

## 1. TITLE OF CONSTITUENT BODY and NAME OF REPORTER

### Subcommission on Cretaceous Stratigraphy (SCS)

Maria Rose Petrizzo, Chair; Michael Wagreich, Vice-chair; Francesca Falzoni, Secretary

20 November 2020

## 2. OVERALL OBJECTIVES AND FIT WITHIN IUGS SCIENCE POLICY

- To establish a standard global stratigraphic subdivision and nomenclature for the Cretaceous, as part of the ICS standard global stratigraphic scale.
- To produce a stratigraphic table displaying agreed subdivisions to stage and substage level, marking boundaries that are defined by a GSSP.

## 3. ORGANISATION - interface with other international projects / groups

SCS has always been linked to important international Projects such as IODP, IGCP, Mesozoic Planktonic Foraminiferal Working Group, and ICDP (International Continental Scientific Drilling Project).

### 3a. Nominated Officers for 2020-2024:

Chair: Maria Rose Petrizzo; Vice-Chair: Michael Wagreich; Secretary: Francesca Falzoni

Voting Members are 19, from most continents. Over 150 Cretaceous scientists from all over the world and in many different disciplines belong to one or more of the Stage Working Groups and to the Kilian Group. The Stage Working Groups of the SCS are: Berriasian, Valanginian, Barremian, Aptian, Coniacian and Campanian. All WG leaders (chairs) and members are treated as Corresponding Members of the SCS.

## 4. EXTENT OF NATIONAL/REGIONAL/GLOBAL SUPPORT FROM SOURCES OTHER THAN IUGS

The SCS has strong links with IGCP projects.

IGCP 632 Continental Crises of the Jurassic: Major Extinction Events and Environmental Changes within Lacustrine Ecosystems (leader: J. Sha). Subproject Late Mesozoic lacustrine systems in Tunisia and their global correlation (leader: B. Sames).

IGCP 679-Cretaceous Earth Dynamics and Climate in Asia (new in 2019, Project Leader Prof. Gang Li, China)

## 5. CHIEF ACCOMPLISHMENTS IN 2020

### • WORKING GROUPS ACTIVITIES TOWARDS THE DEFINITION OF THE GSSPs

Chairs and updated memberships of each WG are available at <http://cretaceous.stratigraphy.org/working-groups/>. Memberships are updated continuously by inviting active scientists who are willing to collaborate to the WG activities.

#### Campanian GSSP

The Campanian WG is moving rapidly towards submission of a recommended GSSP. The search for an appropriate GSSP has been greatly helped by publication of two detailed studies on the Bottaccione (Gubbio, Italy) locality, by members of the WG, which provide high-resolution data on which the proposal will be based (Miniati et al. 2020; Maron and Muttoni 2020). These studies demonstrate the close proximity of two proposed markers for the S/C boundary. In addition, restudy of a previously proposed GSSP at Waxahachie in Texas, demonstrates for the first time the presence of a major hiatus in the succession (Gale et al. in press, 2020). This renders the locality inappropriate as a candidate GSSP. The WG has also worked on the provision of auxiliary sections to the GSSP, and can now recommend:

- Seaford Head, Sussex, UK (Thibault et al. 2016); excellent isotope stratigraphy, micro- and macrofossil biostratigraphy, orbital tuning. Classical Boreal Chalk setting.
  - Postalm, Austria (Wolfring et al. 2018); magneto- and biostratigraphy, carbon isotopes. Deep Tethyan pelagic setting. Gale, A.S., Kennedy, W.J., Walaszczyk, I., (2020 in press). *Correlation of the late Santonian-early Campanian of Texas with the Anglo-Paris Basin and other regions. Newsletters on Stratigraphy.*
- Maron, M., Muttoni, G. (2020). *A detailed record of the C34n/C33r magnetozone boundary for the definition of the base of the Campanian Stage at the Bottaccione section (Gubbio, Italy). Newsletters on Stratigraphy. DOI: 10.1127/nos/2020/0607*
- Miniati, F., Petrizzo, M.R., Falzoni, F., Erba, E. (2020). *Calcareous plankton biostratigraphy of the Santonian-Campanian boundary interval in the Bottaccione section (Umbria-Marche Basin, central Italy). Rivista Italiana di Paleontologia e Stratigrafia, 126, 771-789.*
- Thibault, N., Jarvis, I., Voigt, S., Gale, A.S., Attree, K., Jenkyns, H.C. (2016). *Astronomical calibration and global correlation of the Santonian (Cretaceous) based on the marine carbon isotope record. Paleoceanography, 31, doi:10.1002/2016PA002941.*
- Wolfring, E., Wagreich, M., Dinares-Turell, J., Gier, S., Boehm, K., Sames, B., Spoel, C., Popp, F. (2018). *The Santonian-Campanian boundary and the end of the long Cretaceous normal polarity-chron: isotope and plankton stratigraphy of a pelagic reference section in the NW Tethys (Austria). Newsletters on Stratigraphy, DOI: 10.1127/nos/2018/0392*

#### Coniacian GSSP

The WG submitted the GSSP proposal to SCS in September 2020 for discussion. The WG is currently (November 2020) revising the proposal according to the comments and suggestions received by the voting members. The Salzgitter-Salder (Germany) is the proposed candidate stratotype section. Primary criterion is the appearance of the inoceramid *Cremnoceramus deformis erectus*. Secondary criteria include a negative excursion in the  $\delta^{13}\text{C}$  values (Navigation Event),

and bivalve, planktic foraminiferal and peridinioid dinocyst datums. Three auxiliary sections are indicated: Słupia Nadbrzeżna (central Poland); the Střeleč railway cut, adjacent to the Střeleč Quarry (Bohemia, Czech Republic); and El Rosario, Sierra del Carmen National Park (Coahuila, Mexico).

Čech, S., Uličný, D. (2020). *The Turonian-Coniacian stage boundary in an expanded siliciclastic succession: Integrated stratigraphy in deltaic through offshore facies, Bohemian Cretaceous Basin. Cretaceous Research, 117, 104576.*

Voigt, S., Püttmann, T., Mutterlose, J., Bornemann, A., Jarvis, I., Pearce, M., Walaszczyk, I., (2021). *Reassessment of the Salzgitter-Salder section as a potential stratotype for the Turonian–Coniacian boundary: stable carbon isotopes and cyclostratigraphy constrained by calcareous nannofossils and palynology: Newsletters on Stratigraphy, in press, doi: 961 10.1127/nos/2020/0615.*

#### Albian GSSP

Finalization of the official steps with the local authorities for the protection and easy accessibility of the GSSP site at Col de Pre-Guittard in the Commune of Arnayon (Département of Drôme).

#### Aptian GSSP

The research activities that were agreed during STRATI 2019 included analyses of stratigraphic sections and evaluation of all available data across the Barremian/Aptian boundary. The year 2020 was marked by significant delay in receiving additional information on magnetostratigraphy from French ammonite-dated sections. C. Frau and colleagues from Poland (J. Grabowski), Czech Republic (A. Svoboda, P. Schnabl) and France (A. Tendil) sampled sections in S. France: Fontblanche (near La Bedoule) and Mont Ventoux (southern margin of Vocontian Basin). The team plans to combine chemostratigraphy with magnetostratigraphy. First results are expected in 2021.

#### Barremian GSSP

The Río Argos section (Caravaca, Murcia, SE Spain) is the candidate stratotype for the Hauterivian/Barremian boundary. The primary marker discussed and approved by the working group is the first appearance of the ammonite *Taveraidiscus hugii*. During the last years, the WG has carried on studies on the stratigraphic distribution of various fossil groups (ammonites, calcareous nannofossils, planktonic and benthic foraminifera), as well as chemostratigraphic and cyclostratigraphic analyses in the Argos section. Unfortunately, a secondary remagnetization precludes any magnetostratigraphic dating, although indirect correlation using ammonite and isotope stratigraphy is possible with the Gorgo a Cerbara section (central Italy). In 2020, complementary analysis of ammonite and calcareous nannofossils in the candidate section have been performed. In addition, an integrated astrochronologic study of the entire Barremian stage performed on two other sections of the Subbetic Domain has been completed and published.

Martinez, M., Aguado, R., Company, M., Sandoval, J., O'Dogherty, L. 2020. *Integrated astrochronology of the Barremian Stage (Early Cretaceous) and its biostratigraphic subdivisions. Global and Planetary Changes 195, 103368.*

#### Hauterivian GSSP

The GSSP for the base of the Hauterivian Stage at the FO of the ammonite genus *Acanthodiscus* at La Charce (SE France) was ratified by IUGS in December 2019. The protection of the GSSP section at La Charce is ensured by an Espace Naturel Sensible (ENS). The department and the municipality of La Charce established an exceptional and world-renowned geological interpretation circuit for the public. Relevant data on the GSSP section are published in the paper below:

Mutterlose, J., Rawson, P.F., Reboulet, S., with contributions by Baudin, F., Bulot, L., Emmanuel, L., Gardin, S., Martinez, M., Renard, M. (2020). *The Global Boundary Stratotype Section and Point (GSSP) for the base of the Hauterivian Stage (Lower Cretaceous), La Charce, southeast France. Episodes: in press.*

#### Valanginian GSSP

The WG approved the first appearance of the calpionellid *Calpionellites darderi* as the primary marker for the base of the Valanginian. Two sections are considered as possible candidates for the GSSP: Cañada Luenga (Cehegin, SE Spain) and Vergol (Montbrun-les-Bains, SE France). Integrated analyses of the Cañada Luenga section with biostratigraphic (ammonites, calpionellids and calcareous nannofossils) and magnetostratigraphic data are published. During the last year the WG have expanded the biostratigraphic analyses to the lower part of the section (upper Berriasian).

Preliminary data on the distribution of ammonites and calpionellids were published for the Vergol section. A complete cyclostratigraphic analysis is also available. During the last year, an integrated study of the distribution of ammonites and calcareous nannofossils in this section has been completed and recently submitted for publication. Calpionellids are currently being studied.

Benzaggagh, M., 2020. *Discussion on the calpionellid biozones and proposal of a homogeneous calpionellid zonation for the Tethyan Realm. Cretaceous Research 114, 104184.*

Grischenko, V.A., Manikin, A.G., Savelieva, Y.N., Feodorova, A.A., 2020. *Magnetostratigraphy and biostratigraphy of the Valanginian in the Crimean Mountains. Problems of Geocosmos-2018. Springer Proceedings in Earth and Environmental Sciences, 53-81.*

Salazar, C., Stinnesbeck, W., Alvarez, M., 2020. *Ammonite biostratigraphy and bioevents in the Jurassic-Cretaceous boundary of central Chile. Cretaceous Research 107, 104282.*

Zakharov, V.A., Rogov, M.A., 2020. *High-resolution stratigraphy of buchiid bivalves and ammonites from the Jurassic-Cretaceous boundary beds in the Paskenta area (California). Cretaceous Research 110, 104422.*

#### Berriasian (J/K boundary) GSSP

The GSSP proposal for the base of the Berriasian Stage in the Tre Maroua section (Vocontian Basin, SE France) at the base of the calpionellid *Calpionella alpina* Subzone was voted in October 2020 by the 81.8% of SCS voting members. The

proposal received the 44.5% of “yes” votes and thus was not approved.

#### KILIAN Group

The WG was inactive in 2020.

- **ADDITIONAL ACTIVITIES**

Publication of a Cretaceous Research Virtual Special Issue titled “*Cretaceous integrated stratigraphy, greenhouse climate change and events*” edited by Petrizzo M.R., Wagreich, M., Falzoni F., and Haggart, J. The Special Issue collects papers presented in the Cretaceous Subcommission scientific session held at STRATI 2019 (Milano, Italy, July 2019). The special issue is available at: <https://www.sciencedirect.com/journal/cretaceous-research/special-issue/10LTDCL3HZ0>, it currently includes 7 published papers. Other 5 papers are expected to be published in the next weeks.

Proceedings of the IGCP 609 project were published in 2020 as Special Publication of the Geological Society of London SP498, edited by Wagreich, M., Hart, M.B., Sames, B., Yilmaz, I.O. The volume content is available at <https://sp.lyellcollection.org/content/498/1>.

*Wagreich, M., Hart, M.B., Sames, B. & Yilmaz, I.O. (eds) (2020). Cretaceous Climate Events and Short-Term Sea-Level Changes. Geological Society, London, Special Publications, 498, 266pp. <https://doi.org/10.1144/SP498>*

#### 6. SUMMARY OF EXPENDITURE IN 2020:

|   |              |
|---|--------------|
| Contribution towards cost of maintenance of the website             | 400.00 Euro  |
| Contribution to the stages Working Groups for fieldworks + analysis | 2400.00 Euro |
| Contribution to publication fees of papers related to GSSPs         | 130.00 Euro  |
| Contribution for secretarial work                                   | 400.00 Euro  |
| Bank fees for bank transfer   | 9.00 Euro    |

TOTAL expenditure in 2020 = 3339.00 Euro

Budget surplus to carry forward in 2021 to support the Albian and Hauterivian leaders and members of the WGs to attend the GSSP official golden spike ceremonies in France that are planned for October 2021 = 884.33 Euro

#### 7. SUMMARY OF INCOME IN 2020:

ICS Subvention for 2020

US dollars 4500.00 = 4223.33 Euro

#### 8. BUDGET REQUESTED FROM ICS IN 2021:

|  |              |
|--|--------------|
| Contribution towards cost of website maintenance and/or publication fees of papers related to GSSPs  | 400.00 Euro  |
| Contribution to the stages Working Groups for fieldworks, analyses, meetings                         | 2500.00 Euro |
| Contribution for secretarial work  | 400.00 Euro  |
| Albian and Hauterivian GSSPs meetings with local authorities, official GSSPs golden spike ceremonies | 1200.00 Euro |

TOTAL budget request from ICS in 2021= 4500.00 Euro

#### 9. WORK PLAN, CRITICAL MILESTONES, ANTICIPATED RESULTS AND COMMUNICATIONS TO BE ACHIEVED NEXT YEAR (2021):

- **STUDIES, FIELD WORK TO FINALIZE THE GSSP PROPOSALS**

##### Campanian GSSP

The WG will write a proposal for the Campanian GSSP, based largely upon new data provided in the 2020 papers (see above). This proposal will consist of 2 parts: a longer document, submitted to the Subcommission, and a shorter publication, summarising the data and rationale, submitted to Cretaceous Research. As the supporting data is now largely published, this task is relatively straightforward. A draft document of the proposal and accompanying article will be sent to all WG members for feedback by spring 2021 and both documents will be submitted to the SCS and Cretaceous Research, respectively, in the summer or early autumn of 2021. Providing the Campanian GSSP is approved and ratified, the WG will produce a short article for Episodes in 2022, detailing the GSSP locality, and including essential data.

##### Coniacian GSSP

A revised version of the GSSP proposal is planned to be submitted to SCS for voting in December 2020. If approved, it will be submitted to ICS in early 2021.

##### Aptian GSSP

The WG is waiting for magnetostratigraphy combined with chemostratigraphy from two French locations. As soon as the results are available the discussion on the selection of the marker criterion and on the stratotype section will start. The WG

will also produce a synthesis of available data for complete sections from various localities. Currently there are two favorite options: GSSP defined by (1) biostratigraphy, magnetostratigraphy and chemostratigraphy in a pelagic limestone succession (Gorgo a Cerbara, Italy), or by (2) ammonite stratigraphy and, hopefully, chemo- and magnetostratigraphy (historical stratotype for Bedoulian, Cassis-La Bedoule, and, possibly, a new location in the Vocontian Trough). Problems in defining the Aptian GSSP are related to the proposed base of M0 that has been re-dated with ammonites as Barremian in age in a pelagic succession. If this new age assignment of M0 turns out to be correct, a new biological or physical set of markers needs to be identified for the definition of the GSSP. However, a tentative new GSSP (e.g. negative spike in the Aptian C-isotope record) would fall into the Bedoulian which would then be in conflict with the current definition of the Bedoulian as “lower Aptian”. A synopsis is in progress (by the WG chairs) to be distributed for WG discussion.

#### Barremian GSSP

The WG is planning to complete the formal proposal of the Argos section as GSSP of the Barremian in the first half of 2021 and send it to the WG members for discussion and voting. If approved, the proposal will be submitted to SCS for the discussion phase by the voting members.

#### Valanginian GSSP

The WG has still to finalize the study of calpionellids from Cañada Luenga and Vergol sections and complete the analysis of the stable isotope record in the Cañada Luenga on samples already collected. All pending studies in both candidate sections will be likely completed by the end of 2021. Circulation of the proposal among WG members is planned by mid-2022.

#### Berriasian (J/K boundary) GSSP

Following rejection of the GSSP proposal and according to previous practice in ICS, the Berriasian WG was disbanded in October 2020. The new WG is going to be appointed and will be active by end November 2020. Jacek Grabowski from the Polish Geological Institute-National Research Institute (PGI-NRI) in Warsaw (Poland) has accepted to lead the new Berriasian WG. Jacek Grabowski is a paleomagnetist, very active in research and aware of the science issues around the J/K boundary, and has all the required skills for this position. He was member of the previous Berriasian working group and is currently voting member of the International Subcommittee on Jurassic Stratigraphy. The selection of the members of the WG is currently in progress.

#### Kilian Group

The upper Aptian, lower-middle Albian zonal schemes will be in focus at the forthcoming Kilian meeting. The Kilian meetings are usually held every 3 years (2002; 2005; 2008; 2010; 2013; 2017). The next meeting will be associated with the next Cretaceous Symposium (Poland, 2022). The local organization will be made by Izabela Ploch.

- **FUTURE MEETINGS**

-2021 - Meeting of the Aptian WG.

-2021 - 36<sup>th</sup> International Geological Congress (Delhi, India, 16-21 August 2021).

-2022 - 11<sup>th</sup> International Symposium on the Cretaceous (Poland, 2022). The symposium originally scheduled for 2021 is postponed to 2022 due to covid-19 emergency and to avoid overlapping with other meetings.

#### Potential funding sources external to IUGS

The SCS does not envisage being able, as an organization, to obtain significant funding from outside IUGS/ICS sources. Some additional financial support beyond what is already committed could perhaps be obtained by individual members from their host institutions and/or their personal research funds.

## 10. KEY OBJECTIVES AND WORK PLAN FOR THE PERIOD 2020-2024

December 2020: GSSP proposal for the base of the Coniacian submitted to SCS for voting. Autumn 2021: official ceremonies for the inauguration and placement of the golden spikes of the Albian and Hauterivian GSSPs.

2021: Finalization of the GSSP proposals for the base Barremian and base Campanian and vote within the WG.

2022: Finalization of the GSSP proposals for the base Valanginian and base Aptian and vote within the WG.

2021–2024: Research activities toward the preparation of the GSSP proposal for the base of the Berriasian Stage by the new Berriasian WG.

2021-2022: Continue preparation of proposals for the definition of substages for discussions at the forthcoming meeting: 11<sup>th</sup> International Symposium on the Cretaceous (Poland, 2022).

2022-2023. Vote by the SCS of the Barremian and Campanian GSSPs.

2023-2024. Finalization of the GSSP proposal for the base Berriasian and vote within the WG.

2023-2024. Vote by the SCS of the Valanginian and Aptian GSSPs.



## APPENDIX [Names and Addresses of Current Officers and Voting Members]

### Nominated officers

Chair: Maria Rose Petrizzo, mrose.petrizzo@unimi.it - Dip. Scienze della Terra “A. Desio”, Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Italy, Phone: +39-0250315531

Vice-Chair: Michael Wagreich, michael.wagreich@univie.ac.at, - Department of Geology, University of Vienna, Althanstrasse 14, Vienna, A-1090, Austria, Phone: 0043-1-4277-53465

Secretary: Francesca Falzoni, francesca.falzoni1@gmail.com – Dip. Scienze della Terra, dell’Ambiente e delle Risorse (DiSTAR), Università degli Studi di Napoli Federico II, via vicinale cupa Cintia 21, 80126 Napoli, Italy.

### List of Voting Members

Baraboshkin Evgenij, ejBaraboshkin@mail.ru - Dept. Regional Geology and Earth History, Geological Faculty, Moscow State University, Vorobjovy Gory, Moscow, 119991 Russia. Phone: +7(495)939-49-32.

Bown Paul, p.bown@ucl.ac.uk - University College London, Gower Street, London, WC1E 6BT, UK, Phone: +44(0)20-7485-3257.

de Souza Carvalho Ismar, ismar@geologia.ufrj.br - Universidade Federal do Rio de Janeiro, CCMN – Igeo Av. Athos da Silveira Ramos 274, Cidade Universitária - Ilha do Fundão 21.941-916 Rio de Janeiro, RJ, Brasil, Phone: 21-3938-9405.

Galbrun Bruno, bruno.galbrun@upmc.fr - Université Pierre et Marie Curie, ISTeP, Institut des Sciences de la Terre-Paris, UMR-CNRS 7193, 4 place Jussieu, 75252 Paris CEDEX 5, France.

Granier Bruno, bgranier@univ-brest.fr - Département des Sciences de la Terre et de L’Univers, UFR Sciences et Techniques, Université de Bretagne Occidentale, 6 avenue, Le Gorgeu – CS 93837, F – 29238 Brest cedex 3, France.

Hasegawa Takashi, jh7ujr@staff.kanazawa-u.ac.jp - Department of Earth Sciences, Faculty of Science, Kanazawa University, Kakuma, Kanazawa, 920-1192 Japan. Phone: 076-264-6508.

Huber Brian T., HUBERB@si.edu - Department of Paleobiology, PO Box 37012, MRC-121, Smithsonian Institution, Washington, DC 20013-7012, Phone: 1-202-633-1328.

Jagt-Yazykova Elena, elenajagt@gmail.com - Opole University, Laboratory of Palaeobiology and evolution, Oleska str. 22, 45-052 Opole, Poland. Phone: +48 (77) 4527312.

Jarvis Ian, I.Jarvis@kingston.ac.uk - Department of Geography and Geology, Kingston University, London Penrhyn Road, Kingston upon Thames, London KT1 2EE, UK, Phone: +44 20 8417 2526.

Kawabe Fumihisa, fkawabe@aoni.waseda.jp - Ministry of Education, Culture, Sports, Science and Technology, Tokyo 100-8959, Japan.

Sageman Bradley, brad@earth.northwestern.edu - Department of Earth and Planetary Sciences, Northwestern University, 2145 Sheridan Road, Evanston, Illinois 60208-3130, U.S.A., Phone: +1-847-467-2257.

Sari Bilal, bilal.sari@deu.edu.tr - Dokuz Eylul University, Faculty of Engineering, Department of Geological Engineering, Tinaztepe Campus, 35160 Buca-Izmir, Turkey, Phone: +90.232.4127342.

Schioler Poul, poul.schioler@mgpalaeo.com.au 12 Summit Road, Fairfield, Lower Hutt 5011, New Zealand, Phone: +61 (0)8 9249 4628.

Vishnevskaya Valentina, valentina.vishnaa@mail.ru - Geological Institute of the Russian Academy of Sciences, Pyzhevsky per., 7, Moscow 119017, Russia, Phone: 7(495)959-0174.

Voigt Silke, s.voigt@em.uni-frankfurt.de - Institute of Geosciences, Goethe-University Frankfurt, Altenhöferallee 1, 60438 Frankfurt am Main, Phone: +49 (0)69798 40190.

Walaszczyk Irek, i.walaszczyk@uw.edu.pl - Faculty of Geology, University of Warsaw, Al. Zwirki i Wigury 93, 02-089 Warszawa, Poland, Phone: +48 22 5540482.

Watkins David K., dwatkins1@unl.edu - Department of Earth & Atmospheric Sciences, University of Nebraska, Lincoln, NE 68588-0340, USA Phone: 1-402-472-2177

Wilmsen Markus, Markus.Wilmsen@senckenberg.de - Senckenberg Naturhistorische Sammlungen, Dresden, Museum für Mineralogie und Geologie Königsbrücker Landstrasse 159, 01109 Dresden, Germany. Phone: +49 +351-795841-4273.

Wimbledon William A.P., mishenka1@yahoo.co.uk School of Earth Sciences, University of Bristol, Wills Memorial Building, Queens Road, Bristol BS8 1RJ, United Kingdom. Home address: 19 Hazel Walk, Croesyceiliog, Cwmbran, NP44 2NW, United Kingdom. Phone: 44 (0) 1633 483836.

### Working group leaders and corresponding members

#### CAMPANIAN WG

Chair: Gale Andy, Andy.Gale@port.ac.uk - School of Earth & Environmental Sciences University of Portsmouth Burnaby Building Burnaby Road Portsmouth PO1 3QL, Phone: +44-02392846127.

#### WG Members:

Batenburg Sietske, sietske.batenburg@earth.ox.ac.uk - Department of Earth Sciences, University of Oxford, Oxford, UK.

Chenot Elise, elise.chenot@u-bourgogne.fr - Biogéosciences, UMR 6282, CNRS, University of Bourgogne Franche-Comté, 6 boulevard Gabriel, Dijon F-21000, France.

Coccioni Rodolfo, rodolfo.coccioni@uniurb.it Dipartimento di Scienze della Terra, della Vita e dell'Ambiente, Università degli Studi di Urbino "Carlo Bo", Campus Scientifico "E. Mattei", 61029 Urbino, Italy.

Erba Elisabetta, elisabetta.erba@unimi.it - Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Italy

Falzone Francesca, francesca.falzone1@gmail.com - Dip. Scienze della Terra, dell'Ambiente e delle Risorse (DiSTAR), Università degli Studi di Napoli Federico II, via vicinale cupa Cintia 21, 80126 Napoli, Italy.

Haggart James, jim.haggart@canada.ca - Geological Survey of Canada, 1500-605, Robson Street, Vancouver, British Columbia V6B 5J3, Canada.

Hasegawa Takashi, jh7ujr@staff.kanazawa-u.ac.jp - Faculty of Natural System, Institute of Science and Engineering, Kanazawa University, Kakuma, Kanazawa, 920-1192, Japan.

Ifrim Christina, Christina.Ifrim@geow.uni-heidelberg.de - Institut für Geowissenschaften, Ruprecht-Karls-Universität Heidelberg, Im Neuenheimer Feld 234, D-69120 Heidelberg, Germany.

Jarvis Ian, I.Jarvis@kingston.ac.uk - Department of Geography and Geology, School of Natural and Built Environments, Kingston University London, Penrhyn Road, Kingston upon Thames, London KT1 2EE, UK.

Jenkyns Hugh C., hugh.jenkyns@earth.ox.ac.uk Department of Earth Sciences, University of Oxford, South Parks Road, Oxford OX1 3AN, UK.

Kennedy Jim, Jim.Kennedy@oum.ox.ac.uk - Oxford University Museum of Natural History, Parks Road, Oxford OX1 3PW, UK.

Maron Matteo, matteo.maron@unimi.it - Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Italy.

Muttoni Giovanni, giovanni.muttoni1@unimi.it - Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Italy.

Petrizzo Maria Rose, mrose.petrizzo@unimi.it - Dip. Scienze della Terra "A. Desio", Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Phone: +39-0250315531.

Premoli Silva Isabella, isabella.premoli@unimi.it - Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Italy.

Sprovieri Mario, mario.sprovieri@iamc.cnr.it - Istituto per l'Ambiente Marino Costiero, Consiglio Nazionale delle Ricerche (IAMC-CNR), Capo Granitola, Campobello di Mazara (TP), Italy.

Thibault Nicolas, nt@geo.ku.dk - Department of Geography and Geology, University of Copenhagen, Øster Voldgade 10, 1350 Copenhagen C., Denmark.

Voigt Silke, s.voigt@em.uni-frankfurt.de - Institute of Geosciences, Goethe-University Frankfurt, Altenhöferallee 1, 60438 Frankfurt am Main, Germany.

Wagreich Michael, michael.wagreich@univie.ac.at - Department of Geology, University of Vienna, Althanstrasse 14, Vienna, A-1090, Austria.

Walaszczyk Irek, i.walaszczyk@uw.edu.pl - Faculty of Geology, University of Warsaw, Al. Zwirki i Wigury 93, 02-089 Warszawa, Poland.

#### CONIACIAN WG

Chair: Walaszczyk Irek, i.walaszczyk@uw.edu.pl - Faculty of Geology, University of Warsaw, Al. Zwirki i Wigury 93, 02-089 Warszawa, Poland, Phone: +48 22 5540482.

#### WG Members:

Čech Stanislav, stanislav.cech@geology.cz - Czech Geological Survey, Klárov 3/131, 118 21 Praha 1, Czech Republic.

Crampton James, J.Crampton@gns.cri.nz - GNS Science, Post Office Box 30368, Lower Hutt, New Zealand.

Dubicka Zofia, z.dubicka@uw.edu.pl - Faculty of Geology, University of Warsaw, Al Zwirki i Wigury 93, 02-089 Warszawa, Poland.

Gale Andy S., Andy.Gale@port.ac.uk - School of Earth and Environmental Sciences, University of Portsmouth, Portsmouth PO1 3QL, United Kingdom

Ifrim Christina, Christina.Ifrim@geow.uni-heidelberg.de - Institut für Geowissenschaften, Ruprecht-Karls-Universität Im Neuenheimer Feld 234, 69120 Heidelberg, Germany.

Jagt-Yazykova Elena A., eyazykova@uni.opole.pl - Zakład Paleobiologii, Katedra Biosystematyki, Uniwersytet Opolski, ul. Oleska 22, PL-45-052 Opole, Poland.

Jarvis Ian, I.Jarvis@kingston.ac.uk - Kingston University London, Department of Geography and Geology, Kingston upon Thames, KT1 2EE, UK.

Kennedy William J., Jim.Kennedy@oum.ox.ac.uk - Oxford University Museum of Natural History, Parks Road, Oxford OX1 3PW and Department of Earth Sciences, South Parks Road, Oxford OX1 3AN, United Kingdom

Lees Jackie, j.lees@ucl.ac.uk - Department of Earth Sciences, University College London, Gower Street, London WC1E 6BT, UK.

Lodowski Damian, damian.lodowski@student.uw.edu.pl - Faculty of Geology, University of Warsaw, Al Zwirki i Wigury 93, PI-02-089 Warszawa, Poland.  
Niebuhr Brigit, birgit.niebuhr@senckenberg.de - Senckenberg Naturhistorische Sammlungen Dresden, Museum für Mineralogie und Geologie Königsbrücker Landstr. 159, D - 01109 Dresden, Germany.  
Peryt Danuta, d.peryt@twarda.pan.pl - Instytut Paleobiologii PAN, ul. Twarda 51/55, PL-00-818 Warszawa, Poland.  
Sageman Brad, brad@earth.northwestern.edu - Department of Earth and Planetary Sciences; 2145 Sheridan Road, Tech F397-399; Northwestern University Evanston, IL 60208-3130.  
Schioler Poul, poul.schioler@mgpalaeo.com.au - Morgan Goodall Palaeo Pty Ltd, 12 Summit Road, Fairfield, Lower Hutt 5011, New Zealand.  
Todes Jordan P., j.todes@student.uw.edu.pl - Faculty of Geology, University of Warsaw, Al Zwirki i Wigury 93, PI-02-089 Warszawa, Poland.  
Toshimitsu Seiichi, s.toshimitsu@aist.go.jp - Geological Survey of Japan, AIST, Tsukuba, Japan.  
Ulicny David, ulicny@ig.cas.cz - Institute of Geophysics, Academy of Sciences of the Czech Republic, 141 31 Prague, Czech Republic.  
Voigt Silke, s.voigt@em.uni-frankfurt.de - Institute of Geosciences, Goethe-Universität Frankfurt, Altenhöferallee 1, D-60438 Frankfurt am Main, Germany.  
Wiese Frank, frwiese@snafu.de - Georg-August-Universität Göttingen, Courant Research Centre Geobiology, Goldschmidtstr. 3, D-37077 Göttingen.  
Wilmsen Markus, markus.wilmsen@senckenberg.de - Sektionsleiter Paläozoologie, Senckenberg Naturhistorische Sammlungen Dresden, Museum für Mineralogie und Geologie, Königsbrücker Landstr. 159, D - 01109 Dresden, Germany.

#### APTIAN WG

Chair: Weissert Helmut, weissert@erdw.ethz.ch - Department of Earth Science, ETH-Z CH-8092 Zürich, Switzerland, Phone: +41 44 632 37 15.

Chair: Erba Elisabetta, elisabetta.erba@unimi.it - Dip. Scienze della Terra "A. Desio", Università degli Studi di Milano, via Mangiagalli 34, 20133 Milano, Phone: +39-0250315530.

#### WG Members:

Amodio Sabrina, sabrina.amodio@uniparthenope.it - Department of Science and Technology, Parthenope University of Naples, Napoli, Italy.

Baraboshkin Evgenij, ejBaraboshkin@mail.ru - Department of Regional Geology and Earth History, Geological Faculty M. V. Lomonosov Moscow State University, Moscow, Russian Federation.

Bodin Stéphane, stephane.bodin@geo.au.dk - Department of Geoscience, Aarhus University, Århus, Denmark.

Castro Jiménez José Manuel, secform@ujaen.es - Department of Geology, University of Jaén, Jaén, Spain.

Coccioni Rodolfo, rodolfo.coccioni@uniurb.it - Dipartimento di Scienze della Terra, della Vita e dell'Ambiente, Università degli Studi di Urbino "Carlo Bo", Urbino, Italy.

Company Miguel, mcompany@ugr.es - Departamento de Estratigrafía y Paleontología, Universidad de Granada, Granada, Spain.

Frau Camille, Camille\_FRAU@hotmail.fr - Groupement d'Intérêt Paléontologique, Science et Exposition, 60 bd Georges Richard, 83000 Toulon, France.

Granier Bruno, bgranier@univ-brest.fr - Dépt. STU, Fac. Sci. Tech., UBO, CS 93837, F-29238 Brest, France, and Department of Ecology and Evolutionary Biology, The University of Kansas, 1200 Sunnyside Avenue, Lawrence, Kansas 66045, USA.

Kuhnt Wolfgang, wk@gpi.uni-kiel.de - Institute of Geosciences, Christian-Albrechts-University, 24118 Kiel, Germany.

Moreno-Bedmar Josep Anton, josepamb@geologia.unam.mx - Instituto de Geología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Coyoacán, México, Ciudad de México, C.P. 04510.

Moullade Michel, Michel.Moullade@unice.fr, Centre de Recherches Micropaléontologiques, Musée d'Histoire Naturelle, Nice, France.

Olierook Hugo, hugo.olierook@curtin.edu.au - Department of Applied Geology, Curtin University, GPO Box U1987, Perth, WA 6845, Australia.

Patrino Stefano, stefano.patrino@gmail.com - Petroleum Geo-Services (PGS), Weybridge, Surrey, UK.

Parente Mariano, maparent@unina.it - Dipartimento di Scienze della Terra, dell'Ambiente e delle Risorse, Università di Napoli Federico II, Napoli, Italy.

Premoli Silva Isabella, isabella.premoli@unimi.it - Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, Milano, Italy.

Ruiz Ortiz Pedro Alejandro, ceactierra@ujaen.es - Department of Geology, University of Jaén, Jaén, Spain.

Skelton Peter, p.w.skelton@open.ac.uk - Department of Environment, Earth and Ecosystems, The Open University, Milton Keynes, UK.

Triantaphyllou Maria, mtriant@geol.uoa.gr - University of Athens, Department of Historical Geology-Paleontology, Panepistimiopolis 15784, Athens, Greece  
Vahrenkamp Volker, volker.vahrenkamp@kaust.edu.sa - Ali Naimi Petroleum Engineering Research Center, Saudi Arabia.

#### BARREMIAN WG

Chair: Company Miguel, mcompany@ugr.es - Departamento de Estratigrafía y Paleontología, Facultad de Ciencias, Universidad de Granada, E-18002 Granada, SPAIN, Phone: +34-958242729.

#### WG Members:

Aguirre-Urreta, María Beatriz; aguirre@gl.fcen.uba.ar - Instituto de Estudios Andinos (UBA-CONICET), Universidad de Buenos Aires, Ciudad Universitaria, pabellón 2, 1428 Buenos Aires, Argentina.

Baraboshkin, Evgenij J.; Barabosh@geol.msu.ru - Geological Faculty, Moscow State University, 119992 Leninskie Gory, Moscow, Russia.

Bown, Paul R.; p.bown@ucl.ac.uk - Department of Earth Sciences, University College London, Gower Street, London WC1E 6BT, UK.

Erba, Elisabetta; elisabetta.erba@unimi.it - Dipartimento di Scienze della Terra, Università degli Studio di Milano, Via Mangiagalli 34, 20133 Milano, Italia.

Kakabadze, Mikheil V.; mishakakab@gmail.com - Djanelidze Institute of Geology, Polytkovskaja St. 5, 0186 Tbilisi, Georgia.

Melinte-Dobrinescu, Mihaela Carmen; melinte@geoecomar.ro - National Institut of Marine Geology and Geoecology, 23-25 Dimitrie Onciul Street, PO Box 34-51, 70318 Bucharest, Romania.

Mutterlose, Jörg; joerg.mutterlose@ruhr-uni-bochum.de - Institute for Geology, Mineralogy and Geophysics, Ruhr-Universität Bochum, Universitätsstr. 150, 44801 Bochum, Germany.

Premoli Silva, Isabella; isabella.premoli@unimi.it - Dipartimento di Scienze della Terra "A. Desio", Università degli Studi di Milano, Via Mangiagalli 34, 20133 Milano, Italia.

Rawson Peter, peter.rawson1@btinternet.com - Department of Earth Sciences, University College London, UK; Centre for Marine and Environmental Sciences, University of Hull, UK.

Sandoval, José; sandoval@ugr.es - Departamento de Estratigrafía y Paleontología, Facultad de Ciencias, Universidad de Granada, E-18002, Granada, Spain.

Tavera, José M; jtavera@ugr.es - Departamento de Estratigrafía y Paleontología, Facultad de Ciencias, Universidad de Granada, E-18002, Granada, Spain.

Vašíček, Zdeněk; zdenek.vasicek@ugn.cas.cz - Institute of Geonics of Academy of Sciences of the Czech Republic, Studentská 1768, CZ-70800 Ostrava-Poruba, Czech Republic.

Weissert, Helmut J.; helmi@erdw.ethz.ch - ETH Zürich, Dep. Earth Sciences, Sonneggstrasse 5, 8092 Zürich, Switzerland.

#### VALANGINIAN WG

Chair: Company Miguel, mcompany@ugr.es - Departamento de Estratigrafía y Paleontología, Facultad de Ciencias, Universidad de Granada, E-18002 Granada, SPAIN, Phone: +34-958242729.

Chair: Reboulet Stéphane, stephane.reboulet@univ-lyon1.fr - Laboratoire de Géologie de Lyon, CNRS-UMR 5276, Observatoire de Lyon, 2 rue Raphaël Dubois, Bâtiment Géode, Université Claude Bernard Lyon 1, 69622 Villeurbanne, FRANCE, Phone: +33(0)472446244.

#### WG Members:

Aguirre-Urreta María Beatriz, aguirre@gl.fcen.uba.ar - Instituto de Estudios Andinos (UBA-CONICET), Universidad de Buenos Aires, Argentina.

Aguado Roque, raguado@ujaen.es - Departamento de Geología, Universidad de Jaén, Spain.

Baraboshkin Evgenij J., ejbaraboshkin@mail.ru - Geological Faculty, Moscow State University, Russia.

Bown Paul R., p.bown@ucl.ac.uk - Department of Earth Sciences, University College London, UK.

Erba Elisabetta, elisabetta.erba@unimi.it - Dipartimento di Scienze della Terra, Università degli Studio di Milano, Italia.

Ettachfini Mohssine, ettachfini@uca.ma - Département de Géologie, Université Cadi Ayyad, Marrakech, Morocco.

Galbrun Bruno, bruno.galbrun@upmc.fr - Institut des Sciences de la Terre Paris (ISTeP), UPMC Univ Paris 06, France.

González-Arreola Celestina, arreola@unam.mx - Instituto de Geología, Universidad Nacional Autónoma de México, México.

Kakabadze Mikheil V., mishakakab@gmail.com - Djanelidze Institute of Geology, Tbilisi, Georgia.

Klein Jaap, jaap.klein@zonnet.nl - Vinkeveen, The Netherlands.

Melinte-Dobrinescu Mihaela Carmen, melinte@geoecomar.ro - National Institut of Marine Geology and Geoecology, Bucharest, Romania.

Mutterlose Jörg, joerg.mutterlose@gmail.com - Institute for Geology, Mineralogy and Geophysics, Ruhr-Universität Bochum, Germany.

Premoli Silva Isabella, isabella.premoli@unimi.it - Dipartimento di Scienze della Terra, Università degli Studio di Milano,



Italia.

Rawson Peter F., peter.rawson1@btinternet.com - Centre for Marine and Environmental Sciences, University of Hull, UK.  
Tavera José M., jtavera@ugr.es - Departamento de Estratigrafía y Paleontología, Universidad de Granada Spain.  
Vašíček Zdeněk, zdenek.vasicek@vsb.cz - Institute of Geonics of the Academy of Sciences, Ostrava-Poruba, Czech Republic.  
Weissert Helmut, helmut.weissert@erdw.ethz.ch - Department of Earth Sciences, ETH Zürich, Switzerland.

**BERRIASIAN (J/K BOUNDARY) WG – disbanded in October 2020**

Chair: Wimbledon William A.P., mishenka1@yahoo.co.uk, School of Earth Sciences, University of Bristol, Wills Memorial Building, Queens Road, Bristol BS8 1RJ, United Kingdom. Home address: 19 Hazel Walk, Croesyceiliog, Cwmbran, NP44 2NW, United Kingdom, Phone: 44 (0) 1633 483836.

**WG Members:**

Aguirre-Uretta Beatriz, Dep. de Ciencias Geológicas, Univ. de Buenos Aires, CONICET, Argentina  
Alsen Peter, GEUS, Voldgade 10, Copenhagen 1350, Denmark  
Andreini Gloria, Dip. di Scienze della Terra, Università degli Studi di Perugia, 06123 Perugia, Italy  
Arnaud Vanneau Annie M., Maison des Géosciences, LGCA 1381, Grenoble, France  
Bakhmutov Vladimir, Institute of Geophysics, NAS Ukraine, 03680 Kyiv, Ukraine  
Bardhan Subhendu, Department of Geological Sciences Jadavpur University, Kolkata 70002, India  
Benzaggagh Mohamed, Univ. Moulay Ismail, Dépt de Géologie, BP 11201, Zitoune, Meknès, Morocco  
Bugdaeva Eugenia, Fed. Inst. of Biol. and Soil Science, Russian Acad. Sci., Vladivostok, Russia  
Bulut Luc G., Univ. de Provence Aix-Marseille 1, Centre de Séd.- Pal., 13331 Marseille, France  
Cizkovak Kristyna, Palaeomagnetic Laboratory, Inst. of Geology ASCR vvi, Praha 6, Czech Republic  
Copestake Philip, Merlin Energy Resources Ltd., New Street, Ledbury, Herefordshire, HR8 2EJ, UK  
Dzuba Oksana, Trofimuk Inst. of Geology & Geophysics, RAS, 630090 Novosibirsk, Russia  
Elbra Tiiu, Institute of Geology of the Czech Academy of Sciences, Rozvojová 269, 165 00 Prague 6, Czech Republic  
Erba Elisabetta, Dipartimento di Scienze della Terra, Univ. Milano, 34 20133 Milano, Italy  
Főzy István, Hungarian Natural History Museum, Dept of Palaeontology, 1431 Budapest, Hungary  
Frau Camille, Biogéosciences, UMR-CNRS 5561, Université de Bourgogne, 21000 Dijon, France  
Galbrun Bruno, University Pierre and Marie Curie, IStEP, UMR 7193, Paris  
Galloway Jennifer, Geological Survey of Canada, Calgary, Alberta, T2L 2A1, Canada  
Gang Li, Nanjing Institute of Palaeontology and Geology, Nanjing 210008, China  
Gardin Silvia, University Pierre and Marie Curie, IStEP, UMR 7193, Paris 05, France  
Grabowski Jacek, Institute of Geology, Ul. Rakowiecka 4, 00-975 Warsaw, Poland  
Guzhikov Andrey, Chernyshevsky Saratov State University, 410012 Saratov, Russia  
Halasova Eva, Dept Geology & Palaeontology, Comenius University, 84215 Bratislava, Slovakia  
Hunt Christopher, School of Geography, Queens University Belfast, Belfast, BT7 1NN, UK  
Ivanova Daria, Geological Institute BAS, Acad. G. Bonchev St., 1113 Sofia, Bulgaria  
Jianguo Li, Nanjing Institute of Palaeontology and Geology, Nanjing 210008, China  
Jingeng Sha, Nanjing Institute of Palaeontology and Geology, Nanjing 210008, China  
Kietzmann Diego, Departamento de Ciencias Geológicas, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Buenos Aires, Argentina  
Kostak Martin, Institute of Geology and Palaeontology, Charles University, Prague 2, 128 43, Czech Republic  
Lakova Iskra, Geological Institute BAS, Acad. G. Bonchev St., 1113 Sofia, Bulgaria  
Leanza Hector, Fac. de Ciencias Naturales y Museo, Univ. Nac. de La Plata, 1900 La Plata, Argentina  
Lintnerova Otilia, Dept of Economic Geology, Comenius University, 84215 Bratislava, Slovakia  
Lopez-Martinez Rafael, Inst. de Geología, Univ. Nac. Aut. de México, Coyoacán 04510, Mexico  
Lucas-Clark Joyce, San Francisco State University, San Francisco, California 94132, USA  
Markevich Valentina, Fed. Inst. of Biol. and Soil Science, Russian Acad. Sci., Vladivostok, Russia  
Meizhen Cao, Nanjing Institute of Palaeontology and Geology, Nanjing 210008, China  
Michalik Jozef, Geological Institute, Slovak Academy of Sciences, 84005 Bratislava, Slovakia  
Mohialdeen Ibrahim Jaza, Dept of Geology, Univ. of Sulaimani, P.O.Box 334, Sulaimani, Iraq  
Munsterman Dirk, TNO – Geol. Surv. of Netherlands, P.O. Box 80015, NL-3508 TA, Utrecht, Netherlands  
Ogg James, Earth and Atmospheric Science, Purdue University, West Lafayette, IN 47907, USA  
Olivier Mojon Pierre, Rue de l'Industrie 11, 2316 Les Ponts-de-Martel, Switzerland  
Poulton Terry P., Geological Survey of Canada, Calgary, Alberta, T2L 2A1, Canada  
Pruner Petr, Palaeomagnetic Laboratory, Inst. of Geology ASCR vvi, Praha 6, Czech Republic  
Pszczółkowski Andrzej, Inst. of Geol. Sci., Polish Acad. of Sc., Twarda 51/55, 00-818 Warsaw, Poland  
Rehakova Daniela, Dept Geology & Palaeontology, Comenius University, 84215 Bratislava, Slovakia

Riccardi Alberto, Fac. de Ciencias Naturales y Museo, Univ. Nac. de La Plata, 1900 La Plata, Argentina  
Riding James, British Geological Survey, Keyworth, Nottingham, NG12 5GG, UK  
Satolli Sara, Dip. di Ing. e Geologia, Università “G. D’Annunzio” di Chieti-Pescara, Chieti, Italy  
Schnabl Petr, Palaeomagnetic Laboratory, Inst. of Geology ASCR vvi, Praha 6, Czech Republic  
Stoykova Kristalina, Geological Institute BAS, Acad. G. Bonchev St., 1113 Sofia, Bulgaria  
Svobodova Andrea, Institute of Geology and Pal., Charles University, Prague 2, 128 43, Czech Republic  
Vajda Vivi, Department of Geology, Lund University, 223 62 Lund, Sweden  
Vennari Veronica, Dep. de Ciencias Geológicas, Universidad de Buenos Aires, CONICET, Argentina  
Verreussel Roel, TNO – Geol. Survey of Netherlands, P.O. Box 80015, NL-3508 TA, Utrecht, Netherlands  
Vuks Valery, All-Russian Geological Res. Institute (VSEGEI), 199106 St Petersburg, Russia  
Wierzbowski Andrzej, Institute of Geology, Ul. Rakowiecka 4, 00-975 Warsaw, Poland  
Xiaoqiao Wan, China University of Geosciences, Xueyuan Lu 29, Beijing 100083, China

#### E-mail addresses

pal@geus.dk; ibrahimjaza@yahoo.com; C.O.Hunt@ljmu.ac.uk; pszczolkowski@yahoo.com; jgra@pgi.gov.pl;  
awwierzb@uw.edu.pl; jluclark@comcast.net; geolmich@savba.sk; lintnerova@fns.uniba.sk; halasova@fns.uniba.sk;  
rehakova@fns.uniba.sk; pruner@gli.cas.cz; schnabl@gli.cas.cz; kostys@centrum.cz; cizkovak@gli.cas.cz;  
asvobodova@gli.cas.cz; lakova@geology.bas.bg; platon@lark.tu-sofia.bg; stoykova@geology.bas.bg;  
dariaiv@yahoo.com; bakhmutovvg@gmail.com; gloriaandreini@yahoo.it; s.satolli@unich.it; bulot@cerege.fr;  
camille\_frau@hotmail.fr; bruno.galbrun@upmc.fr; silvia.gardin@upmc.fr; jogg@purdue.edu;  
academicaigl@geologia.unam.mx; rafaelopez83@hotmail.com; vvennari@gl.fcen.uba.ar; hectorleanza@gmail.com;  
riccardi@fcnym.unlp.edu.ar; aguirre@gl.fcen.uba.ar; terry.poulton@canada.ca; gangli@nigpas.ac.cn;  
mzcao@nigpas.ac.cn; jgli@nigpas.ac.cn; jgsha@nigpas.ac.cn; wanxq@cugb.edu.cn; jennifer.galloway@canada.ca;  
bugdaeva@ibss.dvo.ru; markevich@ibss.dvo.ru; benzaggagh@yahoo.fr; semiformiceras@gmail.com;  
vivi.vajda@geol.lu.se; pierreoliviermojon@bluewin.ch; annie.arnaud@orange.fr; s\_bardhan01@yahoo.co.uk;  
sbardhan12@gmail.com; dirk.munsterman@tno.nl; Phil\_Copestake@merlinenergy.co.uk; DzyubaOS@ipgg.nsc.ru;  
Valery\_Vuks@vsegei.ru; aguzhikov@yandex.ru; roel.verreussel@tno.nl; jbri@bgs.ac.uk; elisabetta.erba@unimi.it;  
elbra@gli.cas.cz

#### KILIAN WG

Chair: Reboulet Stéphane, stephane.reboulet@univ-lyon1.fr - Laboratoire de Géologie de Lyon, CNRS-UMR 5276, Observatoire de Lyon, 2 rue Raphaël Dubois, Bâtiment Géode, Université Claude Bernard Lyon 1, 69622 Villeurbanne, FRANCE, Phone: +33(0)472446244.

Vice-chair: Jaap Klein, jaap.klein@zonnet.nl - Demmerik 12, 3645 EC Vinkeveen, The Netherlands.

Vice-chair: Josep A. Moreno-Bedmar, josepamb@geologia.unam.mx - Departamento de Paleontología, Instituto de Geología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Delegación Coyoacán, CP 04510, México, D.F., Mexico.

Vice-chair: Peter Rawson, peter.rawson1@btinternet.com - Department of Earth Sciences, University College London, Gower Street, London WC1E 6BT, UK, Centre for Marine and Environmental Sciences, University of Hull, Scarborough Campus, Filey Road, Scarborough YO11 3AZ, United Kingdom.

Vice-chair: Otilia Szives: sziveso@nhmus.hu - Hungarian Natural History Museum, Department of Paleontology, 1088 Ludovika ter 2, H-1431 Budapest, Hungary.

Vice-chair: Josep A. Moreno-Bedmar: josepamb@geologia.unam.mx - Departamento de Paleontología, Instituto de Geología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Delegación Coyoacán, CP 04510, Ciudad de México, México.

#### WG Members:

Aguirre-Urreta Beatriz, aguirre@gl.fcen.uba.ar - Instituto de Estudios Andinos Don Pablo Groeber (UBA-CONICET), Universidad de Buenos Aires, Ciudad Universitaria, pabellón 2, 1428 Buenos Aires, Argentina.

Alsen Peter, pal@geus.dk GEUS, Voldgade 10, Copenhagen 1350, Denmark

Baraboshkin Evgenij J., ejbaraboshkin@mail.ru - Dept. Regional Geology and Earth History, Geological Faculty, Moscow State University, Vorobjovy Gory, Moscow, 119991 Russia. Phone: +7(495)939-49-32.

Barragán Ricardo, ricardor@geologia.unam.mx - Departamento de Paleontología, Instituto de Geología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Delegación Coyoacán, CP 04510, México, D.F., Mexico

Bert Didier, paleo-db@orange.fr - Didier.BERT@le04.fr - Laboratoire du Groupe de recherche en paléobiologie et biostratigraphie des Ammonites, Bois-Mésanges, quartier Saint-Joseph, 04170 La Mure-Argens, France.

Bogdanova Tamara N., tnbogdanova@list.ru - Federal State Unitary Enterprise, “A. P. Karpinsky Russian Geological Research Institute”, (FGUP “VSEGEI”), 74, Sredny prospect, 199106 St. Petersburg, Russia.

Bogomolov Yuri, 1957iori@mail.ru - Rustaveli, 13/12, 104, Moscow 127254, Russia.

Bulot Luc G., bulot@cerege.fr - lucgbulot@aol.com - Géologie des Systèmes Carbonatés, EA 4234, Université de Provence Aix-Marseille 1, Centre de Sédimentologie-Paléontologie, case 67, 3 place Victor Hugo, 13331 Marseille, France.

Company Miguel, mcompany@ugr.es - Departamento de Estratigrafía y Paleontología, Facultad de Ciencias, Universidad de Granada, Campus de Fuentenueva s/n, 18002 Granada, Spain.

Főzy István, fozy@nhmus.hu, semiformiceras@gmail.com - Hungarian Natural History Museum, Department of Paleontology, 1088 Ludovika ter 2, H-1431 Budapest, Hungary.

Frau Camille, Camille\_FRAU@hotmail.fr - Groupement d'Intérêt Paléontologique, Science et Exposition, 60 bd Georges Richard, 83000 Toulon, France

González-Arreola Celestina, arreola@unam.mx - Departamento de Paleontología, Instituto de Geología, Universidad Nacional Autónoma de México, Ciudad Universitaria, Delegación Coyoacán, CP 04510, México, D.F., Mexico.

Hoedemaeker Philip, flip.hoedemaeker@naturalis.nl, National Museum of Natural History, P.O.Box 9517, 2300 RA Leiden, Netherlands

Idakieva Vyara, idakieva@gea.uni-sofia.bg - v\_idakieva@mail.bg - Sofia University St Kliment Ohridski, Faculty of Geology and Geography, Department of Geology, Paleontology and Fossil Fuels, 15 Tzar Osvoboditel Bd, 1504 Sofia, Bulgaria.

Ivanov Marin, mivanov@gea.uni-sofia.bg - Sofia University St Kliment Ohridski, Faculty of Geology and Geography, Department of Geology, Paleontology and Fossil Fuels, 15 Tzar Osvoboditel Bd, 1504 Sofia, Bulgaria.

Kakabadze Mikheil V., mishakakab@hotmail.com - Djanelidze Institute of Geology, Polytkovskaja St. 5, 0186 Tbilisi, Georgia.

Latil Jean-Louis, g.r.e.g.b@wanadoo.fr - Le Maupas, 05300 Lazer par Laragne, France.

Lukeneder Alexander, alexander.lukeneder@NHM-WIEN.AC.AT - Geological-Palaeontological Department, Natural History Museum, Burgring 7, A-1010 Vienna, Austria.

Matrion Bertrand, bertrand.matrion@sfr.fr - 26 avenue Jules Guesde, 10150 Pont Sainte Marie, France.

Mikhailova Irina A.; Department of Paleontology, Geological Faculty, Moscow State University, Vorobjovy Gory, 119899 Moscow, Russia.

Mitta Vasily, mitta@paleo.ru - Paleontological Institute of RAS, Profsoyuznaya 123, Moscow 117997, Russia.

Pictet Antoine, Chemin du Battoir 7, 1337 Vallorbe, Suisse.

Ploch Izabela, iplo@pgi.gov.pl - Polish Geological Institute, Geological Museum, Rakowiecka Str 4, PL-00-975 Warszawa, Poland

Raisossadat Seyed N., snaser\_rais@yahoo.co.uk - Geology Department, Faculty of Science, Birjand University, PO Box 97175/615, Birjand, Iran.

Sandoval José, sandoval@ugr.es - Dpto Estratigrafía y Paleontología, Universidad de Granada, 18002 Granada, Spain.

Tavera José M., jtavera@ugr.es - Departamento de Estratigrafía y Paleontología, Facultad de Ciencias, Universidad de Granada, Campus de Fuentenueva s/n, 18002 Granada, Spain.

Vašiček Zdenek, zdenek.vasicek@vsb.cz - zdenvas@email.cz - Institute of Geonics, Academy of Sciences of the Czech Republic, Studentská 1768, 708 00, Ostrava-Poruba, Czech Republic.

Vermeulen Jean, jean-vermeulen@hotmail.fr - Grand rue, 04330 Barrême, France.