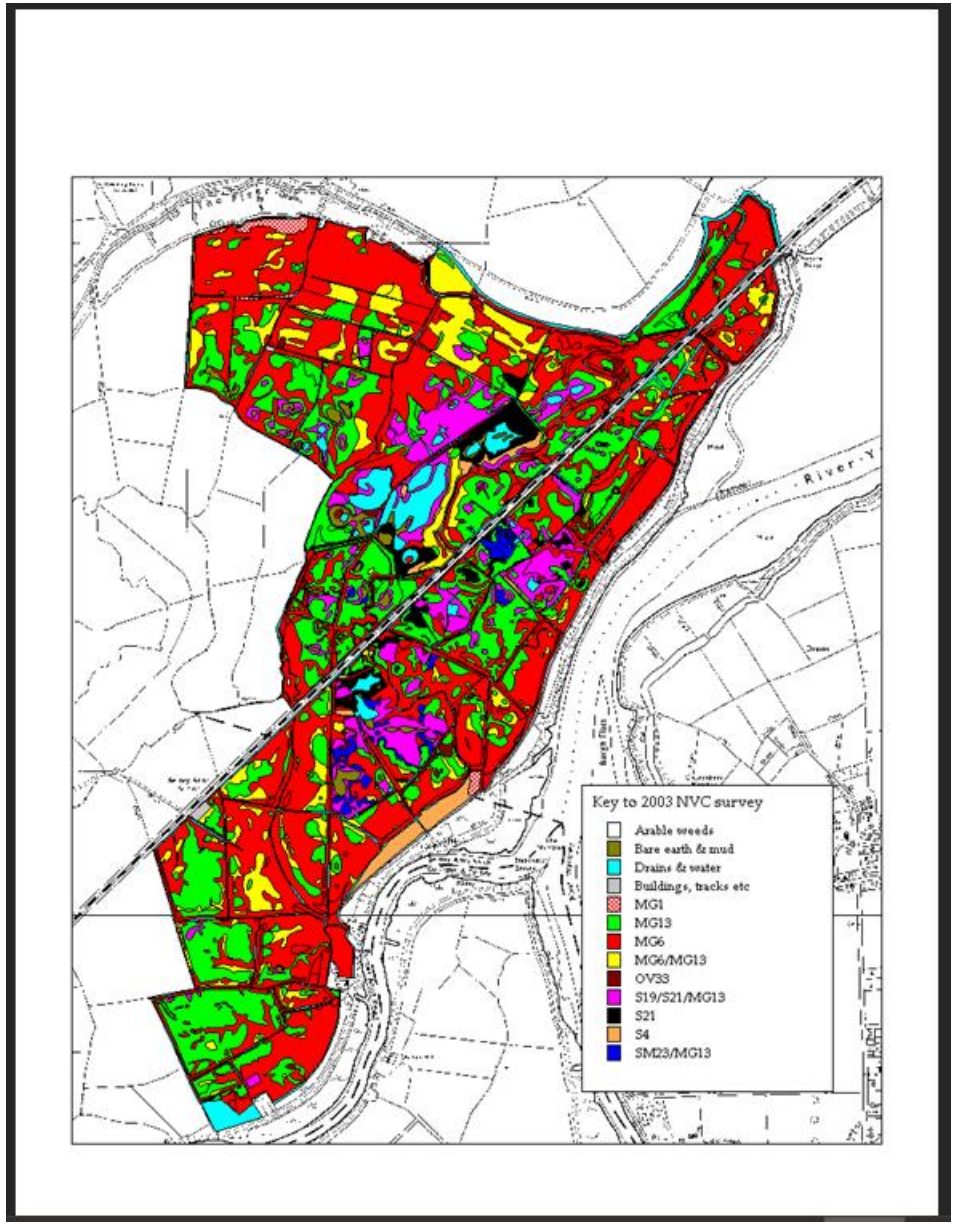
- Drought
- INNS
- Flooding – fresh and saline
- Inappropriate grazing
- Pollution
- Under and over-management
- Complicated water control to cater for wet grassland and arable
- Disturbance
- Out of date Water Level Management Plans
- Conflict with other users for water



Dry Grassland



Wet grassland



Species Rich Fen

- c3,500ha of this habitat in the Broads
- 75% of the UK's lowland, calcareous fen is found in the Broads
- Nutrient poor, peat soils
- Depending on Geology some are groundwater fed, some fed from river
- Micro topography (small tussocks), pH, linear surface flows are important
- Impossible to recreate



- High levels of biodiversity – plant, invertebrate especially e.g., water beetles, Vertigo moulinsiana (Desmoulin's whorl snail)
- Require traditional management – sedge harvesting and conservation cutting
- Fen variety of fen orchid, swallowtail, only found in the Broads along with 60+ species

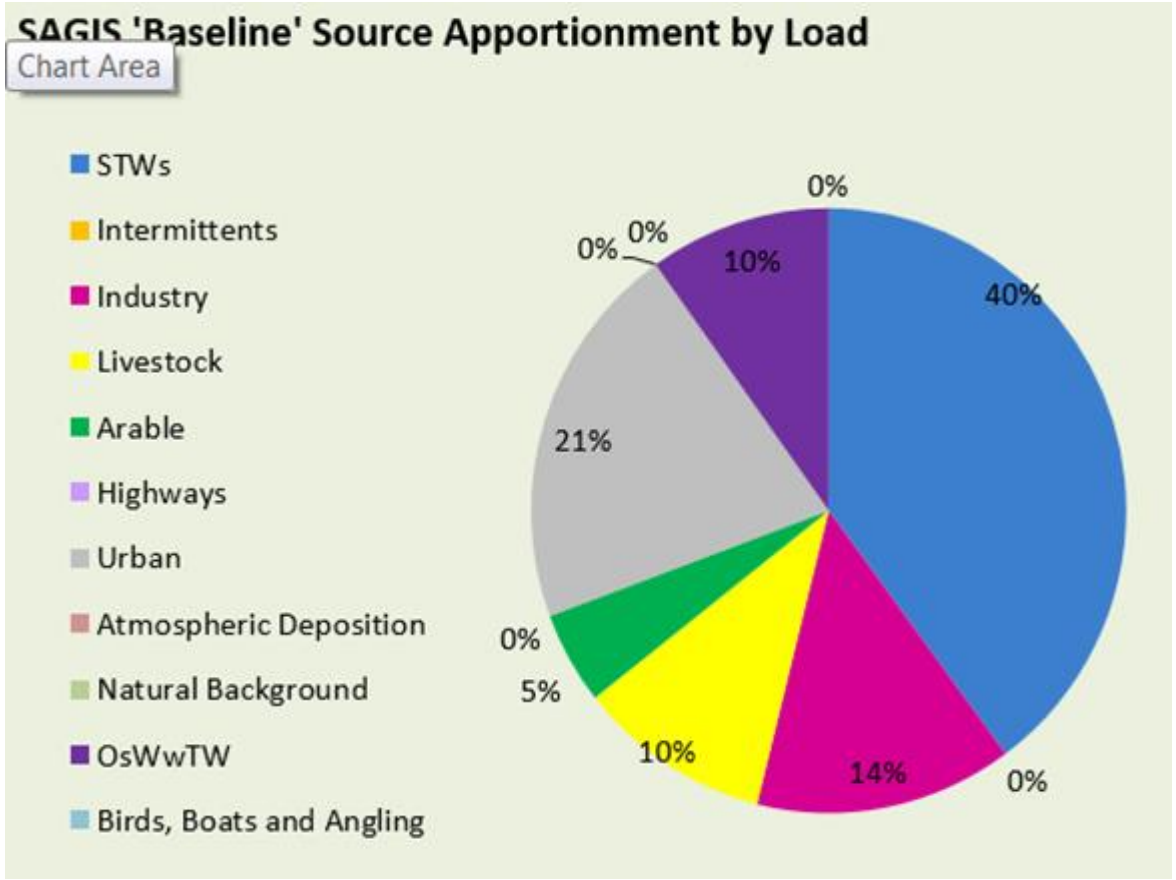






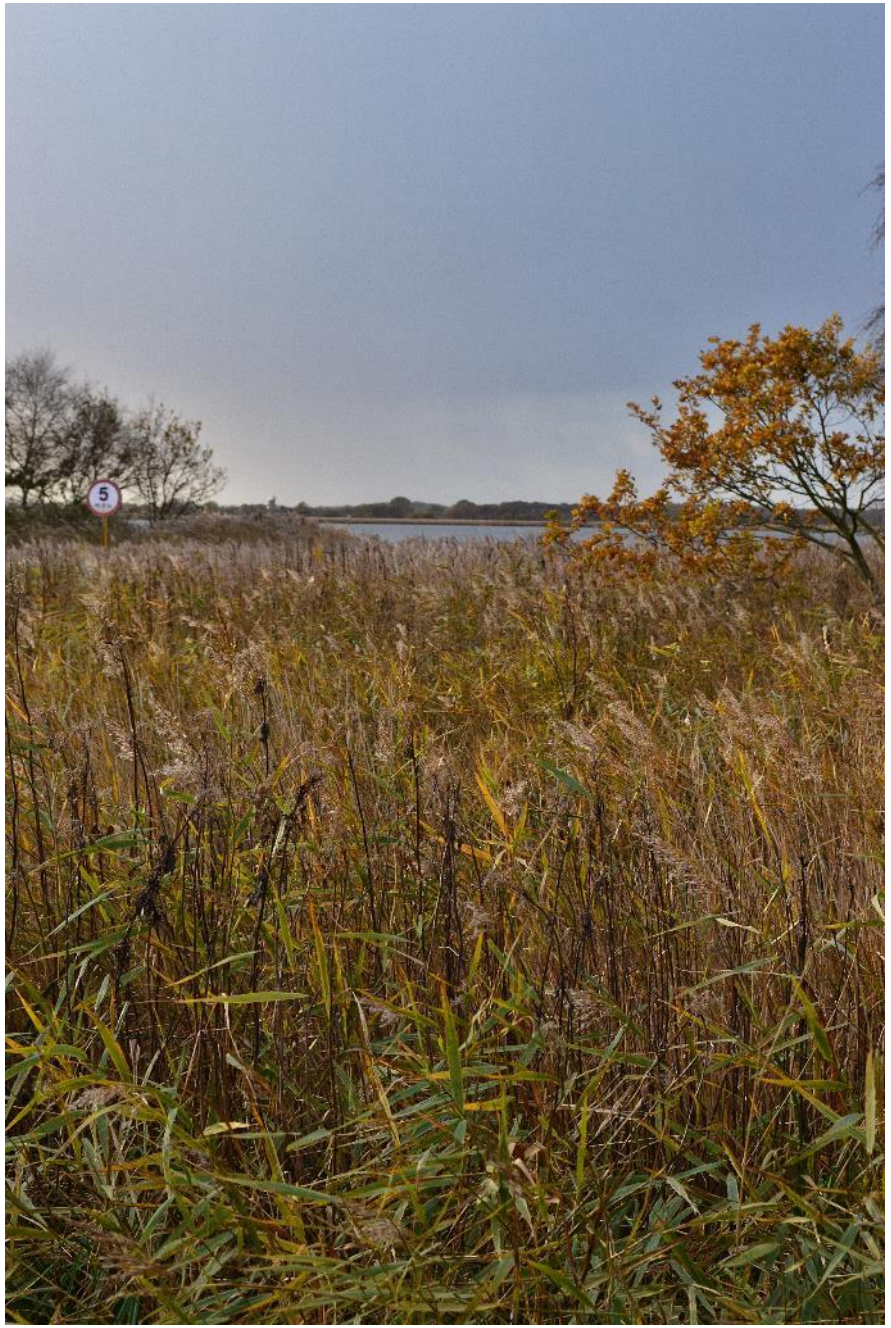
Threats to Wildlife and Conservation Aims

- Phosphate and nitrate enrichment – P no higher than 30ug/l, N below 1mg/l
- Under and over-management
- Pollution
- Nutrient loading – residential, agricultural, highways run off
- Drying out, prolonged flooding
- INNS
- Scrub invasion
- Conflict with other users for water



Reedbed

- C5000ha of this habitat in the Broads
- Less diverse than fen grows on silt and clay soils as well as peat
- Bittern, crane, marsh harrier, otter, water vole
- Important for invertebrates e.g., Norfolk Hawker
- Harvestable crop
- Multi-functional – habitat, source of reed for thatching, tolerant of nutrients and can act as Nature based Solution
- More tolerant of flooding but not freshly cut areas – kills reed
- Grows in brackish conditions – e.g., river ronds
- Loses a lot of water in warmer months from evaporation and evapo-transpiration



Threats to Wildlife and Conservation Aims

- Under management
- Scrub invasion
- Inappropriate water level control
- Prolonged saline incursion, fluvial flooding
- INNS
- Human disturbance
- Conflict with other users for water



Aquatic Habitats

- The great spatial connector
- 7 rivers, 200km navigable water way and 63 broads
- Important for angling and tourism
- Important for drainage of the catchment



Threats to Wildlife and Conservation Aims

- Pollution – highways, agriculture
- Nutrients – residential, agriculture ,business
- Low Oxygen – fish kill
- Sedimentation – sediment run-off
- Ochre
- INNS





Wet Woodland

- Most often on the fringes of the floodplain and on slightly higher ground
- Also found along river valleys
- Helps maintain humidity within fens and reedbed
- Often the point of upwelling of groundwater



Threats to Wildlife and Conservation Aims

- Although a valuable habitat can rapidly spread to invade species rich fen
- Loses a lot of water in warmer months from evaporation and evapo-transpiration
- Conflict with other users for water



Arable

- Important for arable plants
- Breeding skylark, adjacent to fen/reedbed used by crane for foraging with chicks



Threats to Wildlife and Conservation Aims

- Conflict with other users for water
- Often portrayed (unfairly) as being solely the cause of water shortage in adjacent habitats
- Source of nutrients, herbicides and pesticides
- Sediment run-off into floodplain and water courses and water bodies



