Ecology Report

The 2025 OMM is located within the Shap Fells area of the Lake District National Park. The 2025 OMM event area includes striking examples of the distinctive vegetation, habitats and wildlife species that are characteristic of the eastern Lake District upland landscapes, and contribute to the outstanding upland biodiversity conservation value and importance of the area.

Hill tracks and paths extend into parts of the event area, providing access to the upland landscape without the risk of trampling disturbance to their important vegetation, habitats and wildlife. In some areas, however, 2025 OMM courses will require competitors to choose their own routes through areas that lack hill paths and tracks. For these courses we are keen to encourage personal route selection choices that will ensure 2025 OMM competitors enjoy access to the special landscapes of the event area but avoid the risk of local ecological disturbance. This Ecological Briefing Note has been prepared for the 2025 OMM to identify key features that contribute to the special ecological value of the event area, with route selection comments to help minimise the risk of localised ecological disturbance.

The 2025 OMM event area is characterised by an area of upland landscape that mainly consists of volcanic rocks of the Upper Borrowdale Volcanic group. These rocks were formed during a period of explosive volcanic activity around around 450 million years ago that formed some of the most iconic mountains of the Lake District central fells area. Mountain glaciation has created high level undulating mountain ridges that extend throughout the event area and define a network of steep-sided valleys.

The hard volcanic rocks and rugged, glaciated mountain landscape of the 2025 OMM event area combine to create a harsh environment that has enabled the development of vegetation and habitats with a distinct montane and sub-montane character. Several locations within the event area carry designations that recognise their national and international nature conservation importance. The event area contains substantial areas of upland heather moorland which includes one of the most extensive areas of blanket bog vegetation in the Lake District. This is a localised vegetation type within the Lake District National Park, and the areas within the 2025 OMM event area are known to support a varied range of upland wildlife species witch add to the area's nature conservation importance.

The steep sided valleys that dissect the landscape of the event area cut through areas of locally varied geology. This has created extensive areas of rock outcrop, scree and boulderfield. Where groundwater permeates the geology and issues at the ground surface this maintains upland spring vegetation and wildlife habitats that are of very high nature conservation importance.

A number of streams and rivers flow along glaciated valleys that cross the event area. These are typically fed by headwater streams that originate from locations towards the top of valley sides. Several of the larger streams and rivers within the event area carry designations recognizing the national and international importance of their river habitats and associated wildlife. This value typically extends into the mountain landscape along headwater stream channels.

The principal vegetation and habitat types within the hills and mountains that comprise the 2025 OMM event area are briefly described below, with comments on their potential vulnerability to disturbance from trampling.

- **Dry acid grassland** is an extensive vegetation type on valley sides and some areas of upland plateau within the 2025 OMM event area, formed where centuries of livestock grazing has converted heather moorland and other upland vegetation types to open grassland. These areas are characterised by relatively robust vegetation that can generally withstand the trampling effects of hill running.

- On hillsides, soil movements within **dry acid grassland** areas can develop well-defined micro-terrace systems, often used as sheep walks. These typically lie parallel to contours and can provide extremely useful lines for hill running. Grassland vegetation at the edge of these micro-terraces is often friable and easily dislodged. Care should be taken when using these features for contouring to avoid running on terrace edges to minimise grassland damage. At locations within the 2025 OMM event area these features have developed because of many thousands of years of freeze-thaw soil movements and are important relict features from the post-glacial montane environment. Areas of saturated ground can occur where groundwater seeps into terrace formations. These locations are especially vulnerable to running damage and should be avoided where possible.

- Areas of **wet acid grassland** will be encountered where impeded drainage occurs within relatively level acid grassland areas or where groundwater emerges at the surface as spring-head seepages across more steeply sloping ground. Wet acid grassland can be of special nature conservation interest, in particular where groundwater seepages provide conditions for communities of specialised mosses, liverworts and other plants. The invertebrate fauna that develops within upland springs and flushes is often of ecological importance as a food source for an array of wildlife species. The glacially featured terrain of the 2025 OMM event area has helped the development of spring seepages at numerous valley-side locations within the event area. These vegetation types can be extremely vulnerable to disturbance effects of trampling and should ideally be avoided wherever possible. These features can be difficult to avoid where they cross valuable contouring lines, often located within shallow gulleys, re-entrant features or associated with ground level rock outcrops that cross steep slopes. Complete avoidance of these areas could involve a significant route change and deviation from the desired contour level. Despite this, it would be ideal if damage to seepage zone vegetation could be minimised.

- Sub-montane vegetation along the 2025 OMM route includes tracts of **dry and wet heath**. Areas of dry heath are relatively robust in terms of resistance to disturbance effects of trampling, but wet heath areas can be more vulnerable. These often grade into areas of bog vegetation on deeper peat that combine to create areas of particular upland ecological interest. Wherever possible competitors should avoid crossing wet heath vegetation when choosing running routes. If crossing these areas cannot be avoided then running lines should try to link patches of drier vegetation that will be less vulnerable to disturbance effects of trampling.

- **Blanket bog** is an important habitat, in particular at locations to the east of the 2025 OMM event area. Disturbance of **blanket bog** by runners churning through wet peat has the potential to trigger peat erosion by de-stabilising the peat surface. Wherever possible, route choices in these areas should try to link strips and patches of better drained peat with drier heather moorland and acid grassland vegetation within areas of blanket bog. These are often quite well-drained vegetation types, providing areas of relatively robust vegetation and resistant to the trampling effects of running. A number of blanket bog locations within the event area are in poor ecological condition because of overgrazing and poor moorland burning practice in the past. Significant trampling disturbance would adversely affect the ecological recovery of these areas.

- Locations on the highest mountain summits and ridges within the event area have tracts of **montane grassland and heath** vegetation that includes important high-level **ice-shattered boulderfield**. These areas comprise relict post-glacial vegetation that are of very high ecological interest and consist of very slow-growing vegetation species. Disturbance of these areas by trampling can have long-lasting impacts and can trigger erosion of adjacent vegetation areas in the harsh climate of summits and high ridges where this vegetation is found. OMM competitors should select running lines through these areas that will cause least displacement of high level boulder-strewn ground surfaces and vegetation patches.

- The special upland ecological interest of the 2025 OMM event area includes vegetation of **rock outcrop ledges and seepage zones**. Many of these locations are important for the relict post-glacial flora that they contain, protected from significant grazing by their inaccessibility. While most of the taller outcrops will not be accessed by 2025 OMM competitors, route selection where hill paths are absent or indistinct might include crossing areas of low rock outcrop that are of value for these uncommon upland plant communities and wildlife habitats. Where this terrain is crossed great care should be taken to avoid disturbance to fragile ledge vegetation.

- The event area contains a complex network of **streams and rivers**, some of which are potentially vulnerable to ecological disturbance from crossing by runners. In many cases, the nature conservation interest of these rivers and streams concerns use of the banksides by animals of nature conservation interest such as Otters and Water Voles. As a consequence, great care should be taken by 2025 OMM competitors at stream crossings, minimising bank disturbance when entering and climbing out of stream channels. Wherever possible, *in situ* boulders or rock outcrops should be used at watercourse entry and exit points.