

## The Club Championships – Handicap Wash Up

The Club Championships, master map format notwithstanding, proved its usual tricky challenge as far as the handicapping went. But was the outcome a condemnation or a vindication of that handicapping system? On the face of it, the chart below doesn't seem to show that there was too much success in producing the sort of mass finish that a race like this is intended to have. The progress of men's winner Andy Mackervoy (bold orange line) is shown horizontally by dint of the vertical scale on the right being shifted by exactly 45.54 minutes (his time) from the scale on the left. Everybody else's progress during the race is shown relative to Andy. He manages to overtake everybody who started before him (including of course Claire Newey shown in purple who finished as first woman) while those chasing him had little success in closing him down (I have excluded Ella Baxter of whom

more later).



One can argue about the specifics of Andy's win and whether the plain brown envelope slipped to the handicapper at the Club Dinner had any influence over it, but overall the system worked very well and apart from a sprint finish for the title, we cannot really expect to see a much closer outcome than this. This is due to the inherent unpredictability of orienteering performances. Andy's run was 15% faster than expected, completely typical of the best performance usually accoladed with the title of Star Runner at all local events, In fact, perhaps due to a combination of having a chasing start and using an area of good visibility, the majority of performances were clustered more closely than usual.

There were a few exceptions. The dotted progress lines are those of people who were given artificially good handicaps (Ella Baxter, who I didn't want to be left on her own for ten minutes on her own at the start) or artificially bad handicaps (notably Edmond Brook, for whom I had no known form and I wanted to make sure could not win – slightly overdone, apologies Edmond). The other outliers are generally down to the handicapping not well reflecting recent form (e.g. injury, unfitness).

Crucial to the handicapping is a correct assumption of what the speed of the terrain will be. I used past results to guess 10 minutes 25 seconds per km for an average orienteer (i.e. someone whose handicap is 1.00). I was wrong, but only by about 0.2 seconds per km so that was a very good start. Another crucial aspect is to make the par times for each course fair compared to each other (i.e. they can be wrong, but hopefully all wrong by the same amount). Looking at the results, the Long course par time should have been 2 seconds more, the Medium course 61 seconds more and the Short course 95 seconds less. So an average Short course runner had about a 2 ½ minutes advantage compared to an average Medium course runner. You may be feeling short-changed at this point but I suspect the handicapping has rarely been this accurate in the past.

If the par times are changed retrospectively to correct this advantage (is this a feasible way of calculating the real winner next time?) then Andy would have still won overall but Nic O'Donnell would have been first woman home.

It's all water under the bridge and the winners are worthy champions. Who is to say a different start order would not have changed the finish order in a way that is not purely mathematical?

The only aspect of the outcome that frustrates me, looking at the chart, is that none of the late starters got that close to winning. Late starters tend to be the speedy runners and best orienteers and finding an improvement to their normal performances (even on percentage terms) is more difficult. The average orienteer can gain from both running quicker (a small effect) and not making mistakes (a bigger effect). The best orienteers don't make many mistakes so their improvement may be limited more to running quicker (a small effect). Even running 1% quicker is a huge effort for anybody – just note for example, that it took decades for the world mile record to come down from 4.06 to 4 minutes. Whether this can be captured fairly in a handicapping system or not is debatable. A brown envelope may still be your best bet to win the competition next time round.