



from our speakers  
at the WBFSH seminar

October 7<sup>th</sup> and 9<sup>th</sup> 2013

in Warsaw, Poland

Poznań  
International  
Fair



Międzynarodowe  
Targi  
Poznańskie



AGENCJA NIERUCHOMOŚCI ROLNYCH

Monday October 7<sup>th</sup> 2013

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**9.15–10.00 PD Dr. habil. Kathrin Friederike Stock**

***What is linear scoring and how is it used? A comparison between different implementations of linear scoring***

*Summary:*

Linear profiling of conformation and performance traits in the Warmblood horse

Linear traits are used in animal breeding since the 1970s, but their routine assessment for selection purposes varies between species, breeds and breeding organizations.

In the Warmblood horse, valuating scoring is still the predominating mode of conformation and performance evaluation. However, descriptions of trait expressions relative to biological extremes capture more information than valuations of favorability, particularly when combined with higher specificity of trait definitions. Increased objectivity and better comparability of linear than of valuating scores have been important arguments for introducing linear traits in the breeding programs, but refined trait definitions increase the number of traits to be assessed which may make it infeasible to broadly work with the suggested spectrum of linear traits. The most frequent implementation strategy was to start with a set of traits considered most informative and assessable without major increases in time and personnel investments. Adjustments over time affected assessments scales and traits, and in particular options for extended documentation.

Despite significant research activities in linear profiling since the 1980s, only few Warmblood studbooks have included linear traits in their breeding programs yet. As in other species, feasibility issues were the main reason for retardation, but some pioneer work in the field and advances in recording logistics have contributed to recent intensification of linear profiling in several European studbooks. Furthermore, the need for new traits and better phenotype data in competitive future breeding programs has boosted changes of the traditional evaluation systems.

Compromises have been found regarding trait spectra and efforts for linear assessments in a breeding context. Different strategies in pilot and routine applications of equine linear profiling are presented with their perspectives for data usage and future developments. Similar focus of studbooks on the competitive and durable riding horse implies options of synergistic progress in the development of comprehensive linear schemes and efficient collection of linear data, providing the basis for better utilization of conformation and performance information in Warmblood breeding. The overview of linear profiling in the Warmblood horse will inform of already taken and prospected actions to share experiences and to improve collaboration between studbooks.

*Biography:*

Born on 14 December 1976, start of riding in 1986, since then continuation of 'horse career' as dressage rider, later also as breeder.

1996-2001 Study of veterinary medicine at the University of Veterinary Medicine Hannover

2002-2004 Doctoral thesis at the Institute for Animal Breeding and Genetics, University of Veterinary Medicine Hannover: 'Radiographic findings in the limbs of Hanoverian Warmblood horses: Genetic analyses and relationships with performance in sports'

2005-2008 Continuation of research in animal genetics as post-doc mainly in Hannover (November 2005 to March 2006 post-doctoral grant at Virginia Bioinformatics Institute, Virginia Polytechnic Institute and State University in Blacksburg / Virginia); submission of teaching thesis in Nov. 2008: 'Implementation of strategies to utilize molecular genetic information for selection in horse and dog breeding'

since 2009 Associate professor (private lecturer) for animal breeding at the University of Veterinary Medicine Hannover

since 2010 Working as animal geneticist at the national computing centre (Vereinigte Informationssysteme Tierhaltung w.V., vit) in Verden, with responsibilities for genetic evaluations in horses and dairy cattle

since 2004: scientific work in animal breeding and genetics with teaching / education of veterinary students and supervision of PhD students, publications in peer-reviewed journal and conference presentations, focus of own research: genetics of health and performance traits in horses, health monitoring and genetic improvement of health traits in dairy cattle; member of national and international working groups (health and functional traits in dairy cattle: DLQ, ICAR; Interstallion working group of the EAAP horse Commission)

#### **10.00–10.45 Lina Jönsson, PhD student**

##### ***How to use veterinarian information from Swedish quality tests to improve health and durability***

###### ***Summary:***

Lina did her master at the Swedish university of agricultural sciences and will finish her PhD on September 19<sup>th</sup> 2013 at the same university. She has focused her studies to health traits and functional longevity in horses and how they associate to young horse health, conformation and talent. Her studies are based on just over 8200 horses that have been followed from 4 years of age and through lifetime for competition results and number of active years in competition. Results show that health of young horses can predict future longevity and success in competition. Also conformation status of the young horse influence future competition results.

###### ***Biography:***

Born 1983, start of riding 1994, today riding young horses and competition horses mainly for show jumping.

2006 Master's degree in Animal Science, at Swedish University of Agricultural Sciences, Uppsala, Sweden.

2013 PhD from Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden.

### **Scientific publications:**

- Jönsson, Roepstorff, Egenvall, Näsholm, Dalin and Philipsson. 2012. Prevalence of clinical findings at examinations of young Swedish warmblood riding horses. *Acta Vet Scand.* 55: 34.
- Jönsson, Näsholm, Roepstorff, Egenvall, Dalin and Philipsson. 2012. Genetic analysis of clinical findings at health examinations of young Swedish warmblood riding horses. *Acta Vet Scand.* 55: 22.
- Jönsson, Dalin, Egenvall, Roepstorff, Näsholm and Philipsson. 2011. Equine hospital data as a source for study of prevalence and heritability of osteochondrosis and palmar/plantar osseous fragments of Swedish Warmblood horses. *Equine Vet J.* 43(6) 695-700.
- Jönsson, L., Näsholm, A., Roepstorff, L., Egenvall, A., Dalin, G. and Philipsson, J. Conformation traits and their genetic and phenotypic associations with health status in young Swedish warmblood riding horses. **Submitted**
- Jönsson, L., Egenvall, A., Roepstorff, L., Näsholm, A., Dalin, G. and Philipsson, J. Health status and conformation of young Swedish warmblood riding horses – associations to longevity and lifetime competition performance. **Submitted**
- Jönsson, L. 2013. Orthopaedic health, conformation and longevity in riding horses - a genetic and phenotypic study. PhD-thesis No. 2013:59. Uppsala, Sweden. Electronic version at:  
[http://pub.epsilon.slu.se/10756/1/Jonsson\\_I\\_130820.pdf](http://pub.epsilon.slu.se/10756/1/Jonsson_I_130820.pdf)

## **11.15–12.00 Thomas Mark, Associate professor, Animal Breeding, Quantitative Genetics and Systems Biology**

### ***Genomic selection for performance and health***

#### ***Summary:***

Genomic selection holds tremendous potential to improve breeding of sport horses in similar ways as it has recently revolutionized breeding of many animal and plant species. It can deliver accurate breeding values for newborn foals including those of foreign origin for any heritable trait being measured systematically. This allows for greatly reducing generation intervals and gives an easy way of comparing horses across country borders. However, it takes a large number of horses with both genotype and phenotype data ("reference population") to establish accurate genomic prediction equations. Provided a large reference population and some initial research/number crunching, the breeder can obtain an accurate prediction of the foal's potential from a genotype which can easily be generated from a blood or tissue sample for less than \$200 per horse (lower price expected in future as technology becomes more widely used). In Denmark we will genotype the most informative stallions as a start and expect moderate accuracies of breeding values for foals as a result. With international collaboration we can increase accuracies and get more out of the new technology. Collaboration can happen at different levels ranging from exchange/pooling of genotypes to joint genomic evaluations. While it is beneficial that the big players participate it is no longer crucial as the genotypes can provide the necessary genetic links between data measured in different countries. Those that collaborate will be able to breed the best horses in the future.

#### ***Biography:***

Dr. Thomas Mark was a driving force behind setting up a genomic selection research project in Danish Warmblood horses – a project that has just started. He is an

associate professor in quantitative genetics and breeding at University of Copenhagen where he has been employed since 2005. Previously he worked for Interbull where he developed new methods for international genetic comparisons, implemented them in practice and provided various services for member countries. Currently he is active in genomic selection research involving cattle, pigs and horses as well as teaching.

**14.00–14.45 Jacek Łojek, PhD**

***Changes in horse breeding structure in Poland (state/private ownership)***

*Biography:*

His professional career is connected with Warsaw University of Life Sciences, where after graduating from the Faculty of Animal Science he has worked at the Horse Breeding Department from 1980.

He performed the function of Head of the Horse Breeding Department, as well as Deputy Dean of Studies at the Faculty of Animal Sciences for two terms. He is an author and co-author of 68 scientific publications and 58 reports at scientific conferences, 14 books and textbooks, over 200 articles ranging from problematic issues to scientific for the general public and featured in the daily press, as well as the translator of 10 books.

His main academic interests are methods of evaluating the performance and breeding value of race and sport horses, horse behaviour, history of horse breeding and usage, welfare and conditions of horse husbandry, development of equine industry in Poland, nature of relationships between people and animals, and parasitology.

Jacek Łojek has supervised over 90 Masters and Bachelors dissertations. Apart from classes with students from various faculties of Warsaw University of Life Sciences in horse breeding and usage and in the role of animals in art, he holds classes at courses for Polish Equestrian Federation instructors and trainers, trainers of racing horses, instructors of hippotherapy and physical recreation in horse riding, as well as various seminars for breeders. He is a many year member of the Steward Board at the Sluzewiec and Sopot racetracks. He cooperates with the Polish Horse Breeders Association, as a member of the Stud Book for Wielkopolska Horses Commission, and with the Biebrza National Park, where he has a herd of Polish Koniks under his care. Furthermore he supervises the equestrian team of Academic Sports Association at Warsaw University of Life Sciences. He is also an instructor of physical recreation in horse riding and a tennis trainer.

**15.45–16.30 Dorota Lewczuk, PhD, DSc  
Associate Professor, Institute of Genetics and Animal  
Breeding, Jastrzębiec**

***Kinematic parameters of free jumping, environmental and genetic effects***

*Biography:*

Dorota Lewczuk graduated (MSc) from the Faculty of Animal Breeding at the University of Warmia and Mazury in Olsztyn, Poland. During her study, she had a lot of practise in Polish national studs and foreign breeder. She has been employed at the Institute of Genetics and Animal Breeding of the Polish Academy of Sciences since the very beginning of her professional career. She received her next two scientific degrees while working for the Institute. Most of her work regarded selection of horses, mainly

for biomechanical aspects and evaluation of the breeding value from the data collected at young stallions' performance testing centres. She has been cooperating with the Polish Horse Breeders Association since 1997.

As an expert in the horse biomechanics and breeding, Dr. Lewczuk lectures at agricultural universities, mainly for students of the horse breeding and veterinary specialisations.

Since 1995 Dr. Lewczuk has been involved in judging of show jumping, dressage and endurance races equine sports events. For five years, she has been responsible for the Polish endurance race judges by the appointment of the Polish Equestrian Federation. The 2003 was the most successful year when she was a president or a member of the ground jury of Polish, Czech, German and Russia championships in endurance.

Since 2007 She has been the vice-president of the Horse Commission of the European Association of Animal Production (EAAP) and the president of the Horse Commission of the Polish Association of Animal Production (PTZ).

Wednesday October 9<sup>th</sup> 2013

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**09.15–09.40    Tomasz Kobierski, Vice President of the Board of Poznań International Fair**

***Promoting of equestrianism, brand building during recession (show jumping)***

***Biography:***

Graduate of the Faculty of Management at the University of Economics in Poznan. He has been with the Poznan International Fair since the beginning of his professional career.

He began his work in MTP in 1998. During these years he served as a Coordinator, Director of Polagra-Food, Drema and Furnica fairs and a Director of agri-food and wood Products Group. His responsibilities included supervision and coordination of the marketing policy and managing the work of the various teams.

Since 2007 Tomasz Kobierski has sat on the Management Board of the Company where he is responsible for the design, promotion and organization of trade fairs and the development of the necessary design-budget documentation. In addition supervises the implementation of services for exhibitors and the preparation and execution of exhibition and trade fair-related works.

As an expert in the business, Kobierski lectures on trade fair marketing for MBA students of the University of Economics in Poznan and entrepreneurs from small and medium-sized businesses.

Since 2010 he has been a chairman of the Organizing Committee for CAVALIADA - the most important equestrian event in Poland. He actively co-creates CAVALIADA which develops year by year promoting an active lifestyle and horse-riding among a society.



