

## Scottish Fencing

# Talent Squad Bulletin 2/09

### Introduction

Much has happened since the last bulletin, only a few months ago. First of all, 5 Talent Squad fencers were in action in the Junior Commonwealth Fencing Federation Championships in Penang. Everyone thoroughly enjoyed their trip to the 'Pearl of the East' and Scotland's small contingent returned with a good haul of metalware (results below). Shortly after, three Talent Squad members were part of the British Team Bourges - well done **Emma**, of our members were in action at Championships. **Lisa** (WJF) good victories in their pools opposition in the DE. **Natasha** in the Junior Foil Team event. **Natasha** and **Lisa** eliminated top seeds Italy. The highlight of



*Gold in Penang*

for the European Cadet 's in **Ruth** and **Callum**. Finally three the World Cadet and Junior and **Callum** (MCF) both won before going out to very good gave a good account of herself The Team, which included Canada before going down to the World Cadet and Junior

Championships was watching Scottish Foilist Ed Jeffries taking the Silver medal in his event. Ed is currently part of the 'Olympic Pathway' and is training full-time in London, and a good example of what can be achieved with full commitment to your preparations.

### Squad members' results of note

Some more great results by TS members:

January 2009 - British Youth Championships

Women's Sabre; 5th **Jessica**.

Women's Épée; 5th **Ali**.

Women's Foil; 3rd **Mhairi**.

February 2009 - Junior Commonwealth Fencing Federation Championships

Women's Foil; Bronze medal **Lisa**.

Women's Épée; Silver Medal **Emma**.

Women's Foil Teams; Gold medal **Lisa** and **Emma**.

Women's Sabre Teams; Silver medal **Jessica**.

February 2009 - Dundee Dual

Men's Épée; 1st **Neil Tannock**.

March 2009 - Edinburgh Open

Women's Foil; 1st **Natasha**, 2nd **Ruth**, 3rd **Mhairi**.

Women's Sabre; 1st **Nicole**.

Men's Épée; 1st **Neil Tannock**.

March 2009 - British Public Schools Championships

Girl's Senior Epee; 6th **Emma**.

April 2009 - Glasgow Open

Women's Foil; 1st **Mhairi**.

Women's Sabre; 1st **Nicole**.

Men's Foil; 2nd **Casey**.

Men's Sabre; 3rd **Neil McGibbon**.

April 2009 - Scottish U17 Championships

Women's Foil; 1st **Ruth**.

Women's Sabre; 1st **Nicole**, 2nd **Jessica**.

Women's Epee; 1st **Ali**.

Men's Foil; 1st **Callum**.

April 2009 - Scottish U20 Championships

Women's Foil; 1st **Natasha**, 2nd **Ruth**.

Women's Sabre; 1st **Nicole**, 3rd **Jessica**.

Women's Epee; 1st **Kirsty**, 2nd **Ali**.

Men's Foil; 1st **Callum**.

Men's Sabre; 1st **Michael**, 2nd **Neil McGibbon**.

It's possible that I might miss a good result - feel free to keep me informed and you'll get a mention.

Results are generally limited to top 4 in Scotland, Last 8 in Britain and Last 16 abroad.

Squad update

**Neil Tannock** has made it into the British Senior top 16 for Epee, and is now in our squad - well done **Neil**.



Lisa McKenzie  
Mhairi De St Croix  
Natasha Thomson  
Ruth Clarke



Callum O'Donnell  
Casey Avril



Ali Evans  
Amy Duffus  
Emma Byatt  
Kirsty Thomson



Neil Tannock



Jessica Murray  
Harriet Stilley  
Nicole Pickering



Matt D'Agostino  
Michael Clarke  
Neil McGibbon

Fitness

Fencing is a modern Olympic sport and anyone who has watched a World or Olympic final can not have failed to be impressed by the dynamism and athleticism of the top performers. It is unlikely that anyone in the sport would deny that in order to compete at a good level, you have to be in good shape. But what do we mean by 'good shape' when it comes to our sport, and how is it achieved? Before we tackle this question, let's take a Scottish perspective. In this country, we do not have an infrastructure to maintain a practically professional squad that spends most of its time training to compete at World level. With the exception of the very few on the Olympic Pathway, Scottish fencers juggle education or a career with their training and have limited time for or access to the training they really need. It is not unusual for someone to rise to the level of our senior team on a couple of nights fencing a week and very little work specifically on fitness. The purpose of this article is to address the needs of the promising young, home-based Scottish fencer who fences two or three times a week, and maybe does a little extra training to address their fitness, but isn't sure what they should be doing in order to make an impact on the international scene.

Before embarking upon a training plan for the season, it's important to appreciate how much time you will be able to devote to your training. There is no point in populating a schedule with numerous sessions if it's unrealistic to imagine that you will be able to commit to them. By the same token, you have no right to expect success on the international stage if you are not prepared to devote a considerable portion of your time to your sport. For some Scottish fencers, there will be a decision whether or not they should devote any of their limited training time to fitness training at all.

If say, you fence twice a week at club and do no other training, but have decided that you want to improve your results, you may be tempted to use that extra session in the gym, but unless you need to target something specific (such as an injury that requires that you perform some remedial conditioning), anything other than another night fencing would be a mistake for two of 'fitness' have what is known as 'dose rates'. This is the number of times per week that you must



*Top fencers are athletic*

train before your body makes a significant adaptation as a result of the training. For cardio-vascular endurance for example, the dose rate is three times per week. One run per week then, will be of very little value, and only prevent you from getting some extra fencing in. And this leads us to the second point which is that there is often no better training for a sport than the sport itself. Two nights a week simply isn't enough fencing to produce a world class competitor. That your club nights are excellent training for fencing presupposes that these are serious fencing sessions! A typical club night should include a good warm-up (light exercise to increase blood flow, joint mobility exercises and some dynamic stretching at least), footwork, an individual lesson, a good number of bouts (mostly controlled fencing rather than simply free fencing) and finally a 'warm-down' that includes some static stretching). A little socialising is acceptable (and indeed an enjoyable part of your sport and important for a good club identity), but it should not constitute a sizeable chunk of your club night! Most clubs have a queueing protocol for getting 'on the box' but when you are not fencing or refereeing prior to your turn, you should grab a suitable sparring partner and 'steam fence'

times per week that you must

until your turn comes around. This allows you to cram a lot more training into your programme at no extra cost in terms of time, and is one of the best ways to develop a good level of fencing fitness.

Assuming now that you are looking for significant international success and you are willing to commit to a serious fencing programme including specific fitness work - what are the attributes required and how should the training be approached? There are different elements that you need to develop such as muscular endurance and power, and you should be aware that in general, your body can only make serious adaptations to one of these factors in any period. This means that your programme should identify cycles (ideally of at least 4 to 6 weeks) in which you address specific adaptations. You must also order the cycles in a sensible way - it would be folly for example, to attempt to increase your power with a cycle of plyometric exercises without first having completed a period of training for the muscular strength required before you can hope to tackle plyometrics without a risk of injury.

The following set of cycles would be a good order to adopt and also gives you 'dose rate' for each type of adaptation along with some general comments (the maintenance rate is the minimum required to avoid deterioration of the adaptations you have made);

### Cycle 1 - Cardio-vascular endurance (Aerobic fitness).

What is it? This is the ability of your heart, the blood vessels and your lungs to supply oxygen and fuel to the muscles, and to remove the waste products of the reactions that take place in the muscles.

Why? The purpose of cardio-vascular fitness is to give you a good general base of fitness to allow you to participate in a challenging season of training and competition.

How? By a programme of running at around A% of your **Maximal Heart Rate** (roughly 220 minus your age) for at least 30 minutes, the time/distance increasing in **microcycles** (explained below), or with a similar programme of appropriate aerobic gym work

Dose rate? At least 3 times per week.

Maintenance rate? At least once a week.

### Cycle 2 - Muscular endurance.

What is it? This is the ability of your muscles to sustain training sessions

Why? So that you can train seriously for significant periods.

How? By a programme of gym work in which you fatigue after 15 to 25 repetitions of an exercise.

You must work opposing muscle groups and not train on consecutive days. Classes like 'Body Pump' are also good for this and it helps if you train with other people and a leader as it will motivate you to keep going.

Dose rate? At least 2 times per week.

Maintenance rate? At least once a week.

### Cycle 3 - Muscular strength.

What is it? This is the ability of your muscles to do work, and is necessary for the development of power (see next cycle)

Why? Your muscles need to be strengthened before you address explosive power.

How? By a programme of gym work in which you fatigue after 6 to 8 repetitions of an exercise.

It is best if you do not train on consecutive days. You should especially target lower body and core.

Dose rate? At least 2 times per week.

Maintainance rate? At least once a week.

**Cycle 4 - Power.**

What is it? This is the ability to perform explosively. It requires muscular strength but the speed at which your muscles can produce this is a factor too.

Why? Fencing is an explosive event and power - especially lower body power is essential for international success.

How? By a programme of Plyometrics. These are bouncy type exercises and there are many good sites on the internet that demonstrate plyometric exercises. Footwork exercises such as lunging against a resistance (such as a rubber band) and particularly balestras (jump-lunges) are also good exercises to increase power.

Dose rate? At least 2 times per week.

Maintainance rate? At least once a week.

The pattern above made reference to micro-cycles, and this is another important principle that must be respected for optimum adaptation. An example is the best way to demonstrate this principle; If you are trying to increase your cardio-vascular endurance by running over a 5-week period, you might think that the best way might be to start out with 30 minute runs, adding 5 minutes each week so that you are running for 50 minutes in the final week. This would be a 'linear' programme' in which the time increases steadily, but this is now understood not to be the best way to effect the physical adaptations that you want. Instead, you should undertake micro-cycles of first a modest intensity, then a hard session followed by an easy one (but still with a general upward trend). This is called **Step Loading**. In our simple example, your running plan might look like this:

micro-cycle 1 (week 1)		
Tue	Thu	Sat
28	30	26
minutes	minutes	minutes
moderate	hard	easy

micro-cycle 2 (week 2)		
Tue	Thu	Sat
33	35	31
minutes	minutes	minutes
moderate	hard	easy

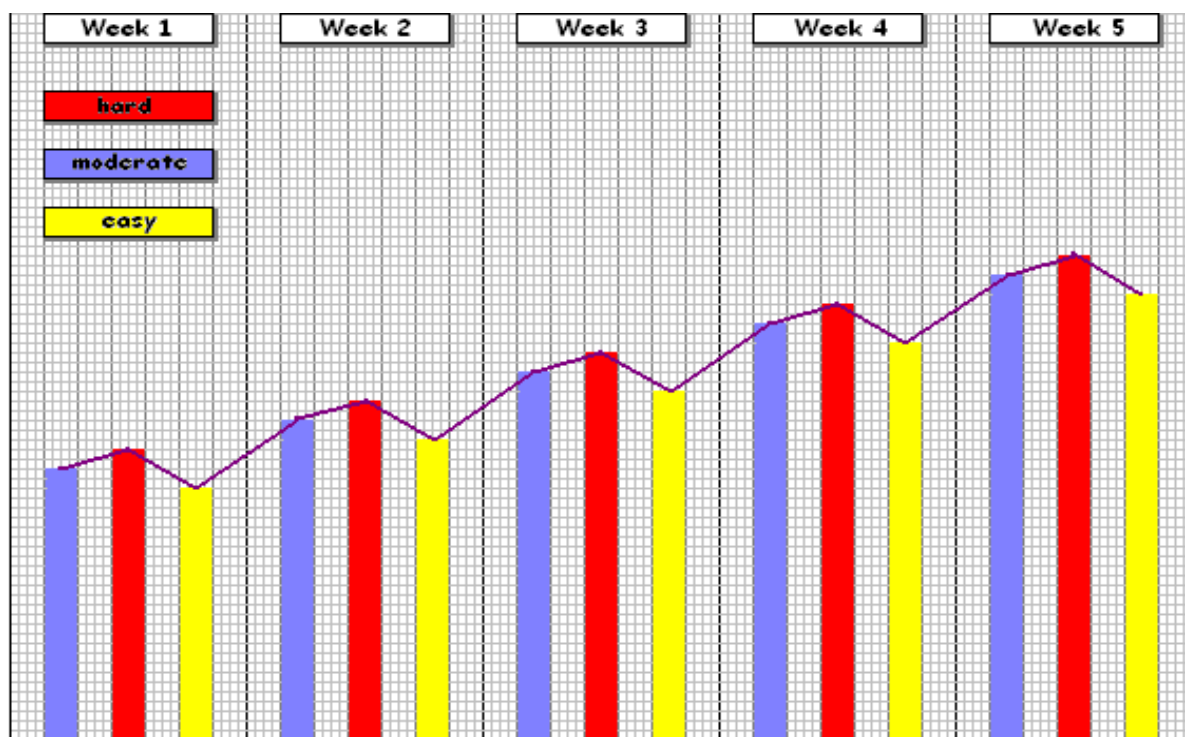
micro-cycle 3 (week 3)		
Tue	Thu	Sat
38	40	36
minutes	minutes	minutes
moderate	hard	easy

micro-cycle 4 (week 4)		
Tue	Thu	Sat
43	45	41
minutes	minutes	minutes
moderate	hard	easy

micro-cycle 5 (week 5)		
Tue	Thu	Sat
48	50	46
minutes	minutes	minutes
moderate	hard	easy

Shown as a graph, it would look like this:





*5 microcycles of moderate-hard-easy within a training cycle of 5 weeks*

An even more sophisticated but also more effective way would be to increase the intensity in different ways; instead of a general trend of increasing times, you might instead sometimes increase the distance travelled in the same time, or increase the load by tackling a slope.

At the end of a cycle for cardio-vascular fitness you would expect to see significant adaptation (improvement) in this area, and then move on to the next training cycle (perhaps muscular endurance) with its microcycles.

Anyone considering a change in their preparations would do well to seek advice from a qualified trainer. The information above is very general and everybody has different requirements.

The method mentioned for judging the intensity of aerobic training for example is not a precise one and there are better but more sophisticated methods such as the Karvonen method.

There is also a risk of injury from inappropriate and/or unsupervised training.

TS members should feel free to contact me at any time for advice.

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