

**WILDCLOCKS CONFERENCE 2021, VIENNA**  
**Conference program - Monday, August 30 - Thursday, September 2**

Monday, August 30 <sup>th</sup>		
09:00-09:15	<b>Walter Arnold, Claudia Bieber, Leonida Fusani, Thomas Ruf</b>	Welcome
09:15-09:35	<b>Marcel E. Visser</b> , Melanie Lindner, Irene Verhagen, Veronika N. Laine, Jip J.R. Ramakers, Kees van Oers, Phillip Gienapp	Seasonal timing of reproduction in the great tit; using selection lines to study the underlying genomic mechanism and the fitness consequences in the wild
09:35-09:55	<b>Chima Nwaogu</b> , Crinan Jarrett, Barbara Helm	Fitting birds' annual cycle events to seasonal fluctuations in the Afro-tropics
09:55-10:15	<b>Melanie Lindner</b> , Veronika N. Laine, Irene Verhagen, Heidi M. Viitaniemi, Kees van Oers, Arild Husby, Marcel E. Visser	DNA methylation as a mechanism for timing of breeding in a wild bird species
Coffee break		
10:45-11:05	<b>Hagar Vardi-Naim</b> , Noga Kronfeld-Schor	Effect of ALAN on stress, behavior survival and reproduction of spiny mice
11:05-11:25	Davide M. Dominoni, Maaike de Jong, Kees van Oers, Peter O'Shaughnessy, Gavin Blackburn, Els Atema, Christa A. Mateman, Pietro B. D'Amelio, Lisa Trost, Michelle Bellingham, Jessica Clark, Marcel E. Visser, <b>Barbara Helm</b>	Artificial light at night leads to circadian disruption in a songbird: integrated evidence from behavioural, genomic and metabolomic data
11:25-11:45	<b>Davide Dominoni</b> , Claire Branston, Barbara Helm, Pat Monaghan, Simon Babayan, Pablo Capilla-Lasheras	The effects of urbanisation on daily rhythms of songbirds: new insights from parallel recording of activity and body temperature around the clock
Lunch		
13:50-14:10	<b>Yifan Wang</b> , Roelof A. Hut	Circadian light entrainment in a hymenopteran insect ( <i>Nasonia vitripennis</i> )
14:10-14:30	<b>Natalie E. van Dis</b> , Roelof A. Hut, Bregje Wertheim, Marcel E. Visser	Temperature sensitive early gene expression involved in seasonal timing of winter moth egg hatching
14:30-14:50	Bengisu Sezen Subaşı, Loren Khatib, Bettina Fishman, Martin Kapun, <b>Eran Tauber</b>	Revisiting latitudinal clines in clock genes in wild populations of <i>Drosophila</i> in Europe
14:50-15:10	<b>Martin Zurl</b> , Birgit Poehn, Dirk Rieger, Shruthi Krishnan, Dunja Rokvic, Vinoth Babu Veedin Rajan, Elliot Gerrard, Matthias Schlichting, Lukas Orel, Robert J. Lucas, Eva Wolf, Charlotte Helfrich-Förster, Florian Raible and Kristin Tessmar-Raible	Two light sensors decode moonlight versus sunlight to adjust a plastic circadian/circalunidian clock to moon phase
Coffee break		
15:40-16:00	<b>Charissa De Bekker</b>	What makes a zombie ant tick? An integrative approach to investigate the intersection between biological clocks and disease ecology
16:00-16:20	Katie Hanna, <b>Gisela Helfer</b>	Life in the dark: circadian rhythms of naked mole rats
16:20-16:40	<b>Sylvain Giroud</b> , Walter Arnold, Alina Evans, Stéphane Blanc, and Thomas Ruf	Seasonal shifts of lipid metabolism in heterotherms
16:40-17:00	<b>Roelof A. Hut</b>	Circadian rhythms in hibernation: a tribute to Mike Menaker
TUESDAY, August 31 <sup>st</sup>		
09:00-09:20	<b>Arnold Walter</b> , Manuela Habe, Johanna Painer, Gabrielle Stalder, Kristina Gasch	Photoperiodic control of seasonal organismic and molecular changes in red deer
09:20-09:40	<b>Laura van Rosmalen</b> , Jayme van Dalum, Daniel Appenroth, Renzo Roodenrijs, Lauren de Wit, David Hazlerigg, Roelof A. Hut	Mechanisms of food and temperature modulation in mammalian seasonal timing
09:40-10:00	Thomas Ruf, Sebastian G. Vetter, Johanna Painer, Gabrielle Stalder, <b>Claudia Bieber</b>	Seasonal timing in a pulsed resource consumer, the wild boar

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10:00-10:20	<b>Kathrin H. Dausmann</b> , Hajatiana Rabarison, Stephanie Reher	Are Malagasy bats flying camels? Torpor to cope with high ambient temperature
<b>Coffee break</b>		
10:50-11:10	<b>Elena Haugg</b> , Annika Herwig, Victoria Diedrich	Body temperature and activity adaptation of short photoperiod-exposed Djungarian hamsters ( <i>Phodopus sungorus</i> ): timing, traits, and torpor
11:10-11:30	<b>Alexandra Thiel</b> , Sylvain Giroud, Anne Hertel, Boris Fuchs, Andrea Friebe, Stéphane Blanc, Ole-Gunnar Stoen, Jon Arnemo, Alina Evans	Hibernation slows down biological time in Scandinavian brown bears
11:30-11:50	<b>Thomas Ruf</b> , Kristina Gasch, Sylvain Giroud	Properties of the torpor/arousal clock in hibernation
<b>Lunch</b>		
13:50-14:10	Lin Zhang, Michael H. Hastings, Edward W. Green, Simon G. Webster, Charalambos P. Kyriacou and <b>David C. Wilcockson</b>	BMAL1 mediates tidal rhythmicity in the marine isopod, <i>Eurydice pulchra</i>
14:10-14:30	<b>N. Sören Häfker</b> , Laura Hobbs, Stacey Connan, David McKee, Jonathan H. Cohen, Kim S. Last	Subjective diel environmental cycles – how natural behavior modulates entrainment cues
14:30-14:50	<b>Sjoerd J. van Hasselt</b> , Gert-Jan Mekenkamp, Alexei L. Vyssotski, Theunis Piersma, Niels C. Rattenborg, Peter Meerlo	Seasonal variation in sleep and sleep homeostasis in barnacle geese
14:50-15:10	<b>Meike Köhler</b> , Walter Arnold, Gabrielle Stalder, Hanno Gerritsmann, Johanna Painer, Manuela Habe	Annual cyclicity and correlation of ontogenetic bone growth with hormonal and physiological states in red deer
<b>Coffee break</b>		
15:40-16:00	<b>Andreatta Gabriele</b> , Broyart Caroline, Borghgraef Charline, Vadiwala Karim, Kozin Vitaly, Polo Alessandra, Bileck Andrea, Beets Isabel, Schoofs Liliane, Gerner Christopher, Kristin Tessmar-Raible, Raible Florian	Molecular mechanisms orchestrating sexual maturation and reproduction timing in <i>Platynereis</i>
16:00-16:20	<b>Christoph Schmal</b> , Hanspeter Herzel, Jihwan Myung	Circadian entrainment under natural conditions: a theoretical perspective
16:20-16:40	<b>Dušica Briševac</b> , Tobias Kaiser	Relationship between two zeitgebers for setting the circalunar clock
<b>Wednesday, September 1<sup>st</sup></b>		
09:00-09:20	<b>Chiu Lok Poon</b> , Jeffrey C. Lambert, Joseph C. Waddell, Ericka Correa Roldán, & William G. R. Crampton	Circadian rhythms of electrolocation pulse rate in neotropical electric fish
09:20-09:40	<b>Gabriela Wagner</b> , Sara Meier, Melanie Furrer, Nora Nowak, Monica Alterskjær-Sundset, Renato Zenobi, Reto Huber, Steven A. Brown	A clock for Arctic seasons
09:40-10:00	<b>Laura Payton</b> , Lukas Hüppe, Kim S. Last, David Wilcockson, Céline Noirot, Claire Hoede, Elizaveta Ershova, Sophie Valière, Bettina Meyer	Oscillating circadian clock genes and widely rhythmic transcriptome in <i>Calanus finmarchicus</i> during the high Arctic summer solstice
10:00-10:20	Lukas Hüppe, Alberto Biscontin, Cristiano De Pittà, <b>Bettina Meyer</b>	PolarTime – chronobiological studies on a polar pelagic key species, Antarctic krill, <i>Euphausia superba</i>
<b>Coffee break</b>		
10:50-11:10	Jonathan H. Cohen, <b>Kim S. Last</b> , Corie L. Charpentier, Finlo Cottier, Malin Daase, Laura Hobbs, Geir Johnsen, Jørgen Berge	Winter midday twilight entrains diel visual sensitivity in Arctic krill
11:10-11:30	<b>Nicholas Per Huffeldt</b> , Kjell Einar Erikstad, Wolfgang Goymann, Barbara Helm, Susanne Jenni-Eiermann, Flemming R. Merkel, Truls Moum, Tone K. Reiertsen, Anna Tigano	Flexible melatonin and limited variation in corticosterone profiles in sister-species of polar seabirds with contrasting diel activity

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11:30-11:50	<b>Daniel Appenroth</b> , Linn Aspelund, Vebjørn Melum, Gabriela Wagner, Alexander West, David Hazlerigg	Seasonal body mass cycles in high Arctic Svalbard ptarmigan
<b>Lunch</b>		
14:00-17:00	<b>Poster Session &amp; Discussion</b>	
1	<b>Lauren de Wit</b> , Maarten R. Hamberg, Maaïke Goris, Rob H. Henning, Roelof A. Hut	Evidence for temperature compensated circadian regulation of arousal timing in deep hibernating garden dormice
2	<b>Melanie Furrer</b> , Sara Meier, Monica Alterskjær Sundset, Reto Huber, Steven A. Brown, Gabriela C. Wagner	Does Arnold sleep? Non-invasive EEG studies in Norwegian reindeer
3	<b>Maarten R. Hamberg</b> , Lauren de Wit, Roelof A. Hut	The effect of ambient temperature switches on hibernation in the garden dormouse ( <i>Eliomys quercinus</i> )
4	<b>Mila Kazavchinsky</b> , Noga Kronfeld-Schor	Comparing wild-caught <i>Mus</i> populations and species exposed to different ALAN levels
5	<b>Sara Meier</b> , Melanie Furrer, Nora Nowak, Monica Alterskjær Sundset, Renato Zenobi, Steven Brown, Gabriela Wagner	Circadian blood metabolomics in Norwegian reindeer across seasons
6	<b>Laura Steel</b> (Supervised by Stuart Peirson and Russell Foster)	The regulation of circadian rhythms by the natural light environment
7	<b>Sjoerd J. van Hasselt</b> , Maria Rusche, Alexei L. Vyssotski, Simon Verhulst, Niels C. Rattenborg, Peter Meerlo	An EEG study on sleep homeostasis in a songbird species, the European starling ( <i>Sturnus vulgaris</i> ): REM sleep, why bother?
from 19:00	<b>GALA DINNER</b>	

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Thursday, September 2 <sup>nd</sup>		
09:00-09:20	<b>Valeria Marasco</b> , Steve Smith, Hiroyuki Kaiya, Leonida Fusani	The common quail: a seasonal model of phenotypic flexibility
09:20-09:40	<b>Aurelia F. T. Strauß</b> , Dominic J. McCafferty, Andreas Nord, Marcel E. Visser, Barbara Helm	Comparing body temperature and activity profiles to assign chronotype in wild birds
09:40-10:00	Andrew W. McHill, Laura K. Barger, Andrew JK Phillips, Akane Sano, Rosalind Picard, <b>Elizabeth B. Klerman</b>	Later chronotype is associated with oversleeping for activities in college students
10:00-10:20	<b>Eva Winnebeck</b> , Dorothee Fischer, Tanya Leise, Sarah Schoch, Salome Kurth, Samuel Jones, Till Roenneberg	The beat of sleep in daily life, development and disease – studying human ultradian sleep cycles in real life and large numbers
<b>Coffee break</b>		
10:50-11:10	<b>David Samson</b>	Hunter-gatherers have short and fragmented sleep, yet stronger circadian rhythms compared to large scale societies
11:10-11:30	Maria Korman, <b>Till Roenneberg</b>	Lock the clock: the effects of social restrictions on daily timing, sleep and wellbeing
11:30-11:50	<b>Walter Arnold</b>	Farewell
<b>Lunch</b>		

Friday, September 3<sup>rd</sup>

**Optional excursion to Lake Neusiedl**

[Lake Neusiedl excursion programme](#)