

CURRICULUM VITAE

name : Marc Pierard
address : Geelstraat 30, B-3800 Sint-Truiden, Belgium
tel. : +32 11 680228 / mobile +32 472 571744
e-mail : pierardmarc@hotmail.com , marcalpierard@yahoo.com

Education

- **PhD in Bioscience Engineering at KU Leuven** (Belgium) on January 19 2018, focusing on equitation science and applied ethology of horses; title: Ethograms for Equitation Science, the use of structural behavioural definitions to study social interactions and selection tests and to develop a reference ethogram for domestic horses;
doctoral training included courses in statistics, methodology, scientific writing, presentation skills and laboratory animal science
- **Certificate in Laboratory Animal Science:** FELASA-B in February 2015, FELASA-C in May 2015, at KU Leuven (Belgium)
- **Master's degree in zoology, graduated cum laude**, at Antwerp University (Belgium) in 1989, with focus on behavioural ecology and conservation biology;
thesis : a study of the (social) behaviour of the Military macaw, including an ethogram for this species, performed on a group of 11 birds in the Antwerp Zoo
- **special degree in environmental studies, graduated cum laude**, at Antwerp University in 1993 (1/2 day per week for 2 years covering all topics involved and a group thesis; our group worked on the relation between local physical planning and local environmental policy)
- **Summer School on management of endangered species** at the International Training Centre of the Durrell Wildlife Conservation Trust in 1999 (3 weeks intensive course in Jersey, including a small study project; our group studied behaviour of orang-utans and gibbons in a mixed enclosure)
- **course in integrated water management** at Antwerp University in 1999 (paper on a potential model for location choice of water purification plants)
- driver's license, basic computer courses, course in time management, course in meeting techniques

Languages

- Dutch : mother tongue
- English : fluent oral and written
- French : very good oral, good written
- German : good oral, basic written
- Spanish: notions

Publications

- **Peer-reviewed articles**
 - Pierard, M., Hall, C., König von Borstel, U., Averis, A., Hawson, L., McLean, A., Nevison, C., Visser, K., McGreevy, P., 2015. Evolving protocols for research in equitation science. Journal of Veterinary Behavior: Clinical Applications and Research 10 p. 255-266.

- Pierard, M., McGreevy, P., Geers, R., 2017. Developing behavioral tests to support selection of police horses. *Journal of Veterinary Behavior: Clinical Applications and Research* 19 p. 7-13.
 - Pierard, M., McGreevy, P., Geers, R., revised manuscript submitted. Impact of density and relative aggressiveness on agonistic and affiliative interactions in a newly formed group of horses. *Journal of Veterinary Behavior: Clinical Applications and Research*.
 - Pierard, M., McGreevy, P., Geers, R., submitted. Impact of preceding activity and multiple testing of Belgian police horses on behavior during personality tests. *Journal of Veterinary Behavior: Clinical Applications and Research*.
 - Pierard, M., McGreevy, P., Geers, R., submitted. Reliability of a descriptive reference ethogram for equitation science. *Journal of Veterinary Behavior: Clinical Applications and Research*, special issue on Equitation Science.
- **Popular publications**
 - 'The Science of Selection': interview in *Horses and People Magazine* (Australia), November 2017 on research about behavioural selection tests for police horses
 - 'Managing the Lesson String: Science's Formula for Happier School Horses': interview in *Horse Sport* (Canada) October 2014 on research project concerning riding school horses
 - Regular interviews on equitation science, applied ethology and evidence based training of horses for 'Bit', a popular horse magazine in the Netherlands and the Dutch speaking part of Belgium, since September 2010, plus a column on a specific behaviour in each magazine of 2013
 - 3 articles in **Cap** (a Belgian equestrian magazine in Dutch) since 2011 on social behaviour, group housing and training according to scientific knowledge on reinforcement and punishment of horses
 - 'L'équitation et la science de l'éthologie: une synergie potentielle'. *Equipages* 6, January 2009, p.35-36 (article on relevance of applied ethology for equitation in official magazine of equestrian federation of French speaking part of Belgium)
 - 28 articles on equitation science and applied ethology of horses in 'Paardentips' (Dutch email magazine on horses with over 41 000 subscribers at the time) between November 2008 and November 2010
 - Pierard, M. 2004. Scimitar-horned oryx reintroduction in Senegal. **Gnusletter** vol.22, no.2, p.16-17
 - Pierard, M. 1999. The Congo Peacock *Afropavo congensis* in the Lomako forest, Equateur province. **Afropavo** nr.5
 - **Reviewer** for Zoo Biology since October 2014 and for Animal Welfare since April 2015

Contributions to higher education

- **Guest lecturer** and **member of examination jury** for university certificate in animal management at university of Namur (Belgium), lecturing on applied ethology and welfare of horses, March 18 and 31, and leading a practical day, April 21 2017

- **Guest lecturer** for university degree in horse-assisted therapy at the Université Catholique de Louvain (Belgium), half day on the application of learning theory in horse training, October 15 2016 and October 14 2017
- **Guest lecturer** for postgraduate course in equine-assisted therapy at the Artevelde University College Ghent (Belgium), half day on applied ethology of horses, October 16 2015
- **Guest lecturer** for university degree in animal-assisted activities at university Paris 13 (France), half day on human-horse relation and half day on horse ethogram, July 9 2015
- **Guest lecturer** for an extracurricular presentation and practical demonstration on applied ethology of horses for veterinary students association at the veterinary faculty of university of Liège (Belgium), November 24 2014
- **Guest lecturer** in applied ethology of horses at the Ecole Nationale Vétérinaire d'Alfort (France) as part of an official certificate programme in behavioural medicine for veterinarians, November 17 2014
- **Co-supervisor** bachelor thesis Nepali student at the Tribhuvan University (Institute of Forestry, Pokhara, Nepal) on inter- and intraspecific social behaviour of vultures at feeding stations, 2014-2015
- **Guest lecturer** on evidence based training of animals for staff and students at the Institute of Agriculture and Animal Science of the Tribhuvan University (Nepal), December 10 2013
- **Supervisor** literature review master student veterinary medicine UGent (Belgium) on validation of physiological stress measures in horses, 2015-2016
- **Supervisor** literature review master student veterinary medicine UGent (Belgium) on captive elephant welfare, 2013-2014
- **Supervisor** literature review master student biology University Utrecht (Netherlands) on housing and welfare of horses, 2013-2014
- **Supervisor** for group research project of 4 bachelor students bioscience engineering KU Leuven on personality tests for police horses, February-May 2013
- **Supervisor** for group research project of 4 bachelor students bioscience engineering KU Leuven on eating behaviour of captive Asian elephants, comparing elephants at Planckendael Animal Park (Belgium) and working elephants in Nepal, February-May 2013
- **External expert** on behaviour, training and welfare of horses for university college Odisee in Sint-Niklaas (Belgium) for the bachelor programme in animal care: supervisor and active researcher for thesis on training of riding school horses 2011-2012, supervisor for thesis on welfare of horses at show jumping competitions in 2011 and external jury member for bachelor theses on horses in 2011, 2015 and 2016

Active participation in scientific conferences

- **Member of the Scientific Committee** for the 13th International Society for Equitation Science Conference in Wagga Wagga (Australia), November 22-25 2017
- **Member of the Scientific Committee** for the 12th International Society for Equitation Science Conference in Saumur (France), June 23-25 2016
- **Member of the Scientific Committee** for the 11th International Society for Equitation Science Conference in Vancouver (Canada), August 5-8 2015
- 'Horses and equestrian facilities; building, housing, welfare, environment', conference organized by the University of Angers and the Institut Français du Cheval et de l'Equitation, Le Lion d'Angers (France), October 6-7 2014: **member of the scientific committee** and **chairman** of session 2 (equestrian facilities and behaviour)
- 8th conference of the International Society for Equitation Science, July 18-20 2012 in Edinburgh (UK), **chairman** short presentations posters

- **Member of the organizing committee** for the annual colloquium on horse ethology in collaboration with the University of Namur (Belgium) (www.ethologie-cheval.be) 2010-2016
- 7th conference of the International Society for Equitation Science, October 26—29 2011 at the Academy Bartels (Hooge Mierde, Netherlands), **chairman** short presentations posters
- 'How to bridge the gap between the laboratory and the arena?', **chairman** of a workshop at the 5th International Equitation Science Conference, Sydney (Australia), July 12-14 2009
- **Co-organizer and panel member** at workshop on welfare of riding horses, led by Prof.Dr. Frank Ödberg (UGent, Belgium) as part of the 4th International Workshop on the Assessment of Animal Welfare at Farm and Group Level in Gent (Belgium), September 10-13 2008

Relevant experience

- external **member of ethics committee** for animal testing at Janssen Pharmaceutica in Beerse (Belgium) from July 2014 to October 2015
- **scientific advisor** to the Belgian federal mounted police for integration of equitation science in all aspects of horse management and use since April 2011, including development of objective behavioural screening procedure for new police horses
- **scientific expert** on horse welfare and behaviour within the framework of the National Council for Animal Welfare in Belgium
 - temporary working group on welfare of carousel ponies from June 2010 until November 2011 (recommendations translated into legislation in 2013)
 - temporary working group on horse sanctuaries from December 2012 until February 2014
- **training expert** for Elephant Experts (www.elephantexperts.org ; small international NGO aiming to implement scientific knowledge on welfare, management and training of captive elephants, mainly in Nepal)
 - 1 month in Nepal November-December 2013: **head trainer**, training of young elephants, education of local stakeholders, collecting data on working elephants for pilot study on use of infrared thermography (IRT) in field conditions
 - October 21-24 2013: pilot study on the use of IRT to observe behaviour and welfare of elephants, feasibility study and data collection on elephant group at Planckendael Animal Park (Belgium), with Helena Telkänranta
 - 1 month in Nepal in November-December 2009: **team leader**, continuing training with the 2 youngest of 5 pilot elephants, 1 week with an experienced trainer from the Zoological Society of London, afterwards continuing coaching alone, consulting local partners on training needs
 - 3 weeks in Nepal in December 2007: **team leader**, coordinating logistics and 2 workshops on evidence based training and management of captive elephants, assisting in hands-on training of elephants and local staff, lecturing on natural behaviour of elephants and on importance of fitting equipment, relating with local stakeholders, leading team consisting of 2 experienced trainers, a photographer and a videographer
- **civil servant for the Flemish government**, first at division of physical planning and later division of nature conservation, between May 1992 and March 2009 (with unpaid leave for participation in research projects)
- 3 weeks **stay at the Australian Equine Behaviour Centre** outside Melbourne (Australia), June-July 2009, including participation in an intensive 4-day clinic, in order to enhance practical knowledge of the evidence based training system, developed by Dr. Andrew McLean

Participation in-situ research projects

- 4 months as field manager on the Kakamega Monkey Project, coordinating behavioural research on blue monkeys in Kakamega Forest, Kenya in June-September 2005
- 2 months as research assistant on Ph.D. project in Bolivia, studying black spider monkeys and the influence of reduced impact logging on their density, behaviour and diet in July-August 2004, helping with collecting behavioural observations of the habituated community and the processing of collected food items for later chemical analysis
- 4 weeks as scientific advisor to National Parks authority on reintroduction project for oryx antelopes and dama gazelles in the Ferlo-North faunal reserve in Senegal in September 2003, assessing the possibilities for behavioural monitoring of the social structure, designing and testing a protocol for data collection by park staff and instructing park staff on habituation, methodology of behavioural monitoring and use of proposed protocol
- 2 months as project supervisor for the university of Natal in the Pongola Game Reserve in South Africa from end of October to end of December 2002, developing methodologies for research on relations between elephants, other herbivores and vegetation, liaising with management of the reserve and supervising volunteers and Ph.D. student
- 5 weeks for the Royal Zoological Society of Antwerp (RZSA) on Projet Grands Singes, a project for research and conservation of lowland gorillas and chimpanzees outside the Dja faunal reserve in Cameroon, in January-February 2002, coordinating the data collection for nest counts on prospection of potentially interesting site for future establishment of more permanent study area;
- 6 months as research assistant at the Karisoke Research Center of the Dian Fossey Gorilla Fund International, working on mountain gorillas in the Parc National des Volcans in Rwanda, June-December 2001, responsible for coordination of (behavioural) data collection and entry of data in database; assisting in preparation of study on impact of human presence (staff, researchers and tourists) on gorillas; during absence of director liaising with local military commanders about escorts and security;
- 6 weeks on sociable weavers in South-Africa in October-November 2000, assisting in ongoing PhD project on the role of helpers in breeding, observing behaviour, checking nests for presence of eggs or chicks;
- 3 weeks on Painted Hunting Dogs in Zimbabwe in October 1999, assisting in all aspects of the project, ranging from tracking the dogs, talking to tourists and lodge staff, to enter data in computer and help with administration;
- 4 months on bonobos in the Democratic Republic Congo between August and November 1998 for the Bonobo-in-situ-project of Royal Zoological Society of Antwerp, restarting the field research after an interruption by local conflicts, habituating and identifying bonobos, collecting behavioural observations and faecal samples; duties were delegated to all team members and part of my responsibility was the coordination and follow-up of auditive scans (method to locate nesting animals at night by listening at fixed points for vocalisations at sunset), the work was seriously disturbed and finally abandoned by internal conflicts in DRC; during the last 2 months of my unpaid leave at the ministry I worked as a volunteer for the RZSA, helping with the writing up and organisation of the bonobo data and generally helping out with administrative work of the research department;
- 6 weeks on Echo parakeets on Mauritius in October-November 1997, during breeding season, mainly observing known nest sites for presence of birds and frequency of visits by different individuals and exploring seemingly suitable habitat for use by (unknown) birds;
- 2 weeks on wolves in Russia in August 1996, working with government biologists on locating wolf dens in and around national park;

Lectures and presentations

- 'Developing a descriptive reference ethogram for equitation science', conference of the International Society for Equitation Science, Wagga Wagga (Australia), November 22-25 2017
- 'Bien-être du cheval en médiation équine: Intégration de l'éthologie appliquée pour l'utilisation éthique du cheval' (horse welfare in horse assisted activities: integration of applied ethology for an ethical use of the horse), **invited speaker** at the 1st Colloquium on horse assisted activities of Hippopassion (Belgian non-profit organisation offering equine-assisted activities and therapies) at university of Liège (Belgium), March 9 2017
- 'Evidence-based horse training: putting science to work for you and your horse', workshop for horse enthusiasts in Denmark, October 6 2017 and practical training day, October 9 2017
- 'Les mécanismes d'apprentissage du cheval dans la réalité : exemples concrets à travers les disciplines' (learning mechanisms for horses in reality : examples across disciplines) 7th colloquium on horse ethology at Namur University (Belgium), March 26 2016
- 'Validating temperament tests for Belgian police horses', conference of the Société Européenne d'Ethologie Vétérinaire des Animaux Domestiques, Paris (France), November 27-29 2015
- 'Relation between temperament tests and preceding activity for Belgian police horses', conference of the International Society for Equitation Science, Vancouver (Canada), August 5-8 2015
- 'Infrared thermography in behavioural studies of zoo and working elephants', **invited speaker** at the symposium of the Centre for Research and Conservation of the Royal Zoological Society of Antwerp (Belgium), December 3 2014
- 'Responses of horses to sudden object and sudden noise in relation to direction and distance of the stimulus', conference of the International Society for Equitation Science, Vingsted Conference Center (Denmark), August 7-9 2014
- 'Comparative eating behaviour of captive Asian elephants', poster at the congress of the International Society for Applied Ethology, Vitoria-Gasteiz (Spain), July 29-August 2 2014
- 'Cheval-thérapeute: inné ou appris?' (horse therapist: innate or learned?), 5th colloquium on horse ethology at Namur University (Belgium), March 1 2014
- 'Ethologie équine et l'accompagnement de la personne: cas pratiques' (equine ethology and horse-assisted activities: practical cases), 5th colloquium on horse ethology at Namur University (Belgium), March 1 2014
- 'What is that horse doing? The need for a working horse ethogram', **invited speaker** at the congress of the European Federation of Animal Science, Nantes (France), August 26-30 2013
- 'Does groundwork according to learning theory affect unwanted behaviour of riding school horses during lessons?', conference of the International Society for Equitation Science, Delaware (USA), July 18-20 2013
- 'The use of temperament tests for the evaluation of police horses', conference of the International Society for Equitation Science, Delaware (USA), July 18-20 2013
- 'Conflit homme-cheval: solution comportementale (human-horse conflict: behavioural solution), 4th colloquium on horse ethology at Namur University (Belgium), March 30 2013
- 'Conflit homme-cheval: solution environnementale' (human-horse conflict: environmental solution), 4th colloquium on horse ethology at Namur University (Belgium), March 30 2013
- 'Comportement social des chevaux en centre équestre' (social behaviour of horses in equestrian centres), **invited speaker** at 1st information day on equine ethology from the French official institute for horse and riding, Saumur (France), April 3 2012
- 'Key to successful training: optimizing welfare, safety and performance for horses and people', workshop on evidence based training and management of horses in 3 different locations in Denmark, March 22-24 2012

- 'Agonistic and affiliative interactions in group housed riding horses', 2nd International Equine Science Meeting, Regensburg (Germany), March 16-18 2012
- 'La théorie de l'apprentissage mise en oeuvre en équitation' (learning theory applied to equitation), 3rd colloquium on horse ethology at Namur University (Belgium), March 3 2012
- 'La réalité du terrain vue par l'éthologie appliquée' (the reality in the field from the perspective of applied ethology), 3rd colloquium on horse ethology at Namur University (Belgium), March 3 2012
- Lecture on use of positive reinforcement and punishment in training and riding of horses, Flanders Horse Expo, Ghent (Belgium), March 2-4 2012
- 'Contacts sociaux et besoins d'activités', lecture on importance of social contacts and free movement for domestic horses, 2nd colloquium on horse ethology at Namur University (Belgium), March 19 2011
- Lecture on correct use of negative reinforcement in equitation, Flanders Horse Expo, Ghent (Belgium), February 25-27 2011
- 'The social life of horses: facts and myths', Flanders Horse Expo, Ghent (Belgium), February 27-28 2010
- 'Behavioural aspects of the education of foals and young horses', Flanders Horse Expo, Ghent (Belgium), March 1 2009, together with professor Frank Ödberg (Laboratory for Ethology, Ghent University, Belgium)
- 'Consequences of fluctuations in density and group composition on social behaviour of group housed horses', poster at the conference of the International Society for Equitation Science in Dublin (Ireland), August 1-4 2008
- 'The importance of behavioural sciences for management and training of horses', Flanders Horse Expo, Ghent (Belgium), March 23 2008, together with professor Frank Ödberg (Laboratory for Ethology, Ghent University)

Organisations

- **full member** of the **International Society for Equitation Science** since its foundation in 2007, council member from January 2011 until February 2013
- **full member** of the **International Society for Applied Ethology** since 2013
- **individual member** of the **European Federation of Animal Science (EAAP)** since 2013
- **head of research and education** at the **Belgian Center for Equitation Science** since its foundation in spring of 2011, in collaboration with Ecuries des Coudriers in Aubel (riding school in Belgium)

Voluntary research

- habituating New Forest ponies, imported by a horse dairy farm in France, of which a large proportion were extremely shy and couldn't be approached by people; use of applied ethology and learning theory (April-October 2010)
- developing training protocols for foals, based on scientific information (since May 2009)
- personal research project on social behaviour of saddle horses in group housing, observations February-April 2008, statistical analyses in collaboration with Centre for Statistics of University Hasselt
- for Antwerp Zoo on bonobos (in preparation of fieldwork in DRC and to help ongoing research, 1997-1998) and military macaws (several observations periods after thesis to monitor new introductions in group or verify random observations by keepers)
- for Safaripark Beekse Bergen (Netherlands) on Painted Hunting Dogs, looking at group dynamics in preparation of change in group composition (in 2000)

Clinic/demo

- Clinics, demonstrations, presentations and lessons in evidence based horse training and management at the Belgian Center for Equitation Science (Aubel, Belgium) and on location since May 2011
- Public demonstrations of a more evidence based approach to training horses, Flanders Horse Expo, Ghent (Belgium), March 2-4 2012
- demonstration of evidence-based training principles for horses and other companion animals at 'Dierenhappening', Hasselt (Belgium), November 26-27 2010 (largest indoor companion animal expo in Benelux)
- demonstration of application of ethology and learning theory in human-horse interactions, Horse Event, Netherlands, September 2010 and 2011
- organizer of clinics with dr. Andrew McLean in Belgium since 2010 (including translation into French and Dutch and assisting in training), for the general public and for police officers at the federal mounted police

Radio and TV interviews

- item about research on police horses for popular science show on RTBf (French speaking national TV), June 2015
- multiple interviews for national radio VRT on animal behaviour (for example: January 2008 on Working Elephant project; February 2015 on animal welfare and human-animal relations),
- 2 interviews for Hippo-TV (Flemish equestrian TV station), the first on evidence based training of a female foal (November 2010) and the second on the more advanced training of a yearling stallion (December 2010);
- 2 interviews for LEWB-TV (web based TV of the French speaking equestrian federation in Belgium) in April 2010 on horse welfare and in May 2010 on senses of horses;
- interview on local TV about volunteer work in conservation with emphasis on elephant project in Pongola Game Reserve, October 2002
- invited member of discussion panel on volunteer work abroad at national travelling fair in December 1998
- interview on VTM (Belgian national commercial TV station) about thesis research, February 1992