



www.dzg-meeting.de

Monday & Tuesday 11./12.09

From Molecule to Function E0 002	Neuroethology E0 202	Genomic Systematics E0 200
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Satellite Symposia

I. Steinebrunner <i>Dresden, GER</i> CRISPR-CAS9: Perspectives for zoological research.	B. Fritsch <i>Iowa, USA</i> Eyes, ears, noses and the lateral line system.	C. Bleidorn <i>Madrid, SPA</i> State of the art of phylogenomics: promise and pitfalls.
K. Helfenrath <i>Hamburg, GER</i> Fishing for Globin-knockouts: CRISPR-CAS9 in zebrafish.	A. Straw <i>Freiburg, GER</i> Quantifying multiple visual pathways in fly behavior with VR & genetics.	S. Simon <i>Wageningen, NLD</i> Transcriptomics.
E. Liebau <i>Münster, GER</i> CRISPR-CAS9 in the functional dissection of the Ufm1-cascade in <i>C. elegans</i> .	U. Homberg <i>Marburg, GER</i> Knowing where to go - the neural basis of the sky compass in insects.	A. Suh <i>Uppsala, SWE</i> Retroposons for phylogeny reconstructions.
	M. Maclver <i>Evanston, USA</i> Understanding animals through sensory evolution and robotics	

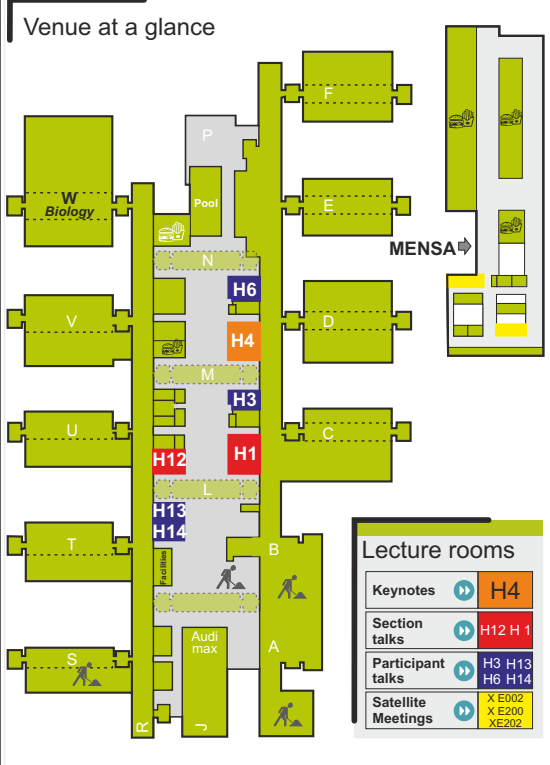
Main Meeting 12.09

Meeting of the Section Speakers **W2 127** Meeting of the DZG Board **W0 135**

Advisory Board Meeting **W0 135**

Welcome Address | **S. Richter**
 Short History of Biology in Bielefeld | **K. Reinhold H4**
 Opening Lecture | **B. Misof**
 Bonn, ZFMK, GER
 The evolution of insects: A phylogenomic approach.

Reception



Lecture rooms

Keynotes	H4
Section talks	H12 H 1
Participant talks	H3 H13 H6 H14
Satellite Meetings	X E002 X E200 XE202

Wednesday 13.09

09.00 Helmut Hillebrand <i>Oldenburg, GER</i> Ecological stoichiometry – a framework to understand trophic interactions and species coexistence. H4			
10.00 Simone Immler <i>Uppsala, SWE</i> The evolutionary consequences of selection at the gametic level. H4			
Coffee			
11.30 Irina Ruf <i>Frankfurt, GER</i> Evolution and functional morphology of the mammalian inner ear. H1	Timo Thünken <i>Bonn, GER</i> Functions and mechanisms of kin discrimination in a cichlid fish. H12		
12.00 Poster primer H1	Poster primer H12		
Lunch			
13.15 Wiebke Herzog <i>Münster, GER</i> A live view on endothelial cell migration in zebrafish. H1	Michael Metzen <i>Montreal, CAD</i> SK channel modulation promotes adaptive coding of natural stimuli. H12		
13.50 A. López <i>München</i> Convergent evolution of raptorial appendages in arthropods: first steps towards a quantitative approach. H13	S. Gölüke <i>Bielefeld</i> Disentangling the mechanism of kin recognition in zebra finches. H14	L. Chen <i>Bochum</i> Cellular activity levels and cytoskeletal reorganization during diapause in <i>Daphnia</i> . H6	Jan Benda <i>Tübingen</i> <i>Communication in the wild at the limits of sensation</i> H3
14.00 Meeting of the Section Speakers W2 127 Meeting of the DZG Board W0 135			
14.05 G. Petschenka <i>Gießen</i> Does defense, not food, drive specialized associations between insects and plants? H13	A-L. Cory <i>Hamburg</i> Mate availability does not influence male complexity in sexual cannibalism in the spider <i>Argiope bruennichi</i> . H14	G. Bucher <i>Göttingen</i> A morphological novelty based on a modified wing gene regulatory network. H6	
14.20 J. Sauer <i>Bielefeld</i> The skin microbiomes of 3 estrildid finch species reveal individual and species-specific differences. H13	A. Guenther <i>Groningen</i> Effects of early cortisol elevation on personality in wild cavies. H4	U. Bickmeyer <i>Bremerhafen</i> Sponge metabolite absorbs UV/blue light & increases O ₂ concentrations in cultures of microalgae. H12	
14.35 R. Nagel <i>Potsdam</i> Genetic & behavioral investigations into African the biosonar weakly electric fish signal evolution. H12	E. Lattenkamp <i>Seewiesen</i> Environmental acoustic cues guide attention of a highly specialised echolocator. H1	C. Helm <i>Bergen</i> The development of neuronal & neurological elements in the annelid <i>Malacoceros fuliginosus</i> (Annelida, Spionidae). H6	S. Kraus <i>Bielefeld</i> Born to be aggressive, curious or fearless? – Heritability of personality. H3
14.50 J. Kurtz <i>Münster</i> HSP90 as a capacitor for the rapid evolution in the red flour beetle <i>Tribolium castaneum</i> . H13	M. Fröhlich <i>Zürich</i> The ontogeny of intentional signaling in chimpanzees of two communities in the wild. H14	G. Brenneis <i>Wellesley</i> First insights into the gene network underlying adult neurogenesis in procambarid crayfish. H6	A. Fernandez <i>Berlin</i> Babbling bats – how pups of the sac-winged bat, <i>Saccopteryx bilineata</i> , acquire their vocal repertoire. H3
15.05 Coffee			

EVO H13	BEH H14	PHY H6	Org H3	
D. Vendrami <i>Bielefeld</i> ddRAD sequencing resolves population structure in a benthic invertebrate. Implications for phenotypic plasticity. H13	C. Dittrich <i>Berlin</i> Size assortative mating is influenced by temporal migration & male mating tactic in <i>R. temporaria</i> . H14	J. Bossen <i>Kiel</i> Rescue of a <i>Drosophila</i> EGFR lung cancer-like phenotype by treatment with specific inhibitors. H6	B. de Bivort <i>Harvard</i> <i>The neurobiology of individuality.</i> H3	15.30
M. Stoffel <i>Bielefeld</i> A genetic study on the demographic histories of Pinnipeds: The consequences of the big hunt for fur and blubber. H13	J. Eccard <i>Potsdam</i> Reproductive behaviours in a risky world: are mothers trading-off future fitness? H14	R. Dölling <i>Münster</i> Food quality and low cadmium doses alter life history and gene expression in the nematode <i>C. elegans</i> . H6		15.45
E. Humble <i>Bielefeld</i> Measuring inbreeding in Antarctic fur seals. H13	N.C. Wulff <i>Berlin</i> First comparative study on male bushcricket genitalia reveals a species-specific functioning of titillators. H14	A. Gruhl <i>Bremen</i> It takes two to tango: Two respiratory proteins with different functions in an animal-microbe. H6		16.00
V. Moris <i>Freiburg</i> Elongases, key for cuticular hydrocarbon (CHC) diversity? H13	M. Scheumann <i>Hannover</i> Getting insight into the evolutionary roots of vocal greeting: the importance of mother-infant H14	A. Wiesenthal <i>Greifswald</i> Survival and salinity tolerance limits in the snail <i>Theodoxus fluviatilis</i> : freshwater vs. brackish water lineages. H6	C. Dallmann <i>Bielefeld</i> Inter-leg coordination in insects: A mechanism based on local load feedback. H3	16.15
L. Böttinger <i>Gießen</i> Chemical ecology and pheromone evolution in <i>Leptopilina</i> , a parasitoid of <i>Drosophila</i> . H13	S. Kalberer <i>Bielefeld</i> Unpredictable life history in an unpredictable habitat? H14	F. Wahab <i>Göttingen</i> Irisin is a spermatogonial stem cell regulator in the primate testis. H6	F. Pedraja <i>Bielefeld</i> Learning to behave: shaping sensory flow to enable and enhance active electrolocation. H3	16.30

Meeting of Sections **EVO H13 MOR H14 ECO H6 NB H3**

Even posters: beer & wine

Rathmayer-Price Ceremony

Odd posters: beer & wine

All posters: beer & wine



Thursday 14.09

Friday 15.09

09.00 **Hanna Kokko** **H4**
Zürich, CH
 Males exist. Does it matter?

10.00 **Adam Kepecs** **H4**
Cold Spring Harbour, USA
 Confidence in rats, humans and mathematics.

Coffee

11.30 **Philine Feulner** **H1** **Violetta Pilorz** **H12**
Kastanienbaum, CH **Manchester, UK**
 Economics of ecological speciation across the Swiss Alpine whitefish radiation.

12.00 **Young DFG** **H1** **Team DFG** **H12**

Lunch

13.45 **Katja Heubel** **H1** **Ingrid Ehrlich** **H12**
Köln, GER **Tübingen, GER**
 Ecological divergence and context-dependent reproductive decisions along a salinity gradient. Amygdala circuits and the control of fear memory.

14.15 **Carolin Haug** **H1** **Wiebke Schütt** **H12**
München, GER **Hamburg, GER**
 Evolution of body organisation in arthropods and its implications on systematics and character transformation. Sexual selection and life-history trade-offs mediate animal personality differences.

EVO ▶ H13 MOR ▶ H14 SYS ▶ H6 NB ▶ H3

14.50 **G. Verhaegen (Greifswald)** **M. Heethoff (Darmstadt)** **de Sena Oliveira (Kassel)** **R. Rosner (Newcastle UT)**
 Morphological adaptation in a clonal invasive aquatic snail. Exploring the third dimension of insects - A novel approach using focus stacking and photogrammetry. 3 new Tasmanian onychophoran species shed light on the origin of New Zealand velvet worms. Discovering neurons for stereoscopic vision in the praying mantis.

15.05 **A. Edme (Olomouc)** **T. van de Kamp (Karlsruhe)** **L. Shou-Wang (Greifswald)** **C. Doussout (Bielefeld)**
 Environmental vs. genetic sources of variation in avian sperm dimensions – estimates from a natural songbird population. Fast X-ray imaging of fossil insects from Paleogene fissure fillings. Knocking trees, spiders fall: 14 new species of *Shaanxinus Tanasevitch* from Taiwan and Vietnam. How bumblebees deal with conflicting visual cues when flying back home?

15.20 **U. Knief (München)** **A. Kumerics (Kassel)** **S. Winter (Frankfurt)** **U. Pegel (Marburg)**
 Heterotic effects of a sex chromosome inversion on sperm characteristics and siring success in zebra finches. Three-dimensional reconstruction and functional morphology of leg musculature in Onychophora (velvet worms). Are there really four species of giraffe? Compass-like representation of the locust central complex.

15.35 **R. Castillo (Würzburg)** **L. Heck (Zürich)** **T. Struck (Oslo)** **V. Hofmann (Montreal)**
 Sexual dimorphism of cuticular hydrocarbons in cuckoo wasps. Morphological disparity & developmental shape changes in domesticated horses. What are cryptic species? A process-driven perspective. Stimulus dependent neural correlations in electric sensing: origins & function.

Coffee

EVO ▶ H3 MOR ▶ H6 ECO ▶ H13 NB ▶ H14
R. Fokkema (Groningen) **P. Arnold (Leipzig)** **L. Pötter (Bochum)** **G. Lepreux (Bielefeld)**
 Individual reproductive behaviour in a social context. Extant tree sloths: evolution of divergent musculo-skeletal organization to cope with inverted locomotion? Effects on freshwater zooplankton. Passive vs active sensing: modulation of background activity in an identified descending interneuron in the stick insect.

16.30 **C. Küpper (Seewiesen)** **J. Sartori (Jena)** **C. Held (Bremerhaven)** **P. Kalke (Rostock)**
 Alternative reproductive tactics and a sexually antagonistic inversion. 3D imaging of the tensile deformation of a mouse (*Mus musculus*) Achilles tendon enthesis. Beating the competition: Filter-feeding isopods conquer a habitat devoid of life on the underside of the Antarctic shelf ice. Nervous system development in the barnacle. The importance of the peripheral nervous system.

16.45 **D. Wells (Bielefeld)** **J. Haug (München)** **S. Schmelzle (Darmstadt)** **S. Fischer (Tübingen)**
 Does inbreeding increase or decrease cooperative care? Super-sized crustacean larvae in oceans of today and in the past- the forgotten part of the plankton? Holistic defense - morphological and chemical traits combined in the pythoid oribatid mite *Euphthiracarus reticulatus*. From 2D to 3D: evaluating the limits to neuronal miniaturization in insects using 3D image information.

17.00 **C. Bauch (Groningen)** **P. Steinhoff (Greifswald)** **E. Reim (Greifswald)** **B. Trebels (Marburg)**
 Parental effort and telomere dynamics - a longitudinal analysis of the central nervous system in Pinelema spiders. Living in caves: A comparative morphological analysis of the central nervous system in Pinelema spiders. Dispersal & flight performance in a butterfly: When willingness & ability do not equate. Postmetamorphic neurogenesis in the mushroom bodies of the red flour beetle.

17.20 **Meeting of Sections**
 PHY ▶ H13 BEH ▶ H14 SYS ▶ H6 DEV ▶ H3

18.30 **Horst-Wiehe Price** **H4**

19.00 **Public Lecture** **H4**
Joachim Ruther
Regensburg, GER
Die Chemie muss stimmen - sexuelle Kommunikation bei parasitischen Wespen

19.00 **Meet DFG @ DZG** **H1**
 „Starting your research career – DFG funding programmes and application procedures“ by Dr. Limbach with Dr. Reinhold as member of the Fachkollegium.

19.00 **Meet DFG @ DZG** **H12**
 „Teaming-up for research – DFG funding in coordinated research programmes“ by Dr. Ihle with Dr. Richter as member of the Fachkollegium.

Individual Appointments! 14:00 - 17:30
 Appointments with DFG representatives for individual consultation. Please sign in on site: **W2-127 S. Ihle** **V3-146 C. Limbach**

Young & Team DFG

09.00 **Barbara Taborsky** **H4**
Bern, CH
 Proximate and ultimate causes of developmental plasticity.

10.00 **Susanne Fritz** **H4**
Frankfurt, GER
 Macroevolution meets macroecology: diversity in space and time.

Coffee

11.30 **Stefan Geisen** **H1** **Karen Meusemann** **H12**
Wageningen, NLD **Freiburg, GER**
 Soil biodiversity beyond animals, bacteria and fungi: A decade of cutting edge insect phylogenomics. A consensus on the highly diverse and functionally important Protists (Protozoa).

12.00 **Jan Oettler** **H1** **Andy Sombke** **H12**
Regensburg, GER **Greifswald, GER**
 From conceptual to mechanistic analyses: Eco-evo-devo of social insect plasticity. Morphology and evolution of sensory and processing systems in mandibulate arthropods.

Lunch

13.00 **P. Gienapp (Wageningen)** **A. Junghanns (Greifswald)** **N. Erdsack (Sarasota)** **H. Herzog (Bonn)**
 Exploring the power of 'genomic' quantitative genetics for understanding & predicting adaptation. Extreme allomaternal care by unmated females in a cooperatively breeding spider. Heat flux in manatees: A new approach to estimate metabolic rates in Florida Manatees. Fish functional morphology based on 3D reconstructions and numerical modelling.

13.30 **M. Hasselmann (Hohenheim)** **Eberhart-Phillips (Seewiesen)** **M. Beaulieu (Greifswald)** **J. Wölfer (Berlin)**
 Two chromosomal regions govern local adaptation to high altitude in honey bees. Evolution of sex roles: the significance of sex-biased social environments. Adaptive telomere dynamics in a free-ranging primate. Adaptive convergence in the femoral shape of sciuriform rodents depends on locomotor behavior.

13.45 **M. Runge (Zürich)** **C. von Beeren (Darmstadt)** **H.G. Marco (Rondebosch)** **M. Grams (Rostock)**
 The t haplotype: A selfish genetic element that manipulates migration propensity in its carrier? Sheep in wolves' clothing & wolves' smell: anatomical & chemical mimicry in army ant-associated staphylinids. Adipokinetic hormones: receptor ligand studies in the desert locust, *Schistocerca gregaria*. Serial and special: comparison of podomeres and muscles in tactile vs walking legs of whip scorpions.

14.00 **M. Gerth (Liverpool)** **J. Schar sack (Münster)** **C. Fink (Kiel)** **T. Büscher (Kiel)**
 Experimental evolution of Spiroplasma symbionts in Drosophila. Sticklebacks become bolder in the presence of parasite manipulated conspecifics. The influence of ORMDL over-expression on the gut homeostasis in *Drosophila melanogaster* symbiosis. Morphology, microstructure and evolution of tarsal attachment pads in Phasmatodea (Hexapoda).

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Coffee

ECO ▶ H13 BEH ▶ H14 NB ▶ H3 MOR ▶ H6
R. Jakobs (Bielefeld) **D. Schmidtke (Hannover)** **U. Mayer (Rovereto)** **B. Eggs (Tübingen)**
 Aphid feeding can increase nutritional value of the phloem. Visual object-location paired-associates learning: A first comparative approach in humans and a non-human primate. Different structure and spatial memory. Avian hippocampus and spatial memory. Functional morphology of the skeletomuscular ovipositor system in parasitoid hymenopterans.

15.00 **P. d'Alvise (Hohenheim)** **D. Lewanzik (Seewiesen)** **J. Goulet (München)** **M. Kenning (Greifswald)**
 Understanding honeybee pathogen dynamics through high-throughput qPCR analysis. Ahead in the arms race: low-intensity echolocation & intensity compensation in bats. Aquatic imaging: Neuron map formation through the lateral-line system. Terminal legs of Chilopoda (Myriapoda) - A prime example of morphological disparity and functional diversity.

15.15 **P. Piedrahita (Guayaquil)** **H. Wolf (Ulm)** **T. Frase (Rostock)** **P. Rühr (Bonn)**
 Food habits of Galapagos Owls: a preliminary study. Interaction of two distance memories in desert ants. Beautiful bodies, tiny brains? The protocerebral architecture and corresponding sense organs in calanoid copepods. Head Biomechanics of a Springtail.

15.30 **V. Nehring (Freiburg)** **T. Weihmann (Köln)** **S. Kaul-Strehlow (Wien)** **P. Wagner (München)**
 A geographic mosaic of coevolution between mites and burying beetles. Body dynamics and gait choice in poly-pedal animals. The neuromuscular junction in a cnidarian and its evolutionary implications. Morphological diversity of mantis shrimps: ontogeny in focus.

15.45 **Presentation VBIO** **H4**

16.00 **General Assembly** **H4**



18⁰⁹
 18¹⁹ **4** → direction Rathaus, get off at **Jahnplatz**
 18²⁹

→ walk, or take the bus **25, 26** or **369** with direction Heepen get off at **Kesselbrink**

19.00 **Social Evening** „Alte Hechelei“

Parkstr. 6, Ravensberger Park