

# Restricted to open-marine Middle Triassic basins of the Dinarides and their radiolarian faunas

---

Goričan, Špela; Kolar-Jurkovšek, Tea; Jurkovšek, Bogdan; Aljinović, Dunja; Troškot-Čorbić, Tamara

Source / Izvornik: **Abstracts book / 36th International Meeting of Sedimentology, 2023, 87 - 87**

Conference paper / Rad u zborniku

Publication status / Verzija rada: **Published version / Objavljena verzija rada (izdavačev PDF)**

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:169:356904>

Rights / Prava: [In copyright](#) / [Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2025-03-02**



Repository / Repozitorij:

[Faculty of Mining, Geology and Petroleum Engineering Repository, University of Zagreb](#)





36<sup>TH</sup>



IAS

DU  
BROV  
NIK

MEETING OF SEDIMENTOLOGY

ABSTRACTS BOOK



12-16 June 2023, DUBROVNIK, CROATIA

**36<sup>th</sup> International Meeting of Sedimentology**  
**June 12–16, 2023, Dubrovnik, Croatia**

# ABSTRACTS BOOK





## Organized by:

Croatian Geological Society (HGD) and International Association of Sedimentologists (IAS)



## Organizing Committee

Lara Wacha, **chair**, *Croatian Geological Survey, Zagreb*  
Katarina Gobo, *University of Zagreb, Faculty of Science*  
Nikolina Ilijanić, *Croatian Geological Survey, Zagreb*  
Tvrtko Korbar, *Croatian Geological Survey, Zagreb*  
Marijan Kovačić, *University of Zagreb, Faculty of Science*  
Duje Kukoč, *Croatian Geological Survey, Zagreb*  
Borna Lužar-Oberiter, *University of Zagreb, Faculty of Science*  
Maja Martinuš, *University of Zagreb, Faculty of Science*  
Slobodan Miko, *Croatian Geological Survey, Zagreb*  
Davor Pavelić, *University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering*  
Kristina Pikelj, *University of Zagreb, Faculty of Science*  
Igor Vlahović, *University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering*

## Scientific Committee

Igor Vlahović, **president**, *University of Zagreb, Croatia*  
Nevena Andrić Tomašević, *Karlsruhe Institute of Technology, Germany*  
Bruno Campo, *University of Bologna, Italy*  
Sonia Campos Soto, *Complutense University of Madrid, Spain*  
Luca Caracciolo, *FAU Erlangen-Nürnberg, Germany*  
Blanka Cvetko Tešović, *University of Zagreb, Croatia*  
Shahin E. Dashtgard, *Simon Fraser University, Canada*  
Andrea Di Capua, *National Research Council – IGAG, Italy*  
Goran Durn, *University of Zagreb, Croatia*  
Gianluca Frijia, *University of Ferrara, Italy*  
Massimiliano Ghinassi, *University of Padova, Italy*  
Luis Gibert Beotas, *University of Barcelona, Spain*  
Bosiljka Glumac, *Smith College, USA*  
Antun Husinec, *St. Lawrence University, USA*  
Stuart Jones, *Durham University, UK*  
Tvrtko Korbar, *Croatian Geological Survey, Croatia*  
Marijan Kovačić, *University of Zagreb, Croatia*  
Juan Carlos Laya, *Texas A&M University, USA*  
Marta Marchegiano, *University of Granada, Spain*  
Cole McCormick, *Pennsylvania State University, USA*  
Mardi McNeil, *Geoscience Australia, Australia*  
Theresa Nohl, *University of Vienna, Austria*  
Shuxin Pan, *PetroChina – NWGI, China*  
Guido Pastore, *University of Milano–Bicocca, Italy*  
Maximiliano Paz, *University of Saskatchewan, Canada*  
Daniel A. Petráš, *Czech Geological Survey, Czech Republic*  
Miquel Poyatos-Moré, *Universitat Autònoma of Barcelona, Spain*  
Joanna Pszonka, *Polish Academy of Sciences – MEERI, Poland*  
John J.G. Reijmer, *Vrije Universiteit Amsterdam, The Netherlands*  
Valentina Marzia Rossi, *National Research Council – IGG, Italy*  
Arnoud Sloopman, *Colorado School of Mines, USA*  
Miroslaw Slowakiewicz, *University of Warsaw, Poland*  
Thomas Steuber, *Khalifa University of Science and Technology, Abu Dhabi, UAE*  
Finn Surlyk, *University of Copenhagen, Denmark*  
Michal Šujan, *Comenius University in Bratislava, Slovakia*  
Romain Vaucher, *University of Geneva, Switzerland*  
Alan Vranjković, *INA Oil Company, Croatia*  
Lara Wacha, *Croatian Geological Survey, Croatia*  
Guodong Wang, *PetroChina, China*  
Pujun Wang, *Jilin University, China*  
Valentin Zuchuat, *RWTH Aachen University, Germany*  
Nadja Zupan Hajna, *Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia*

**Publisher:** Croatian Geological Society (HGD)

**For the publisher:** Slobodan Miko

**Editors:** Igor Vlahović and Darko Matešić

**Language Editor:** Julie Robson (Scotland, United Kingdom)

**Digital layout:** Laser Plus d.o.o

**Cover design:** Ana Badrić

**eISBN:** 978-953-6907-79-3

### Theme 3. Deep-marine carbonate depositional systems

#### General Session

Oral presentation

## Restricted to open-marine Middle Triassic basins of the Dinarides and their radiolarian faunas

Špela Goričan<sup>1</sup>, Tea Kolar-Jurkovšek<sup>2</sup>, Bogdan Jurkovšek<sup>2</sup>, Dunja Aljinović<sup>3</sup>, Tamara Troškot-Čorbić<sup>4</sup>

<sup>1</sup>ZRC SAZU, Ivan Rakovec Institute of Palaeontology, Ljubljana, Slovenia

<sup>2</sup>Geological Survey of Slovenia, Ljubljana, Slovenia

<sup>3</sup>Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Zagreb, Croatia

<sup>4</sup>INA-Industrija nafte d.d., Zagreb, Croatia

[spela.gorican@zrc-sazu.si](mailto:spela.gorican@zrc-sazu.si)

Late Anisian rifting resulted in a complex horst-and-graben paleotopography of the Adriatic continental margin. The most deeply subsided basins (e.g. Budva, Bosnian and Slovenian basins) remained sites of pelagic sedimentation until the latest Cretaceous. Shallower basins formed on structural highs, which were internally differentiated into several fault blocks. These shallow basins were short lived, limited to the interval between the Late Anisian to Ladinian or earliest Carnian, when they were completely filled in so that sedimentation of platform carbonates was again established in a wider area. The High Karst Zone in the External Dinarides preserves two types of sequences from this short pelagic episode. Both are characterized by micritic limestone and chert, generally include pyroclastic rocks (Pietra Verde), and locally contain carbonate breccia and calcarenite. The most obvious difference is the color of the rocks. The successions in the center of the High Karst Zone are dark grey to black due to the presence of organic matter, which may have been related to stratified water column and/or poor open-marine connections in a restricted intra-platform basin. In contrast, the pelagic limestone and chert at the margins of the High Karst swell are light to vivid red, in places greenish or light grey to pink. This latter lithology is comparable with the Buchenstein Formation of the Southern Alps. We investigated radiolarians from several Buchenstein type sections and from one organic-matter-rich section located at Mt. Svilaja in Dalmatia. The radiolarian assemblages of the Buchenstein type sections contain up to 80 genera and include multicyrtyd nassellarians that are generally regarded as deeper-dwelling morphotypes and are also common in the sedimentary cover of Triassic ophiolites. The radiolarian assemblage of Mt. Svilaja consists of only 20 genera. Spumellarians and entactinarians are abundant but nassellarians account for only 5% and are represented exclusively by monocyrtyds. A similar assemblage was described from the San Giorgio Dolomite in the westernmost part of the Southern Alps. Such impoverished assemblages with high predominance of surface-dwelling taxa are apparently characteristic of restricted oxygen-deficient basins that were separated from the open ocean by topographic barriers.