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

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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 Szadziewski. 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.

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TABLE OF CONTENTS

PLENARY LECTURES

Dzik J. – THE 'CAMBRIAN EXPLOSION' 3

Szwedo J. – FOSSIL RESINS OF THE WORLD, WORLDS OF FOSSIL RESINS 5

Szwedo J., Sontag E. – BALTIC AMBER – TRAP OR TREASURE TROVE FOR PALAEOBIOLOGY 9

ABSTRACTS

Álvarez-Parra S. et al. – PARASITOID WASP DIVERSITY (HYMENOPTERA) IN LOWER CRETACEOUS AMBER FROM EL SOPLAO (SPAIN) 11

Álvarez-Parra S. et al. – A GLIMPSE TO THE ANCIENT RESINIFEROUS FORESTS THROUGH AMBER TAPHONOMY 13

Arriaga-Varela E. et al. – HANDSOME FUNGUS BEETLES (COCCINELLOIDEA: ENDOMYCHIDAE, ANAMORPHIDAE) IN MYANMAR AMBER. REMARKABLE DIVERSITY, REMARKABLE CHALLENGES 15

Bartel C., Dunlop J.A. – A FORGOTTEN WORLD: AMBER HARVESTMEN AS A WINDOW INTO PAST DIVERSITY 17

Beurel S. et al. – FOSSIL FLOWERS FROM MIOCENE ZHANGPU AMBER (CHINA) 19

Bienias J. et al. – LITHOBIOMORPHA IN BALTIC AMBER – CURRENT KNOWLEDGE AND PERSPECTIVES 21

Bieszczad B. – NEW INSIGHTS INTO THE JURASSIC COLEORRHYNCHA MYERS ET CHINA, 1929 (HEMIPTERA) FROM EUROPEAN DEPOSITS 23

Bojarski B. et al. – EXPLORING THE FOSSIL RESINS TAPHONOMY – PIDDOCKS INCLUSIONS AND ICHNOFOSSILS 25

Bojarski B. et al. – THE NEMATODE FOSSIL RECORD - INSIGHTS FROM BALTIC AMBER INCLUSIONS 27

Bouju V. et al. – WHAT IS ETHIOPIAN AMBER TELLING US ABOUT MIOCENE AFRICAN FOREST ECOSYSTEM? 29

Celary W. et al. – BUZZERS FROM THE PAST – THE FIRST MELIKERTINI BEE FROM EOCENE LUBLIN AMBER 31

Cuber P., Hayes P.A. – AMBER COLLECTION AT THE NATURAL HISTORY MUSEUM, LONDON 33

De Baets K. et al. – THE BEARING OF THE FOSSIL RECORD TO CONSTRAIN THE EVOLUTION AND EXTINCTION OF PARASITE-HOST ASSOCIATIONS 35

Drohojowska J., Kurkina S. – JUMPING PLANT-LICE (HEMIPTERA: STERNORRHYNCHA: PSYLLOIDEA) FROM EOCENE BALTIC AMBER 37

Drohojowska J., Szwedo J. – CROUCHING DISPARITY, HIDDEN DIVERSITY – WHITEFLIES IN THE EOCENE RESINS OF EUROPE 39

Drohojowska J., Szwedo J. – DINGLOMORPHA - KEY TAXON OR BLIND BRANCH IN STERNORRHYNCHA EVOLUTION? 41

Heikkilä M. – SEARCHING FOR CALIBRATION POINTS IN THE WORLD FOSSIL RESINS TO DATE THE LEPIDOPTERAN TREE OF LIFE 43

Herbert M.C.M. et al. – THE IMPACT OF NEW SCUTTLE FLY FOSSILS IN FOSSIL RESINS FROM CRETACEOUS TO HOLOCENE 45

Hoffmannova J. et al. – LISSOMINAE (COLEOPTERA: ELATERIDAE) FROM BALTIC AND ROVNO AMBERS 47

Jenkins Shaw J., Solodovnikov A. – ROVE BEETLE PALAEOBIOLOGY AT THE NATURAL HISTORY HISTORY MUSEUM OF DENMARK 49

Jiang H. et al. – WIDESPREAD MINERALIZATION OF INSECTS IN MID-CRETACEOUS KACHIN AMBER 51

Kaczmarek S., Soszyńska A. – FIRST FEMALE OF FOSSIL *BURMOTHAUMA* (EOMEROPIDAE, MECOPTERA) FROM BURMESE AMBER SHEDS LIGHT ON ENVIRONMENTAL PREFERENCES OF FOSSIL EOMEROPID IN THE CRETACEOUS 53

Kaulfuss U. et al. – NEW ZEALAND AMBER: AGE, DEPOSITIONAL SETTING AND BIOINCLUSIONS 55

Kettunen E. et al. – DEMATIACEOUS MICROFUNGI FROM EUROPEAN PALAEOGENE AMBERS 57

Kirichenko-Babko M.B. et al. – A BRIEF REVIEW OF KNOWN AMBER PAUSSINAE (COLEOPTERA: CARABIDAE) AND THE IMPORTANCE OF THE FIRST ROVNO AMBER PAUSSINE FINDING 59

Klikowicz-Kosior A., Kosior M. – THE IMPORTANCE OF ACCURATE IDENTIFICATION OF FOSSIL RESINS 61

Krzemiński W. et al. – FIRST *CHILELIMNOPHILA* (DIPTERA: LIMONIIDAE) IN FOSSIL RECORD 63

Krzemiński W. et al. – UNIQUENESS OF PRESERVATION OF FOSSIL MATERIAL FROM FUR FORMATION ON THE EXAMPLE OF *ARCTOCONOPA* (DIPTERA, LIMONIIDAE) 65

Kundrata R. et al. – FIRST CLICK-BEETLE LARVAE FROM THE MID-CRETACEOUS AMBER OF NORTHERN MYANMAR 67

Mąkol J. – TERRESTRIAL PARASITENGONA MITES (ARACHNIDA: ACARIFORMES) IN FOSSIL RESINS – STATE OF THE ART 69

Mulvey L. et al. – WHERE TRADITIONAL EXTINCTION ESTIMATES FALL FLAT: USING NOVEL COPHYLOGENETIC METHODS TO ESTIMATE EXTINCTION RISK IN PATHOGENS 71

Ogłaza B., Węgierek P. – THE COMPARISON OF APHIDS FROM CANADIAN AMBER TO FAUNAS FROM OTHER FOSSIL RESINS 73

Pełczyńska A. et al. – NEW INSIGHT INTO BIOGEOGRAPHICAL HISTORY OF THE GENUS *ROBSONOMYIA* (DIPTERA: KEROPLATIDAE) – FIRST EUROPEAN AND FOSSIL SPECIES 75

Pielińska A. et al. – INCLUSIONS IN AMBER FROM COLLECTIONS OF THE POLISH ACADEMY OF SCIENCES MUSEUM OF THE EARTH IN WARSAW 77

Ross A.J. – THE REMARKABLE PALAEODIVERSITY IN BURMESE (MYANMAR) AMBER (MID-CRETACEOUS) – UPDATED 79

Santos D. – "OUR GRAVES HAVE MORE LIFE": FOSSIL TIPULOMORPHA FROM THE CRATO FORMATION OF NE BRAZIL 81

Seyfullah L.J. et al. – A NEW GROUP OF AMBER SOURCE PLANTS FROM THE CRETACEOUS 83

Słomczyński K., Soszyńska A. – GLITTER IN AMBER – LONG-LEGGED FLIES (DOLICHOPODIDAE) IN BALTIC AMBER 85

Šmídová L. – COCKROACH FAUNA FROM MID-CRETACEOUS KACHIN AMBER: STATE OF THE KNOWLEDGE 87

Solórzano-Kraemer M.M. et al. – "NECROPHAGOUS TRAP" – A CASE STUDY ON CRETACEOUS AMBER WITH LIZARD HOLOTYPE *OCULUDENTAVIS NAGA* 89

Sontag E., Szwedo J. – MUSEUM OF AMBER INCLUSIONS UNIVERSITY OF GDAŃSK – DISCOVERIES AND POTENTIAL 91

Soszyńska A. et al. – EXTINCT PARASITE OF EXTINCT SCORPIONFLY - SYNCHROTRON MICROTOMOGRAPHY HELPED TO UNCOVER A HIDDEN STORY 93

Szawaryn K., Bukejs A. – X-RAY MICRO-COMPUTED TOMOGRAPHY REVEALS HIDDEN PALEODIVERSITY OF MINUTE HOODED BEETLES (COLEOPTERA: CORYLOPHIDAE) IN EOCENE BALTIC AMBER 95

Szawaryn K., Tomaszewska W. – MICRO-CT SCANNING REVEALED A NEW COCCINELLIDAE REPRESENTATIVE FROM BALTIC AMBER, A PUTATIVE COMMON ANCESTOR OF TWO EXTANT TRIBES 97

Szpila K. et al. – THE FIRST FOSSIL LARVA OF MECOPTERA (INSECTA) - DISCOVERED IN BALTIC AMBER 99

Szwedo J. – MIOCENE FOSSIL RESINS - WHAT THEY CAN SAY ON MODERN-DAY CLIMATIC CRISIS 101

Szwedo J., Bojarski B. – DAMSEL BUG FROM EOCENE LUBLIN AMBER, MAY BE NOT SUCH A DAMSEL 103

Szwedo J. et al. – FIRST SPILAPTERIDAE (PALAEODICTYOPTERA) FROM NAMURIAN B OF BIELSZOWICE COAL MINE, UPPER SILESIA 105

Tischer M. et al. – PALAEOGENE AMBERS AS SOURCE OF FOSSIL ASCOMYCETES: RECENT DISCOVERIES AND PERSPECTIVES 107

Vilhelmsen L. et al. – ECHOES FROM THE CRETACEOUS: NEW FOSSILS SHED LIGHT ON THE EVOLUTION OF HOST DETECTION AND CONCEALED OVIPOSITOR APPARATUS IN THE PARASITOID WASP SUPERFAMILY ORUSSOIDEA (HYMENOPTERA) 109

Zakrzewska M. et al. – THE LIMONIIDAE OF EOCENE LUBLIN AMBER 111

TYPES OF FOSSIL SPECIES IN MAI UG COLLECTION [MAIG] 113

Fossil Record in Resins and Sediments

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Gdańsk, Poland

ABSTRACTS



EXPLORING THE FOSSIL RESINS TAPHONOMY – PIDDOCKS INCLUSIONS AND ICHNOFOSSILS

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Keywords: Teredolites, Pholadoidea, ichnology, taphocoenosis, new taxa

This study focuses on fossil resins and their significance in understanding past ecosystems. Inclusions of piddocks from the Pholadidae family (Bivalvia, Pholadoidea) preserved in Miocene Chiapas amber[1] and borings preserved in Baltic amber serve as the model fossils of future reconstructions of the fossil resins taphonomy model. Piddocks, well-known for their ability to drill into various substrates, leave behind distinctive borings, known as ichnofossils[2,3]. This research not only sheds light on the piddocks preserved within the substrates they excavated but also expands our knowledge by including ichnogenus *Teredolites*.

A single piece of Chiapas amber from the Simojovel region was examined, revealing the presence of two bivalve specimens resembling pholadids. Among them, the larger and better-preserved specimen bears characteristics of a potential new genus and species. Additionally, the smaller specimen was identified as a new species belonging to the *Martesia* genus. Type of preservation of these fossils in lower Miocene fossil resin, providing significant taphonomical information about the origin of the Chiapas amber deposit alongside the basis for the palaeoecological reconstructions[1].

Moreover, this research considers numerous ichnofossils preserved in Baltic amber. Within this fossil resin, the ichnogenus *Teredolites* and its ichnospecies were discovered. *Teredolites* characterized by its distinctive borings, and behaviours of this wood-boring organism, provides insights into the distribution of Eocene fossil resins within their sedimentary basin. The study presents a combined examination of ichnofossils and inclusions, including their morphology, distribution patterns, and potential palaeoecological implications. Through this analysis, we propose brief reconstruction models of paleoenvironments and taphocoenosis of the various sedimentation basins.

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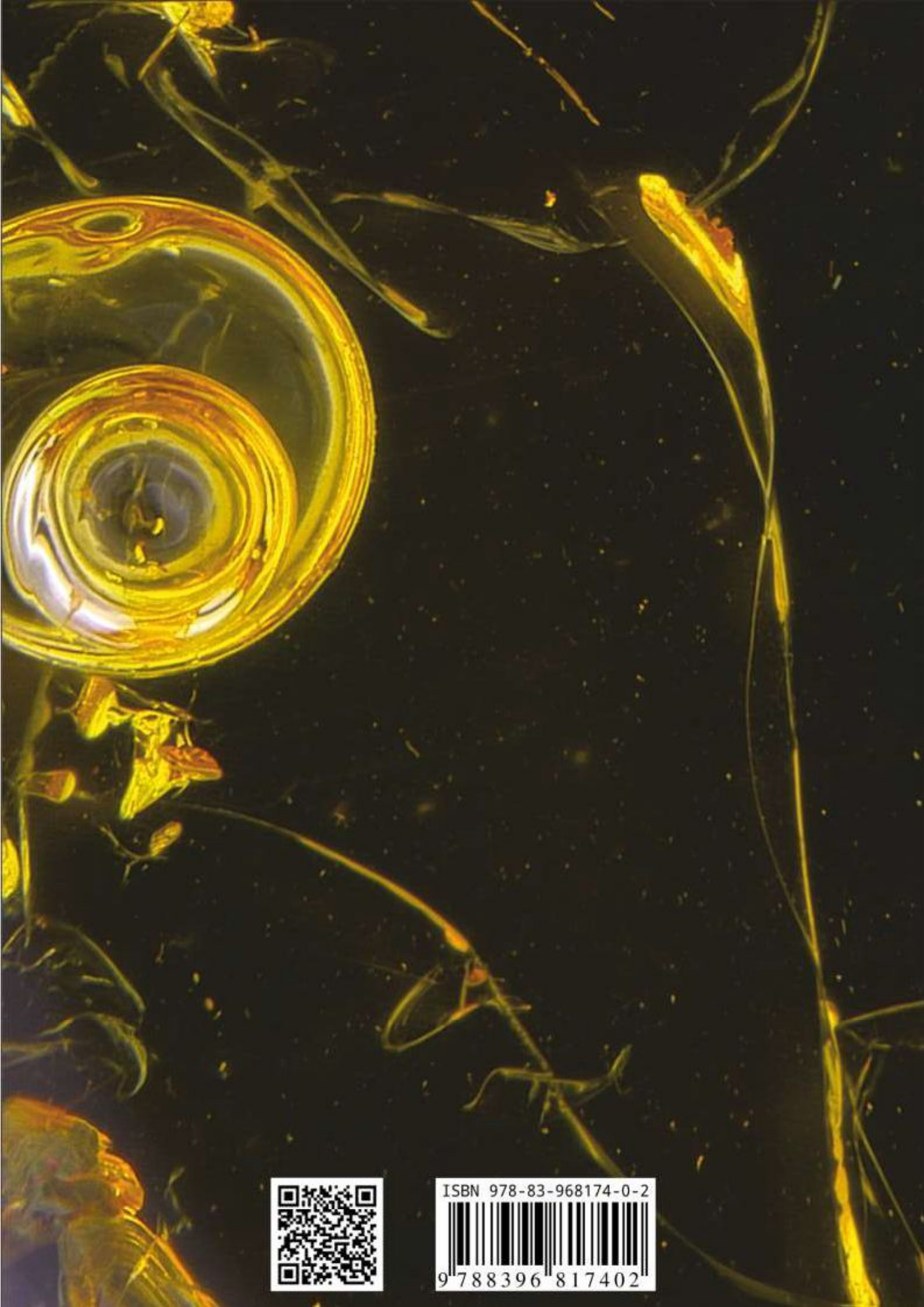
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NOTES





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