

## Trail Grading Recommendation – MBCUK Project

### Background

The current UK mountain biking trail grading system, used by the trail centres and mountain bikers in the UK and abroad (IMBA UK), follows the same colour coded approach to difficulty recognition used by cross country skiing. This adjective grading system is based on distance, technical difficulty and climbing requirements, and the following grading descriptors are generically used:

- **Green** – generally referred to as family or flat trails. Wide riding areas expected, which are suitable for all ages, abilities and bikes.
- **Blue** – Varied routes ranging from slightly steeper with more distance than a Green Route, through to single-track mountain biking routes, with the potential for root and rock obstacles.
- **Red** – Generally identified as routes recommended for fit, technically proficient mountain bikers. Climbs are more technical, distances longer, with challenging environmental and terrain conditions expected.
- **Black** – Suitable for skilled and experienced mountain bikers only. Long technical sections, steep climbs and descents, and challenging narrow difficulties with increased risks and exposure are to be expected. Bike parks and skills areas provide additional technical sub-grading of [1-3] for increased technical difficulties.

This mountain biking grading system used across the UK is recognised as lacking consistency and local variations exist in all aspects of physical, technical, environmental and exposure to the elements. Riders choose a route based on 'ability fit' measured against the adjective grades, but more specialised information, specifically for the physical and technical elements could be invaluable when choosing the right routes to ride. Rock climbing, as an activity has gone through a similar evolution: Initial adjective grading's having since developed into far more detailed routes, identifying where both physical and technical elements are to be expected. As a direct consequence, individuals are not exposed to an unexpected risk or difficulty – a stronger focus in this way would similarly improve the descriptors for mountain biking trails, subsequently allowing riders more accurate information in matching individual ability levels against a chosen route.

### Proposed Changes to the Mountain Biking Grading System

Mountain bikers need to see clear, relevant information on mountain biking trails. The current colour coding system provides this, but a subtle addition to where and what difficulties to expect may make a huge difference. The two key areas of additional information that need to be separately identified are 'physical' and 'technical', as these provide a clearer focus for both the harder aspects of the particular trail route, as well as where these difficulties may specifically be located on the trail. The following is a summary of these technical descriptors:

#### Physical Grading

**P1** – Relatively flat and wide terrain, ideal for families and children, or those with limited fitness or abilities

**P2** - Rolling terrain, some single track sections. Ideal for groups of proficient riders

**P3** - Typical MTB trails with riding expected for >1 hour with steeper hills and terrain features

**P4** – Ride normally >2 hours, steeper terrain than (P3) that may affect riding performance through increased steepness, ground difficulties or exposure to elements

**P5** - Ride normally >3 hours – distance, terrain and exposure elements expected to challenge all but extreme riders

## Technical Grading

**T1** – Entry level technical difficulties – rideable by families and children - basic off road skills needed only

**T2** - Moderate technical difficulty, all rollable. Moderate steepness with technical focus

**T3** – Technical skills in jumps and drops where the wheels may leave the ground are expected

**T4** - Very technical ground that requires specific skills to accomplish

**T5** - Reserved for expert, technical mountain biking riders, jumps and drops expected to have complications and the risk to injury is increased




Table 1 presents an overview of how physical and technical aspects of routes could be interpreted. It is important to note that the colour coded system is not replaced, but rather enhanced to provide fast, clear specific information on relevant difficulty areas.

It is important to note that the Physical and Technical grades can be identified across different Adjective Grades and that either or both could be used, depending on the specific trail being described (an omission of sub-grade [physical or technical] would suggest that the course is weighted more heavily towards the noted area}. Green Routes will only have a 'potential' reference to the lower grades (P1 and/or T1), but Moderate through to Severe Grades can be supported by a wider area of difference in descriptors used. A trail that is identified as 'Difficult P5' would be heavily focused on physicality and the P5 element of the trail would be expected to be shorter than the same Physical Grade at the higher adjective grade 'Severe'. In another example, a trail graded 'Difficult P3 T5' would be expected to have a greater emphasis on technical difficulties and the physical elements greatly reduced as a measure within the whole trail. With an opposite approach to the grading system, a trail graded 'Severe P5 T3' would be expected to be extremely physical in nature, but with relatively lower technical elements. These additional descriptors would allow riders clearer information necessary for choosing the right trails for their physical and technical ability, and in so doing allow individuals to progress intelligently and safely in riding ability.

Trail grades would need to be identified at the start of the trail, with additional signage placed at key locations on the trail to specifically identify where Physical or Technical elements were at their hardest. The Physical and Technical grades would not necessarily identify length of time within each trail and therefore there is still a need for each trail to have a route description. These recommended changes to the current trail grading system would provide riders with clearer information on the difficulties to be experienced, and allow for an improved choice in selecting routes for individual development. Figure 1 provides visual information on how the Physical and Technical information could be displayed.

## Starred Routes

Stars are given to a route when the consequence of a fall on the route may be higher than the technical difficulty. For example a non-technical trail over a 100 foot ravine drop.

- One star **medium** consequence of fall 
- Two star **high** consequence of fall 
- Three star **Severe Injury** consequence of fall 



**Gisburn 'Hully Gully' Black P2 T3**

The Gisburn 'Hully Gully' trail is a Black Severe' trail. The technical difficulties are not great but the consequence of an off are high 2 star.

*Figure 1 – New Trail Grading Signs*

New Mountain Biking Trail Grading System				
Adjective Grade	Easy	Moderate	Difficult	Severe
Adjective Grade Description	MTB beginners in good health with basic biking skills. Most bikes, i.e., hybrid.	Riders with basic off-road riding skills, basic mountain bikes useable	Proficient mountain bikers with good off-road riding skills and improved fitness – good trail specific mountain bikes	Expert mountain bikers with high levels of fitness and/or technical ability – quality all mountain bikes required.
Physical Grading	<b>P1</b> - Relatively flat and wide terrain, ideal for families children, or those with limited fitness or abilities	<b>P2</b> - Rolling terrain, some single track sections. Ideal for groups of proficient riders		
	<b>P3</b> - Typical MTB trails with riding expected for >1 hour with steeper hills and terrain features			
			<b>P4</b> - Ride >2 hours, steeper terrain than (P3) that may affect riding performance through increased steepness, ground difficulties or exposure to elements	
				<b>P5</b> - Ride >3 hours – distance, terrain and exposure elements expected to challenge all but extreme riders
Technical Grading	<b>T1</b> - Entry level technical difficulties – rideable by families and children - basic off road skills needed only	<b>T2</b> - Moderate technical difficulty, all rollable. Moderate steepness with technical focus		
	<b>T3</b> – Technical skills in jumps and drops where the wheels may leave the ground are expected			
			<b>T4</b> - Very technical ground that requires specific skills to accomplish	
	<b>T5</b> - Reserved for expert, technical mountain biking riders, jumps and drops expected to have complications and the risk to injury is increased			

Table 1 – New Mountain Biking Trail Grading System

### Notes

- Overall Adjective Grades are provided through a clear four stage colour coding system.
- Physical (P) Grades are there to indicate trails that have a considerable focus on distance and hill climbs, or overall physical effort to complete the trail. The descriptors provide progressive information on physical elements of difficulty for riders to interpret – the higher the grade, the stronger and fitter the rider needs to be.
- Technical (T) Grades specifically identify the technical elements of a given trail that may not specifically have the same physical requirement. A higher skill-base will be needed when the technical grading is higher.

