

Senckenberg Dresden Symposium

Perspectives and Challenges in hDNA analyses from insect museum specimens

Venue: Senckenberg Natural History Collections (SNSD), Museum of Zoology, Dresden, Germany

Invited talks of 40+10 mins.

Monday 24. October 2022

18:30 Icebreaker (Uwe Fritz)

19:00 Evening session: Zoom talk by Melanie Lalonde (Department of Biological Sciences, University of Manitoba, Winnipeg, Canada): "Evaluating the age limit for effective DNA recovery using historical insect specimens from the buckeye butterflies (genus *Junonia*)"

~20:00 Guided Tour of Insect Collections SNSD for Speakers and Participants (Klaus Klass, Matthias Nuss)

Tuesday 25. October 2022

Time	Name	Affiliation	Title
9:00	Uwe Fritz	Senckenberg Natural History Collections Dresden, Germany	Welcome by head of the Museum of Zoology, SNSD
9:15	Christian Kehlmaier	Senckenberg Natural History Collections Dresden, Germany	Methodology of aDNA and hDNA analyses at the SNSD
10:05	Anna Hundsdoerfer & Franziska Patzold	Senckenberg Natural History Collections Dresden, Germany	hDNA approaches in Central Asian <i>Hyles</i> (Lepidoptera: Sphingidae) hybrid speciation questions
10:55	BREAK		Guided Tour of New Facility
11:15	Andreas Zwick	Australian National Insect Collection, CSIRO, Australia	High-throughput collection genomics: Generating DNA reference sequences at scale
12:05	LUNCH		

Afternoon/evening free for individual interests of participants (e.g. Dresden City, work with colleagues)

Wednesday, 26. October 2022

Time	Name	Affiliation	Title
09:30	Bonnie Blaimer & Joshua Penalba	Museum für Naturkunde, Leibniz-Institute for Evolution and Biodiversity Science, Center for Integrative Biodiversity Discovery, Berlin, Germany	Using museum specimens for target capture of ultraconserved elements: Lessons from Hymenoptera & Comparative analysis of nondestructive DNA extraction protocols for museum insect specimens
11:10	Christian Kehlmaier	BREAK	Guided Tour of New Facility
11:30	Angela McGaughran	Te Aka Mātuatua - School of Science, University of Waikato, Hamilton, New Zealand	Exon capture using hDNA from pest insects: insights from both the wet- and dry-lab
12:20	Miles Zhang	Systematic Entomology Lab, United States Department of Agriculture, Smithsonian Institution, Washington, USA	How to extract DNA from tiny wasps, challenges of microhymenopteran museomics
13:10		LUNCH	
14:30	Sandra M. Velasco-Cuervo	University of Alberta Department of Agricultural, Food, and Nutritional Science Edmonton, Alberta, Canada	Unity makes strength: DNA mini-barcodes as a strategy to save hDNA
15:20	Marcin Jan Kamiński	Polish Academy of Sciences, Museum and Institute of Zoology, Warszawa, Poland	“Polish comes from the cities; wisdom from the desert”: a tale of darkling beetles
16:00	Christian Kehlmaier	BREAK	Guided Tour of New Facility
16:30	Kojun Kanda	Systematic Entomology Lab, United States Department of Agriculture, Smithsonian Institution, Washington, USA	From pinned specimens to middens; successful sequencing of degraded DNA helps infer relationships among rare beetles (Tenebrionidae: Asidini)
17:20	Jacopo D'Ercole	Centre for Biodiversity Genomics, Guelph, Canada	Recovery and fidelity of DNA barcodes from museum specimens—traditional Sanger versus SMRT sequencing
18:00	Uwe Fritz	WRAP UP	

18:15 Possibility to network.