



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 ⁰⁰	6th ANN Symposium	18 ³⁰
H5/6	13 ⁰⁰	Terrestrial Locomotion	18 ³⁰

Tuesday 13.9.

Lecture Halls | Campus Poppelsdorf

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

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

17⁰⁰ Opening, Welcome

17³⁰ Public Lecture | Markus Lambertz

Zoologie in Bonn

Campus Poppelsdorf

18³⁰ Ice Breaker



Wednesday 14.9.

9⁰⁰ Onur Güntürkün | Bochum, GER

H1 Why Birds are Smart

10⁰⁰ Anthony Herrel | Paris, FRA

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

Coffee Break

11³⁰ 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

12¹⁵ Sarah Bank-Aubin | Göttingen, GER

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

Natascha Turetzek | München, GER

H2 Genetic basis of spider sense organ development

13⁰⁰ - 14⁰⁰ Lunch Break (self-organized)

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

14⁰⁰ F. Schweitzer*
Discovery of a cryptic species among samples of one of the most common European...

Philipp Lehmann (Greifswald, GER)
Intrinsic and extrinsic drivers of hypometabolic states in insects

J. Seal
A reevaluation of the diffuse coevolution model in *Trachymyrmex* and *Mycetomoellerius*...

L. Schad*
Loud calls of male vervet monkeys as vocal displays of male quality

14¹⁵ S. Jaume-Schinkel
A Gaze into the darkness, shining light into the Moth Flies

M. Hojat Ansari
Evolutionary dynamics of the natural *Drosophila* microbiome

T. Fuss
Do fish prefer live tutoring or e-courses? Do Atlantic mollies make a difference between...

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Do fish prefer live tutoring or e-courses? Do Atlantic mollies make a difference between...

14³⁰ K. Ovenbeck*
Outsider or mainstream? Larval development of *Palaemon varians* in the Baltic and...

K. Kellner
Do Harvester ants use biological control to keep their seeds clean?

J. Tebbe
Effects of MHC genotype and relatedness in odour cues of Antarctic fur seals

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Effects of MHC genotype and relatedness in odour cues of Antarctic fur seals

14⁴⁵ C. Höpel*
Speciation in correlation with cave immigration in Tasmanian mountain shrimps...

K. Roberts
Variation in winter energy use is determined by altering a critical transition period in...

S. Nöbel
Female fruit flies copy the acceptance, but not the rejection, of a mate

P. Schultheiss
No direction home: how ants perform systematic searches

15⁰⁰ P. Avinipully Anilkumar*
The millipede genus *Siphonohinus Pocock, 1894*, with the description of a new species...

V. Vaibhvi*
Effect of dietary protein content on innate immunity: a mechanistic and evolutionary perspective

P. Rühr*
Macroevolutionary patterns of bite performance in insects

I. Damas-Moreira
How to outcompete a native lizard? Violence is not always the answer.

Coffee Break

15⁴⁵ P. Schiffer
The slow evolving genome of the xenacoelomorph worm *Xenoturbella bocki*

A. C. Böhninger
Analysis of dextran sulfate sodium-induced inflammatory effects in the intestine of the red flour beetle...

J. Le Cadre*
DNA barcoding shows evidence for speciation in parthenogenetic and sexual morphospecies...

M. Scheumann
Sex specific vocal behaviour in white rhinoceros and its implication for mating

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

16⁰⁰ 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

16¹⁵ 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. Henseke*
Flying Perfume Makers: On the causes of scent collection behavior in male orchid bees (Euglossini)

16³⁰ F. Ihlow
Molecular phylogeny of African Hinge-back Tortoises (*Kinixys*)

I. Petersen*
pH and Na⁺ maintenance in the alkaline midgut of the sea urchin larva: the role of Na⁺/H⁺...

J. Steidle
The emergence of ecotypes in a parasitoid wasp: A complicated matter!

M. Gilver*
Can flies recognize the smell of their parents?

16⁴⁵ 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

17³⁰ P. Lukas*
Sequence of chondrocranial development in basal anurans

P. Steinmetz
Yolk formation in a sea anemone provides insights into the evolution of animal nutrient transport

B. Naumann
Skin development in non-feeding terrestrial tadpoles of *Arthroleptella villiersi* and the evolution of...

K. Weiss*
Strategic pheromone signaling by females of the sexually cannibalistic spider *Argiope bruennichi*

17⁴⁵ J. Riedel
Evolution of chondrocranial development in basal anurans

R. Koll*
Transcriptomic response and gill microbial community changes of dominant fish species under...

C. Noack*
Birth of neurons and formation of the first neuronal circuit in Hydra embryos

A. Angelakakis*
The mating system of the common house spider *Parasteatoda tepidariorum*

18⁰⁰ A. Schüller
Innovation by inflammation? – The formation of a novel egg-anchoring structure in pelvic brooding reef fishes

E. van den Bos*
Effects of heat-shocks on sociometry in the invasive ant species *Cardiocondyla obscurior*

A. Klimovich
Evolutionary assembly of the neuronal machinery: the role of lineage-specific innovations

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18¹⁵ A. Kaffler*
Relationship between skull roof bone microanatomy and ecological traits in rodents

G. Martens*
The hooded seal brain survives hypoxia by decreasing energy expenditure and preventing...

K. Garschall
Nutritional regulation of growth in the sea anemone *Nematostella vectensis*

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Nutritional regulation of growth in the sea anemone *Nematostella vectensis*

18³⁰ W. Krings
Trophic specialization of Nudibranchia (Mollusca, Gastropoda) reflected by...

N. Rohner
Metabolic Adaptation and Physiological Resilience in Animals

C. Zellner*
Analysis of spatial differences in chromatin accessibility and enhancer activity using ATAC-seq...

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Campus Poppelsdorf, H1

19⁰⁰ Public Lecture | Katrin Böhning-Gaese
Biodiversität und Mensch im Anthropozän

20⁰⁰ Poster Session I (@ TENT, even numbers)

Food and Drinks

9⁰⁰ H1 **Christoph Scherber | Bonn, GER**
Understanding the causes of biodiversity change: experiments, technologies and models

10⁰⁰ H1 **Katja Nowick | Berlin, GER**
Evolution of gene regulatory factors and their networks - tools and insights into human evolution

Coffee Break

11³⁰ 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?

12¹⁵ 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

13⁰⁰ - 14⁰⁰ Lunch Break (self-organized)

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

Coffee Break

	MOR ▶ H1	NEU ▶ H2	EVO ▶ H3/4	ECO ▶ H5/6
16 ⁰⁰	J. Müller Phylogenetic significance of the chaetal arrangement in Annelida	T. Wlatther* Active pre-touch sensing: From biology to neuromorphic biomimetic artifacts	J. Buellesbach Decoding the basic elements of various chemical communication systems across...	S. Nooten Chemical trait adaptation to new and challenging climates in alpine bumblebees
16 ¹⁵	F. Oliveira On springtails (Hexapoda: Collembola): A morphofunctional study of the jumping apparatus	M. Bey* Variability in ants' perceptions	M. Niekampf* Reconstructing the morphological and chemical evolution of the prothoracic repellent glands in stick and leaf...	M. Horstmann Long-term analysis and effectiveness of inducible behavioural and morphological traits of <i>Daphnia...</i>
16 ³⁰	C. Kiesmüller* "To Eat or To Be Eaten": Morphological specialisations of predator-prey...	A. Fiala Neuronal circuits mediating olfactory second-order conditioning in the <i>Drosophila</i> brain	J. Ruther Lipogenesis in parasitic wasps: A fitness relevant rather than a lost trait	L. von Berg* InsectMow: Development and evaluation of insect- and spider- friendly mowing techniques
16 ⁴⁵	D. Hazerli The P5-swimming crab morphotype – once evolved and several times reduced?	E. Amini* A rhythmic temporal pattern of PTH signaling and its modulation during pupal-adult...	J. Krämer* Identification of bioactive compounds from pseudoscorpion venom	S. Kruppert Facing the green threat: A water flea's defenses against a carnivorous plant
17 ⁰⁰	A. Richter* Ants suck – an introduction to the digestive tract of Formicidae	L. Ragionieri Neuropeptidomes and mimetics in Coleoptera	M. Majoe* Ageing manifests in transcriptomes of brains but not of other tissues in long-lived...	V. Rduch Why such a dramatic decline in puku antelopes (<i>Kobus vardoni</i>) in Kasanka National...

Coffee Break

	MOR ▶ H1	DEV ▶ H2	EVO ▶ H3/4
17 ⁴⁵	V. Louppe Variation in skull morphology in a globally introduced wild carnivore, the small Indian mongoose	M. Farnworth Complexity of scaling relationships indicates an absence of general trade-offs between olfaction and vision in <i>Drosophila</i>	A. Suh Two thirds of all bird species have extensive germline/soma genome differences
18 ⁰⁰	A. Windfelder IA quantitative 3D gut atlas of the model insect <i>Manduca sexta</i>	N. Posnien 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>	K. Jandausch* Phylogenetic distribution of traumatic insemination in Strepsiptera (Insecta)
18 ¹⁵	T. Büscher Attachment performance of stick insects (Phasmatodea) on plant leaves with different characteristics	N. Prpic-Schäper Where is the elusive prothoracic gland equivalent of spiders?	P. Fink Food quality impacts on life history traits of a freshwater calanoid copepod

Meeting Subject Groups

18 ³⁰	ECO ▶ H3	NEU ▶ H7	MOR ▶ H5	EVO ▶ H6
19 ¹⁵	BEH ▶ H3	PHY ▶ H7	SYS ▶ H5	DEV ▶ H6



Poster Session II (@ TENT, uneven numbers)

Food and Drinks

9⁰⁰ H1 **Lars Chittka | London, UK**
The mind of a bee

10⁰⁰ H1 **Tanja Schwander | Lausanne, SUI**
Evolutionary consequences of parthenogenesis and the loss of sex: Insights from stick insects (and other animals)

Coffee Break

11³⁰ 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

12¹⁵ H1 **Ekin Tilic | Kopenhagen, 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

13⁰⁰ - 14⁰⁰ Lunch Break (self-organized)

Campus Poppelsdorf, H1

Interdisciplinary Symposium

The loss of species - a matter of biological timing?

14⁰⁰ **Stefanie Monecke | Stuttgart, GER**
Opening

14²⁰ **Nils Sören Häfker | Wien, AUT**
Marine Rhythms and clocks: intra- and interspecies variability in a changing world

14⁴⁵ **Tom Shlesinger | Melbourne (FL), USA**
Survival of the synchronized: Loss of reproductive timing and the fate of corals

15¹⁰ **Miriam Liedvogel | Wilhelmshaven, GER**
Variability and versatile – migration strategies of the European blackcap

15³⁵ **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

16³⁰ **Award ceremony**

18⁰⁰ **DZG - Member Assembly**

Museum Koenig

20⁰⁰ **Closing Dinner / Student Awards**

Some suggestions for the Lunch Break

Mensa Poppelsdorf | €

Tibet Imbiss | €-€€

Juut Food (Dutch) | €-€€

Spago (Pizza & Pasta) | €€-€€€

€: 0-5 | €€: 5-10 | €€€: >10

Gesindehaus | €€€

Mykonos (Greek) | €-€€

Bonnanza (Burger) | €€

Voigt (Bakery) | €

