

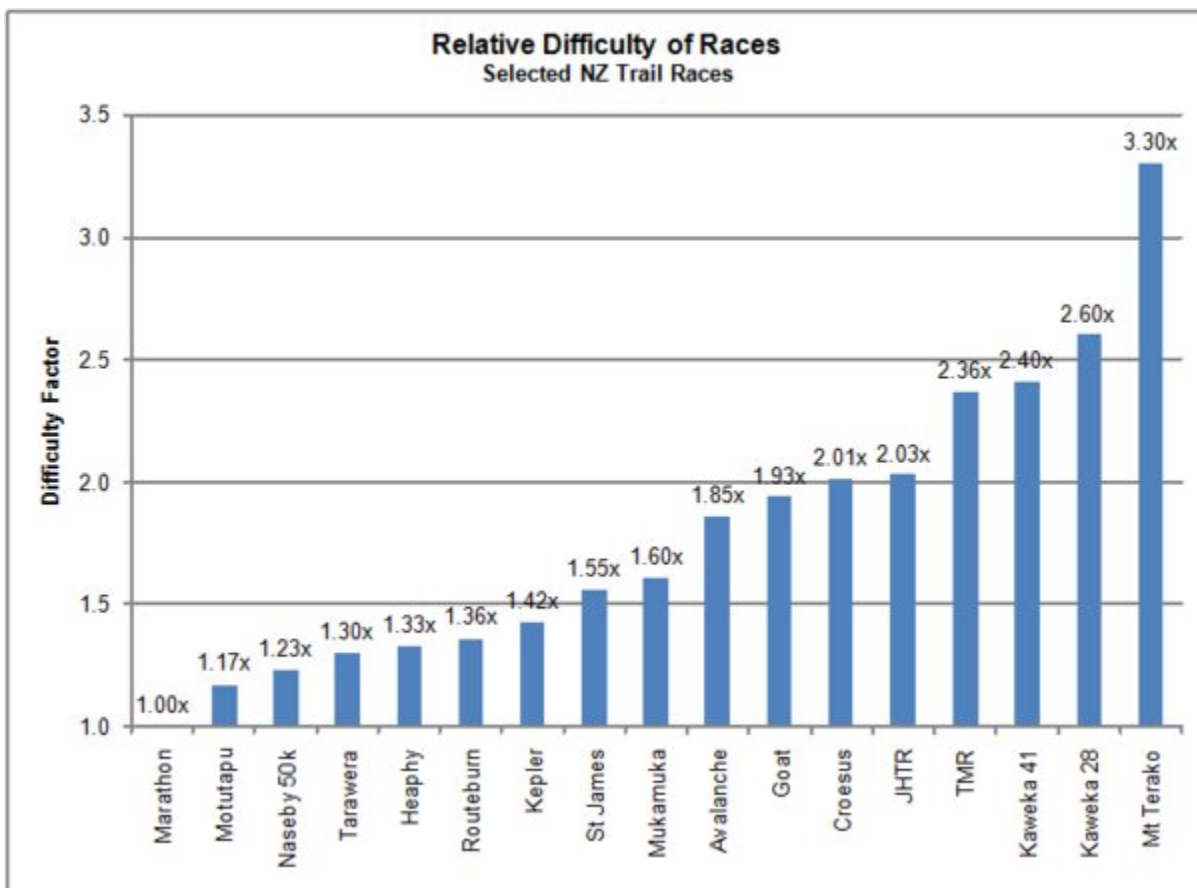


## Vasque - Mt Terako Extreme Challenge

### *“New Zealand’s most challenging adventure run”*

#### How Hard is that Trail Race?

The following chart shows the relative "difficulty" of selected New Zealand trail races.\* As a guide to interpretation, the factor of 2.01x for the Croesus Crossing means that the time an athlete will take to complete the race will (on average) be twice as long as would be the same distance on the road, with the reason for the difference being the "difficulty" of the terrain / course.



Note: JHTR = Jumbo Holdsworth Trail Race; TMR = Tararua Mountain Race; Kaweka 41 = Kaweka Challenge Course 1, 41km; Kaweka 28 = Kaweka Challenge Course 3, 28km.

#### The True Mountain Races are the Most Difficult

The chart shows that the true mountain races are the most difficult races: the North Island has the two Kaweka races, the Tararua Mountain Race, Jumbo Holdsworth and the Goat; the South Island has **Mt Terako**, the Croesus Crossing, and Avalanche Peak. These are all true mountain races that have significant components on the "tops" and rough tracks.

The relative difficulty of some races is consistent with athletes' comments. For example, those that have run both the Heaphy five-O and the St James Ultramarathon considered that the St James is considerably more difficult, and this is clearly shown in the chart.

### \* Calculation of "Difficulty"

Difficulty is defined so that it explains why times for a given race are slower than predicted for the distance of the race. Results from the selected races were paired with each athlete's marathon time to predict the race time as a multiple of the marathon time. The results of this analysis were shown in a companion note ([Predicting Race Times for Selected New Zealand Trail Races](#)).

According to the Riegel race time prediction formula, the time for an ultradistance race should be related to the time for a marathon by the relationship:

$$\text{Riegel Predicted Time} = \text{Marathon Time} \times (\text{New Distance} / 42.195) ^ 1.18$$

For distances up to marathon distance the relationship is:

$$\text{Riegel Predicted Time} = \text{Marathon Time} \times (\text{New Distance} / 42.195) ^ 1.06$$

The Riegel formula holds up reasonably well if the races are over a similar surface. But where the race is over a trail then an athlete's time will be slower than predicted by the Riegel formula. The "Difficulty Factor" can then be expressed as:

$$\text{Difficulty Factor} = \text{Predicted Time} / \text{Riegel Predicted Time}$$

Source : Andrew Shelley

So it's official by a long shot



**Vasque - Mt Terako Extreme Challenge is :**

***"New Zealand's most challenging adventure run"***