

25TH ANNIVERSARY OF
MUSEUM OF AMBER INCLUSIONS
UNIVERSITY OF GDAŃSK



Fossil Record in Resins and Sediments

BOOK OF ABSTRACTS

UNIVERSITY OF GDAŃSK
23-26 MAY, 2023



FossilRRS Conference



Fossil Record in Resins and Sediments

**25th Anniversary
of Museum of Amber Inclusions
University of Gdańsk**

BOOK OF ABSTRACTS

**University of Gdańsk, Faculty of Biology
Gdańsk, POLAND
May 23 - 26 2023**

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Typesetting: Jacek Szwedo, Elżbieta Sontag; **Cover:** Elżbieta Sontag, Karolina Cierocka

This volume has been compiled from files supplied by the Authors.

ISBN: 978-83-968174-0-2

Published by: Department of Invertebrate Zoology and Parasitology, Faculty of Biology,
University of Gdańsk, 59, Wita Stwosza St, PL80-308 Gdańsk, Poland



Ministry of Education and Science
Republic of Poland

Conference Fossil Record in Resins and Sediments - 25th Anniversary of Museum of Amber Inclusions UG
- a task financed from funds of the Minister of Education and Science for the „Doskonała Nauka” programme.

WELCOME

The Museum of Amber Inclusions University of Gdańsk is pleased to invite you to celebrate its 25th anniversary and attend the conference *Fossil Record in Resins and Sediments*, which will be held in Gdańsk, Poland, from 23rd-26th May 2023.

Twenty-five years ago, the natural history collection of amber and inclusions, started from modest beginnings – scientific collection of the Diptera inclusions of Professor Ryszard Szadziwski. What revolutionised the collection was the donation of 50 kg of raw Baltic amber, which completely changed the view on amber, its inclusions and its amber taphocoenosis. The uniqueness of the scientific collection of the Museum of Amber Inclusions is in its positioning within the structures of the University. We are not a collection of specimens, musealia that cannot be touched, but a collection where amber is the basis of scientific discovery and research. Twenty-five years ago, we were at the point when interest in inclusions was developing, and the amber market was growing, and we were present at the Amberif Fair, among the amber workers and collectors, at the centre of the amber (and inclusions) fever. The scientific backbone of the Museum is its collection, research facilities and friends among scientists. The flesh is a collaboration with amber workers, collectors and enthusiasts of amber and inclusions. The blood is the circulation of information, data, ideas, and opinions.

New technologies allow us to look more and more closely into worlds hidden millions of years ago in the solidifying drops of resins. It is the 21st century and we are discovering new pages written in the books of amber, its inclusions and its deposits, but also in the stone books of palaeontology. We will not be able to answer more and more questions on our own – cooperation, exchange of information and experience of geologists, palaeontologists and biologists is needed.

The Conference, which is being held at the University of Gdańsk and supported by the Ministry of Education and Science, will offer an outstanding scientific programme thanks to the participants. It is an opportunity to share the current state of knowledge, new working hypotheses, to debate new findings and new tools, to discuss and find new interpretations of existing data and opinions.

It is with great pleasure that we invite all of you in the spring of 2023 to this Conference, we encourage scientific openness, warm discussions, collaboration, and a shared reading of palaeobiology in fossil resins and sediments. We trust that your stay in Gdańsk – the World Capital of Amber and Museum of Amber Inclusions will be a memorable opportunity for both professional and personal satisfaction.

HONORARY PATRONAGE



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Fossil Record in Resins and Sediments

palaeobiological conference

23-26 May 2023

Gdańsk, Poland

ABSTRACTS



MUSEUM OF AMBER INCLUSIONS UNIVERSITY OF GDAŃSK – DISCOVERIES AND POTENTIAL

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Keywords: fossil resin, palaeobiology, palaeoecology, palaeodiversity, scientific potential

Twenty-five years ago, thanks to the cooperation between amber workers, amber collectors and scientists, a scientific collection of inclusions preserved in fossil resins began to form under the auspices of the University of Gdańsk¹. The aim of the collection was to gather scientific specimens, so that they would not go to Warsaw or Malbork, so that Gdańsk would have its own amber collection! The beginning and its first collection being that of Professor Ryszard Szadziwski, then head of the laboratory. The collection he donated consisted of 58 pieces of Baltic and 5 pieces of Dominican amber, containing a total of 133 plant and animal inclusions. The second gift shaped the character of our collection – 50 kg of raw amber donated by Mr and Mrs Kalandyk set the direction of the collection. Since its beginning, the purpose of the collection was for research, research on amber, mainly Baltic amber but research on its inclusions. And this seemingly insignificant gift changed the image of the ‘amber forest’ completely, showing how different it was from previous perceptions². This gave rise to the realisation that not only collecting descriptive type specimens is the most important activity of the museum, but how important it is to collect samples and specimens directly from the source, preferably raw, preferably intact. Gathering a scientific documentary collection of items is one, gathering a vivid research collection the other, and collection for educational and exhibitory purposes requires another direction.

The first and second aims are fulfilled by running a collection with access to specimens and to types. The educational role was fully completed 10 years ago, in 2013 we opened the permanent educational exhibition “Life in the Amber Forest”, which last year received a multimedia guide (Application – “Wystawy Wydziału Biologii UG”). By listening to a 15-minute description, the spectator will leave the exhibition with knowledge on amber at an above-average level. The most difficult, but at the same time most fascinating role is that of research, which is only possible in scientific collections, especially university collections.

The most difficult, but at the same time the most fascinating is the research role, only possible in scientific collections, especially university collections, such as MAIG – Museum of Amber Inclusions University of Gdańsk is. In order to be such, from the beginning MAIG developed a laboratory, with tools for preparation, observation, and documentation of samples and inclusions. Fossil Resins Laboratory, with a variety of grinding, polishing and cutting tools makes it possible to prepare any fossil resin, to whatever dimensions are required. The research collection means not only the availability of tools, it means also the procedures applied in gathering, elaborating, and treatment of the samples and research material gathered in the collection.

The individual inclusion itself, its identification, description of the tiny body entombed in amber, and formal description, if it represents a new taxon, all these doings are important, but these are more spectacular if given in the context of whole amber nodule, or in context of deposit from which the sample comes^{2,3,4}. Data

on samples elaborated, inclusions and syninclusions, unsorted samples of raw material from known deposits of Baltic amber – all these are at the disposal of willing researchers. One can take a look on them, prepare them for further examination and elaboration, document and be preserved. We have 162 type specimens⁵, carefully stored in fireproof cabinets, available for study; we hope to have dozens more soon. Microinclusions are stored and available for further study, and these have potential to solve at least some Baltic amber mysteries. A sample of Eocene amber from the Lublin area deposits await more deep exploration and elaboration. For the inquisitive, there are boxes of Baltic amber from Quaternary deposits in Pomerania prepared for research. Another sample needing of elaboration is the raw material from the Bitterfeld deposit. A portion of 5 kg of Miocene amber from Ethiopia, which has already proved to be a very interesting source of fossils awaits further studies.

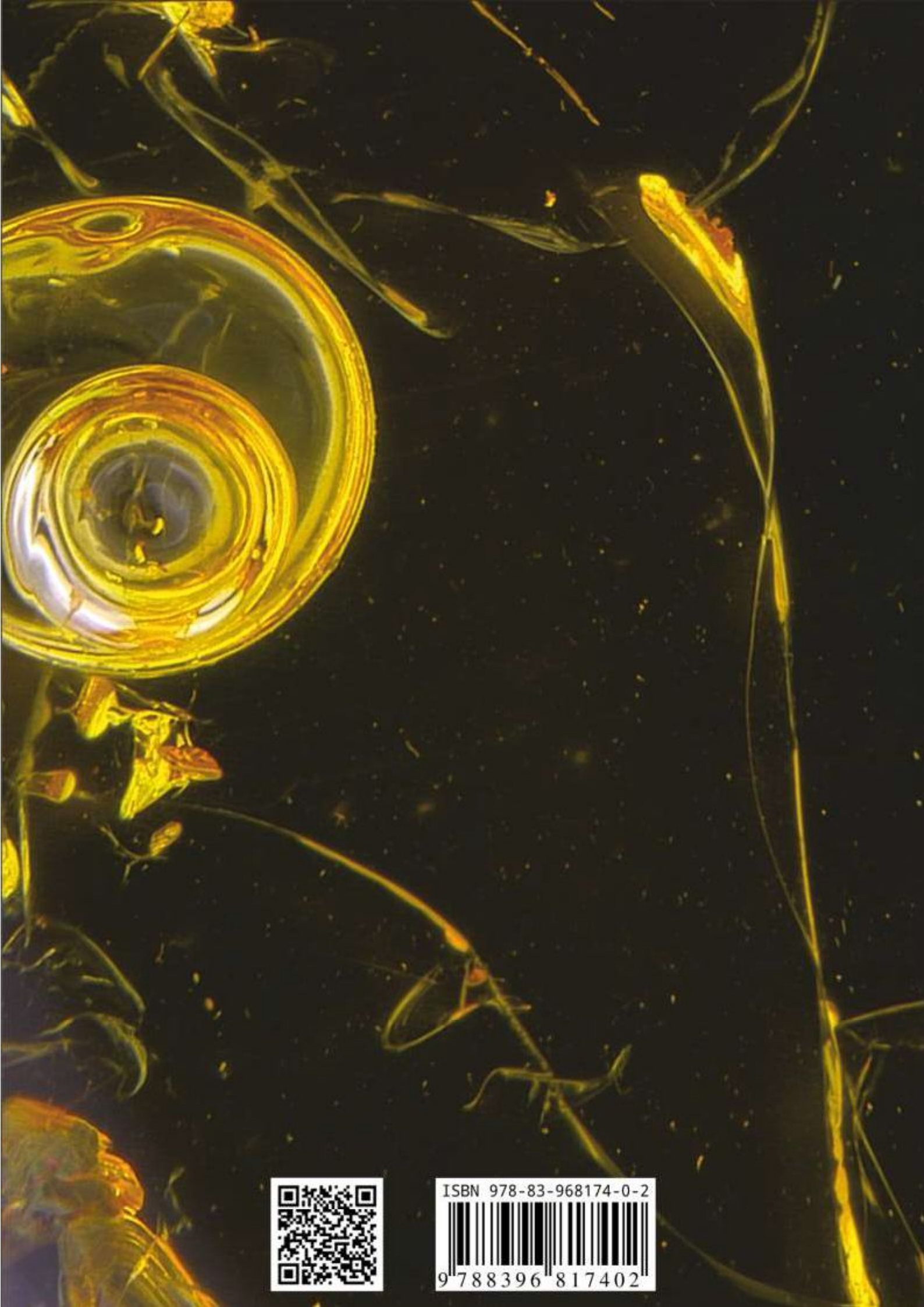
Fossil resins themselves, their inclusions at any scale and taxonomic placement, and their geochemical and depositional context are invaluable resources for palaeobiology, palaeoecology, palaeodiversity, and palaeoclimatology studies. The scientific potential of the fossil resin material, the scientific potential of the research collection and the MAIG laboratory are ready for exploration and available for researchers.



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ISBN 978-83-968174-0-2



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