

# DBC NEWS

A news update from the **D**achshund **B**reed **C**ouncil

July 2009

## Inter-varietal Matings

It is now nearly two months since it was “announced” at the KC AGM that permission had been given for two inter-varietal matings between MSHD and MWHD. There has subsequently been much correspondence in the media and several letters written directly to the KC, both by Clubs and individuals.

Jeff Sampson has been good enough to respond to some of the questions posed and Caroline Kisko have commented in the press. There are still some outstanding issues which we believe require a response from the General Committee. These relate to the science and evidence behind the KC's decision and the lack of consultation with our Breed Council and Clubs.

If we are to make progress in our arguments with people such as the RSPCA who are criticizing the health of pedigree dogs and the “adverse” impact of the show scene, we have to do this from a basis of fact. At the moment, it is easy to conclude there is a lack of science and an excess of “emotional judgement”, leading to flawed decision-making.

## Genetic Diversity

We have been given no evidence by the KC of the need for an increase in genetic diversity in MWHDs. From the registration tables in the Breed Record Supplement the number of MWHD registrations has increased from 693 in 1999, to 947 in 2008. This hardly looks like a breed in dire straits, nor one in need of an out-cross. MSHD are in even less need of MWHD blood, with registrations of 2,566 puppies in 2008.

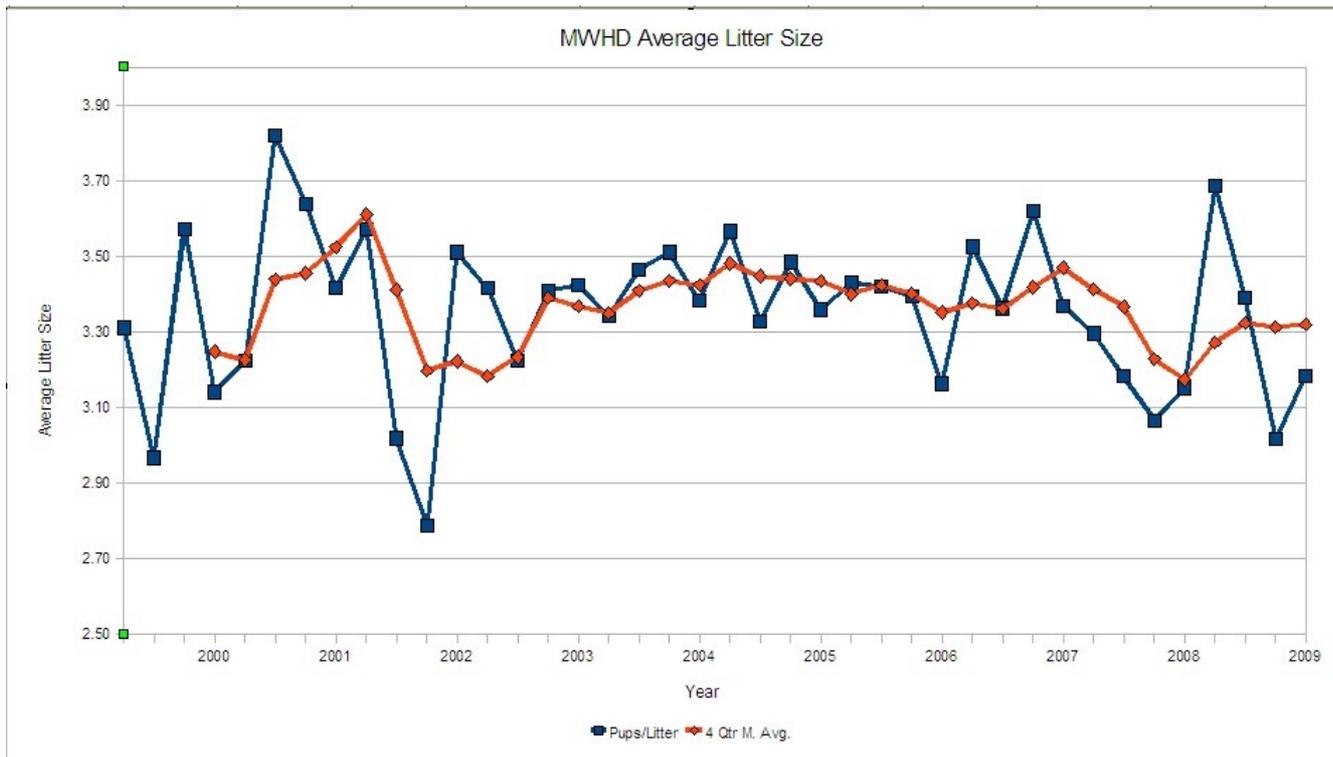
However, to make an informed decision, what we really need are Coefficient of Inbreeding (CoI) data of MWHD and MSHD over recent years, if we are to understand whether or not there is a problem with genetic diversity and if that problem is getting worse.

In the absence of CoI data, and on the advice of a geneticist, we have analysed the average litter size in MWHD over the past ten years from the Breed Record Supplement. One of the indications of excessive inbreeding is a reduction in litter size and fertility (so-called “inbreeding depression”).

The graph below shows average litter size and a four quarter moving average since 1999. This shows a Mean litter size of 3.35 (Std. Dev. 0.21). There is no evidence of a statistically significant reduction in litter size over this period.

## In This Issue

- **Inter-varietal Matings**
- **Cell Therapy for paralysed dogs**
- **Breed Conference 29/11/09**



We also took a snapshot of litter sizes in 1987 and found an average litter size of 1.68 (598 puppies in 396 litters). So, average litter size has approximately doubled over a 22 year period, which, intuitively, is consistent with the increase in the number of imported MWHDs that have been added to the gene pool over the past ten years.

However, without CoI data and an expert's view on its interpretation, we cannot know whether or not MWHDs are in need of increased genetic diversity.

In contrast with our own KC, CoI data are freely available in other countries, for example from the Finnish KC. Data obtained for 2006-2008 shows the litters of MWHDs bred there have average Coefficients of Inbreeding as follows: 2006 = 2.55%, 2007 = 3.03%, 2008 = 2.44%. As a reference point, a cousin to cousin mating would have a CoI of 6.25%.

Of these Finnish litters, only 8 out of 130 had a CoI of more than 6.25% and they were typically around 7%.

We, as a breed, do not necessarily believe that a wide genetic base is a bad thing, but we are concerned that a drive for increased genetic diversity should not take priority over the maintenance of correct breed type and considerations of health and welfare. If genetic diversity is to be increased by cross-breeding or mating to other coated specimens just because they have a different genetic make up, then the KC and we should be opposed to widening the gene pool. Throughout the world there is a big enough gene pool of MWHDs with excellent conformation and sound temperament which should prevent the necessity for inter-varietal matings. In the absence of suitable evidence, the majority of breeders feel this is a retrograde step after dedicated breeders have spent a considerable amount of time and effort successfully fixing breed type.

## Consultation

We understand that there was a conscious decision by the General Committee not to consult with the Breed Council or Clubs. Given the huge amount of effort our breed has put into working with the KC over recent years, we really cannot understand why they would choose this approach. The consequences have been further media coverage, most of which has not been favourable to the KC with regard to its actions and attitude.

If there is evidence of a need to address genetic diversity in MWHDs the KC should share it with us and involve us in arriving at a consensus decision on how best to proceed. Such discussions should also include how the registration of any “Recessive Smooths” would be dealt with in future generations. This point is particularly important if we are to avoid introducing conditions such as Lafora's into the MSHD gene pool, from the MWHDs.

It would then be far easier to persuade the “rank and file” breeders and Club members of the necessity for inter-variety matings.

In the meantime, we have respectfully asked the General Committee to re-consider its decision and suspend approval for any inter-variety matings until we have all been able to review the relevant CoI data.

## Cell Therapy for Paralysed dogs

Helen Blamires from the Queen's Veterinary School Hospital at the University of Cambridge has written to us regarding a clinical trial that started recently. It is investigating the possible benefits of cell therapy for paralysed dogs.

Half the dogs that have come forward to participate in the trial so far are Dachshunds. The team is in the process of recruiting suitable cases as they need a sufficient number of cases to reach statistical significance.

Helen writes: “Your help would be greatly appreciated. We have the opportunity to propose this protocol for free as we are funded by the Medical Research Council”. An overview of what is planned is given below...

### **Spinal Cord Injury in Dogs: a Clinical Trial on Cell Therapy for Paralysed Dogs**

Recent developments in spinal cord injury (SCI) research have suggested that there are many interventions, including cell transplantation, that have the potential to become treatments for SCI. Current front –runners amongst cell transplants are olfactory ensheathing cells (OECs). In 2005 we demonstrated that transplantation of those cells was reliable and safe in naturally occurring canine SCI. The Department of Veterinary Medicine has now received major support from the Medical Research Council (through Robin Franklin's lab) to conduct a phase II clinical trial in dogs with SCI. The aim is to repair the spinal cord with intraspinal injections of OEC to try and restore adequate function to the most severely injured patients. The project is currently been undertaken by Nick Jeffery and Nicolas Granger, specialists in veterinary neurology (both Diplomates of the European College of Veterinary Neurology) and Helen Blamires research veterinary nurse and chiropractor is assisting with the project.

### **Criteria for Inclusion in the Trial**

We are currently looking for dogs with SCI to be included in the trial but entry to the trial has to be restricted to dogs that:

1. Weigh less than 20kg

2. Have a suitable temperament
3. Have a spinal lesion between T3 and L3 that was caused by and acute traumatic episode such as a fracture, luxation or intervertebral disc extrusion
4. Have reached a static, unacceptable stage of neurological recovery (complete loss of motor and sensory function to the pelvic limbs and incontinence) for a minimum of three months
5. Have owners that are able to bring the dog in monthly for evaluation over a six month period and then for the final evaluation at one year

### **The Trial Protocol**

Dogs accepted into this study will have olfactory mucosa harvested from the frontal sinus cavity via a limited unilateral rhinotomy. Our previous experience has not detected any detrimental effect on smell or behaviour following this procedure and dogs quickly recover, usually eating the same day. The cells are then cultured and propagated over three to four weeks to reach sufficient number before being injected directly into the damaged region of the spinal cord. An MRI scan is used to determine the epicentre of the lesion and the injection are made through the skin under fluoroscopic guidance to ensure accurate placement.

During the trial, one of two treatments, both known to give functional benefits, are randomly allocated to the recipient. The researcher and owners are blinded to which treatment the dog received so that they remain unbiased for the functional evaluation. Each dog is entitled to receive both treatments, meaning that they can receive the alternative treatment at the end of the first six months' evaluation.

### **The Functional Evaluation Exercises**

The three main clinical tests used to obtain an initial baseline and quantify the functional outcome are:

1. Motion analysis – a treadmill is used for recording and analysis of locomotion;
2. Evoked potentials – magnetic motor evoked potentials (MMEP) and somatosensory evoked potentials (SSEP) are conducted to assess ascending and descending spinal cord pathways;
3. Urodynamic recording – bladder cystometry to assess function of micturition.

### **For More Information**

The webpages on 'Spinal Cord Repair Following Injury in Dogs' are currently under development but if you require additional information on the project please contact:

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## **Breed Conference November 29th**

Plans are moving ahead for the Breed Conference to be held at Stoneleigh on 29<sup>th</sup> November.. We will have speakers on the revised Breed Standard and its implications for judges and breeders. There will be opportunities for discussions about the health and welfare aspects of the Breed Standard and we will be including presentations on the latest research information on breed-related health priorities.

Full details will be published shortly, but you can reserve a place by e-mailing the Breed Council Secretary, Lesley Brown, at [devoncreamdax@homecall.co.uk](mailto:devoncreamdax@homecall.co.uk)