

#### 11<sup>TH</sup> INTERNATIONAL CRETACEOUS SYMPOSIUM Warsaw, Poland, 2022

#### Abstract Volume

John W.M. Jagt and Elena Jagt-Yazykova, Ireneusz Walaszczyk and Anna Żylińska

Warsaw, 2022

#### 11<sup>th</sup> International Cretaceous Symposium

#### Warsaw, Poland, 2022

**Address**: Faculty of Geology, University of Warsaw, Żwirki i Wigury 93, 02-089 Warszawa, Poland

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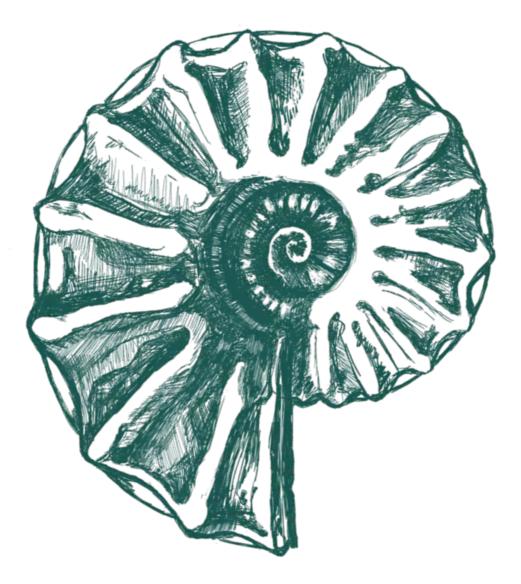
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#### INTRODUCTION

#### 11<sup>th</sup> International Cretaceous Symposium

#### Warsaw, 22-26 August 2022

We cordially welcome you to the 11th International Cretaceous Symposium, which is held in the historical buildings of the University of Warsaw, in the center of Warsaw.

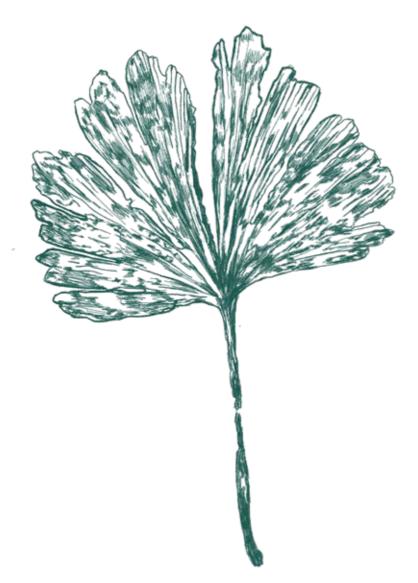
About 170 scientists from across the world registered for this Symposium, with a diverse program of oral and poster presentations, formal and informal meetings, and workshops. A range of field excursions through Poland is offered, and we hope that you will enjoy the variable aspects of the Cretaceous System exposed in the Polish Uplands, Sudetes Mountains, and Carpathians.

During the Opening Ceremony, we will celebrate the scientific life of William James Kennedy, our colleague, friend, teacher, and an enormous figure in studies of Cretaceous ammonites.

The 11th International Cretaceous Symposium was originally planned to occur in 2021, as decided during the final session of the 2017 Vienna Symposium. Due to the COVID-19 pandemic, it was postponed to 2022. The ongoing war in Ukraine has contributed further difficulties, and in light of these crises we are even more happy to see so many of you, both in-person and remotely.

This Symposium would have not been possible without the financial and logistic help of the University of Warsaw. We would like to express our warmest thanks to the Rector and, additionally, several other people from the University (in particular, from the Faculty of Geology of the University of Warsaw) for constant support and assistance.

The warmest thanks go the Ministry of Science and Education for financial support through a project financed in the frame of the program 'Doskonała Nauka'' for the year 2022.



Our cordial thanks also go to the authorities of the co-organizing institutions for their help and financial support: these include the Polish Geological Institute, Institute of Palaeobiology of the Polish Academy of Sciences, Institute of Geological Sciences of the Polish Academy of Sciences, Jagiellonian University in Krakow, AGH Mining Academy in Krakow, University of Opole, and University of Wrocław.

The symposium benefited greatly from the help of various people and organisations. We particularly would like to thank Maria Rose Petrizzo, Università degli Studi di Milano, who was always ready to join us throughout the organizational process; William James Kennedy, who prepared a series of posters on the giants of Cretaceous geology to celebrate the 200th Anniversary of the Cretaceous System; Agnieszka Bul, Magdalena Bieniawska, and Sylwia Niedżwiedzka from the Financial Department of the Faculty of Geology of the University of Warsaw, for financial advice and supervision; Aleksandra Szmielew and Łucja Stachurska, for their careful work editing the Field Trip Guide and Abstract Volumes; our printer, Mieczyslaw Pohl of Gimpo-Print, Warsaw, who endured constantly shifting deadlines; and our students Oliwia Czarnecka, Katarzyna Grygorczyk, Agnieszka Pałczyńska, Bartlomiej Szefner, Dorota Szwoch, and Jakub Zalewski, for joining us in the organization of the event. During the organization of the field trips, a number of regional institutions and authorities offered their help and support. We are particularly grateful to Hieronim Zonik, the mayor of Siedliszcze, Piotr Kondraciuk, head of the Nadwiślańskie Museum at Kazimierz Dolny, Joanna Szkuat, head of the Natural History Museum (a branch of the Nadwiślańskie Museum), and Magdalena Wójcik, the head of the Mełgiew commune, for their help and assistance during preparations for the K-Pg excursion.

We wish you all a fruitful and exciting event and, once again, thank you for joining us for what promises to be a fruitful week of scientific discussion and inquiry.

With kind regards, on behalf of the organizers

Ireneusz Walaszczyk, Jacek Grabowski, Agata Jurkowska, Piotr Krzywiec, Marcin Machalski, Zbigniew Remin, Jordan P. Todes, Alfred Uchman and Jurand Wojewoda

#### COMMITTEES

#### **Scientific Committe**

Beatriz Aguirre-Urreta	Argentina
Xi Chen	China
James Crampton	New Zealand
Andy Gale	UK
Bruno Granier	France
Brian Huber	USA
Christian Huebscher	Germany
John Jagt	Netherlands
lan Jarvis	UK
Jim Kennedy	UK
Ashu Khosla	India
Martin Košťák	Czech Republic
Eduardo Koutsoukos	Portugal
Neil Landman	USA
Jozef Michalik	Slovakia
Amruta Paranjape	India
Maria Rose Petrizzo	Italy
Guy Plint	Canada
Stephane Reboulet	France
Brad Sageman	USA
Ottilia Szives	Hungary
Reishi Takashima	Japan
Nicolas Thibault	Denmark
Silke Voigt	Germany
Michael Wagreich	Austria
Markus Wilmsen	Germany

#### COMMITTEES

#### **Organizing Committe**

0	
Ireneusz Walaszczyk (Chair)	Poland
Marcin Barski	Poland
Marta Bąk	Poland
Krzysztof Bąk	Poland
Alina Chrząstek	Poland
Zofia Dubicka	Poland
Jacek Grabowski	Poland
Adam Halamski	Poland
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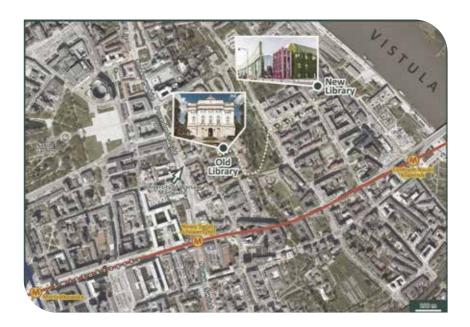


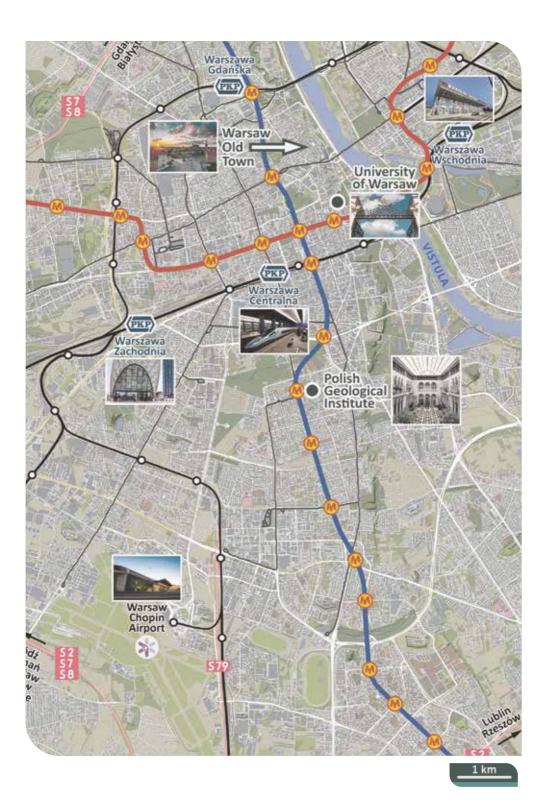


The University of Warsaw Old Library ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa



The University of Warsaw New Library Dobra 56/66, 00-312 Warszawa, Polska]













#### The University of Warsaw, Old Library

ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa

This is an iconic building of the University of Warsaw: initially built in 1894, at the beginning of the 21st century it was fully renovated into a modern lecture and conference centre. [During World War II, Czesław Miłosz, the 1980 Nobel laureate in Literature, worked here as a janitor.] We will meet here for the Opening Ceremony.

The majority of the symposium will be hosted here.

#### The University of Warsaw, New Library

#### Dobra 56/66, 00-312 Warszawa, Polska

The new University of Warsaw Library is a building of surprising diversity, fusing the functionality of a modern library with the atmosphere of an old town.

The interior of the building is stunning, centered around a three-story monumental 'Passage' leading to the library itself, and open spaces connecting reading halls, resting places, and the books themselves.

The roof of the library hosts one of the largest, most beautiful rooftop gardens in Europe, and is an attractive resting place for students and tourists alike. From the roof, visitors can admire both the Varsovian skyline and the Vistula River.

#### EuropeanCenter for Geological Education in Chęciny (ECEG)

ECEG is the University of Warsaw's geologic field center, built within an abandoned Devonian dolomite quarry in the medieval town of Checiny, in the heart of the Gòry Świętokrzyskie (the Holy Cross Mountains). With state-ofthe-art geological laboratories, lecture rooms, hotel accommodations, and all of the other facilities that may be useful for comfortable field work, it is a perfect place to carry out student field camps and geologic research.

#### **SCIENTIFIC SESSIONS**



As listed below, the scientific sessions of the Symposium encompass a broad variety of topics linked to the Cretaceous, including – but not limited to – the history of the Cretaceous System, palaeontology and palaeobiology, palaeobiogeography, palaeoenvironments, stratigraphy, geophysics and geodynamics, regional geology, and mineral resources.

#### **S1**

#### 200<sup>th</sup> Anniversary of the Cretaceous System

Maria Rose Petrizzo, Irenuesz Walaszczyk

#### **S**2

Global Boundary Stratotype Sections and Points (GSSPs) of the Cretaceous System

Maria Rose Petrizzo

#### **S**3

Cretaceous geochemistry and global change: open session

Jordan Todes Silke Voigt

#### **S4**

#### Cretaceous chemostratigraphy

Jordan Todes Silke Voigt

#### S5

Cretaceous geochronology, timescales, astrochronology and cyclostratigraphy

Andy Gale Brad Singer

#### **S6**

Cretaceous invertebrate palaeontology: open session

Martin Košťák Frank Wiese

#### **S7**

#### Cephalopod palaeobiology and stratigraphy

Marcin Machalski Markus Wilmsen

#### **S8**

Lower Cretaceous ammonites (Kilian Group meeting)

Ottilia Szives

#### **S**9

Cretaceous vertebrates: open session

Ashu Khosla

#### **S10**

#### Cretaceous micropalaeontology

Bruno Granier Danuta Peryt

#### **S11**

#### Cretaceous palynology

Mariusz Niechwedowicz

#### **S12**

#### Palaeobotany and terrestrial palaeoenvironments

Adam Halamski

#### S13

#### Cretaceous Fossil– Lagerstätten

Marcin Machalski Markus Wilmsen

#### **S14**

#### Cretaceous– Paleogene boundary and events

John Jagt Marcin Machalski

#### **S15**

In memory of Professor Lamolda: Biostratigraphy and environmental change in the Cretaceous

Mihaela Melinte Florentin Maurrasse

#### **S16**

Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography

Brian Huber Maria Rose Petrizzo

#### **S17**

Cretaceous marine and non–marine plankton

Jakub Witkowski

#### **S18**

#### Cretaceous tectonics and syn-tectonic sedimentation

Piotr Krzywiec Zbyszek Remin

#### **S19**

Cretaceous regional geology:

Piotr Krzywiec Zbyszek Remin

#### **S20**

Geodynamics of the Cretaceous basins and sedimentary record

Jurand Wojewoda

#### S21

Cretaceous Geoparks and World Heritage

Ireneusz Walaszczyk

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11:00–13:00 [S8] Lower Cretaceous ammonites (Kilian Group meeting) [University Old Library, Room 105]	n Group meeting) [University Old Library, Room 106]
Josep Anton Moreno-Bedmar* and Ricardo Barragán - Aptian ammonite biozonation for the Central Atlantic Province	for the Central Atlantic Province
Ottilia Szives* and István Főzy – Towards an ammonite zonation for the Jurassic/Cretaceous transition: new data from the Ammonitico Rosso/Biancone sections in the	ceous transition: new data from the Ammonitico Rosso/Biancone sections in the
Iransdanubian Range (Hungary)	
Ottilia Szives*, Jean-Louis Latil, Josep Anton Moreno-Bedmar, Jens Lehmann, Emmanuel Robert and Hugh G. Owen – Critical revision of Aptian–Albian zones in the standard Mediterraneon ammonite zonal scheme: new proposals and correlation possibilities.	uel Robert and Hugh G. Owen – Critical revision of Aptian–Albian zones in the shifthies
היה היה הווה היה היה היה היה היה היה היה	
15:00–20:00 REGISTRATION [University Old Library entrance hall]	/ersity Old Library entrance hall]
Monday 22 <sup>nd</sup> of August	d of August
7:00–9:30 REGISTRATION [University Old Library entrance hall]	srsity Old Library entrance hall]
9:30–10:40 OPENING SESSION [University Old Library Auditorium]	niversity Old Library Auditorium]
9:30–9:45 Welcoming speech and introductory remarks	h and introductory remarks
9:45–10:10 Andrew S. Gale – The 200-year history of the Cretaceous – 1822–2022	rr history of the Cretaceous – 1822–2022
10:10–10:40 Malcom Hart – 200 Years of the Cretaceous System: A personal viewpoint [online]	etaceous System: A personal viewpoint [online]
10:40–11:20 COFFEE BREAK AND POSTERS	REAK AND POSTERS
11:20-12:00 RECOGNITION CEREMONY FOR WILLIAM JAMES 'JIM' KENNEDY [University Old Library Auditorium]	MES 'JIM' KENNEDY [University Old Library Auditorium]
12:00–12:40 PARALLEL SESSIONS	ALLEL SESSIONS
Auditorium	Room 116
S16 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography Chairpersons: Brian Huber and Maria Rose Petrizzo	57 Cephalopod palaeobiology and stratigraphy Chairpersons: Marcin Machalski and Markus Wilmsen
	12:00–12:20 Marcin Machalski* – Growth pattern and mode of life of the Maastrichtian scaphitid Hoploscaphites constrictus: potential lessons for
	ammonoid palaeobioloav

#### **COMPLETE PROGRAM OF THE SYMPOSIUM**

12:00–12:40 Brian T. Huber*, Kenneth G. MacLeod, Maria Rose Petrizzo and David Watkins – Albian–Cenomanian prelude to the hot Cretaceous greenhouse climate at southern high latitudes	12:20–12:40 Ottilia Szives*, Jean-Louis Latil, Josep Anton Moreno-Bedmar, Jens Lehmann, Emmanuel Robert and Hugh G. Owen – <i>Critical revision of Aptian–Albian zones in the standard Mediterranean ammonite zonal scheme: new proposals and correlation possibilities</i>
12:40-14:00 LUNCH	0 LUNCH
14:00–15:40 PARALLEL SESSIONS	ALLEL SESSIONS
Auditorium	Room 116
516 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography Chairpersons: Brian Huber and Maria Rose Petrizzo	57 Cephalopod palaeobiology and stratigraphy Chairpersons: Marcin Machalski and Markus Wilmsen
14:00–14:20 Takashi Hasegawa*, Akiko S. Goto, Hiromichi Komiya, Yusuke Takagi, Toshiyuki Matsuta and Tsukiko Takahashi – <i>Mid-Cretaceous climatic perturbation in</i> <i>the southern high latitude ocean: drastic warming and cooling across the OAEs and</i> <i>the mid-Cenomanian event</i>	14:00–14:20 Stijn Goolaerts* and Bernard Mottequin – A digital cephalopod world: mkcro-CT imaging in the study of Cretaceous Cephalopoda
14:20–14:40 Maria Rose Petrizzo*, Kenneth G. MacLeod, David K. Watkins, Erik Wolfgring and Brian T. Huber – Late Cretaceous palaeoceanographical changes and onset of Santonian cooling revealed by planktic foraminifera and stable isotopes at southern high latitudes	14:20–14:40 Christina Ifrim*, Wolfgang Stinnesbeck, Arturo H. González González, Nils Schorndorf and Andrew S. Gale – <i>The world's largest ammonite</i> , Parapuzosia (P.) seppenradensis: <i>its ontogeny, evolution and palaeogeographical distribution</i>
14:40–15:00 Erik Wolfgring*, Maria Rose Petrizzo, Kenneth G. MacLeod, Brian T. Huber and David K. Watkins – Changes in benthic forominiferal assembloges during the onset of Late Cretaceous cooling in the Santonian, IODP site U1513 (Indian Ocean)	14:40–15:00 Izabela Ploch*, Marcin Barski, Stan Duxbury and Jim Fenton– Palaeoenvironmental and palaeogeographic implications of the Valanginian in the Polish Basin based on ammonites and dinoflagellate cysts
15:00–15:20 Agata Jurkowska* and Ewa Świerczewska-Gładysz – Upper Cretaceous opoka as a record of the silica cycle in the epicontinental European Basin	15:00–15:20 Mikel A. López-Horgue* and Hugh G. Owen – Mortoniceratinae (Cretaceous Ammonitina) from the Basque-Cantabrian basin (BCB, Western Pyrenees): a key to understanding Upper Albian biostratigraphy
15:20–15:40 Ana Fociro* and Afat Serjani – Upper Cretaceous phosphorites of the Ionian Zone (Albania) as part of the Mediterranean (Tethyan) phosphogenic province [online]	15:20–15:40 Neil H. Landman*, Matthew P. Garb, Corinne E. Myers, James D. Witts, Nicolas Thibault, Jone Naujokaityte, Kirk J. Cochran, Ekateryna Larina, Remy Rovelli, Kayla Irizarry, Natalie Dastas, Chris Lowery, Ana Raskova, George Phillips and Robert DePalma – Ammonites at Cretaceous–Paleogene sections in North America [online]

## 16:00–17:20 PARALLEL SESSIONS

## 15:40-16:00 COFFEE BREAK AND POSTERS

Auditorium	Room 116
S16 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography	S7 Cephalopod palaeobiology and stratigraphy
Chairpersons: Brian Huber and Maria Rose Petrizzo	Chairpersons: Marcin Machalski and Markus Wilmsen
16:00–16:20 Francesca Falzoni* and Maria Rose Petrizzo – Evidence for changes in	16:00–16:20 Martin Košták*, Frank Wiese, Zuzana Kozlová, Martin Souček and
sea-surface circulation patterns and ~20° equatorward expansion of the Boreal	Adam Culka – A specimen of Prionocyclus germari (Reuss, 1845) from the Upper
bioprovince during a cold snap of Oceanic Anoxic Event 2 (Late Cretaceous)	Turonian of the Bohemian Cretaceous Basin (Czech Republic) with jaws preserved
16:20–16:40 Alfred Uchman* and Francisco J. Rodríguez-Tovar – Ichnological	16:20–16:40 Ondřej Kohout*, Martin Košťák and Frank Wiese – A possibly new and endemic ammonite coecies from the Lower Turonian of the Bohemian Cretoreous
aspects of some Late Cretaceous events	Basin (Czech Republic)
16:40–17:00 Bodil W. Lauridsen*, Emma Sheldon, Stefanie Lode, Kresten	16:40-17:00 Luciana S. Marin, Verónica V. Vennari, Marina A. Lescano and Beatriz
Anderskouv and Jon Ineson – A new view of the Munk Mari Bed – palaeoecological	Aguirre-Urreta* – First record of Bochianites neocomiensis (Ammonoideo) from
study of a condensed section (Upper Hauterivian to Lower Barremian) in the Danish	Argentina and associated calcareous nannofossil bioevents: strengthening the Early
Central Graben	Valanginian correlation of the Andes with the Mediterranean Tethys
17:00–17:20 Uroš Barudžija – Upper Albian carbonate facies and diagenesis in the Western Istrian Anticline (WIA), Croatia [online]	17:00–17:20 Zbyszek Remin – Tracking abnormalities in the cephalopod fossil record: on the origin of the Late Cretaceous belemnite Fusiteuthis polonica and its relationship with other diversified cephalopods
FROM 18:30 ICE-BREAKER PARTY [GARDENS of the UNIVERSITY NEW LIBRARY]	DENS of the UNIVERSITY NEW LIBRARY]
Tuesday 23 <sup>rd</sup> of August	d of August
9:00-10:40 PARALLEL SESSIONS	ALLEL SESSIONS
Auditorium	Room 116
S16 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography	S9 Cretaceous vertebrates
Chairpersons: Brian Huber and Maria Rose Petrizzo	Chairperson: Ashu Khosla
9:00-9:20 Kenneth G. MacLeod*, Louie Lovelace, Matthew M. Jones, Erik	
Wolfgring, Sierra V. Petersen, Brian T. Huber and Maria Rose Petrizzo – An	9:00–9:20 Ashu Khosla – Cretaceous dinosaurs from India and their
estuarine explanation for consistently low axygen isotopic values in inoceramid	palaeobiogeographical implications
pivalves at IODF site 01212 (Great Australian bight)	

9:20–9:40 Jongyun Jung\* and Min Huh – The pterosaur track assemblage in the Hwasun Seoyuri tracksite of Korea: diversity of pterosaurian ichnofossils of the Korean Peninsula

9:20–9:40 Wolf Dummann\*, Peter Hofmann, Jens Olaf Herrle, Martin Frank and Thomas Wagner – Cretaceous peak worming coused by the early opening of the

Equatorial Atlantic Gateway

9:40–10:00 Barbora Krizova*, Lorenzo Consorti, Giorgio Tunis, Lorenzo Bonini, Marco Franceschi, Sahara Cardelli and Gianluca Frijia – <i>High-resolution</i> <i>palaeotemperature reconstructions for Cenomanian–Coniacian shallow–water</i> <i>carbonates of the Friuli carbonate platform</i>	9:40–10:00 Nicholas R. Longrich – Oceanic dispersal of Cretaceous dinosaurs and Paleogene mammals
10:00–10:20 Damian Gerard Lodowski*, Jacek Grabowski, Stéphane Reboulet, Mathieu Martinez, Emanuela Mattioli, Andrzej Chmielewski and Jolanta Iwańczuk – Late Berriasian–Early Valanginian palaeoenvironment in the Vergol section (Vocontian Basin, south-east France): evidence from magnetic susceptibility, portable XRF and gamma-ray spectroscopy	10:00–10:20 Justyna Słowiak-Morkovina*, Tomasz Szczygielski, Michał Surowski and Krzysztof Owocki – <i>How does the bone microstructure of</i> Tarbosaurus bataar <i>compare to that of</i> Tyrannosaurus rex ( <i>Theropoda, Tyrannosauridae</i> )?
10:20–10:40 Felipe Gil-Bernal*, Juan Josué Enciso-Cárdenas, Fernando Núñez- Useche, Genaro de la Rosa Rodríguez and Julián I. Mesa-Rojas – <i>The Eagle Ford</i> Formation in north-east Mexico: facies and gamma-ray correlation [online]	10:20–10:40 Nicholas R. Longrich*, Nour-Eddine Jalil, Fatima Khaldoune, Oussama Khadiri Yazami, Xabier Pereda-Suberbiola and Nathalie Bardet – A giant carnivorous mosasaurid (Squamata) from the Upper Maastrichtian phosphates of Morocco
10:40–11:20 COFFEE BREAK AND POSTERS	REAK AND POSTERS
11:20–12:40 PARALLEL SESSIONS	ALLEL SESSIONS
Auditorium	Room 116
S16 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography Chairpersons: Brian Huber and Maria Rose Petrizzo	59 Cretaceous vertebrates Chairperson: Ashu Khosla
11:20–11:40 Ulrich Heimhofer*, Hitoshi Hasegawa, Niiden Ichinnorov, Sascha	11:20–11:40 Rute Coimbra*, Miguel Moreno-Azanza, José Manuel Gasca and
rioger, sebastian steinig, taura zieger and fait Littke – Early cretoceous ingrites from inner-continental Asia as a palaeoclimate archive	Aarian immennauser – Geocnemical signature of Cretaceous amosaur eggsneus: fingerprints of time and/or place? [online]
	<b>S21 Cretaceous Geoparks and World Heritage</b> Chairperson: Ireneusz Walaszczyk
11:40–12:00 weronika wierny", Maciej Bojanowski, Nicolas i nipault and 201a Dubicka – Foraminiferal record of the Mid-Maastrichtian Event (MME)	11:40–12:00 Min Huh*, Yeon Woo, Jongyun Jung, Seongbong Seo, Hyemin Jo and Minguk Kim – <i>The Mudeungsan UNESCO Global Geopark in the Republic of Korea:</i> academic values
12:00–12:20 Jakub Kotowski*, Danuta Olszewska-Nejbert, Krzysztof Nejbert and	S5 Cretaceous geochronology, timescales, astrochronology and cyclostratigraphy Chairpersons: Andy Gale and Brad Singer
Marnie Forster – The provenance of Albian arenites in Southern Poland: CHIME geochronology of detrital monazites and muscovite <sup>40</sup> Ar/ <sup>99</sup> Ar dating	12:00–12:20 Brad S. Singer*, Youjuan Li, Mark D. Schmitz, Brad B. Sageman, Katarina Savatik, David Selby, Reishi Takashima and Brian R. Jicha – <i>Foundation for</i> the next generation of palaeoceanographical and biogeochemical studies: developing a new Lower Cretaceous time scale

12:20–12:40 İsmail Ömer Yılmaz*, Oğuz Mülayim, Bilal Sarı, Kemal Taslı, Sacit Özer and İzzet Hoşgör – Evolution of the Arabian carbonate platform (Aptian– Campanian) in south-east Turkey: responses to palaeoclimate, tectonics and palaeoceanographical changes	
12:40-14:00 LUNCH	0 LUNCH
14:00–15:40 PARALLEL SESSIONS	ALLEL SESSIONS
Auditorium	Room 116
S16 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography Chairpersons: Brian Huber and Maria Rose Petrizzo	S5 Cretaceous geochronology, timescales, astrochronology and cyclostratigraphy Chairpersons: Andy Gale and Brad Singer
14:00–14:20 Giulia Amaglio*, Maria Rose Petrizzo, Wolfgang Kuhnt and Ann Holbourn – Benthic foraminiferal assemblages and palaeoenvironments across the Cenomanian–Turonian boundary interval and the OAE 2 at Clot Chevalier (Vocontian Basin, south-east France)	14:00–14:20 Jiří Laurin*, David Uličný, Dave Waltham, Petr Toman, Michael Warsitzka, Bradley B. Sageman and Petr Kolář – <i>Response of sea level change to</i> orbital eccentricity in a greenhouse climate
14:20–14:40 Lucie Kunstmüllerová* and Martin Košták – Changes in bivalve assemblages at the onset of the OAE 2 event in the Bohemian Cretaceous Basin (Czech Republic): palaeoecological implications	14:20–14:40 Mathieu Martinez*, Beatriz Aguirre-Urreta, Guillaume Dera, Marina Lescano, Julieta Omarini, Maisa Tunik, Luis O'Dogherty, Roque Aguado, Miguel Company and Stéphane Bodin – <i>Synchronising the timing of carbon cycle</i> , volcanism and pacing of the Earth's orbit during the Early Cretaceous
14:40–15:00 Sahara Cardelli*, Barbora Krizova, Lorenzo Consorti, Renato Posenato, Michele Morsilli, Giuseppe Cruciani, Adatte Thierry, Brahimsamba Brahim, Amerigo Corradetti and Gianluca Frijia – <i>The sedimentary and geochemical record of the</i> <i>Oceanic Anoxic Event 2 in the shallow water carbonates of the Friuli Region (NE</i> <i>Italy)</i>	14:40—15:00 Fatima-Zahra Ait-Itto*, Mathieu Martinez, Danny Boué, Jean-François Deconinck and Stéphane Bodin – As <i>trochronology of the Aptian–Albian transition:</i> a case study from the Vocontian Basin, France
15:00–15:20 Andy Davies, David C. Ray, Mike Simmons*, Benjamin Greselle, Frans S.P. van Buchem and Graham Baines – <i>The magnitude and cause of short-term</i> <i>eustatic Cretaceous sea level change</i>	15:00–15:20 Agata Kuźma*, Krzysztof Ninard, Łukasz Weryński, Agata Biala, Julia Dziewońska and Julia Krzyżowska – Late Campanian sea level fall and orbital cycles recorded from the Piotrawin site (Middle Vistula River section, Poland)
15:20–15:40 Michał Cyglicki* and Zbyszek Remin – <i>Hydrodynamics of a</i> depositional environment derived from the rutile-to-tourmaline ratio (RuTi) – a case study from the Campanian Szozdy delta system, south-east Poland	15:20–15:40 Nicolas Randazzo*, Tuoyu Wu, Janok Bhattacharya, Monica Walecki, Katrina Fries, Rachel Nelson, Sang-Tae Kim, Brian Jicha and Bradley Singer – Plausibility of Milankovitch cycles in an ultra-greenhouse world: stratigraphic correlation and sea level reconstruction of the Turonian Western Interior Seaway using tephrochronology and biostratigraphy [online]

## 15:40–16:00 COFFEE BREAK AND POSTERS

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Room 116	S20 Geodynamics of the Cretaceous basins and sedimentary record Chairperson: Jurand Wojewoda	16:00–16:20 Mikel A. López-Horgue*, Arantxa Bodego, Eneko Iriarte, Irantzu Álvarez, Victor H. Pinto and Gianreto Manatschal – Hydrothermal systems in hyperextended rift basins: insights gained from the mid-Cretaceous Basque- Cantabrian Basin (Western Pyrenees, Spain) 16:20–16:40 Jan Woyda*, Anna Waśkowska and Zbyszek Remin – The time of relocation of exotic rocks into flysch deposits of the Skole Nappe in the area of Przemyśi. Polish Outer Carpathians	16:40–17:00 El Hassane Chellai* and Mohamed Aquit – Evidence from XRF scanner-derived elemental records and bulk carbonate stable isotopes: example of the depositional and sea level history of the Tarfaya Atlantic coastal basin, south-west Morocco 17:00–17:20 Zbyszek Remin*, Michał Cyglicki and Mariusz Niechwedowicz – The development of the Szozdy deltaic system – the effect of active Late Cretaceous inversion tectonics of the axial part of the Polish Basin: Roztocze Hills, south-east Poland	17:20–17:40 Amruta Paranjape*, Anand Kale and Kantimati Kulkarni – Sequence stratigraphy of Upper Aption–?Middle Turonian sediments in the Cauvery Basin, Ariyalur area (Tamil Nadu, India) [online]	17:40–19:00 MEETING OF THE VALANGINIAN WORKING GROUP Room 116
Auditorium	S16 Cretaceous palaeoenvironment, palaeoclimate and palaeoceanography Chairpersons: Brian Huber and Maria Rose Petrizzo	<ol> <li>16:00–16:20 Jean-François Deconinck*, Francis Amédro, Serge Ferry, Ludovic Bruneau, Emilia Huret, Ivan Jovovic, Philippe Landrein and Anne Lise Santoni – Stratigraphical revision and palaeoenvironments of the Lower Cretaceous in the south-east of the Paris Basin (France)</li> <li>16:20–16:40 Vanessa Schlidt*, Hans-Michael Seitz, Ulrich Heimhofer, Stefan Huck and Silke Voigt – First record of rudist-derived lithium isotope data across Oceanic Anoxic Event 1a</li> </ol>	16:40–17:00 Andrzej Szydło*, Tomasz Malata and Piotr Nescieruk – Responses of foraminifera to environmental crises during the Cretaceous in the Northern Tethys (Polish Outer Carpathians) 17:00–17:20 Gianluca Frijia*, J. Fietzke, E. Anagnostou, V. Testa, S. Morelli, M. Parente and L. Lusvarghi – <i>interrogating potential short lived episodes of</i> ocean acidification during Oceanic Anoxic Event 2	17:20–17:40 Sandra J. Huber*, Jorit F. Kniest, HMichael Seitz, Jacek Raddatz, Horst R. Marschall and Silke Voigt – A <i>lithium isotope curve based</i> on Upper Campanian–Maastrichtian boreal chalk: evidence of a strong connection between weathering intensity, deep-sea temperature and sea level fall across the Campanian–Maastrichtian Boundary Event	17:40-18:00 Adam Wierzbicki*, Erik Wolfgring, Michael Wagreich, Mariusz Kędzierski and Regina Mertz-Kraus – Astronomically controlled deep-sea life in the Late Cretaceous reconstructed from an ultra-high-resolution bivalve shell archive 18:20-19:00 MEETING OF THE SKS Room 106

Wednesday 24<sup>th</sup> of August

# 9:00–10:00 MARIA ROSE PETRIZZO – PLENARY TALK [University Old Library Auditorium]

## 10:00–10:40 PARALLEL SESSIONS

Auditorium	Room 116
S2 GSSPs	S15 In memory of Professor Lamolda
Chairperson: Maria Rose Petrizzo	Chairpersons: Mihaela Melinte-Dobrinescu and Florentin J-M.R. Maurrasse
Elisabetta Erba, Camille Frau, Gang Li, Mathieu Martinez, Atsushi Matsuoka, Jozef	10:00–10:20 Mihaela Melinte-Dobrinescu*, Xi Chen, Relu-Dumitru Roban, Dragoş
Michalik, Joerg Mutterlose, Gregory Price, Daniela Reháková, Mark D. Schmitz,	Mitrică, Vlad Apotrosoaei and Eliza Anton – Biotic and palaeoenvironmental
Peter Schnabl, Ottilia Szives and Andrzej Wierzbowski – Recent progress in defining	changes in the Albian–Cenomanian boundary interval of the Tethys Ocean
the Tithonian/Berriasian and Jurassic/Cretaceous boundaries	
10:20–10:40 Beatriz Ponce and Christian Salazar* – Poloeontoloov and	10:20–10:40 Florentin J-M.R. Maurrasse*, Yosmel Sanchez-Hernandez, Jose
ion	Llaguno and Carlos Herdocia – Chemostratigraphical characterization of the
	Barremian–Aptian boundary: a proposed chronology based on C-isotope stratigraphy

## 10:40-11:20 COFFEE BREAK AND POSTERS

## 11:20-12:40 PARALLEL SESSIONS

Auditorium	Room 116
S2 GSSPs	S15 In memory of Professor Lamolda
Chairperson: Maria Rose Petrizzo	Chairpersons: Mihaela Melinte-Dobrinescu and Florentin J-M.R. Maurrasse
11:20–11:40 Petr Schnabl*, William A.P. Wimbledon, Camille Frau, Luc Bulot, Daniela Reháková, Andrea Svobodová, Kristýna Čížková, Šímon Kdýr, Tiiu Elbra, Radek Mikuláš, Lada Kouklíková and Petr Pruner – Blostratigraphy and mognetostratigraphy of the Berrios section, France	11:20–11:40 Camilo Ponton* and Florentin J-M.R. Maurrasse – Barremian–Aptian facies diversity around the Tethys realm: global oceanic factors vs local physiographical conditions
11:40–12:00 Ottilia Szives* and István Főzy – Towards an ammonite zonation for the Jurassic/Cretaceous transition: new data from the Ammonitico Rosso/Biancone sections in the Transdanubian Range (Hungary)	11:40-12:00 Iuliana Lazăr*, Ioan I. Bucur, Mihaela Melinte-Dobrinescu, Mihaela Grădinaru and Eugen Grădinaru – Late Valanginian drowning of the Getic carbonate platform (Southern Carpathians) associated with the Weissert Oceanic Anoxic Event
12:00–12:20 William A.P. Wimbledon, Daniela Reháková, Andrea Svobodová, Petr Schnabl*, Petr Pruner, Šimon Kdýr, Camille Frau, Luc Bulot, Alberto Riccardi, Maria	12:00–12:20 Nicté Andrea Gutiérrez-Puente*, Ricardo Barragán, Juan Josué Enciso- Cárdenas, Luis Fernando Camacho-Ortegón, Julián Leonardo Mesa-Rojas and

P. Inglesia Llanos, Diego A. Kietzmann and Rafael López-Martínez – An effective and realistic definition of the base of the Berriasian Stage (J/K boundary)	Fernando Núñez-Useche – Planktic foraminiferal biostratigraphy and palaeoenvironmental inferences for the Upper Cretaceous of the Sabinas Basin, Coahuila (Mexico)
12:20–12:40 Atsushi Matsuoka – Jurassic–Cretaceous transition sequences in East Asia and the Pacific: radiolarian markers around the J/K boundary [online]	12:20–12:40 Carlos Herdocia* and Florentin J-M.R. Maurrasse – Geochemical and biomarker analyses of the Lower Aptian succession in the Basque-Cantabrian Basin, Spain: implications for organic matter sources during OAE 1a
12:40 – 14	12:40 – 14:00 LUNCH
14:00 – 15:40 PA	14:00 – 15:40 PARALLEL SESSIONS
Auditorium	Room 116
S2 GSSPs Chairnarcon: Maria Boca Barrizzo	S15 In memory of Professor Lamolda Chairmercons: Mihaela Mainte-Dobrinescu and Elocentin LM B. Maurrasse
A 4.00 44.00 Berkinssenke Bernerik Éris De Vessel Alfahler Thibardh Tesse	A 4.00 4 4.00 Version I and after the Contract of Contract Provide access
14:00-14:20 Branimsamba Bomou*, Eric De Kaenei, Nicolas i nibault, Jorge Spangenberg and Thierry Adatte - Conjacian-Santonian boundary diachronism: examples from the GSSP of Olazagutia (Spain) and Ten Mile Creek-Arbor Park (USA)	14:00–14:20 Vanessa Londono* and Laurel S. Collins – Paraecenvironmental changes during Oceanic Anoxic Event 2 at the Western North Atlantic IODP site U1407: evidence from geochemical proxies and microfossil abundances
14:20–14:40 Andrew S. Gale – A proposed GSSP for the Campanian Stage	14:20–14:40 Ramona Bålc*, Raluca Bindiu-Haitonic, Szabolcs-Attila Kövecsi, Mihai Ducea, Matyas Vremir, Zoltan Csiki-Sava, Daniel Tabără and Ștefan Vasile – Integrated biostratigraphy of Upper Cretaceous deposits in an exceptional continental vertebrate-bearing marine section (Transylvanian Basin, Romania)
<b>56 Cretaceous invertebrate palaeontology</b> Chairpersons: Martin Košťák and Frank Wiese	14:40–15:00 Fernando Núñez-Useche*, Thierry Adatte, Jorge E. Spangenberg, Juan Josué Enciso-Cárdenas, Julian Mesa-Rojas and Yutzil Sarai Peláez-Godínez –
14:40–15:00 John W.M. Jagt* and Michael R. Cooper – New Late Maastrichtian trigoniid bivalves from the south-east Netherlands	Evidence for oxic conditions and hydrothermal influence during Oceanic Anoxic Event 2 in the Mexican Interior Basin
15:00–15:20 Alina Chrząstek – Trace and body fossils from the controversial 'Lower Idzików Member' (Sudetes, south-west Poland)	15:00–15:20 Dangpeng Xi*, Benjamin Sames and Xiaoqiao Wan – Cretaceous stratigraphy and biota in the Songliao Basin, north-east China
15:20–15:40 Ayaka Ito*, Shin-ichi Sano, Yasuhiro Iba, Peter W. Skeiton, Yolanda M. Aguilar, Roberto S.P. De Ocampo and Tomoki Kase – An enigmatic new taxon from the Philippines suggests that the rudist family Hippuritidae originated in the Pacific Reafm [online]	15:20–15:40 Johanset Orihuela* and Florentin J-M.R. Maurrasse – The Pons Formation of the Infierno Unit in north-western Cuba: its relation to Early Cretaceous anoxic events

15:40–16:00 COFFEE BREAK AND POSTERS

								16:00-18:30 MEETING OF THE BERRIASIAN WORKING GROUP Room 116								
Auditorium	S6 Cretaceous invertebrate palaeontology	Chairpersons: Martin Košták and Frank Wiese	16:00–16:20 John W.M. Jagt* and Mart J.M. Deckers – 'Changing of the guard'	amongst echinoids in the Upper Maastrichtian of the south-east Netherlands:	Echinocorys out, Hemipneustes in	16:20–16:40 Marcin Machalski*, Danuta Olszewska-Nejbert and Markus Wilmsen –	The Albian–Cenomanian (mid-Cretaceous) phosphorite interval in Central Poland: a	stratigraphical and geochemical reappraisal	16:40–17:00 Mohamed Benzaggagh*, Mariusz A. Salamon, Mohamed Oumhamed,	Benjamin Musavu-Moussavou and Bruno Ferré – Albian–Cenomanian faunal	diversity of the El Mizab Formation (Talerhza Basin, north-western Morocco)	17:00–17:20 Dawid Mazurek* and Elena Jagt-Yazykova – Unstable life: the diversity	of Turonian benthos and its strategies – a view from Opole	17:20–17:40 Frank Wiese*, Richard D. Norris and Oliver Friedrich – The response of	terminal Maastrichtian deep-sea echinoids to the Latest Maastrichtian Warming	Event (LMWE) and the K/Pg Boundary Event

## 16:00–18:00 PARALLEL SESSION/BUSINESS MEETING

## FROM 19:30 CONFERENCE DINNER [POLISH GEOLOGICAL INSTITUTE]

### Thursday 25<sup>th</sup> of August

## 9:00-10:40 PARALLEL SESSIONS

Auditorium	Room 116
S18-19 Cretaceous tectonics and syn-tectonic/Cretaceous regional geology	S10 Cretaceous micropalaeontology
Chairpersons: Christian Hübscher and Piotr Krzywiec	Chairpersons: Bruno Granier, Danuta Peryt and Nicolas Thibault
9:00–9:20 Piotr Krzywiec*, Quong Nguyen, Łukasz Słonka, Michał Malinowski,	
Regina Kramarska, Christian Huebscher and Niklas Ahlrichs – Tectonic control on	
Late Cretaceous sedimentation within the southern Baltic Sea, as revealed by	
regional analysis of seismic reflection data	
9:20–9:40 Relu D. Roban*, Mihai N. Ducea, Vlad Mihalcea, Peter I. Luffi, Ioan	
Munteanu, Victor Barbu, Marius Tiliță, Mihai Vlăsceanu and V. Ene – Constraining	
the onset of subduction through sediment provenance changes: the Ceahlău-	
Severin ocean of the Eastern Carpathians	
9:40–10:00 Aleksandra Stachowska* and Piotr Krzywiec – New insight into the	9:40–10:00 German D. Patarroyo*, Karlos G.D. Kochhann, Daiane Ceolin, Rodrigo
depositional architecture of the Unner Cretaceous in northern and central Poland –	M. Guerra, Marlone H.H. Bom, José M. Torres and Laia Alegret – <i>Microfossil</i>
seismic evidence for syntectonic sedimentation and bottom currents	assemblages and palaeoenviromental changes in the Maastrichtian epicontinental
	seas of northern South America
10:00–10:20 Piotr Krzywiec*, Aleksandra Stachowska and Łukasz Grzybowski –	10:00–10:20 Jakub Witkowski*, Wolf Dummann, David Harwood, Megan Heins,
Upper Cretaceous inversion-related contourites within the Polish Basin – their	Jens Herrle, Kevin McCartney and Claudia Schroder-Adams – New records of fossil
seismic expression and geodynamic significance	siliceous phytoplankton from the Cretaceous Arctic: work in progress
10:20–10:40 Vincenzo Randazzo*, Fabrizio Berra, Andrea Zanchi, Stefano	10.30- 0.40 Cemile Solak* and Kemal Tasli - Strationanhical distribution and
Zanchetta, Maria Rose Petrizzo, Felix Schlagintweit and Hamid Reza Javadi – Mode	importance of some imperforate heathic foraminifera from the Unper Campanian
and timing of the Cretaceous transgression in Central Iran: depositional	Maastrichtian of the Tauride carbonate nortform Turkev [online]
environments and stratigraphical evolution [online]	management of the restact carbonet bradonity raises (on the
10.40 11.50 COEFEE DEEAV AND DOCTEDE	DEAV AND DOCTEDS

## 10:40–11:20 COFFEE BREAK AND POSTERS

## 11:20-12:40 PARALLEL SESSIONS

S18-19 Cretaceous tectonics and syn-tectonic/Cretaceous regional geology Chairpersons: Christian Hübscher and Piotr Krzywiec	Im         Room 116           tonic/Cretaceous regional geology         \$10 Cretaceous micropalaeontology           cher and Piotr Krzywiec         Chairpersons: Bruno Granier, Danuta Peryt and Nicolas Thibault
and sequence stratigraphy of the Jurassic-Cretaceous transition in Central Chile	biostratigraphy and palaeoceanography

11:40–12:00 Bruno R.C. Granier – The Kalkowsky Project: a decade of advances in Distribution passemblages our knowledge of calcite ooids, illustrated by Cretaceous examples Synchron Remines Synchro Remines Sync	a attenda and and an analyzana attal alamiti ana at an ana ana
	Distribution pattern and palaeoenvironmental significance of palynomorph
Szozdy (Bost	assemblages from the Middle Campanian (Upper Cretaceous) deltaic succession of
	Szozdy (Roztocze hills, south-east Poland)
12:00–12:20 Khaled Trabelsi, Anna Tamara Mai, Benjamin Sames, Jens O. Herrle [12:00 – 12:20	12:00 – 12:20 Raquel Bryant, R. Mark Leckie*, Serena Dameron, Khalifa Elderbak,
and Frank Wiese* – Biostratigraphical reassessment of the Cuchia Wealden section Christopher M. Lowery, Amanda Parker, Matthew M. Jones, Libby J. Robinson,	r M. Lowery, Amanda Parker, Matthew M. Jones, Libby J. Robinson,
(North Cantabrian Basin, Northern Spain) based on a high-diverse charophyte flora: Bradley B. Sageman and Jessica H. Whiteside – The mid-Cretaceous Western	Sageman and Jessica H. Whiteside – The mid-Cretaceous Western
implications for palaeobiogeography and regional tectono-sedimentary evolution   Interior Seaw	Interior Seaway: ocean gateways and the onset of Oceanic Anoxic Event 2
12:20–12:40 Mayuko Kamimura*, Takashi Hasegawa and Koich Hoyanagi – Carbon- 12:20–12:40 Ludmila Kopaevich*, Elena Yakovishina and Sergej Bordunov –	0 Ludmila Kopaevich*, Elena Yakovishina and Sergej Bordunov –
isotope stratigraphy and preliminary regional correlation of the Jurassic-	Integrative characteristics of the Turonian–Coniacian boundary in the North-
Cretaceous Tetori Group in Central Japan [online] Western Cau	Western Caucasus [online]

### 12:40-14:00 LUNCH

## 14:00–15:40 PARALLEL SESSIONS

Auditorium	Room 116
S3-4 Cretaceous geochemistry and global change and Cretaceous chemostratigraphy Chairpersons: Michael Wagreich, Jordan Todes, Silke Voigt	<b>S10 Cretaceous micropalaeontology</b> Chairpersons: Bruno Granier, Danuta Peryt and Nicolas Thibault
14:00–14:20 Ian Jarvis – Carbon isotope events as the ultimate tool for global correlation and dating: example of the Turonian and Campanian stages	14:00–14:20 Krzysztof Bąk*, Marta Bąk and Zbigniew Górny – No evidence for long- term bottom anoxia during Oceanic Anoxic Event 1d in deep environments of the Western Tethys: a record of benthic foraminiferal assemblages and chemical indices
14:20–14:40 Jordan P. Todes*, Ireneusz Walaszczyk and Bradley B. Sageman – Hiatal and lithostratigraphic implications for Coniacian chemostratigraphy in the Pueblo succession (Colorado, USA)	14:20–14:40 Mike D. Simmons* and M.D. Bidgood – Cenomanian marine biostratigraphy: a critical review
14:40-15:00 Ahmed Mansour and Michael Wagreich* - The last of the Cretaceous anoxic events, OAE 3: Coniacian-Santonian earth system changes [online]	14:40–15:00 Bruno R.C. Granier*, Serge Ferry and Mohamed Benzaggagh – Calpionellid biostratigrophy judged by the yardstick of sedimentology
15:00–15:20 Markus Wilmsen*, Udita Bansal and Philipp Böning – Intense chemical weathering of the continents: a key for widespread shallow-marine glaucony formation during the Late Cretaceous	15:00–15:20 Adam T. Halamski* and Ewa Durska – The hidden diversity of cretaceous angiosperms: smail tricolpate pollen from the Coniacian–Santonian of Lower Silesia, Poland
15:20–15:40 Fernando Núñez-Useche*, Ricardo Barragán, Nicté A. Gutiérrez- Puente, Juan Josué Enciso-Cárdenas, Luis Fernando Camacho-Ortegón and Mario Martínez-Yáñez – Climote and oceanographic conditions associated with the accumulation of organic matter during OAE 1a and OAE 1b in Central Mexico	15:20–15:40 Margarita Latypova*, Ludmila Kopaevich, Eleonora Bugrova and Aleksandr Gusev – Identification of ancient stratigraphical intervals based on studies of foraminiferal tests from clays of the mud volcano Shugo (Taman Peninsula, Russia) [online]

16:00 – 18:00 POSTER SESSION	16:40-19:00 MEETING OF THE CRETACEOUS SUBCOMMISSION Room 106	Friday 26 <sup>th</sup> of August	9:00–11:00 PARALLEL SESSIONS			POSTER SESSION				10:40–11:20 COFFEE BREAK	
16:00 - 18:00 F	POSTER SESSION	Friday 26 <sup>t</sup>		S14 Cretaceous-Paleogene boundary and events	Chairpersons: John Jagt and Marcin Machalski 9:00–9:20 Thierry Adatte*, Marcel Regelous, Eric Font, Jorge E. Spangenberg, Gerta Keller, Uygar Karabeyoglu and Jahnavi Punekar – <i>Timing and tempo of Deccan</i> volcanism relative to the K/Pg extinction revealed by mercury and tellurium anomalies	9:20–9:40 Uygar Karabeyoglu*, Jorge Spangenberg and Thierry Adatte – Faunal and environmental changes across the Cretaceous–Paleogene boundary (K/Pg) in Central Anatolia, Turkey	9:40–10:00 Zbyszek Remin*, Michał Cyglicki, Marcin Barski, Zofia Dubicka and Joanna Roszkowska-Remin – <i>The K/Pg boundary section at Nasiłów, Poland – new</i> data on biostratigraphy and palaeomagnetism	10:00–10:20 Lauren K. O'Connor*, Rhodri M. Jerrett, Gregory D. Price, Bart E. van Dongen, Emily D. Crampton-Flood and Sabine K. Lengger – Extreme warmth and rapid and drastic temperature change in the Canadian Arctic during the latest Cretaceous and earliest Paleogene	10:20–10:40 Marcin Machalski – Burrow-generated pseudobreccia – an Important phenomenon for interpretation of some Cretaceous–Paleogene (K–Pg) successions	10:40-11:20	

12:40-14:00 LUNCH

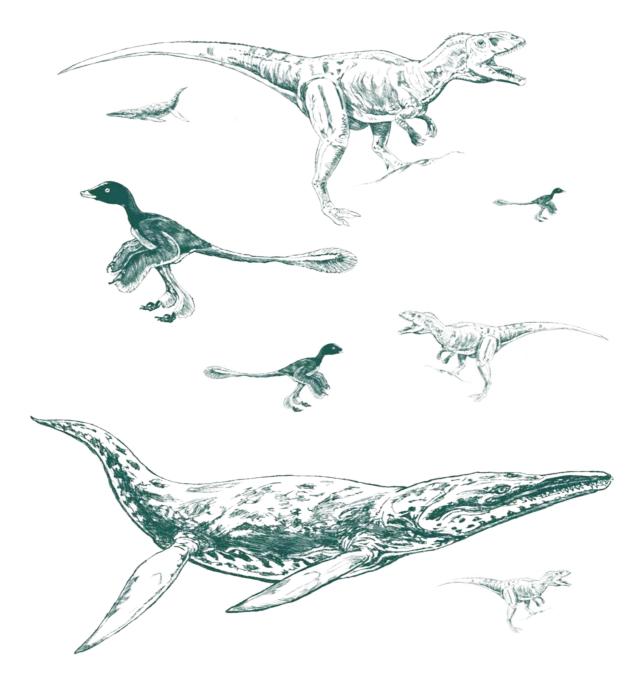
#### Birgit Niebuhr\* and Markus Wilmsen – Large-sized Late Turonian–Early Coniacian (Late Cretaceous) inoceramid bivalves from Germany: Christina Ifrim\* and Wolfgang Stinnesbeck – Ammonoid and inoceramid biostratigraphy and chemostratigraphy of the Tepevac section Petr Schnabl\*, Tilu Elbra, Andrea Svobodová, Daniela Reháková, Miroslav Bubík, Lilian Švábenická, Martin Košták, Petr Skupien, Petr Petr Skupien and Ján Soták – Mercury occurrence in basal and top Cretaceous boundary intervals of Carpathian sedimentary sequences Yasser F. Salama and Gouda I. Abdel-Gawad\* – Barremian to Turonian carbon and oxygen isotope data from the Sinai Platform, Egypt André Bornemann\*, Jochen Erbacher, Martin Blumenberg and Silke Voigt – A new Berriasian to Coniacian composite carbon isotope Šimon Kdýr\*, Volodymyr Bakhmutov, Miroslav Bubik, Tiiu Elbra, Jacek Grabowski, Jozef Michalik, Daniela Reháková, Petr Schnabl, Silviya Petrova, Daniela Reháková, Elisabetta Erba, Jacek Grabowski\* and Helmut Weissert - Revised calpionellid stratigraphy and Michael Wagreich\* and Maria Rose Petrizzo – Strontium isotope stratigraphy around the base of the Campanian (Italy and Austria) Pruner and Simon Kdýr – The Tithonian–Berriasian boundary interval in the Ropice section (Czech Republic) from the perspective of Martin Košťák\*, Daniela Reháková, Lucie Vaňková, Petr Pruner and Andrea Svobodová – A slight carbon perturbation at the J/K Gouda I. Abdel-Gawad\*, Mohamed Fouad Aly and Yasser Salama – Cretaceous trigonlid bivalves from Sinai, Egypt: a review William James Kennedy – The giants of the Cretaceous – The Sowerbys: James (1757–1822) and James de Carle (1787–1871) Markus Wilmsen and William James Kennedy – The giants of the Cretaceous – Hanns Bruno Geinitz (1814–1900) William James Kennedy and Markus Wilmsen – The giants of the Cretaceous – Franz Kossmat (1871–1938) (Coahuila, Mexico), a candidate for associated stratotype section and point for the base of the Campanian William James Kennedy – The giants of the Cretaceous – William Aubrey "Bill" Cobban (1916–2015) William James Kennedy – The giants of the Cretaceous – Alcide Dessolines d'Orbigny (1802-1857) William James Kennedy – The giants of the Cretaceous – Clemens August Schlüter (1835–1906) William James Kennedy – The giants of the Cretaceous – Claud William Wright (1917–2010) William James Kennedy – The giants of the Cretaceous – Albert de Grossouvre (1849–1932) William James Kennedy – The giants of the Cretaceous – Leonard Frank Spath (1882–1957) William James Kennedy – The giants of the Cretaceous – Tatsuro Matsumoto (1913–2009) William James Kennedy – The giants of the Cretaceous – Ferdinand Stoliczka (1838–1874) William James Kennedy – The giants of the Cretaceous – Édouard Guerangér (1801–1895) William James Kennedv – The ajants of the Cretaceous – Léon Pervinguière (1873–1913) William James Kennedy – The giants of the Cretaceous – Maurice Collignon (1893-1978 William James Kennedy – The giants of the Cretaceous – Alphaeas Hyatt (1838–1902) William James Kennedy – The giants of the Cretaceous – Daniel Sharpe (1806–1856) taxonomic issues, temporal framework and palaeoecological implications microfacies of the Torre de' Busi section (Lombardy Basin, J/K boundary) boundary (base of the Albina Subzone) at selected Tethvan localities palaeomagnetism and biostratigraphy record for the Boreal Realm 200th Anniversary of chemostratigraphy the Cretaceous balaeontology nvertebrate Cretaceous Cretaceous System GSSPs R S 3 æ

#### POSTERS

		Adam Wierzbicki*. Michał Stachacz and Klaudiusz Salamon – A possibly new ichnospecies of Rogerella (barnacle bioerosion trace) in a
		mid-Maastrichtian inoceramid shell from Poland
		Camille Frau* and Pierre-Yves Boursicot – Learning from beautiful monsters: the case of 'sex reversals' in the Ammonoidea and their
		agunycunce Jan Geist* and Lucie Vaňková – Geochemical characterization of helemnite rostra from north-west Bohemia (1 Inner Cenomanian) – a
S7	Cephalopod	contribution to the palaeoenvironmental interpretation of a Peri-Tethyan shelf
	palaeobiology	Zuzana Kozlová*, Martin Košťák, Tomáš Kočí, Martin Souček, Jan Sklenář and Adam Culka – Cephalopod jaws from the Bohemian
		Cretaceous Basin – preservation, taxonomy and stratigraphical implications
		Krystyna Waindzoch and Dawid Mazurek* – Pachydiscus neubergicus (Von Hauer, 1858) – important as well as problematic
	Lower Cretaceous	Ricardo Barragán and Josep Anton Moreno-Bedmar* – How problematic is it to develop an ammonite zonation for the lower to middle
S8	ammonites (Kilian	part of the lower Aptian in America?
	Group meeting)	
		Hyemin Jo*, Minguk Kim, Jongyun Jung, Yeon Woo and Min Huh – Overview of Cretaceous dinosaur eggs from South Korea
6S	Cretaceous	Martin Mazuch*, Martin Košťák, Radek Mikuláš, Adam Culka, Ondřej Kohout and John W.M. Jagt – Bite marks of a large vertebrate
	verceptates	predator of mosasaur type (?) on the Early Turonian ammonite Mammites nodosoides from the Czech Republic
		Richard M. Besen*, Mareike Achilles, Mauro Alivernini, Thomas Voigt, Peter Frenzel and Ulrich Struck – Stratigraphy and
		palaeoenvironments in the Upper Turonian to Lower Coniacian of the Saxonian Cretaceous Basin (Germany) – insights from calcareous
		and agglutinated foraminifera
		Vitalii Syniehubka – General characteristics of Cenomanian–Turonian ostracod faunas from Ukraine
		Bat-Erdene Tumurchudur*, Ganbayar Gunchinbat and Bayanmunkh Tumen-Ulzii – Distribution and comparison of Upper Cretaceous
		deposits in the Gobi of Trans-Altai
		Mike D. Simmons* and M.D. Bidgood – Cenomanian marine biostratigraphy: a critical review
S10	Cretaceous	Paula Granero*, Adam Wierzbicki and Michael Wagreich – Morphometrical analysis of Arkhangelskiella cymbiformis – a case study from
	micropalaeontology	the Santonian-Campanian boundary interval in the Eastern Alps (Loibichl, north-west Austria)
		Tamara T. Gavtadze*, Khatuna E. Mikadze and Z.M. Chkhaidze – Micropalaeontological characteristics of Upper Cretaceous deposits in
		sections of eastern Georgia
		Khatuna Mikadze*, Giorgi Tlashadze, Nana Ikoshvili and Anna Katamidze – Biostratigraphy of the Cenomanian- Lower Turonian in the
		Transcaucasian Intermountain Region (Georgia)
		Elżbieta Machaniec, Alfred Uchman* and Marian Adam Gasiński
		– A new late Maastrichtian zone based on benthic agglutinated foraminifera: the Goessella rugose / Remesella varians Zone
		Niiden Ichinnorov*, Adiya Eviikhuu, Sukhbat Purevsuren and Nyamsambuu Odgerel – Palynological stuies of the Tukhum coal deposit,
		eastern Mongolia
S11	Cretaceous	Mariusz Niechwedowicz – New stratigraphically important dinofiagellate cyst species from the Upper Campanian-lowermost
	рагупоюву	
		Veronika Vesela*, Marcela Svobodova and Jiri Kvaćek – Palynological investigation of selected taxa from Cenomanian strata at Hloubětín-Hutě. Praha (Czech Republic)

5		Markus Wilmsen* and Vachik Hairapetian – The Upper Cenomanian Takhte-Sheitan Member (Kolah-Qazi Formation, Esfahan, Central
515	FOSSII-Lagerstatten	Iran): taphonomic processes and ammonites of a classic 'Konzentrat-Lagerstätte'
1 53	Cretaceous/Paleogene	Maisa Tunik*, Beatriz Aguirre-Urreta, Martin Parada and Jahandar Ramezani – Microbial activity around the K/Pg boundary, Neuquén
5T4	boundary and events	basin, Argentina: a response to the mass extinction event?
		Roque Aguado*, Miguel Company, José Manuel Castro, Ginés A. de Gea, Luis O'Dogherty, José Sandoval, María Luisa Quijano, Mastion Agradica: Candro Fondenciad Cristica Control - Construction and coloradia and coloradia and coloradia
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		episoues of environmentor change in soutreast apoint Andrei Briveaa* and Mihaala C. Malinte-Dahrimeen – Shallow, to deen-morine Cretareous natioexcettion in the north-western Block Sea
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		Docho Dochev*, Michael Wagreich, Veronika Koukal and Polina Pavlishina – The Santonian–Campanian boundary interval in the
S15	In memory of	Kyunetsa section, Western Srednogorie Zone (Buigaria)
	Professor Lamoida	Edgar Juárez-Arriaga*, Ricardo Barragán, Fernando Núñez-Useche and Josep A. Moreno-Bedmar – Microfacies and depositional
		environment of the Lower Cretaceous Tlayúa Formation in southern Mexico
		Polina Pavlishina*, Docho Dochev, Michael Wagreich and Veronika Koukal – An integrated study (calcareous nannofossils,
		dinoflagellate cysts, inoceramid bivalves, carban isatopes) of the Campanian in the Petrich section, Central Srednogorie Zone (Bulgaria)
		Danuta Peryt*, Zofia Dubicka and Weronika Wierny – Planktic foraminiferal biostratigraphy of the Upper Cretaceous in the Central
		European Basin
		Marta Bąk*, Krzysztof Bąk, Agnieszka Ciurej and Zbigniew Górny – Will the Cretaceous fossil record help us predict the future of marine
		biota in the face of modern climate change?
		Marta Bąk*, Zbigniew Górny and Krzysztof Bąk – From shallow Peri-Tethyan Platform to deep Silesian Basin – how did biotic micro-
		constituents respond to global sea level and Cretaceous OAE's during the latest Albian through Middle Cenomanian
		Wolf Dummann*, Claudia Schröder-Adams, Peter Hofmann, Volker Wennrich and Jens Olaf Herrle – Was OAE 2 triggered by the
		emplacement of the High-Arctic Large Igneous Province (HALIP)?
	Contractory	Michał Fąfara – Foraminifera in the biostratigraphical and palaeoenvironmental context of the Belgorod chalk
	Lifetdeous antranant	Mariusz Kędzierski and Adam Wierzbicki* – The Mid-Maastrichtian Event recorded in the flysch basin (Outer Carpathians, Skole Nappe,
S16	parabonimum paraboning	Poland)
	palacounnace and	Maria Rose Petrizzo*, David K. Watkins, Kenneth G. MacLeod, Takashi Hasegawa, Brian T. Huber, Sietske J. Batenburg and Tomonori
	baiacoccaiiograpiik	Kato – Exploring the palaeoceanographical changes registered by planktic foraminifera across Oceanic Anoxic Event 2 at 10DP site U1516
		(Mentelle Basin, south-east Indian Ocean)
		Fritz Stoepke*, Ulrich Heimhofer, Julia Gravendyck, Martin Blumenberg, Jochen Erbacher, Annette E. Götz, Roberto Pierau and Robert
		Schöner – Composition and distribution of sedimentary organic matter in the distal Wealden facies (KB Rehburg-2) of the Lower Saxony
		Basin, Germany
		Andrzej Szydło*, Tomasz Malata and Piotr Nescieruk – Changes in foraminiferal assemblages during the Cretaceous/Paleogene
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		Jrom IOUP site ULSIZ (Great Australian Bight) Erik Wolfgring* and Maria Rose Petrizzo – Benthic foraminiferal assemblage changes during Oceanic Anoxic Event 2 in the southern high
		latitudes – IODP site U1516
		Birgit Niebuhr*, Thomas Pürner, Annette E. Götz, Frank Holzförster and Markus Wilmsen – The continental Hessenreuth Formation
		(Danubian Cretaceous Group, Bavaria, Germany): syntectonic deposition during Late Cretaceous inversion
		Birgit Niebuhr* and Markus Wilmsen – The history of transgressions in the Saxonian Cretaceous revisited, or, an imperative for a
		complete stratigraphical reappraisal (Cenomanian, Elbtal Group, Germany)
		Halyna Medvid, Vasyl Harasymchuk, Andriy Poberezhskyy*, Oksana Stupka – Infiuence of geodynamic factor on hydrogeochemical
Cret	Cretaceous regional	indicators of Upper Cretaceous deposits of the Lviv Paleozoic foredeep
6TC	geology	Johan Vellekoop*, Pim Kaskes, Matthias Sinnesael and John W.M. Jagt – An update on the Maastrichtian Geoheritage project
		Markus Wilmsen*, Michaela Berensmeier, Franz Theodor Fürsich, Vachik Hairapetian, Felix Schlagintweit and Mahmoud Reza
		Majidifard – The Cretaceous succession at the eastern rim of the Anarak Metamorphic Complex (Central Iran): integrated stratigraphy
		and facies development at the margin of the Khur Basin
		Markus Wilmsen*, Birgit Niebuhr and William James Kennedy – Middle Cenomanian ammonites from the Oberhäslich Formation (Elbtal
		Group, Germany): their impact on the stratigraphy and palaeogeography of the Saxonian Cretaceous
	Condumnation of the	Alina Chrząstek* and Jurand Wojewoda – Rosselia – a trace fossil indicator of beach-shoreface sedimentary settings in both transgressive
	agriance basing and	and regressive sedimentary sequences of the intra-Sudetic Cretaceous Basin
	codimontany rocard	Marian Munteanu*, Mihaela Melinte-Dobrinescu, Sarolta Lőrincz, Relu-Dumitru Roban and Mihai Ducea – Igneous clasts in the outer
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#### THE SEDIMENTARY AND GEOCHEMICAL RECORD OF THE OCEANIC ANOXIC EVENT 2 IN THE SHALLOW-WATER CARBONATES OF THE FRIULI REGION (NORTH-EAST ITALY)

Sahara Cardelli<sup>1</sup> | Barbora Krizova<sup>1</sup> | Lorenzo Consorti<sup>2</sup> | Renato Posenato<sup>1</sup> | Michele Morsilli<sup>1</sup> | Giuseppe Cruciani<sup>1</sup> | Thierry Adatte<sup>3</sup> | Brahimsamba Bomou<sup>3</sup> | Amerigo Corradetti<sup>4</sup> | Gianluca Frijia<sup>1</sup>

1| Dipartimento di Fisica e Scienza della Terra, Università di Ferrara, Ferrara, Italy; \*crdsrm@unife.it; krzbbr@unife.it; r.posenato@unife.it; mrh@unife.it; g.cruciani@unife.it; frjglc@unife.it

2| Consiglio Nazionale delle Ricerche, ISMAR-CNR, Trieste, Italy; lollo84@ live.it

**3**| Institute of Earth Sciences, University of Lausanne, Lausanne, Switzerland; thierry.adatte@unil.ch; brahimsamba.bomou@unil.ch

4| Dipartimento di Matematica e Geoscienze, Università di Trieste, Trieste, Italy; amerigo.corradetti@units.it

The Cenomanian–Turonian Oceanic Anoxic Event 2 (OAE 2) represents one of the major palaeoclimatic and palaeoceanographical perturbations of the entire Phanerozoic (Gangl et al. 2019). This event has been associated with a widespread occurrence of marine anoxia and deposition of organic-carbon rich sediments (black shales) in oceanic basins and with severe alteration of geochemical cycles. It has been suggested that the potential trigger mechanism of OAE 2 was the emission of large quantities of CO<sub>2</sub> by volcanic activity which stimulated a series of complex geochemical and biotic feedbacks (e.g., Schlanger and Jenkyns 1976; Tsikos et al. 2004; Jarvis et al. 2011). Most of the geochemical, sedimentological and palaeontological data dealing with OAE 2 come from deep-water carbonate successions, whereas the shallow-water counterparts have been much less studied. The few available data, however, suggest that such an anoxic event strongly impacted shallow-water ecosystems as well. In the present work we discuss the results of a detailed facies and petrographic analysis, along with high-resolution geochemical and mineralogical data across OAE 2. The data set is obtained by analysing both bivalve shells (mainly rudists) and bulk rock samples from well-exposed Upper Cenomanian-Lower Turonian sections cropping out in the Friuli region of Italy that belongs to the so-called Adriatic Carbonate Platform (AdCP). These outcrops represent a reliable record of shallow-water carbonates, offering for the first time the opportunity to depict the palaeoenvironmental changes through OAE 2 in the AdCP. Biostratigraphy and carbon-isotope stratigraphy have been used to constrain the OAE 2 interval precisely, whereas other geochemical and mineralogical proxies to evaluate palaeoenvironmental changes before, during and after OAE 2. Preliminary results show several environmental fluctuations which have been recognised both in all the studied successions and in other coeval Tethyan Carbonate Platforms (e.g., Apennine Carbonate Platform). These findings provide important insights into understanding how the severe environmental and oceanographic perturbations caused by OAE 2 affected shallow-water settings, allowing to discriminate local from global processes and their effects.

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#### EVIDENCE FROM XRF SCANNER-DERIVED ELEMENTAL RECORDS AND BULK CARBONATE STABLE ISOTOPES: EXAMPLE OF THE DEPOSITIONAL AND SEA LEVEL HISTORY OF THE TARFAYA ATLANTIC COASTAL BASIN, SOUTH-WEST MOROCCO

#### El Hassane Chellai\* | Mohamed Aquit

P.O. Box 2390, Geology Department, Faculty of Sciences Semlalia, Marrakech University, Morocco; \*chell@uca.ac.ma

The Upper Cretaceous organic-rich successions deposited in the Tarfaya Atlantic coastal basin of south-west Morocco permit to track closely reconstructions of depositional environments at the upper margin of an oceanic oxygen minimum zone impinging on a broad continental shelf. We present high-resolution X-Ray fluorescence (XRF) scanning, bulk carbon and oxygen isotopes and natural gamma-ray (NGR) records from sedimentary cores in the Tarfaya Basin. These cores recovered a sedimentary succession of more than 600 m in thickness. A negative carbon isotope excursion at the Cenomanian-Turonian boundary event corresponds to the onset of the Oceanic Anoxic Event (OAE) 2 and can be related to intense emissions of mantle CO, into the atmosphere. The following positive excursion leads to increased marine productivity and carbon burial; it was accompanied by transient climate cooling. In the Tarfaya succession, five sequences are identifiable in the cores and can be correlated to the global eustatic sequences adopted in the New Jersey Margin and in European shelf basins. The Lower Campanian sequence located within the positive carbon isotope excursion of the Santonian–Campanian Boundary Event, is associated with a long-term cooling trend, expressed in the <sup>18</sup>O record, and with major changes in the amount and composition of terrigenous input. These changes indicate cooler and wetter climate conditions in the source area.