**KONG MOUNTAIN MARATHON**

**ECOLOGICAL BRIEFING NOTE**

The island of Arran is often described as Scotland’s ‘much in little’, where a great variety of geological strata, landforms and wildlife habitat types are found within a relatively small area. The northern part of the island largely consists of granite, with dramatic alpine scenery comprising narrow glaciated mountain ridges and pyramidal mountain peaks. The southern part of the island has a more complex geology that is characterised by more rounded (but still steep-sided) hills and extensive areas of gently undulating moorland terrain.

The varied geology, hill and mountain terrain of the island maintains the largest and most diverse upland habitat assemblage in west central Scotland. These include blanket bog, sub-alpine wet dwarf-shrub heath, subalpine dry dwarf-shrub heath, alpine heath, and alpine moss heath. Blanket bog vegetation and habitats are most extensive on the more gently undulating topography of the southern half of the island. The wet heath vegetation on Arran is especially extensive and forms the largest extent of wet heath in southern Scotland.

Dry heath, dominated by heather and Blaeberry, is common throughout the island on steeper slopes. With increasing elevation and exposure, the dry heath is replaced by alpine heath. This is restricted to the highest ground to the north of the island and occupies some of the highest ridges and summits.

Valuable upland birch woodland remnants are also present around the fringes of the Island’s upland areas. Trees and woodland habitats are of particular ecological interest where they occur on steep sided river banks or gullies at lower elevations. These habitats include several tree species that are only found on Arran.

Arran is an island with considerable ornithological interest, associated in particular with its varied upland breeding community. This includes hen harrier, golden plover, dunlin, raven, peregrine, golden eagle and the red-throated diver, in addition to the most southerly Scottish locality for ptarmigan.

The features of nature conservation interest within Kong Mountain Marathon event area can be vulnerable to the wear and tear that may result from the passage of mountain marathon competitors. The risk of ecological damage has been carefully assessed during early stages in the planning process of the event, when every effort has been made to avoid sensitive ecological interest areas.

We are keen to encourage personal route selection choices by competitors on the event to further avoid the risk of local ecological disturbance. This Ecological Briefing Note has been prepared for the Kong Mountain Marathon 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 localised ecological disturbance.

A variety of distinctive upland wildlife habitats and vegetation types are present within the event area that includes an extensive area of International nature conservation importance, and several areas of National nature conservation importance. The majority of Kong Mountain Marathon courses will provide opportunities to follow existing hill paths, helping to avoid the risk of disturbance to sites and features of special nature conservation interest. For localised situations where competitors might need to cross land away from hill paths this ecological briefing note should support personal route choices that will avoid the risk of significant ecological disturbance. 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 island of Arran Kong Mountain Marathon 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 hill running.
* Extensive areas of dry acid grassland can include **mosaics of other upland vegetation** types such as blanket bog, heather-dominated heath vegetation and wet acid grassland creating areas of local vulnerability to a concentration of trampling by Original Mountain Marathon competitors.
* Upland vegetation within the event area 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 bog vegetation on deeper peat that combine to create areas of particular upland ecological interest. Wherever possible competitors should avoid crossing wet heath vegetation on saturated peat substrates when choosing running routes. If crossing these areas cannot be avoided then running lines should try to link patches of better drained vegetation that will be less vulnerable to disturbance effects of trampling.
* Areas of **wet acid grassland** will be encountered where impeded drainage occurs within relatively level hill grassland areas or where groundwater emerges at the surface as 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 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.
* **Wet acid grassland** at groundwater seepages on steep ground can be difficult to avoid where they cross valuable contouring lines. 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, often located within shallow gulleys, re-entrant features or associated with ground level rock outcrops that cross steep slopes.
* 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 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 these terraces to minimise grassland damage.
* **Blanket bog** is an important habitat within the event area. Some of these areas comprise degraded blanket bog where bog vegetation has been lost and peat erosion gulleys (peat hags) have formed where and the underlying peat is being eroded.
* Disturbance of **blanket bog** by runners churning through peat hags has the potential to trigger further peat erosion by de-stabilising the peat surface. Wherever possible, route choices in these areas 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 and resistant to the trampling effects of running.
* In contrast to areas of degraded **blanket bog**, some locations on plateau landforms within the event area contain patches of high quality blanket bog with an intact vegetation surface that lack eroding peat hags. These are typified by areas of wet heath vegetation interspersed with shallow pools, often associated with *Sphagnum* mosses. These areas often comprise a mosaic of vegetation types that will include slightly **raised areas of better drained peat with drier heather moorland and acid grassland vegetation**. These will be less vulnerable to disturbance through vegetation damage by trampling and should ideally be selected when making route choices for running through intact blanket bog areas.
* A variety of **boulder field and scree habitats** are present within the event area that are potentially vulnerable to disturbance. Ice-shattered boulder fields on the highest ridges and mountain tops often support fragile montane grass-heath plant communities of extremely high nature conservation value. Existing paths through these areas should be used to avoid disturbance of these communities. Blocky scree often supports specialised plant communities that utilise the microclimate of sheltered spaces within scree. Sections of the Kong Mountain Marathon route that cross these features should use existing paths wherever possible, and should always minimise disturbance of scree blocks.
* The upland ecological interest of the event area includes vegetation of **rock outcrop ledges and seepage zones**. Many of these locations contain a relict post-glacial flora that is protected from significant grazing by their inaccessibility. Rock outcrops are a scattered feature within the event area and are unlikely to be accessed by competitors. However, route selection might include crossing low level rock outcrops that could be of value for these relict upland plant communities. Where this terrain is crossed great care should be taken to minimize disturbance to fragile ledge vegetation.
* The event area has a number of **lochs and lochans** that are generally of considerable nature conservation interest. Often this interest is associated with complex and specialised vegetation areas that develop at the margins of both large lakes and smaller hill tarns. Many of the smaller lochans form part of more extensive blanket bog and mire habitat complexes. There is no need for Kong Mountain Marathon competitors to enter any water body within the event area.
* The event area contains a complex 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 internationally and nationally threatened animal species such as **otter**. 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 Kong Mountain Marathon competitors at stream crossings, preferring the use of bridges and stepping stones to minimise bank disturbance when entering and climbing out of stream channels.