

The x-change, Monday 7<sup>th</sup> September 2009

Speakers:

Dr Kerry Kirwan, University of Warwick

Dr Nikki Gammans, Bumblebee Conservation Trust

Stuart MacBride, Crime Author

Dr Paddy Regan, University of Surrey

Host: Sue Nelson



Kicking off the first evening's x-change event, Dr Kerry Kirwan from the University of Warwick caught the crowd's attention by waving chocolate and wine in the air. It transpires he'd used waste fats and alcohol to power his lean, mean, green F3 racing car, and carrots to make the steering wheel. Although this particular vehicle will not be going into mass production anytime soon, many individual parts could be incorporated into green road cars in the future.

Next up Dr Nikki Gammans took us through her work at the Bumblebee Conservation Trust, reintroducing a species of bumblebee to Kent that has been extinct in the UK since 1988. She's planning to go over to New Zealand at the end of the year where the species still thrives, in order to select and breed a population of queens to bring back with her. The project's success depends on maintaining wildflower meadows, the bee's primary habitat. In the Q & A session, Dr Gammans dispelled the myth that bumblebees die once they sting you (this is only the case in honey bees) and you definitely shouldn't kill wasps (which are invaluable for breaking down dead vegetation)!

Top crime author Stuart MacBride was at the Festival to present readings from his books alongside a panel of forensic scientists who would comment on the science behind the stories. At the x-change MacBride was asked 'How do you research the science for your books?' 'Well,' he replied, 'Mostly I just make stuff up.' When asked further as to whether he ever checks his science facts, Stuart launched into a story regarding his research into just how much crack cocaine a character could smuggle into prison inside his body in his 'own personal man-passage' and he'd consulted a friend who worked at a mortuary in Aberdeen to find the average 'carrying capacity' of a human body in order to reach the final figure. However, once the book was published, he received a letter from a man in prison who, after quizzing fellow inmates, had concluded that the amount in the book was a serious underestimate. At this point a conveniently-placed gastroenterologist in the audience chimed in with his experience on this matter. Suffice to say the crowd were in stitches. And a fair few were put off their food.

A move from crime fiction to one real murder mystery came with the final speaker of the evening, Dr Paddy Regan of the University of Surrey. As a leading physicist on exotic nuclei Paddy, (or Professor Polonium as he became known) was heavily involved in the UK media coverage of Alexander Litvinenko's death from Polonium 210 poisoning. He told the

audience that Litvinenko's death was 'almost the perfect crime' as a dose smaller than a grain of salt can kill if it's inhaled or ingested.

Interspersed between the evening's speakers were several *perspectives* postgraduates, each with two minutes to describe their research. Tonight's four were Bethan Lowder (chicken microbes), Ian Sandall (solar power spray), Amy Freund (gene therapy) and Jeremy Singer (computer central heating).