

A CODE OF PRACTICE FOR THE MANAGEMENT OF HEATHLAND PATHS AND TRACKS

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Introduction

It is not always appreciated that heathland paths and tracks do not just provide access routes but are also an important habitat in their own right. Many heathland invertebrates exploit dry sandy and eroded paths and tracks. In many ways the heathland paths are just as important as the heathland plant communities, and invertebrates need them both. They provide meeting places for these animals, well-insolated surfaces on which they warm up quickly and nesting sites. The nature of the path surface is very important. Some species of solitary bee appear to fly straight through loose sand to their nests. Other species need harder, undisturbed sand and one solitary wasp temporarily blocks its nests with small stones collected nearby. Aerial views of heathland emphasise how rare a resource these paths and tracks are.

Most importantly these bare sandy paths and tracks provide nesting sites to maintain the life histories of many species of solitary wasps and bees and their parasites. Based on one typical site, Chobham Common, Surrey, up to 130 ground nesting solitary bees and wasps may be nesting in sandy tracks and bridleways. For a really good site like Godlingston/Studland, Dorset, which includes coastal habitat, there may be upwards of 180 ground nesting species. Generally fewer species are evident, as one moves north in the United Kingdom, but here such tracks may be even more important in providing well drained and sun exposed habitat.

Bare ground on heathlands is also important for many species of inconspicuous flies and ground beetles, as well as other wildlife such as sand lizards and woodlarks. It must be understood that invertebrates use different habitat features at different stages of their life cycle. Between autumn and mid-summer the early stages of invertebrates may lie beneath the sandy paths and eroded surfaces. Therefore if we are going to retain the full biodiversity of our heathlands we must look after the paths, tracks and bridleways appropriately to retain this rare bare ground resource. At the same time we must not forget that some disturbance is beneficial as it creates the early successional habitats that provide access to the soil surface for many creatures.

The emphasis on improving access to the countryside as a result of the implications of the Countryside and Rights of Way Act 2000 is a major force for change. The recent developments of hard surfacing with gravel, granite, hoggins and the softer surfacing of wood-chips or similar materials, seen on some heathlands, is damaging an already threatened habitat. A national policy is needed to limit this practice throughout the UK and not just on heathlands or similar habitats. Indeed, there should be a presumption against hard surfacing of all existing countryside paths and tracks. This code of practice is designed to address this issue in terms of the heathland habitat in the UK.

Guidance

The following suggested practices, if implemented, will go some way to prevent damage to the invertebrate communities of bare ground, where surfacing of paths is proposed:

1. Before any work in terms of erosion repair or artificial surfacing of paths is proposed, those paths effected should be surveyed as to the adverse impacts that the work may have on the natural fauna. For an extensive scheme of hardening a full Environmental Impact Assessment should be conducted, including consultation with all the relevant species' experts for those animals that use bare ground. It should be borne in mind that, because of the ease of excavation, many bee and wasp species may use the same local area for their nest sites year after year.

2. Artificial surfacing of existing paths, such as gravelling or covering with hoggin or granite chips or infilling sandy gullies with flints should be avoided at all costs. Hardening of such paths should preferably be not done at all or it should be kept to the absolute minimum. If surfacing work must be carried out it should not extend over the whole width of the path.

3. If access tracks for fire vehicles are needed, new tracks should be constructed so as not to obliterate the life below the existing sandy tracks of heathland. Where small wet areas occur on heathland tracks it is permissible to harden these areas to the minimum extent necessary to allow access by fire vehicles.

4. In order to enable at least some path-nesting heathland invertebrate species to survive, work on heathland paths should not be done in the autumn, winter or spring.

[Remember if you deposit heavy gravel on to tracks at any time during the year you will almost certainly be entombing many invertebrate specimens in their underground nest holes.]

5. The replacement of erosion runnels by steps etc., should preferably not be undertaken at all, but if deemed absolutely necessary, replacement of eroded surfaces should be kept to the bare minimum. This work should only be done from mid-June to mid-August of each year; this will avoid at least some damage to underground nest sites, and the early stages of solitary bees and wasps that may be contained in them. Care will still be required at this time of year to avoid compaction of the surface soil by vehicles.

6. As paths are often the preferred nesting sites for solitary bees and wasps, it is essential that the natural sandy soil surfaces are maintained. This is achieved by walking, riding and occasional vehicle use as these forms of access keep these paths clear of vegetation. Small scrapes soon vegetate up and are often only used by bees and wasps for a short time before they become unsuitable, as no one walks on them.

[Where horse traffic occurs it is better that galloping is not encouraged as many sand-wasp nests could potentially be destroyed. This will occur especially in winter, as the pupae of some bees and wasps may only be six cm below the surface and the impact depth of horse's hooves often penetrate below this level.]

7. There should not be a presumption that erosion is undesirable. It is part of the natural cycle of many sites, which many animals, particularly invertebrates have exploited via their life histories.

[Some species nest in small vertical cliffs, formed by drainage channels, others in severely eroded sites with deep vertical cliffs that resemble sand pits, a much favoured habitat. Some bee-flies use the loose sand present on paths, or in the excavations of solitary bee and wasp species, by sucking the sand into a small sand-chamber in their abdomens and then coating their eggs in this sand. These eggs are then flicked individually by the bee-flies when they are in flight, into the host's nest holes or into areas under heather, near an occupied host bee or wasp's nest.]

Further Reading

Else, G et al, The Conservation of Bees and Wasps, NCC, 1979, ISBN 0-86139-005-9

Anon, Management of Bare Ground on dry grasslands and heathlands, English Nature 1996, ISBN 0 85716 227 7

Yeo, P F et al, Solitary Wasps, Naturalist's Handbooks 3, Cambridge University Press, 1985, ISBN 0521 29940 3

Addendum

Steps to be taken to minimise damage to the bare ground habitat if a hard or soft surfacing scheme is to be carried out on open, sun-exposed lowland heathland paths, tracks and bridleways.

1. A survey should be conducted of the paths, tracks and bridleways representing bare ground that are used for nesting by solitary wasps, bees and other invertebrates. These areas should be indicated on site maps. Ideally this survey should be conducted over a minimum of two years from March to October to ensure that all the significant areas are recorded.
2. Ideally any such a survey should take place at a minimum of five years before any type of surfacing scheme is to be carried out.
3. After the survey is completed bare ground patches to replace the bare ground habitats to be lost should be created within existing "heather" areas, ideally at least three years before any hard surfacing is carried out. (It may take three years or more before the host wasp of the Mottled bee-fly finds these patches, even if still occurs in the bare ground of a path or track only 20m away from the new patches).
4. Ensure hard surfacing is only done between mid-June and mid-August annually, preferably on sunny days when the bees and wasps are outside of their nest sites and can move elsewhere to other bare ground sites.
5. Restrict hard surfacing to the middle of tracks only, i.e. for a six -metre wide track cover only the middle two to three metres.
6. Use materials that are compatible with the underlying soil, so that they do not enrich it creating edges full of ruderal weed species. Fittleworth stone is the best material to use on heathlands.
7. Ensure that the material to be used is stored with a cover over it or, that it is stored in a place that does not result in it receiving seeds of plants alien to heathland.
8. Do not use loose materials, i.e. chipped stone or loose gravel, that just spreads further and further out as vehicles use it, reducing any edge habitats that may remain.
9. Note that loose materials are also dangerous for those people with disabilities and poor balance as the loose materials just slide under their feet making them unstable and liable to fall over. Such materials also do not provide a firm base on which to rest their walking sticks, unlike sand!