

# 6<sup>th</sup> International Conference of Rodent Biology and Management and 16<sup>th</sup> Rodens et Spatium Potsdam, Germany, 3-7 September 2018

## Programme



### Monday, 3 Sept 2018

08:00	Registration					
09:00	Opening		Room 03			
09:30	Plenary		Behaviour (Room 03)			
	Hannu Ylönen		Predator-prey interaction in the boreal vole community – behavioral and survival game in the changing world (chair J. Jacob)			
10:30	Coffee break					
	<b>Form &amp; Function</b> (chairs J. Laakkonen, J. Jernvall) Room 01		<b>Behaviour 1</b> (chair P. Banks) Room 02		<b>Management 1</b> (chairs G. Singleton, O. Huitu) Room 03	
11:00	van der Geer	Changing invaders: the evolution of alien rodents on islands	Schirmer*	Individual movement: personality-dependent spatial ecology of free-ranging bank voles	Stuart	Reducing rodent damage to rice in Cambodia through ecologically-based rodent management approaches tailored to local conditions
11:30	Balčiauskas	Body size and craniometry of the herb field mouse in the context of a geographical cline	Vanden Broecke*	The effect of animal personality on virus transmission in <i>Mastomys natalensis</i>	Roos*	Identification and potential uses of spatial patterns for predicting pest species outbreaks
11:50	Renaud	Evolving teeth within a stable masticatory apparatus in Orkney mice	Gómez Villafañe	Movements and spatial overlapping of rodents in natural environment	Carvalho-Pereira*	Basic urban services as modifiers of rodent abundance in Brazilian urban slums
12:10	Morita	A morphometric mapping analysis of mice molar morphology	Johnstone*	Personality drives interactions with wildlife detection devices, based on perceptions of risk and reward	Engman*	Bait attraction may not be the same as bait consumption
12:30			Mazza	Individual variation in cognitive styles affects foraging and anti-predatory strategies in a small mammal	Villalobos*	Deter to protect: use of predator's odor smell to deter granivorous rodents from consuming acorns
12:50					Montes de Oca	Rodents on pig farms: infestation levels related to environmental factors and management practices
13:10	Lunch		Lunch		Lunch	

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Form & Function (chairs J. Laakkonen, J. Jernvall) Room 01		Behaviour 1 (chair P. Banks) Room 02		Management 1 (chairs G. Singleton, O. Huitu) Room 03		
14:00	Khrushchova	Torpor in dwarf hamsters, <i>Phodopus campbelli</i> and <i>Phodopus roborovskii</i> : a comparative study	Price*	Problem predators: can odour habituation reduce impacts of "rogue" rats on birds nests?	Sudarmaji	The occupancy of barn owl in the artificial nest box to control rice field rat in Yogyakarta Indonesia
14:20	Kuznetsova*	Seasonal features of humoral immune response to T-cell dependent antigen in palaeartic hamsters ( <i>Rodentia</i> , <i>Cricetinae</i> ).	Mahlaba	Domestic cats and dogs create a landscape of fear for pest rodents around rural homesteads	Jäkel	Biological control of urban rats in the World Heritage town of Luang Prabang, Northern Laos
14:40	Horáková	Penial and bacular morphology of mammals - what it can reveal about their owner?	Gronwald*	Behavior of <i>Rattus rattus</i> (Linnaeus, 1758) around self-resetting traps	Herawati	The impact of rodent management on rice yield in lowland irrigated areas in Indonesia
15:00	Monarca*	Body weight regulation in small rodents a matter between predation risk and starvation?	Grau*	Influence of predator and plant chemical cues in the exploratory behaviour of the house mouse	Pyai	Reducing impacts of rodents on the post-harvest value chain in rice-based cropping system in Myanmar
15:20	Biswas	Molecular evolutionary inferences of recent biological innovations in mice and rats	Haapakoski	Communicating fear: the role of alarm pheromones in a bank vole	Htwe	Adoption pathways of ecologically-based rodent management in Myanmar
15:40	Coffee break		Coffee break		Coffee break	

Monday, 3 Sept 2018						
Phylogeography 1 (chair P. Kotlik) Room 01		Population Dynamics 1 (chair E. Tkadlec) Room 02		Management 1 (chairs G. Singleton, O. Huitu) Room 03		
16:20	Gabriel	Colonization and speedy speciation of an island invasive	Henttonen	Long-term dynamics of voles and lemmings in Finnish Lapland: importance of community approach	Singleton	Ecologically-based rodent management 20 years on - progress, challenges and where next
16:40	Assimakopoulos*	The chromosomal variability of lesser blind mole-rat populations ( <i>Nannospalax</i> , <i>Spalacinae</i> , <i>Rodentia</i> ) in Greece	Leirs	Rainfall and changing population dynamics during a long-term CMR study of <i>Mastomys natalensis</i> in Tanzania	Krijger	Integration of the landscape of fear of rodents in EBRM methodologies
17:00	Strážnická*	Adaptive phylogeography of bank voles in Europe – what can the genome tell us?	Kirkpatrick*	Transient and seasonal drivers of population demography and virus transmission in rodents	Shiels	Rodent trapping grids are sustainable for long-term landscape suppression of invasive rat ( <i>Rattus rattus</i> ), but not mouse ( <i>Mus musculus</i> ), populations in Hawaii
17:20	Escalante	Ecological divergence and species response to climate change: niche modelling in the bank vole	Tkadlec	Population cycles in a hibernating rodent	Lorica*	Ecology of rodent pests in lowland irrigated rice fields under alternate wetting and drying conditions
17:40	Naderi	More insights on the evolution of edible dormouse from the old growth Hyrcanian forests	Correa*	Towards a metastability approach: outbreaks of mice in Australia	Rampalage*	Status of rodent pests in rice eco-systems in Sri Lanka
18:00	End					
19:00	Welcome reception in the foyer					

**Tuesday, 4 Sept 2018**

08:45 **Opening** Room 03  
 09:00 **Plenary** Management (Room 03)  
**James Ross** Rat-free New Zealand 2050 – fantasy or reality? (chair G. Singleton)

10:00 Coffee break

	<b>Phylogeography 2</b> (chair P. Kotlik) Room 01	<b>Population Dynamics 2</b> (chair E. Tkadlec) Room 02	<b>Management 2</b> (chairs G. Singleton, O. Huitu) Room 03
10:30	Bryja Ethiopian rodents - extremely diverse, endemic and endangered	Lambin Multi-scale density-dependent dispersal in spatially structured populations	Belmain Enabling effective rodent pest research in African smallholder farming systems
11:00	Krásová* Biogeography of small mammals in south-western Angola: the first genetic evidence	Giraudoux Coupling agent-based with equation-based models to study spatially explicit megapopulation dynamics	Massawe Effect of synthetic hormones on reproduction in <i>Mastomys natalensis</i>
11:20	Holicová* Comparative phylogeography of the Mongolian region based on its mammals	Eccard The Bruce effect revisited: is pregnancy termination in female rodents an adaptation to ensure breeding success after male turnover in low densities?	Makundi An Africa Centre of Excellence for Innovative Rodent Pest Management and Biosensor Technology Development (ACE IRPM&BTD) in sub-Saharan Africa
11:40	Hardouin Genetic structure and origin of remnant red squirrel ( <i>Sciurus vulgaris</i> L.) populations in the south of England	Pavey The long-haired rat ( <i>Rattus villosissimus</i> ): an ecosystem disrupter in arid Australia	Mulungu Population dynamics and breeding patterns of <i>Mastomys natalensis</i> (Smith 1834) in three different agricultural practices
12:00	Herman Collagen fingerprinting of Late Pleistocene rodents	Borowski The role of food availability in life history traits and population dynamics of the edible dormice ( <i>Glis glis</i> ) in pine dominated forest	van Loom A large-scale experiment to evaluate the effects of trapping on muskrat ( <i>Ondatra zibethicus</i> ) population development in The Netherlands
12:20		Vekhnik Does anticipatory reproduction exist?	
12:40	Lunch	Lunch	Lunch

**Tuesday, 4 Sept 2018**

**Disease 1** (chairs H. Henttonen, S. Morand) Room 01  
**Population Dynamics 2** (chair E. Tkadlec) Room 02  
**Management 2** (chairs G. Singleton, O. Huitu) Room 03

13:30	Fichet-Calvet Review of hosts of <i>Lassa</i> virus in west Africa	Benedek Small mammals in montane forests: not where, but when?	Walther Aspects of good practice rodent control that affect exposure of non-target vertebrates to anticoagulant rodenticides
13:45	Adesina Phylogenetic analysis and prevalence of <i>Lassa</i> virus in multimammate mice within the highly endemic Edo-Ondo hotspot for <i>Lassa</i> fever, Nigeria	Tchabovsky Breeding versus survival: proximal causes of abrupt population decline under environmental change in a desert rodent	Khlyap Dynamic of the invasive rodent ranges in Russia: facts and forecast
14:00	Hawlena Manifold implications of host species diversity on parasite occurrence: a community perspective	Popov Habitat preferences and spatial distribution of lemmings in western Taimyr	Scobie* The black rat ( <i>Rattus rattus</i> ) in Madagascar: threat to health and livelihoods
14:15	Villette* Bacterial parasite communities of the fossorial water vole <i>Arvicola terrestris</i> during a period of high abundance: richness and similarity in a dynamic world	Chakma The linkage between <i>Melocanna</i> bamboo flowering and rodent outbreaks: an empirical study from Chittagong Hill Tracts of Bangladesh	Khanam* What the uninvited guests eat: dietary analysis of rodent pests present in the rural human dwellings of Pothwar, Pakistan
14:30	Fitte* Parasites of urban rodents representing sanitary risk in La Plata city, Argentina: an example of the Latin American situation	Mlyashimbi* Population dynamics and breeding patterns of multimammate rat ( <i>Mastomys natalensis</i> , Smith 1832) in semi-arid areas in Tanzania	Ma Low frequency of warfarin resistance in Norway rats in China after 30 years usage of anticoagulant rodenticides
14:45	Hancke Helminth communities in synanthropic rodents of Buenos Aires (Argentina)	Mora Effects of stream proximity on trails of <i>Cuniculus paca</i> : a 20 year survey	Lattard Comparative biological properties of the four stereoisomers of difethialone – a way to reduce the tissue persistence of difethialone

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Disease 1 (chairs H. Henttonen, S. Morand) Room 01		Population Dynamics 2 (chair E. Tkadlec) Room 02		Management 2 (chairs G. Singleton, O. Huitu) Room 03		
15:00	Yang	Connecting the dots: linking <i>Yersinia pestis</i> seroprevalence in rodents and shepherd dogs to flea abundance in western China	Brown	It's a trap: effective methods for monitoring mouse populations in Australia	Hecker	Management of rodent pests in pig farming in North Rhine-Westphalia in Germany
15:15			Nie	Study on the evolutionary ecology of small herbivorous mammals: life history strategy of plateau pika ( <i>Ochotona curzoniae</i> )	Bos	Experimental evidence for the effects of muskrat control ( <i>Ondatra zibethicus</i> ) on abundance in The Netherlands
15:30	Coffee break		Coffee break		Coffee break	
Poster session 1		Poster session 1		Poster session 1		
17:00	End					

Wednesday, 5 Sept 2018		
08:45	Opening	Room 03
09:00	Plenary	Population Dynamics (Room 03)
	Charley Krebs	5 critical areas for rodent population biology (chair O. Huitu)
10:00	Coffee break	
11:00	Excursion	

Thursday, 6 Sept 2018						
08:45	Opening	Room 03				
09:00	Plenary	Disease (Room 03)				
	Rick Ostfeld	The ecology of emerging tick-borne diseases in a changing world (chair F. Ecke)				
10:00	Coffee break					
Taxonomy-Genetics (chair M. Kohn) Room 01		Conservation (chair Z. Zhang) Room 02		Workshop Rodent-borne Diseases (chairs H. Henttonen, S. Morand) Room 03		
10:30	D'Elia	New rodent species described since 2000; an age of discovery, comments and prospects	Gomez	Small mammal responses to farming practices in central Argentinian agroecosystems: the use of hierarchical occupancy models	Henttonen	Ecology of <i>Puumala hantavirus</i> in Europe
11:00	Hánová*	Molecular phylogeny and distribution of the most widespread African rodents, the multimammate mice genus <i>Mastomys</i> : a review	Santos	Native rodents are the main seed predators in areas representing distinct phases along an active restoration process in a neotropical savanna	Sluydts	Review of leptospirosis carriage in rodents worldwide and identification of key host species and knowledge gaps in the Asian-Pacific region
11:20	El Shahat	Molecular evolution, hybridization and introgression affect molecular systematics of old world mice	Zhang, Z.	Research progresses on seed-rodent interactions in China	Telfer	Leptospirosis in Madagascar: the epidemiology of multiple <i>Leptospira</i> species in diverse host communities
11:40	Chevret	Genetic structure and morphological evolution of the house mouse on the Orkney Archipelago	Zhang, B.	Effects of insect-infestation on rodent-mediated dispersal of <i>Quercus aliena</i> : results from field and enclosure experiments	Beer	Bornaviruses as "novel" zoonotic pathogen
12:00	Maltsev	Genetic differentiation and phylogeographic structure of the house mouse <i>Mus musculus</i> s.str. in the northern Palearctic	Gu*	Estimation of benefits and losses of seed scatter hoarding behaviour by rodents in a subtropical forest: implications for the evolution of mutualism in seed-rodent systems	Dobler	The role of rodents in tick-borne viral diseases with special emphasis on tick-borne encephalitis
12:20					Ulrich	Network "Rodent-borne pathogens": looking into the rodent reservoirs
12:40	Lunch		Lunch		Lunch	

Thursday, 6 Sept 2018

Taxonomy-Genetics (chair M. Kohn) Room 01		Conservation (chair Z. Zhang) Room 02	Workshop Rodent-borne Diseases (chairs H. Henttonen, S. Morand) Room 03		
13:30	Bodrov*	Wang	Seed size effects on seed dispersal and predation by rodents at tree individual level	Laudisoit	Who is the reservoir of Monkeypox? Work in progress
13:45	Kuprina*	Yang	Forest fragmentation alters seed-rodent interaction networks: implications for rodent management	Khalil*	Optimal control model for rodent-borne leptospirosis in Salvador, Brazil
14:00	Frisman	Fornesa*	Lead (Pb) bioconcentration in cestode parasites ( <i>Hymenolepis</i> spp.) of rats ( <i>Rattus</i> spp.) and their potential as indicator of heavy metal contamination in terrestrial environments	Fagir	Identification of potential endemic rodent hosts for zoonotic pathogens in South Africa using network analyses
14:15	Taylor	Surkova*	Changes in rodent burrow abundance and distribution in grazing ecosystems of southern Russia under human-induced landscape transformation from the desert to steppe	Brito*	An interdisciplinary approach to reduce leptospirosis in two slum communities in Salvador, Brazil
14:30	Nacif*	Swanepoel	The potential of small and medium mammalian carnivores to mediate rodent pest damage in commercial agriculture	Rubio*	Assessing the effect of native forest replacement by exotic plantations on Andes hantavirus infection in wild rodents from central Chile
14:45	Abramson	Avenant	Rodents as indicators of the ecological impact of an open-cast iron ore mine in the Northern Cape, South Africa	Ecke	High disease transmission risk from occasionally synanthropic rodent reservoirs
15:00	Özkurt	Wilson	A valued rodent ( <i>Rattus exulans</i> ) population assessed for cultural harvest	Imholt	Dynamics of <i>Leptospira</i> and Tula orthohantavirus in small mammals: impact of landscape and biodiversity
15:15	Irmak			Tagliapietra	Temporal changes in rodent density and climatic factors as ecological drivers of tick-borne encephalitis (TBE) within a natural endemic foci
15:30	Coffee break	Coffee break		Coffee break	
<b>Poster session 2</b>		<b>Poster session 2</b>		<b>Poster session 2</b>	
16:30	End	End		<b>Panel discussion (Room 03)</b> <b>Workshop Rodent-borne Diseases</b> <b>Members:</b> F. Ecke, H. Leirs, R.G. Ulrich, S. Morand, J. Jacob, M. Begon <b>(chair J. Dreesmann)</b>	
18:00				End	
19:00	<b>Conference dinner</b>				

Friday, 7 Sept 2018

08:45 Opening		Room 03			
09:00 Plenary		Conservation Genomics (Room 03)			
Simone Sommer		Responses to human-induced changes - ecological and genomic drivers of wildlife health (chair J. Eccard)			
10:00 Coffee break					
Responses to Human-Induced Changes (chairs M. Busch, M. Dammhahn) Room 01		Future Rodent Control Technologies (chairs P. Brown, G. Howald) Room 02		Behaviour 2 (chairs P. Banks, B. König) Room 03	
10:30	Dammhahn	Of city mice and village mice: behavioural adaptations of voles and mice to urban environments			
10:45	Feoktistova	Genetic structure, reproduction and physiology features of the Common hamster ( <i>Cricetus cricetus</i> ) in urban populations	Pfitzner	Safe assessment of CRISPR-Cas9 gene drive strategies in mice	König Cooperation among female house mice ( <i>Mus musculus domesticus</i> ) – a case study on social selection
11:00	Leon	Population recovery of <i>Mus musculus</i> in poultry farms of central Argentina. The role of local and landscape features	Eason	Global trends in the development of rodenticides and new approaches	Schneeberger Rats provide help based on the need of their partner
11:15	Shadrina	Synanthropic rodents of the north-east Siberia: changes in rodent population caused by urbanization, agrarian, and industrial development	Horak	RNAi as the next generation tool for the control of rodent populations	Vasilieva Sex and reproductive state discrimination – are they innate or learned? Dwarf hamster species as a model
11:30	Hoffmann*	Effects of artificial light at night on behavior of two small mammal species	Strive	Opportunities for using novel genetic control tools for the humane control of overabundant vertebrate pest populations	Dufour (cancelled - add. poster #108 instead) Habitat characteristics and species interference influence space use and nest-site occupancy: implications for social variation in two rodent sister species
11:45	Reginaldo*	Microhabitat use of small non-flying mammals in a lower montane forest fragment in the central Cordillera, Luzon Island, Philippines	Mdangi	Evaluation of selected pesticidal plant extracts for maize ( <i>Zea mays</i> L.) protection against <i>Mastomys natalensis</i> (Smith, 1834) in Tanzania	Rekouti* Burrow system architecture and use by Thomas' Pine Vole, <i>Microtus thomasi</i> ( <i>Rodentia</i> : <i>Arvicolinae</i> )
12:00	Zeppelini*	Where the wild rats go: the relationship between the socio-environmental gradient and rat abundance in slum communities	Schlötterburg*	Do avian and terrestrial predators empty self-service traps for common vole ( <i>Microtus arvalis</i> )?	Surov Formation of reproductive isolation in hamsters ( <i>Cricetinae</i> ) in allopatry
12:15	Lydecker*	Peri-urban black rats host a rich assembly of ticks with no clear consequences for rat condition	Liu	Research progresses on the anti-fertility effects of a contraceptive bait of quinestrol and levonogestrel (EP-1)	
12:30 Closing (Room 03)					
13:00 End of conference					

\* = Early Career Researcher