

Biodiversity

Sectoral workshop comments summary

Peatland

- Oxidation and shrinking of peat – better management required;
- Soil erosion increasing as rainfall drops, but occurs at higher intensity;
- Blanket bogs expected to suffer from reduced rainfall & moisture availability.

Moorland

- Important as a carbon store;
- Decline in numbers of upland species;
- Reducing snow leads to reduced water storage & soil moisture deficit;
- More fires in upland areas – need to improve management. New approach needed to upland burning.

Wetlands

- Ponds susceptible to drying;
- Lowland wetlands and heathlands dying out;
- Creation of wetlands would greatly aid flood storage – important way of mitigating flood risk.

Coastal

- Marine ecosystems impacted by warming seas – breeding bird species face decline (Puffin, Kittiwake);
- Sea cliffs are undervalued – threatened by increasing erosion;
- Intertidal habitats threatened by sea level rise & coastal squeeze;
- Bird populations 'leaving' estuaries could threaten designated status and associated protection;
- Loss of saltmarshes.

Others

- Still much uncertainty over impacts and knowing how best to direct resources. Identify unavoidable changes so that efforts are focussed well;
- Need to improve monitoring and monitoring needs to be carried out more frequently;
- Declining availability of water for habitats;
- Drying soil will impact upon bird species that feed on invertebrates;
- Phytophthora and other species of pest likely to increase;
- Urgent need to restore hydrological systems;
- Unpredictable changes in crop production will have major impacts on biodiversity;
- Impact of reduced flows and siltation on invertebrate & fish populations;
- Increased level of water abstraction;
- Summer flooding of hay meadows renders them unmanageable;

- Extreme events are key for impacts on biodiversity;
- Reduced predictability of weather impacts is very problematic for biodiversity;
- Lack of understanding re the impacts of rising temperature upon invertebrates. Also impact of late frosts on early flying insects;
- Societal responses to climate change may be as significant as direct impacts. Eg Increased tourism = greater pressure on habitats, increased pressure for tourist-related infrastructure;
- Habitat fragmentation – need to restore ancient woodland and protect what already exists;
- Develop habitat networks & a common understanding of them - can habitats and species be listed according to vulnerability?
- Migratory fish species impacted by flow variations;
- Longer growing season would mean fewer opportunities for management of woodlands;
- All forms of habitat management become harder in wet conditions;
- Wider ownership of SSSIs and getting them into good condition. Without action – the number of SSSIs in unfavourable condition will increase. Adaptive management should be built into site objectives;
- Man-made sites should 'build-in' habitat resilience;
- Work to reduce non climate change related threats and stresses;
- Communication with public – making gardens more friendly to wildlife. Better understanding of climate change is vital in schools and to adults;
- Plants flowering earlier – impacts across whole ecosystem;
- Dominant woodland species susceptible to disease – ongoing monitoring needed;
- Habitats should not continue to be treated in isolation;
- Good co-operation and joined up thinking vital between authorities & orgs;
- Lowland heaths may benefit from drier conditions;
- Increasing problems caused by invasive diseases;
- Reducing frosts – more prolific butterfly parasites and thus reduced numbers of butterflies;
- West Nile Virus – spread by mosquitoes – may become more prevalent? The insect vector for Dutch Elm disease is also temperature dependent;
- Threat to the ecological services of bees and other species (links with colony collapse disorder ?);
- Impact of flooding on water vole populations;
- Threat to biodiversity of development – conflicting interests;
- Pluvial (urban) flooding – polluted and contaminated water joining watercourses with subsequent impacts on biodiversity;
- Hotter summers and reduced availability of water result in an increase in inter-catchment water transfer – potential for transfer of species & consequent biodiversity impacts; different water pH, varying levels of nutrients etc.