

KONG MINI MOUNTAIN MARATHON EVENTS 2018 BETHESDA EVENT – ECOLOGICAL BRIEFING NOTE

Kong Mini Mountain Marathon Events are located in some of the United Kingdom's most striking upland areas that often contain features of outstanding nature conservation value and importance. Occasionally, the features that provide this interest can be vulnerable to the wear and tear that may result from the passage of event competitors. The risk of ecological damage is carefully assessed during early stages in the planning process for each Kong event, when every effort is made to avoid sensitive ecological interest areas that could be disturbed by the event.

We are keen to encourage personal route selection choices by competitors on our events to further avoid the risk of local ecological disturbance. This Ecological Briefing Note has been prepared for the 2017 Bethesda event to identify key ecological interest features that contribute to the special character of the event area, with route selection comments to help minimise the risk of localized ecological disturbance.

The 2018 Bethesda event area is located within an area of the Snowdonia National Park that has a wild and remote character. The solid geology of the event area mainly comprises a combination of ancient sedimentary rocks formed around 500 million years ago with volcanic rocks formed around 460 million years ago. Subsequent glaciation and river action has created a landscape of varying topography, with steep-sided valleys and frequent high elevation ridges.

Much of the event area has been farmed since Neolithic times, with the result that a prolonged heritage of livestock grazing has created extensive tracts of hill pasture grassland. In contrast to these areas, highest level locations (to the south east of the event area in particular) are of special interest for upland habitats, including specialised montane habitats and plant communities that have developed on northern outliers of the Carneddau mountains, some of Britain's highest mountains south of the Scottish Highlands.

The highest summits and ridges within the event area support post-glacial relict habitat and vegetation that has a strong arctic tundra character. Below the highest-level locations within the event area there are important locations for montane heath, dry and wet heath, blanket bog, flush and spring, calcareous grassland, tall herb and fern ledges, vegetated scree and broadleaved woodland communities. This diverse habitat assemblage is reflected in a varied upland wildlife. The special nature conservation interest of the event area is reflected in the presence of two designated areas of International nature conservation importance, and two designated areas of National nature conservation importance.

The event area is crossed by a number of defined paths that would be used by Kong Mini Mountain Marathon competitors, helping to avoid locations of potential sensitivity to ecological disturbance. For situations where competitors may need to traverse sections of the event area not crossed by paths a series of ecological briefing notes will be supplied to raise awareness of ecological sensitivity issues and encourage personal route selection choices that will avoid disturbance of ecological interest features.

This ecological briefing note has also been produced to communicate the special upland environmental interest of the event area to enrich the experience of participating in the Kong Mini Mountain Marathon 2018 Bethesda event.

- **Dry acid grassland** is a widespread vegetation type within the event area, where centuries of livestock grazing has converted heather moorland to open grassland. These areas provide a relatively robust vegetation type that can generally withstand the trampling effects of fell running.
- Extensive areas of dry acid grassland within the event area can include **mosaics of other upland vegetation** types such as blanket bog, montane heath vegetation, wet heath and wet acid grassland, creating areas of potential vulnerability to a concentration of trampling by event competitors.
- **Blanket bog** is an important habitat feature at several locations within the event area. Where runners encounter patches of intact blanket bog vegetation they should be avoided wherever possible. In situations where crossing **blanket bog** patches is unavoidable, route choices should try to follow strips and

patches of better-drained moorland vegetation between areas of saturated peat. These typically provide areas of relatively robust vegetation that are resistant to the trampling effects of running.

- Some **degraded blanket bog** areas are present, where bog vegetation has been lost and peat erosion gulleys (peat hags) have formed where the underlying peat is being eroded. Disturbance of **degraded blanket bog** by runners churning through peat hags has the potential to trigger further peat erosion by destabilising the peat surface. Wherever possible, the need for competitors to cross these areas should be avoided.
- In situations where crossing **degraded blanket bog** is unavoidable, route choices should try to link strips and patches of surviving moorland vegetation between the peat hags. These are often quite well-drained, providing areas of relatively robust vegetation that can be resistant to the trampling effects of running.
- Areas of **wet acid grassland** will be encountered on courses where groundwater emerges at the surface as seepages across more steeply sloping ground. Wet acid grassland and seepages can be of special nature conservation interest, in particular where groundwater seepages provide conditions for communities of specialised mosses, liverworts and other specialised plants. These vegetation types can be vulnerable to persistent disturbance effects of trampling and should ideally be avoided wherever possible by selecting routes that keep to dry acid grassland to by-pass wet grassland patches.
- **Groundwater seepage vegetation** patches on steep ground can be difficult to avoid where they cross valuable contouring lines. These vegetation types are often located within shallow gulleys, re-entrant features or associated with ground level rock outcrops that cross steep slopes. Avoidance of these areas could involve a significant deviation from the desired contour level. Despite this, it would be ideal if damage to seepage zone vegetation could be minimised.
- On hillsides, soil movements within **dry and wet acid grassland** areas can develop well-defined micro-terrace systems, often referred to as sheep walks. These typically follow contours and can provide extremely useful running lines. Grassland vegetation at the edge of these micro-terraces is often friable and easily broken off. Care should be taken when using these features for contouring to avoid running on the edge of terraces to minimise grassland damage.
- Specialised **rock ledge plant communities** are present at a number of locations within the event area. If competitors need to negotiate low rock outcrops great care should be taken to minimise disturbance of ledge vegetation.
- Extensive areas of **boulder field and scree habitats** are present within the event area that are potentially vulnerable to trampling disturbance. Ice-shattered boulder fields on the highest mountain tops often support fragile **montane grass heath** plant communities of extremely high nature conservation value. Wherever possible existing paths through these areas should be used to minimise disturbance of these communities. Blocky scree often supports specialised plant communities that utilise the microclimate of sheltered spaces within the scree. Routes that cross these features should use existing paths where possible and should always minimise disturbance of scree blocks.
- The event area has several **hill lakes** that are generally of considerable nature conservation interest. Often this interest is associated with specialised vegetation areas that develop at the margins of hill lakes. Kong events do not require competitors to enter any water body within the event area, and all lake margin vegetation should be avoided by runners.
- The event area contains a network of **streams and rivers**, some of which are potentially vulnerable to ecological disturbance from repeated crossing by runners. Some of the rivers within and surrounding the event area are covered by very high level nature conservation designations, including watercourses that could support wildlife species of international and national nature conservation importance. In many cases, the nature conservation interest of these rivers and streams concerns use of the banksides by these animals. As a consequence, great care should be taken by competitors at stream crossings, minimising bank disturbance when entering and climbing out of stream channels.

- The nature conservation value of **streams and rivers** often extends to include wetland habitat and vegetation types that have developed along the margins of these watercourses. To ensure that damage to these habitat and vegetation strips is minimised, runners handrailing streams and rivers should avoid following watercourse margin flood plain areas.