



# 114th Annual Meeting of the German Zoological Society

12 - 16 September 2022 | Bonn

## Pocket Guide

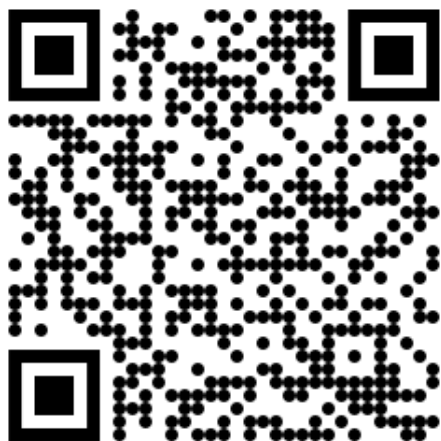
Abstracts and Program can be downloaded here:

<https://dzg-meeting.de/en/program-abstracts/>



\* = Student

## Interactive Meeting Guide



## Monday 12.9.

Lecture Halls | Campus Poppelsdorf

H7	13 <sup>00</sup>	6th ANN Symposium	18 <sup>30</sup>
H5/6	13 <sup>00</sup>	Terrestrial Locomotion	18 <sup>30</sup>

## Tuesday 13.9.

Lecture Halls | Campus Poppelsdorf

H7	9 <sup>00</sup>	6th ANN Symposium	12 <sup>30</sup>
H5/6	9 <sup>00</sup>	Terrestrial Locomotion	15 <sup>30</sup>
H3/4	13 <sup>00</sup>	Facets of Biodiversity	16 <sup>30</sup>

Lecture halls & Seminar rooms | Campus Poppelsdorf

S1/2		Meeting of the DZG Board (13:00 -15:00)
H7		Meeting of the FG Speakers (14:00 - 15:00)
S1/2		Advisory Board Meeting (15:00 - 16:30)

## Main Meeting

Campus Poppelsdorf, H1

17<sup>00</sup> Opening, Welcome

17<sup>30</sup> Public Lecture | Markus Lambertz  
Zoologie in Bonn

Campus Poppelsdorf

18<sup>30</sup> Ice Breaker



## Wednesday 14.9.

9<sup>00</sup> Onur Güntürkün | Bochum, GER

H1 Why Birds are Smart

10<sup>00</sup> Anthony Herrel | Paris, FRA

H1 The evolution of cranial design and bite force in vertebrates: form, function and evolution

Coffee Break

11<sup>30</sup> Julia A. Schulz | Bonn, GER

H1 Evolution of mammalian hearing is influenced by major transformations in the chewing biomechanics in the earliest of mammals

Silvana Valtcheva | Köln, GER

H2 Neural circuitry for hormonal release and maternal behavior in mice

12<sup>15</sup> Sarah Bank-Aubin | Göttingen, GER

H1 Hiding in plain sight – uncovering the diversity across the phasmatodean tree of life

H2 Natascha Turetzek | München, GER

Genetic basis of spider sense organ development

13<sup>00</sup> - 14<sup>00</sup> Lunch Break (self-organized)

SYS	H1	PHY	H2	EVO	H3/4	BEH	H5/6
F. Schweitzer*	Philipp Lehmann (Greifswald, GER)	J. Seal	L. Schad*				
Discovery of a cryptic species among samples of one of the most common European...	Intrinsic and extrinsic drivers of hypometabolic states in insects	A reevaluation of the diffuse coevolution model in <i>Trachymyrmex</i> and <i>Mycetomoellerius</i> ...	Loud calls of male vervet monkeys as vocal displays of male quality				
S. Jaume-Schinkel	M. Hojat Ansari	T. Fuss					
A Gaze into the darkness, shining light into the Moth Flies	Evolutionary dynamics of the natural <i>Drosophila</i> microbiome	Do fish prefer live tutoring or e-courses? Do Atlantic mollies make a difference between...					
K. Ovenbeck*	K. Kellner	J. Tebbe					
Outsider or mainstream? Larval development of <i>Palaemon varians</i> in the Baltic and...	Do Harvester ants use biological control to keep their seeds clean?	Effects of MHC genotype and relatedness in odour cues of Antarctic fur seals					
C. Höpel*	K. Roberts	S. Nöbel	P. Schultheiss				
Speciation in correlation with cave immigration in Tasmanian mountain shrimps...	Variation in winter energy use is determined by altering a critical transition period in...	Female fruit flies copy the acceptance, but not the rejection, of a mate	No direction home: how ants perform systematic searches				
P. Avinipully Anilkumar*	V. Vaibhvi*	P. Rühr*	I. Damas-Moreira				
The millipede genus <i>Siphonorchinus</i> Pocock, 1894, with the description of a new species...	Effect of dietary protein content on innate immunity: a mechanistic and evolutionary perspective	Macroevolutionary patterns of bite performance in insects	How to outcompete a native lizard? Violence is not always the answer.				

Coffee Break

P. Schiffer	A. C. Böhringer	J. Le Cadre*	M. Scheumann
The slow evolving genome of the xenacoelomorph worm <i>Xenoturbella bocki</i>	Analysis of dextran sulfate sodium-induced inflammatory effects in the intestine of the red flour beetle...	DNA barcoding shows evidence for speciation in parthenogenetic and sexual morphospecies...	Sex specific vocal behaviour in white rhinoceros and its implication for mating

SYS H1 PHY H2 EVO H3/4 BEH H5/6

16 <sup>00</sup>	C. Ewers The ghost of oysters past - genomic insights into extinct oyster diversity	M. Stumpp Alkaline guts contribute to immunity during exposure to acidified seawater...	M. Pollmann* Cryptic diversity in our backyards: The case of a parasitoid wasp	A. Langehennig-Peristenidou* First insights into the vocal repertoire of Etruscan shrews
16 <sup>15</sup>	N. Tan* A global analysis of habitat fragmentation research in reptiles and amphibians: What have we...	W. Chang Soluble adenylyl cyclase coordinates intracellular pH homeostasis in calcifying cells of the sea urchin larva	T. Thünken Mating strategies in cichlid fishes: on inbreeding avoidance, preference and selfing	J. Henske* Flying Perfume Makers: On the causes of scent collection behavior in male orchid bees (Euglossini)
16 <sup>30</sup>	F. Ihlow Molecular phylogeny of African Hinge-back Tortoises ( <i>Kinixys</i> )	I. Petersen* pH and Na <sup>+</sup> maintenance in the alkaline midgut of the sea urchin larva: the role of Na <sup>+</sup> /H <sup>+</sup> ...	J. Steidle The emergence of ecotypes in a parasitoid wasp: A complicated matter!	M. Gilles* Can plover chicks recognize the smell of their parents?
16 <sup>45</sup>	P. Arnold Genome-wide, non-coding markers challenge current systematics of afrotherian mammals	M. Hu The proton channel, Otop2L, promotes intracellular pH homeostasis critical for skeletogenesis in the sea urchin larva	E. Stolle Recurring adaptive introgression of a supergene variant that determines social organization	S. Kraus Instinctive fear of snakes?

Coffee Break

MOR	H1	PHY	H2	DEV	H3/4	BEH	H5/6
P. Lukas*	P. Steinmetz	B. Naumann	K. Weiss*				
Sequence of chondrocranial development in basal anurans	Yolk formation in a sea anemone provides insights into the evolution of animal nutrient transport	Skin development in non-feeding terrestrial tadpoles of <i>Arthroleptella villiersi</i> and the evolution of...	Strategic pheromone signaling by females of the sexually cannibalistic spider <i>Argiope bruennichi</i>				
J. Riedel	R. Koli*	C. Noack*	A. Angelakakis*				
Evolution of incipient toepads and claw morphology in a radiation of ecologically...	Transcriptomic response and gill microbial community changes of dominant fish species under...	Birth of neurons and formation of the first neuronal circuit in Hydra embryos	The mating system of the common house spider <i>Parasteatoda tepidariorum</i>				
A. Schüller	E. van den Bos*	A. Klimovich					
Innovation by inflammation? – The formation of a novel egg-anchoring structure in pelvic brooding reef fishes	Effects of heat-shocks on sociometry in the invasive ant species <i>Cardiocondyla obscurior</i>	Evolutionary assembly of the neuronal machinery: the role of lineage-specific innovations					
A. Kaffler*	G. Martens*	K. Garschall					
Relationship between skull roof bone microanatomy and ecological traits in rodents	The hooded seal brain survives hypoxia by decreasing energy expenditure and preventing...	Nutritional regulation of growth in the sea anemone <i>Nematostella vectensis</i>					
W. Krings	N. Rohner	C. Zellner*					
Trophic specialization of Nudibranchia (Mollusca, Gastropoda) reflected by...	Metabolic Adaptation and Physiological Resilience in Animals	Analysis of spatial differences in chromatin accessibility and enhancer activity using ATAC-seq...					

Campus Poppelsdorf, H1

19<sup>00</sup> Public Lecture | Katrin Böhning-Gaese  
Biodiversität und Mensch im Anthropozän

20<sup>00</sup> Poster Session I (@ TENT, even numbers)

Food and Drinks

# Thursday 15.9.

- 9<sup>00</sup> H1** **Christoph Scherber | Bonn, GER**  
Understanding the causes of biodiversity change: experiments, technologies and models
- 10<sup>00</sup> H1** **Katja Nowick | Berlin, GER**  
Evolution of gene regulatory factors and their networks - tools and insights into human evolution

## Coffee Break

- 11<sup>30</sup> H1** **Erik Sperfeld | Greifswald, GER**  
How changing environmental conditions and resource supply affect invertebrate herbivores - Interactive effects on plankton organisms

- H2** **Wolf Huetteroth | Leipzig, GER**  
Why do we play, and who else does?

- 12<sup>15</sup> H1** **Henrik Krehenwinkel | Trier, GER**  
From DNA to ecosystems – The promise of biological archives for biodiversity monitoring

- H2** **Öncü Maraci | Bielefeld, GER**  
Microbiome: a promising avenue to study individual variation in animal behaviour and cognition

## 13<sup>00</sup> - 14<sup>00</sup> Lunch Break (self-organized)

	MOR ▶ H1	NEU ▶ H2	EVO ▶ H3/4	ECO ▶ H5/6
14 <sup>00</sup>	<b>P. Kalke*</b> Scalibregmatidae: Gain vs. re-gain of palps	<b>W. Stein</b> Temperature resilience of neuronal activity patterns in the brush-clawed shore crab, <i>Hemigrapsus...</i>	<b>E. Schultner</b> Towards a mechanistic understanding of caste polyphenism in social insects	<b>R. Mühlethaler</b> First results from the joint research project DINA (Diversity of Insects in Nature protected Areas)
14 <sup>15</sup>	<b>F. Bäumler*</b> Morphology of the raptorial forelegs and strike kinematics of <i>Hierodula majuscula</i> (Insecta: Mantodea) in the light of sexual...	<b>B. Jaske*</b> Effect of Temperature on wide-field motion sensitive neurons in the central brain of bumblebees	<b>D. Meuthen</b> Neglected patterns of variation in transgenerational plasticity: the relative importance of maternal...	<b>M. Hassan*</b> Knock-down of vital gene (s) of Tomato leaf miner, <i>Tuta absoluta</i> (Meyrick) (Lepidoptera: Gelechiidae) using...
14 <sup>30</sup>	<b>S. Züger*</b> Are centipedes heavy metal? Investigation of cuticular components and metals in the...	<b>L. Rother*</b> Dynamic properties of compass neurons in the bumblebee brain	<b>J. Schwarzer</b> The contribution of hybridization and inflammation on the evolution of a derived...	<b>J. Lu</b> Generalist-specialist continuum in soil arthropods (Oribatida, Acari): Evidence from...
14 <sup>45</sup>	<b>M. Grams*</b> Neither leg, nor jaw, nor all the same: A critical revision of the eumalacostracan maxilliped	<b>E. Ehrhardt</b> Morphological analysis and categorization of ascending Neuron types from the somatosensory...	<b>T. Spanke*</b> Morphological and hydrodynamic features of a specialized reproductive strategy in Sulawesi...	<b>F. Gösser</b> Gene expression patterns explain temporal differences in the processes of polyp bailout in <i>Stylophora...</i>
15 <sup>00</sup>	<b>C. Bock</b> Functional morphological MR Imaging: a case study on the Antarctic silverfish...	<b>R. R. Jensen*</b> Spatial processing in the hawkmoth visual system	<b>J. Wilbrandt</b> Love your data!	<b>P. Oswald*</b> Population analyses with a new automatic photographic recognition software
15 <sup>15</sup>	<b>I. Barutia*</b> How to build a leg: Regeneration and development in post-embryonic stages of <i>Scutigera...</i>	<b>K. Sørensen*</b> Behavioural assessment of spatial vision in the common sunfish ( <i>Lepomis gibbosus</i> )		<b>A. Klappert*</b> Data from line transect sampling reveal important insights into the bovid community...

## Coffee Break

MOR ▶ H1	NEU ▶ H2	EVO ▶ H3/4	ECO ▶ H5/6
<b>J. Müller</b> Phylogenetic significance of the chaetal arrangement in Annelida	<b>T. Walther*</b> Active pre-touch sensing: From biology to neuromorphic biomimetic artifacts	<b>J. Buellesbach</b> Decoding the basic elements of various chemical communication systems across...	<b>S. Nooten</b> Chemical trait adaptation to new and challenging climates in alpine bumblebees
<b>F. Oliveira</b> On springtails (Hexapoda: Collembola): A morphofunctional study of the jumping apparatus	<b>M. Bey*</b> Variability in ants' perceptions	<b>M. Niekamp*</b> Reconstructing the morphological and chemical evolution of the prothoracic repellent glands in stick and leaf...	<b>M. Horstmann</b> Long-term analysis and effectiveness of inducible behavioural and morphological traits of <i>Daphnia...</i>
<b>C. Kiesmüller*</b> "To Eat or To Be Eaten": Morphological specialisations of predator-prey...	<b>A. Fiala</b> Neuronal circuits mediating olfactory second-order conditioning in the <i>Drosophila</i> brain	<b>J. Ruther</b> Lipogenesis in parasitic wasps: A fitness relevant rather than a lost trait	<b>L. von Berg*</b> Development and evaluation of insect- and spider- friendly mowing techniques
<b>D. Hazerli</b> The P5-swimming crab morphotype – once evolved and several times reduced?	<b>E. Amini*</b> A rhythmic temporal pattern of PTH signaling and its modulation during pupal-adult...	<b>J. Krämer*</b> Identification of bioactive compounds from pseudoscorpion venom	<b>S. Kruppert</b> Facing the green threat: A water flea's defenses against a carnivorous plant
<b>A. Richter*</b> Ants suck – an introduction to the digestive tract of Formicidae	<b>L. Ragionieri</b> Neuropeptidomes and mimetics in Coleoptera	<b>M. Majoe*</b> Ageing manifests in transcriptomes of brains but not of other tissues in long-lived...	<b>V. Rduch</b> Why such a dramatic decline in puku antelopes ( <i>Kobus vardonii</i> ) in Kasanka National...

## Coffee Break

MOR ▶ H1	DEV ▶ H2	EVO ▶ H3/4
<b>V. Louppe</b> Variation in skull morphology in a globally introduced wild carnivore, the small Indian mongoose	<b>M. Farnworth</b> Complexity of scaling relationships indicates an absence of general trade-offs between olfaction and vision in <i>Drosophila</i>	<b>A. Suh</b> Two thirds of all bird species have extensive germline/soma genome differences
<b>A. Windfelder</b> IA quantitative 3D gut atlas of the model insect <i>Manduca sexta</i>	<b>N. Posnien</b> Can gene regulatory networks help us understanding the evolution of complex traits? What we can learn from natural variation in compound eye size in <i>Drosophila</i>	<b>K. Jandausch*</b> Phylogenetic distribution of traumatic insemination in Strepsiptera (Insecta)
<b>T. Büscher</b> Attachment performance of stick insects (Phasmatodea) on plant leaves with different characteristics	<b>N. Prpic-Schäper</b> Where is the elusive prothoracic gland equivalent of spiders?	<b>P. Fink</b> Food quality impacts on life history traits of a freshwater calanoid copepod

## Meeting Subject Groups

ECO ▶ H3	NEU ▶ H7	MOR ▶ H5	EVO ▶ H6
BEH ▶ H3	PHY ▶ H7	SYS ▶ H5	DEV ▶ H6



## Poster Session II (@ TENT, uneven numbers)

## Food and Drinks

# Friday 16.9.

- 9<sup>00</sup> H1** **Lars Chittka | London, UK**  
The mind of a bee
- 10<sup>00</sup> H1** **Tanja Schwander | Lausanne, SUI**  
Evolutionary consequences of parthenogenesis and the loss of sex: Insights from stick insects (and other animals)

## Coffee Break

- 11<sup>30</sup> H1** **Tamara Pokorny | Regensburg, GER**  
Chemical ecology of mate recognition: Signal distinction and variation

- H2** **Steffen Lemke | Heidelberg, GER**  
Flying back in time: molecular switches that have changed insect gastrulation

- 12<sup>15</sup> H1** **Ekin Tilic | Copenhagen, DEN**  
Hooked on Chaetae - the biological 3D-printers of bristle worms

- H2** **Cristina Tuni | München, GER**  
Reproductive trait evolution: unravelling the effects of pre- and post-copulatory sexual selection

## 13<sup>00</sup> - 14<sup>00</sup> Lunch Break (self-organized)

- Campus Poppelsdorf, H1**
- Interdisciplinary Symposium**
- The loss of species - a matter of biological timing?**

- 14<sup>00</sup>** **Stefanie Monecke | Stuttgart, GER**  
Opening
- 14<sup>20</sup>** **Nils Sören Häfker | Wien, AUT**  
Marine Rhythms and clocks: intra- and interspecies variability in a changing world
- 14<sup>45</sup>** **Tom Shlesinger | Melbourne (FL), USA**  
Survival of the synchronized: Loss of reproductive timing and the fate of corals

- 15<sup>10</sup>** **Miriam Liedvogel | Wilhelmshaven, GER**  
Variability and versatile – migration strategies of the European blackcap

- 15<sup>35</sup>** **Noga Kronfeld-Schorr | Tel Aviv, ISR**  
Effects of long-term exposure to low level ALAN (artificial light at night) under semi-natural conditions on fitness in rodents and amphibians

## Coffee Break

## Campus Poppelsdorf, H1

## Award ceremony

## DZG - Member Assembly



## Museum Koenig



## Closing Dinner / Student Awards

## Some suggestions for the Lunch Break

<b>Mensa Poppelsdorf   €</b>	<b>Gesindehaus   €€€</b>
<b>Tibet Imbiss   €-€€</b>	<b>Mykonos (Greek)   €-€€</b>
<b>Juut Food (Dutch)   €-€€</b>	<b>Bonnanza (Burger)   €€</b>
<b>Spago (Pizza &amp; Pasta)   €€-€€€</b>	<b>Voigt (Bakery)   €</b>

€: 0-5 | €€: 5-10 | €€€: >10

## Campus Poppelsdorf

