

Managing springs and seepages in woodlands

Woodland spring and seepage habitats are probably the most widespread wetland habitat type in Britain. However, awareness of the importance of the habitat is limited. They encompass a wide variety of habitats, ranging from branching channels in wet carr woodlands, to discrete spring-fed seepages in drier woodland types.



A woodland seepage in the Mendips © Sharon Pilkington

It is important to recognise the value of seepages in woodlands. Seepages with the best habitat value are undisturbed and have lots of lush herbage that helps hold a humid microclimate e.g. Pendulous sedge (*Carex pendula*), Butterbur, (*Petasites hybridus*), Hemp-agrimony (*Eupatorium cannabinum*), Giant horsetail (*Equisetum telmateia*), ferns, and nettle beds. Saxifrage (*Chrysosplenium* spp.) is a good indicator plant on shaded seepages.

Woodland seepage vegetation can feature flowering plants of value to pollinators including: Hemlock water-dropwort (*Oenanthe crocata*), Hemp-agrimony (*Eupatorium cannabinum*), Wild angelica (*Angelica sylvestris*), Creeping buttercup (*Ranunculus repens*), Marsh thistle (*Cirsium palustre*), figworts, (*Scrophularia* spp.), Fool's watercress (*Apium nodiflorum*), sallows/willows (*Salix* spp.), and Wild redcurrant (*Ribes rubrum*). Umbellifers are especially important for wet woodland soldierflies and hoverflies.

An important and diverse range of invertebrates use woodland springs and seepages. Woodland seepages have the highest total of "key" species – species that show a strong fidelity to seepage habitats, many of these being

craneflies such as the Southern yellow splinter crane fly (*Lipsothrix nervosa*). Soldierflies such as the Dark-winged soldier (*Oxycera analis*); and caddisflies such as *Limnephilus bipunctatus* also use this habitat.

Woodland management

The original wildwood that once covered much of Britain was a very varied habitat. This would have had many poorly-drained areas and seepages, and many more ancient trees and dead wood. Nowadays, wet woodland may be a small component of a larger wood. The larger wood may need management, but it may be beneficial to have non-intervention zones around springheads and woodland streams. Thus, sections of wet woodland should be maintained in as natural state as possible.

If considering changing the management of woodlands, it is advisable to seek expert advice regarding the impact of the changes on seepages. Generally, little or no management of the woodland may be best around seepages¹, however in some circumstances it may be beneficial to let some more light in by thinning the canopy, to create pockets of marshy clearings.



Lipsothrix crane fly habitat – seepage with submerged coarse woody debris © Nick Mott

The Section 41 (S41)² species Southern yellow splinter crane fly (*Lipsothrix nervosa*) requires water-saturated fallen timber under a woodland canopy for larval development. Wood as small as 3cm diameter can be used, though larger wood in the range 28 to 65cm diameter is preferable. To help this species, do not clear-fell damp woods, allow dead wood to lie where it falls, and do not remove coarse woody debris from springs, seepages and streams.

Retaining canopy cover may help mitigate against any temperature increases due to climate change on sites.

Deadwood

As in all woodland habitats, deadwood, both fallen and standing of all sizes, should be retained as it provides habitat for some of the rarest British invertebrate species. It is also crucial to ensure that there is a continuity of supply of dead wood.

Submerged and semi-submerged timber is a specialist spring and seepage micro-habitat supporting many hoverflies and crane flies. Wet and boggy areas with fallen semi-submerged timber should be managed to ensure that further coarse woody debris enters the system. When felling in such locations, some fallen timber of a variety of sizes should always be left in the water. Semi-submerged logs in springs and seepages are important for the endangered Southern yellow splinter crane fly (*Lipsothrix*

nervosa). Deadwood should be retained and not cleared out of water bodies, wet areas and ditches. The larvae of caddisfly species such as *Lype reducta* also live or feed on submerged wood.

Livestock grazing and poaching of ground

On sites historically managed by grazing, it may be logical to continue that management. However, one should be aware that over-grazing and poaching can damage the vegetation structure.

Poaching and trampling of the ground by livestock can destroy micro-habitat features, damage delicate plant communities and the structure of the soil. A limited amount of poaching can be beneficial for some lower plants and invertebrates that thrive where exposed mud is otherwise absent.

See Sheet 2 “Livestock grazing and poaching of ground” section for more details.

Further information

¹ Kirby, P. (2001) Habitat Management For Invertebrates: a practical handbook. RSPB Management Guides.

² The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. These were formerly UK Biodiversity Action Plan (UKBAP) priority species.

Buglife has developed a series of advice sheets on the conservation, management and restoration of springs and seepages. These are available at www.buglife.org.uk. Whilst these sheets have been developed as part of the Wessex springs and seepages project, much of the habitat management advice is applicable to other parts of the United Kingdom.

- Sheet 1 - **Springs and seepages - An important habitat for wildlife**
- Sheet 2 - **General guidance to managing springs and seepages for wildlife**
- Sheet 4 - **Managing springs and seepages in grasslands, heathlands and open habitats**
- Sheet 5 - **Managing springs and seepages on coastal cliffs**



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