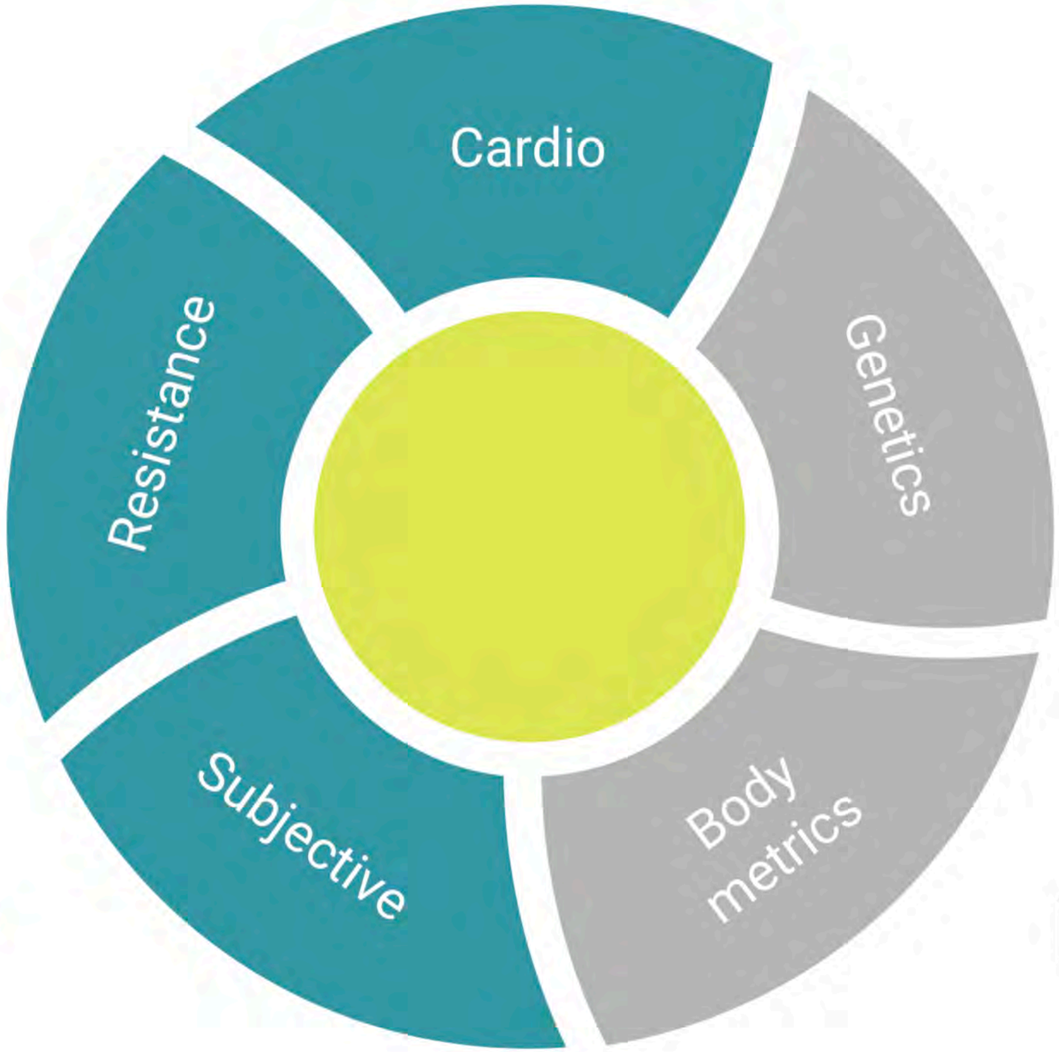
Finding the Optimal Training Zone

Ralph Pethica

Quantifying an athlete

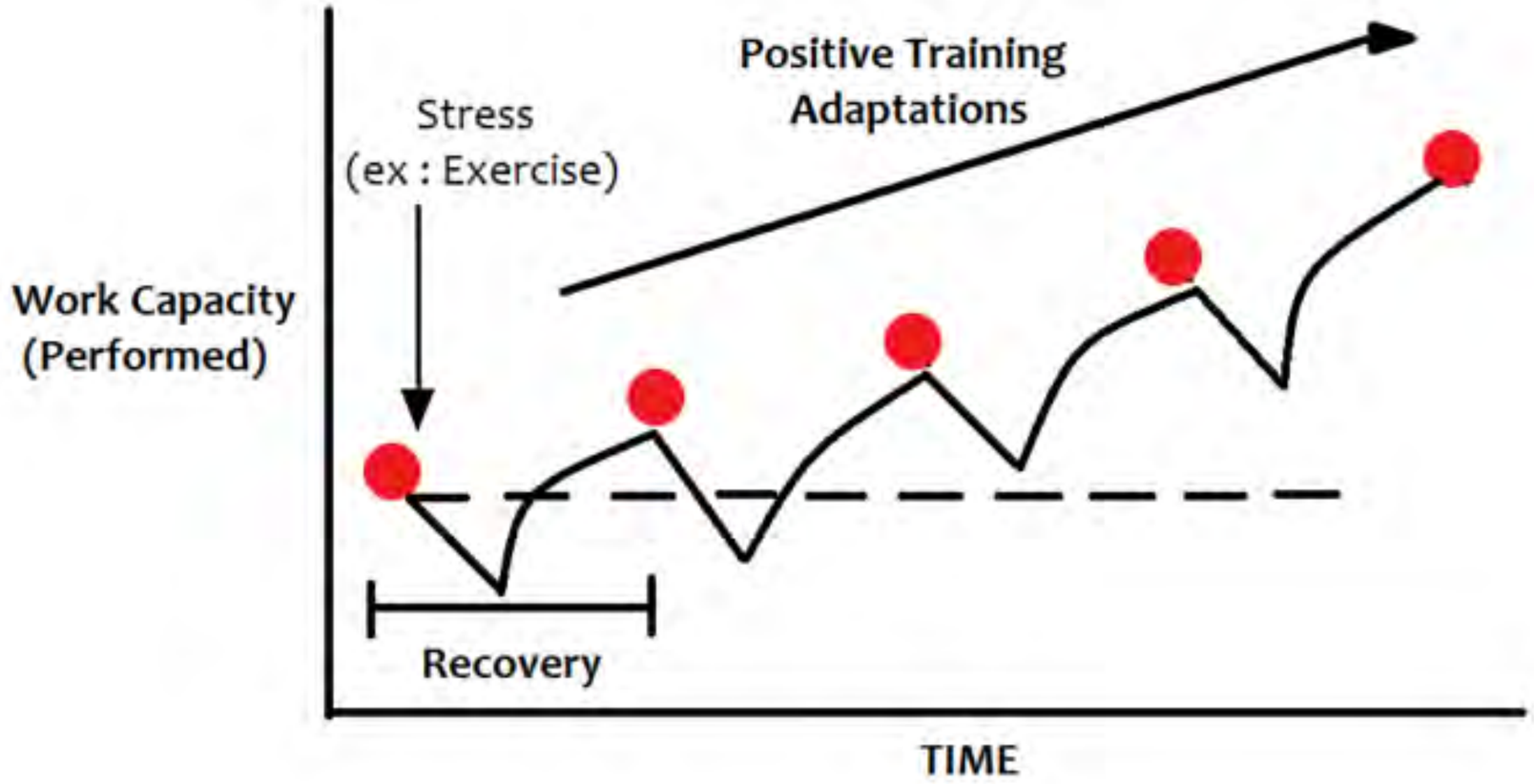
Different Things Athletes Measure



Quantify

Personalise

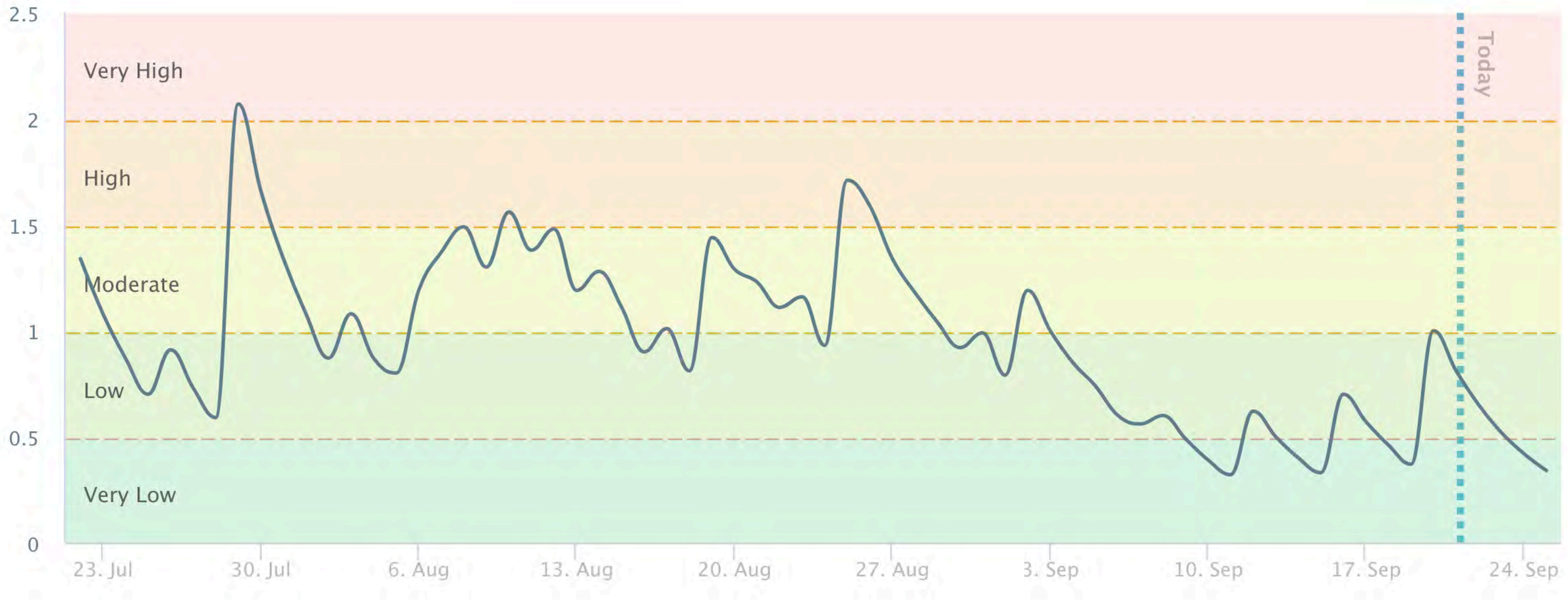
Progressive Overload



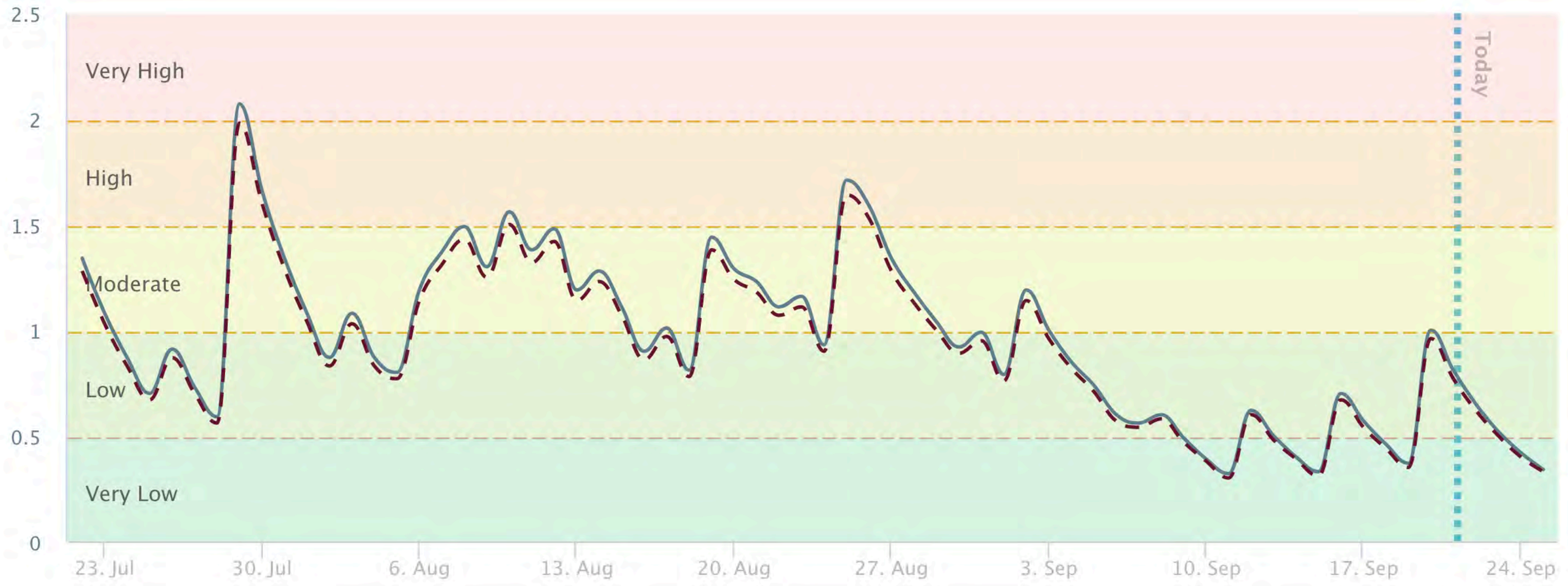
Optimum Training

Image stolen without permission from Solstice Fitness & Nutrition

A baseline might look something like this

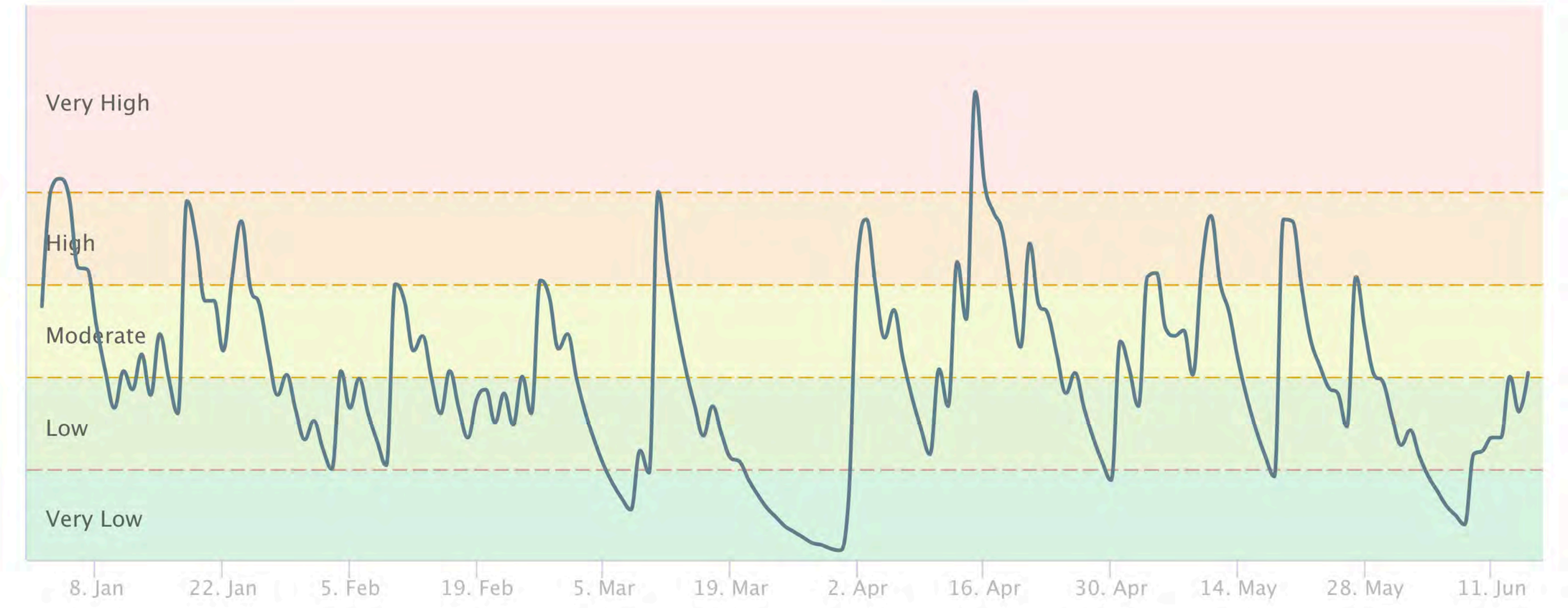


…and of course we can personalise it a little



So that’s the science, but this is about me!

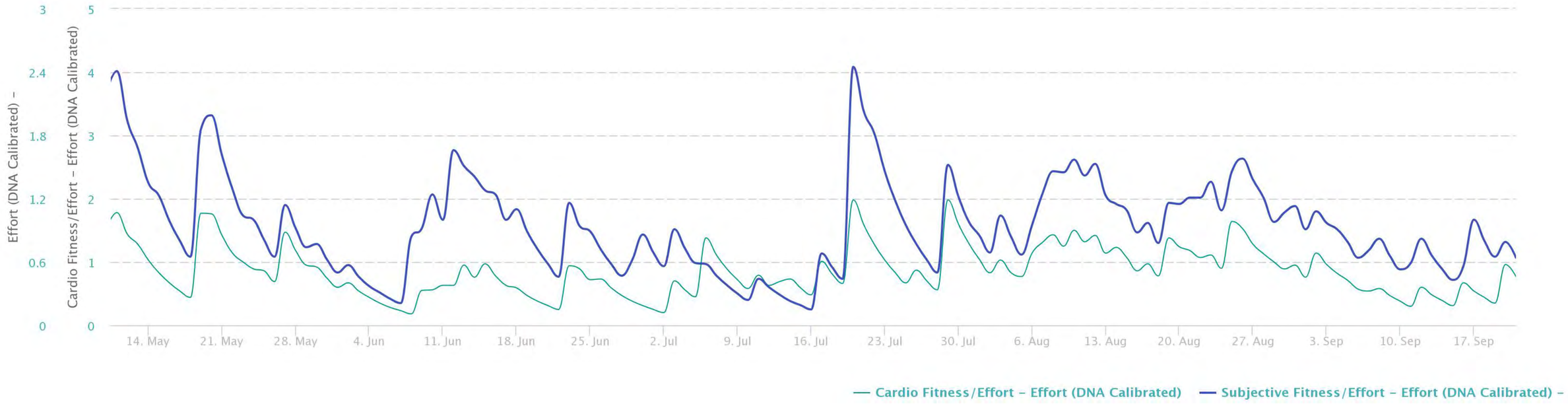
My training zones in triathlon season



Fitness goes up, but what happened in April?

Back pain down, fitness up!

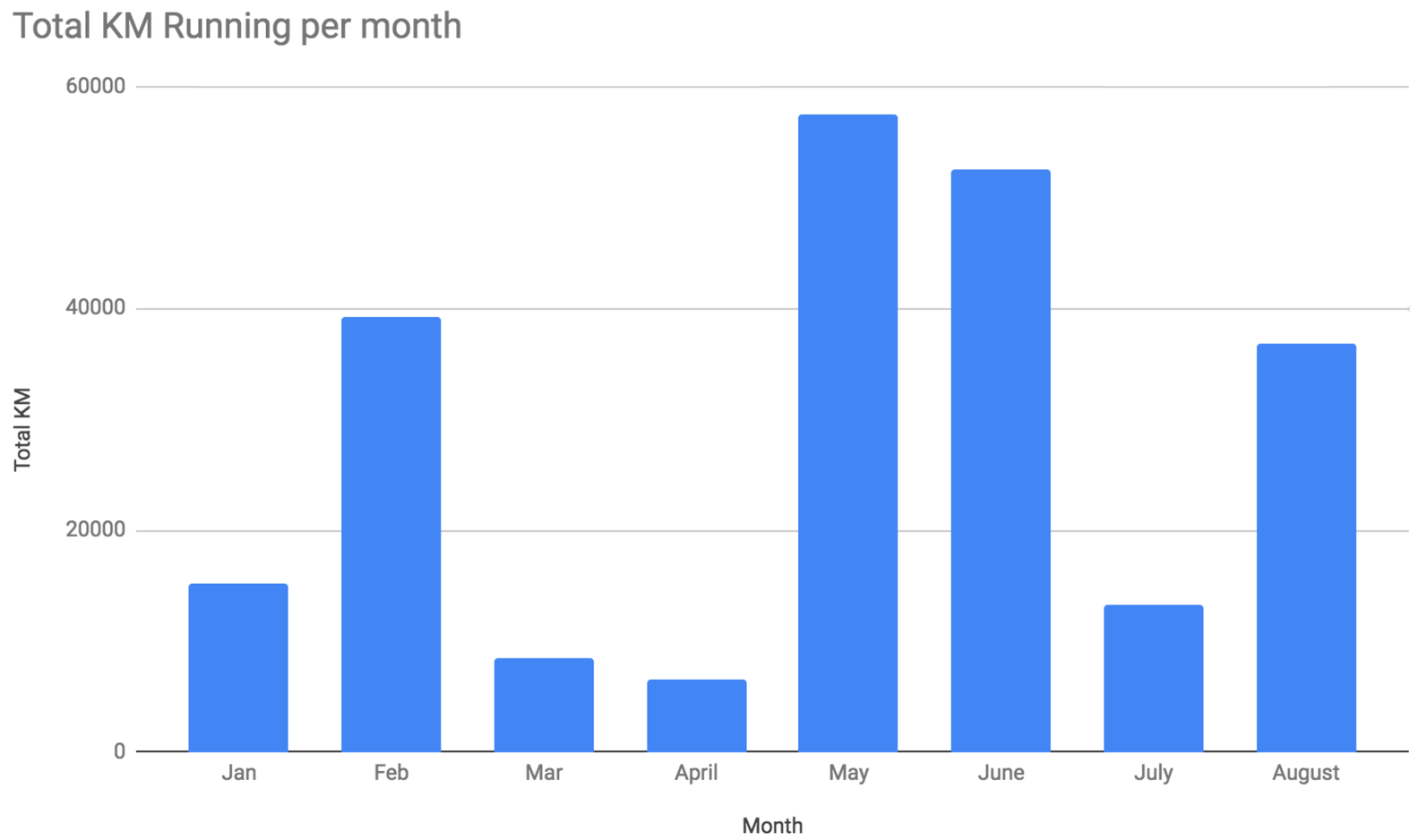
Subjective measures work pretty well too



My fitness vs my fatness

My resting pulse is dropping over time (2016-2018)

High output for low volume



What did I learn?

- I’m definitely getting fitter. It is efficient, and calibration is helping.
- Ratios work for amateurs too. As long as you train regularly.
- Age is a thing, and is measurable too. Injuries and annoying stuff happens more. Getting the ratios right helps even more with age.
- With only a few things measured there are almost too many things to correlate.
- You can create baseline ratios for anything that can be used to calculate ‘training load’. e.g. subjective, heart rate, distance, speed etc.

What now, what next?

- We implemented a super fast parallel algorithm to calculate ratios, training loads etc. It can calculate a lifetime of data in about 2 milliseconds.
- This allows us to measure thousands of things in parallel and potentially correlate or average them.
- We partnered with a sequencing company and built a new genetic test with 5000 variants that are important for fitness. This has improved the predictiveness of our models.
- We have to get better at automatically correlating stuff and be alerted to changes.

Get in touch

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Office hour for Genetrainer App 13:00 Sunday
How to workshop (for more techniques) 14:00 Sunday