

Single Track Scale (STS)

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Trail difficulty rating

The classification is merely thought of as an orientation help. I have to emphasize that these are no official ratings! The classification takes no account of the fun factor a trail may have, and there are many more elements to a good biker than just their technical ability. The single trail scale was conceived with this background – in order to cover as far as possible all rideable technical challenges and to include bikers of all technical abilities. It is not intended that all bikers should be able to identify with the higher difficulty grades.

What is meant by the term single trail?

A single trail is defined as a small path which was originally created for pedestrians and hikers. Single in this case means that one person would be able to walk along it. Two lane paths and logging roads do not count as single trails and are not represented by the scale. Single trails are also known by the term “single tracks.”

Systemology of the STS

The single trail scale comprises of six difficulty ratings (S-Grades) from S0 to S5, where for an average biker the lower end of the scale can be taken as “without difficulties” and the upper end to be equated with “unrideable.” The scale is open ended meaning that as riders improve and previously "unrideable" trails become rideable, the scale can be extended to handle it. It is restricted to the technical difficulty of a path running flat or downhill. A single trail can contain passages or sections of differing difficulty. Binding for the classification is the predominant portion of the elements of an S category. For example a trail can be described as an S2 with S3 passages. The classification of a trail assumes as far as possible a foundation of objective path characteristics under ideal conditions such as sunshine and dry ground. The classification is therefore independent of elements not influenced by biking technique, or rather, subjective and variable factors such as:

- danger (risk of falling),
- weather (wet, wind, fog and snow),
- light conditions or
- speed

When orientating by S-Grades you must bear in mind that the technical difficulty of a trail can be pushed up due to for example bad weather conditions.

The following criteria were taken into account when assigning grades:

- The constitution of the trail, i.e. the grip and type of surface
- Types of obstacles
- if applicable, the gradient
- Category of curves
- technical demands

The difficulty ratings

This section explains in more detail the individual S grades and the necessary technical skill required. It assumes that conditions are ideal.

S0

S0 describes a single trail without any particular difficulties. They are mostly forest or meadow paths on a natural surface with good grip, or compact gravel. Steps, rocks or roots are not to be expected. The gradient will be slight to moderate, curves are not tight. Even without any particular MTB technique trails with S0 can be managed.

S1

On a trail marked S1 you will already have to deal with smaller obstacles such as flat roots and small stones. Very often you'll find that the odd gully or erosion damage is the reason for the raised difficulty rating. The surface may not always be firm. The gradient would have a maximum of 40%. Hairpin turns are not to be expected. On an S1 trail basic MTB technique and constant attention will be required. The trickier passages call for dosed breaking and body displacement. They should generally be ridden in standing. Obstacles can be rolled over.

S2

An S2 difficulty rated trails will most likely contain larger roots and stones. The surface is frequently loose. Steps can be expected. Often there are narrow curves and the gradient can be up to 70% in places. The obstacles require body displacement to be successfully ridden. Readiness to break at all times and the ability to shift your centre of gravity are necessary techniques as well as the ability to regulate the attack of your breaking and permanent body tension.

S3

Blocked single trails with many larger boulders and / or root passages belong to category S3. There are often higher steps, hairpin turns and tricky traverses. The chance for some relaxed rolling is seldom. Often the surface is very slippery and with loose scree. A gradient of over 70% is not unusual. Passages with an S3 grade don't yet require special downhill technique, but do need very good command of biking and unbroken concentration. Exacting breaking and a very good sense of balance is required.

S4

S4 describes very steep and blocked single trails with large boulders and / or demanding root passages, as well as frequently loose scree. Extremely steep slopes, narrow hairpin turns and steps on which the cogs unavoidably touch are a frequent feature of a category S4 trail. In order to ride a category S4 trail, trail techniques such as being able to shift the front and back wheels (e.g. in hairpins) are absolutely essential as well as perfect breaking technique and balance. Only extreme riders and exceptional bikers manage an S4 trail in the saddle. Even carrying a bike up such passages is often not without its dangers.

S5

The difficulty grade S5 is characterized by a blocked terrain with counter climbs, scree slopes and erosion, extremely tight curves, multiple obstacles (e.g. fallen trees) occur without a break – frequently in extreme steepness (cliffs). Very little if any breaking time. Obstacles may at times need to be dealt with in combination. Only a handful of freaks tackle S5 passages. Some obstacles have to be jumped over. Hairpins are so tight that shifting the wheels is hardly possible, even carrying the bike would be almost impossible as you need your hands to hold on or even climb.

Examples

The following section uses the single trail scale to characterize relevant well known trails in the Lake Garda region. In order to describe a single trail at least the average and the maximum S grade needs to be given. A more detailed description would be desirable if not absolutely necessary. Enough would be to give the S grade and information on the level of danger, the regularity of the passages of highest difficulty or the type of obstacles occurring.

Lake Garda, Sentiero 112

Average S grade: S3

Maximum S grade: S5

“In the upper part, S2 (in exposed terrain). Frequent S3 passages and an S5 in extremely exposed ground (steep steps in brittle rock), afterwards the trail stays mostly around S2 except for one passage and several hairpins which should be categorized as S3. The path is very exposed for the majority of the way and needs a good head for heights. Once down into the woods the terrain becomes very blocked in the S3 category with two S4 passages though falling is no longer a danger.”

Lake Garda, Sentiero 102 (as far as the Dalco plateau)

Average S grade: S2

Maximum S grade: S3

“In the upper part the path is a very steep gravel gully of an S4 level, though it can be ridden around. Afterwards it becomes very exposed along the slope but stays in S1 and S2. Two S3 passages come up before the Dalco plateau. S2 ability is adequate to tackle this trail, though then you have to expect to carry for a couple passages, and a good head for heights is required.”

Lake Garda, Sentiero 601

Average S grade: S2

Maximum S grade: S3

“The trail stays principally in the S2 level. This downhill contains around 2000 meters of descent for which a certain level of physical and mental stamina is necessary. At the beginning it is still a wider path which then becomes a single trail. Above the tree line there is a longer S3 passage which isn't particularly steep but goes over boulders and larger loose stones. On the flatter sections the trail has an S1 to S2 character. From Monte Varagna you have to get through 1000 meters of descent on continuous steps. Every now and then there's a larger drop which can always be avoided if needs be. At Spiaz della Giola near the Malga Zures you ride along a logging road for a short time before another S2 path appears in the woods. The lower part of the path is mostly in an S3 level.”