


# Training the Elites 

## By Andy DuBois

Looking at how the elites train gives fascinating insight into how hard they work to achieve their results. What does it take to run at the speed they run at over those ultra distances? Is it purely good genes, or is it all down to their training? In a tough sport like ultra running, you don't succeed unless you are prepared to work very hard in training, but there is no question that good genes play a part.

I'm fortunate enough to be coaching a number of elite runners in Australia and Hong Kong, and in this article we look at a sample training week for each of them, seeing how they differ and what common elements they have. The average runner won't be as fast as them, and may not be able to handle the same volume, but the same training principles apply to everyone, so there is a lot to be learnt that you can apply to your own training.

Each of the athletes mentioned in this article was training for $75 \mathrm{~km}+$ events on trails across mountainous courses, so there are a lot of similarities in their training, but, as you will see, the training principles are applied a little differently for each of them.

Before we look at each individual athlete, let's consider some of the key principles and training sessions that I use with everyone.

## 1. Volume

I measure training volume in time rather than distance, since how long a certain distance takes will depend on the terrain type. The volume each of these athletes can handle relies on how much available time they have, what their bodies can handle, and the environment they train in - but most of them run around 10-15h per week, which would equate to approximately $80-160 \mathrm{~km}$.

Many of them work full time, so training has to fit around work hours. Some are more injury prone than others, so they can't handle as much volume or they need more frequent rest days. Training in the heat and humidity of Hong Kong is more taxing on the body than training through wintertime in Australia. Recovery takes longer in more extreme conditions, so this needs to be factored into the program.

## 2. Speed and Tempo Sessions

This is a vitally important part of training. Typically, I would start athletes with shorter, faster speed work before progressing to longer tempo sessions, but I also take into account the variability in the response to training. Some athletes respond better to speed work, others to tempo sessions. Learning what works for each athlete is key to optimising results. Speed work usually consists of $6-10 \mathrm{~km}$ hard running broken up into shorter intervals of $800-1,600 \mathrm{~m}$, whereas tempo work consists of $40-60 \mathrm{~min}$ at the fastest sustainable pace, usually over undulating but runnable terrain.

## 3. Hill Repeats

Given that all the races these athletes were training for had significant climbs, hill training is an essential part of the program. The balance between shorter faster reps and long steady hiking, or running reps, depends on the athlete. Shorter reps of less than 10 min help develop one's VO2 max and lactate tolerance; $10-20 \mathrm{~min}$ reps are done at tempo intensity to improve aerobic threshold; and longer reps of $30 \mathrm{~min}+$ are more race-pace training. A mix of all three is beneficial for training, how
much of each depends on the athlete and their race, but I will aim for around 30 min of short high-intensity hill reps, $40-60 \mathrm{~min}$ of tempo reps, and 60120 min of race-pace hill reps.

What kinds of hills will depend on the race - we look to get more and more specific as the race approaches, so if the race has very technical trails, then the closer the race day, the more time we want to spend on similarly technical trails.

## 4. Strength Work

This plays an important part in keeping athletes injury-free, and a part of my role as a coach has been devising individual strength routines for each athlete to help address any weaknesses so that they can keep running injuryfree. Working on dynamic range of movement and strength is the focus rather than just lifting heavy weights. Typical exercises would be one-leg squats, multi-dimensional lunges, and dynamic vertical core training.

## 5. Fast-Finish Long Runs

Picking up the pace at the end of a long run requires discipline, mental toughness, and a strong belief in your ability. It would be far easier just to finish the run at an easy pace. If you can pull them off, these sessions are a real confidence-booster. As is the case for most athletes, they are performed at the end of a few days of hard training. When you can do a 45 min fast finish at the end of an 8 h weekend of training, you know you are race-ready.

## 6. Recovery

The amount of training each athlete performs places a heavy load on the body, and so recovery is vital. Constant monitoring of fatigue levels, niggles, and stress levels helps determine when we need to back training off. Sleep and proper nutrition play a big role in making sure our bodies can handle the training, and if either is compromised then training needs to be adjusted. For the little niggles that occur in heavy training, most of the athletes have physiotherapists they see on a regular basis.

## 7. Mental Training

Developing mental toughness is also an important part of a training routine. At the elite end of the field it is often that the competitors' physical capabilities are very similar, and what separates the first-place finishers from the 10th has to do with the mind.

Mental toughness can be developed a number of ways, but I believe working on the mental together with the physical has better results than working on the mental side separately. Some of the sessions I give are done specifically to challenge the athletes mentally; fastfinish long runs are a good example of this. Learning to accept the pain in the legs as a sign of a good session - and therefore something to not only accept but strive for, and enjoy - helps lower the perceived rate of exertion, which then allows the athlete to push even harder. Every athlete has their own mental strengths and weaknesses, and working closely with each of them helps me get to know what we need to work on. Applying specific thoughts in times of hard training helps stay focused - for some athletes that might be counting to 10 repeatedly, for others it might be a key word, or two, or even a mantra they can recite, to remind them of proper running form.

## 8. Periodisation

I use a training model a little different to a typical running periodisation model. The usual model starts with slow endurance work to build the base, and then gradually adds speed work, which then progresses to shorter and faster efforts as the race approaches. For an ultra, I don't believe this approach is the most effective. I use a reverse model: Starting with short fast intervals and hill repeats, then developing that into longer tempo efforts, followed by race-pace efforts peaking around 3-4 weeks before the race. At the same time, the length of the long run and volume of the overall training program increases with the longest run, also occurring around 3-4 weeks before the race. The final 3-4 weeks we back off, once again adding some shorter faster efforts to freshen the legs up for the race.


## Ben Duffus

Duffus is an immensely talented young man who came to me after a DNF at the 2012 The North Face 100 Australia. Since then, he has progressed to be a world-class athlete, and probably the most talented ultra trail runner in Australia. This has come with a lot of hard work, as you will see.

Photo: Christophe Aubonnet
1st at Hounslow Classic 2015
$3^{\text {rd }}$ at Skyrunning World Championships 2014
$5^{\text {th }}$ at The North Face 100 Australia 2014
$1^{\text {st }}$ at Surf Coast Century 2013

Duffus loves technical climbing and dislikes track work, so we had to balance his program with speed work to make sure he has enough speed on the more runnable sections of a race so that he doesn't lose ground on faster runners. On the climbs, there are few that can keep up with him, and when you see the hill training he does, you'll understand why.

This training schedule was a peak training week shortly before last year's Skyrunning World Championships. It was one of his toughest (although not the longest) training weeks in his preparation.

A combination of hill reps and tempo runs was the key for this week.

| MON | 60 min strength training |
| :---: | :---: |
| TUE | 90 min undulating trail, including $3 \times 20 \mathrm{~min}$ hard runnable terrain, 3 min recovery |
| WED | 90 min , hilly but easy |
| THU | 60 min strength training 60 min easy bike ride |
| FRI | 90 min hill reps, including 4 x 7 min hard up fast back down 5 min tempo, 2 min recovery |
| SAT | 3 h easy run, with $600 \mathrm{~m}+$ of vertical up and down per 10 km |
| SUN | 4h with hill reps and fast finish, including $9 \times 7 \mathrm{~min}$ hills steady up easy back down, last 45 min fast finish |


| MON | 80 min speed session, with $6 \times 1 \mathrm{~km}$ efforts and 1 min recovery |
| :---: | :---: |
| TUE | 90 min , easy <br> Strength training |
| WED | 90 min tempo run on undulating to hilly terrain, including $2 \times 30 \mathrm{~min}$ efforts, 5 min recovery |
| THU | Strength training |
| FRI | Hill reps long climb, including 3 x 45 min climbs, mixing hiking and running, hard up and comfortable back down |
| SAT | 3 h hilly $500 \mathrm{~m}+$ of vertical, last 30 min fast but comfortable |
| SUN | Day off |

## Caine Warburton

Warburton was a good club-level runner, with an impressive 5 km time, who wanted to see what results he could achieve in longer distances. With a love of technical descending, a great turn of speed in his legs, and a willingness to suffer more than most, he had what it took to be up with the very best. Niggling injuries presented a constant challenge, but a combination of strength training and adjusting the program as we went culminated in a top 10 result at the Skyrunning World Championships, despite a bad fall mid-race.

This week was also building upon to the championships, and the focus was on some hard-tempo and race-pace efforts.


Photo: Timothée Nalet
$9^{\text {th }}$ at Skyrunning World Championships 2014
$2^{\text {nd }}$ at Buffalo Stampede 2014


Photo: Luigi Bottecchia
$2^{\text {nd }}$ at The North Face 100 Australia 2015
$4^{\text {th }}$ at Lavaredo Ultra Trail 2015
$4^{\text {th }}$ at Vibram Hong Kong 1002014

## Scott Hawker

Hawker came to me after winning a low-key local 100 km race, and was looking to take his running to the next level. He had some niggling injuries that were affecting training and performance, which we addressed through some strength training. The next step was working on his mental game, helping him to believe he was as good as anyone else on the field. Once we got this right, the results flowed and culminated with a super-impressive second place at The North Face 100 Australia - smashing the course record by 20 min and only a few minutes behind winner Dylan Bowman.

This week was a typical week in the buildup to TNF100.

| MON | 90 min , easy |
| :---: | :---: |
| TUE | Strength training |
| WED | 90 min session with speed work, including 5 min hard 2 min easy, 10 min hard 2 min easy, 15 min hard 2 min easy, 10 min hard 2 min easy, 5 min hard |
| THU | 60 min recovery Strength training |
| FRI | 2h with hill reps $3 \times 3 \mathrm{~km}$ hill reps, hard up with easy back down |
| SAPT | 4 h long run, with last 30min fast finish |
| SUN | 60 min recovery jog |


| MON | 2 h long hill reps, with 2 x 30 min alternating between 4 min run and 1 min hike, fast but comfortable back down, 5 min recovery at the bottom |
| :---: | :---: |
| THE | 3h long run, easy but hilly |
| WFD | Day off |
| 1140 | 75 min short hill reps, including $5 \times 5 \mathrm{~min}$ hard up with easy back down |
| FRI | 4 h 30 min long run, including 500 m of vertical per 10 km , last 45 min fast finish |
| S.AT | Day off |
| SUN | 60 min easy recovery run |

## Stone Tsang

Tsang needs no introduction to Hong Kong readers, with a string of impressive results over the last few years. He came to me looking to improve his performance at the Ultra-Trail du Mont-Blanc. After analysing his results, we discovered he was losing time to some of the top competitors on the uphill sections, so a plan was devised to work on his ascending speed as well as overall endurance.

This week was one of the harder weeks in the buildup for the UTMB.


Photo: Claus Rolff
$18^{\text {th }}$ at Ultra-Trail du Mont-Blanc 2015, 2014 and 2013
$2^{\text {nd }}$ at The North Face 100 Hong Kong 2013


Photo: Sunny Lee
$16^{\text {th }}$ at Ultra-Trail Mt. Fuji 2015
$4^{\text {th }}$ at The North Face 100 Philippines 2015
$2^{\text {nd }}$ at The North Face 100 Hong Kong 2014

## Wong Ho Chung

Wong is another very familiar name to Hong Kong readers. He came to me looking to step up to the 100 mi distance at the Ultra-Trail Mt. Fuji. The jump from 100 km to 100 mi is a big one, and many find the extra distance extremely challenging. We worked on Wong's endurance and tempo running to give his legs the extra stamina they needed to last the 100 mi . A 16th place finish at the UTMF in a top-quality field confirms the ability he has - and he is only going to improve from here.

This was a fairly typical week leading into the UTMF.

| MON | 90 min hill rep session, including $5 \times 7 \mathrm{~min}$ hard up with easy back down |
| :---: | :---: |
| TUE | 60 min recovery run |
| W/5D | Day off |
| THU | 60 min , easy |
| FRI | 90 min tempo run, including $4 \times 15 \mathrm{~min}, 2 \mathrm{~min}$ recovery on undulating terrain |
| SATT | 5h hilly long run, $400 \mathrm{~m}+$ of vertical per 10 km |
| SUN | 90 min , with last 30 min fast but comfortable |


| MON | Day off |
| :---: | :---: |
| TUE | 2 h run, easy but hilly, $500 \mathrm{~m}+$ of vertical per 10 km |
| Wed | Orienteering |
| THU | 60 min , easy |
| FRI | Day off |
| SAPT | 3h with hill reps, including 2 x 7 min very hard uphill reps, 10 min easy recovery, and then $2 \times 30 \mathrm{~min}$ longer steady hill reps, on the downhills fast but comfortable, easy 3 min recovery at the bottom |
| SUN | 5h run, hilly but very easy, looking for $500 \mathrm{~m}+$ of vertical per 10 km , hiking anything steep, and last 40 min picking the pace up just a fraction |

## Gill Fowler

Fowler is a hugely talented athlete, who, like Tsang, needed to work on her uphill speed and get some more verticals into her legs. We added a lot more vertical into her training and a mix of running and hiking hill reps to develop her uphill speed.

This is a fairly typical week for her building up to a 100 mi race.


Photo: Lavaredo
$1^{\text {st }}$ at Monte Rosa Walser Ultra Trail 2015
$4^{\text {th }}$ at Lavaredo Ultra Trail 2015
$5^{\text {th }}$ at Wasatch Front 100-Miler 2014
$6^{\text {th }}$ at Ultra-Trail du Mont-Blanc 2013

