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National Commission for Stratigraphy Belgium

NCS meeting report 21/01/2025 (pro 2024)

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1 Administrative section

The Chair opens the meeting at 14h.

1.1 Presence list

Present: Bernard Mottequin (BM, President), Kris Welkenhuysen (KW, Secretary, Webmaster), Michiel Duser (MD), Jacques Verniers (JV), Edouard Poty (EP), Kris Piessens (KP), Johan Yans (JY), Jasper Verhagen (JH), Jan Walstra (JW), Julien Denayer (JD)

Excused: Vanessa Heyvaert (VH), Jonathan Michel (JM), Stephen Louwye (SL), Francis Tourneur (FT), Alain Herbosch (AH), Bernard Delcambre (BD)

1.2 Approval of the previous meeting report

The report of the end 2024 meeting, available on the website, did not raise any remarks and is approved.

2 Reports of the subcommissions

2.1 Lower Palaeozoic (JV)

Activities

The chairperson (AH) and secretary (JV) met twice (Liege sept 2024 and Natural History Museum in Brussels 14.01 2025) to discuss work in progress. Their activities concerned mostly the publications (see below).

Bernard Mottequin, Thomas Servais, Yves Candela continued their study on Cambro-Silurian fossil collection and prepare several publications.

Publications

Mortier, J., Vanmeirhaeghe, J., Harper, D.A.T., Štorch, P., Zalasiewicz, J., Van Den Haute, P., Deckers, J., Mestdagh, T., Pille, T. & Verniers, J., 2023 (appeared in 2024). Stratigraphy, biostratigraphy, and chitinozoans of the uppermost Ordovician and Silurian of the Condroz Inlier. *Memoir of the Geological Survey of Belgium*, 65, 1-240.

Denayer, J. & Mottequin, B., 2024. Lower Devonian lithostratigraphy of Belgium. *Geologica Belgica*, 27/3-4, 115–154. <https://doi.org/10.20341/gb.2024.004>

Herbosch, A. & Boulvain, F. (in press, scheduled for March-April 2025). Chap. 8.1. Ardenne In *Geology of the Central European Variscides and its Avalonian-Cadomian precursors*. Elsevier (U. Linnemann, Editor).

Herbosch, A. & Walewyns, J.L. (submitted to *Geologica Belgica* March 2024). Occurrence of magnetite slates in a borehole drilled in the Blanmont Formation at Nil-Pierreux (Walhain, Walloon Brabant).

Herbosch, A. (major revision submitted to *Geologica Belgica* in September 2024). Geological observations following sewage works in the Hain valley (Walloon Brabant): implications for the interpretation of the Belgian aeromagnetic map.

Plans for 2025

As mentioned in the previous report, several Silurian formations in the Condroz Inlier, were already informally in use as new. Two formations (Bonne Esperance and Neuville-sous-Huy) have now formally been published in Mortier *et al.* (2023, printed in sept 2024). Six other formations are (re)described/redated: Genicot Fm, Dave Fm, Naninne Fm, Jonquoi Fm, Thimensart Fm and Colibeu Fm. As mentioned in the previous yearly report, these new or redescribed formations are not in conflict with the definitions or practice used on the geological maps of the Walloon Region in the Condroz Inlier. This year we will put these two new formations and the other six formations on the NCS website to be discussed and possibly agreed on in the spring 2025.

Also new definitions for some Ordovician formations or members in the Condroz Inlier made by Jan Vanmeirhaeghe (2007 ms) have also formally been published in the same publication: Mortier *et al.* (2023/2024). It concerns the Vitruval-Bruyère Formation (Giroux Mbr, La Bruyère Mbr, Sart Bernard Mbr & Rue de Courrière Mbr), Fosses Fm (Tihange Mbr) and the Ri de Chevreuil Fm. These revisions are in conflict in some places with the stratigraphy used on the geological maps of the Walloon Region in the Condroz Inlier. A discussion on this will be needed.

Herbosch A. prepares a paper: "Synthesis on the Chevlipont Formation".

J. Verniers prepares three manuscripts for *Geologica Belgica* (articles requested for the Van den Broeck medal).

Verniers, J., Van Grootel, G., Vanmeirhaeghe, J., Boucquet, J. & J. Mortier. A composite chitinozoans biostratigraphy of the Silurian in Belgium.

Verniers J. & Herbosch, A. The Silurian formations in Belgium anno 2025 (for the NCS).

Verniers, J., Herbosch, A., Debacker, T., Vanmeirhaeghe, J. & J. Mortier. The present state of knowledge on the Silurian of Belgium.

A start will be given to put the newest information on all Cambrian, Ordovician and Silurian formations on the NCS website under construction. A draft for the Cambrian and Ordovician formations in the Brabant Massif is already finished.

Michiel Arts *et al.* work in progress:

- The chemostratigraphic record of the early Silurian at Huy, Belgium

- Indications for a lower Palaeozoic petroleum system in the early Silurian strata of Huy, Belgium.

Sofia Pereira (Coimbra) and Jorge Colmenar (Madrid): identification in progress of macrofauna sampled in 2023 of two Ordovician outcrops near Sart-Bernard in the Condroz Inlier.

Members

Scientists more or less active on the study of the Lower Palaeozoic of Belgium (last three years).

Michiel Arts (ULiège),

Jorge Colmenar (Madrid).

Xavier De Vleeshouwer (BGD/SGB),

Julien Denayer (ULiège)

Alain Herbosch, chairperson (ULB),

Jan Mortier (UGent),

Bernard Mottequin (KBIN/IRScNB)

Sofia Pereira (Coimbra)

Jacques Verniers, secretary (UGent)

2.2 Devonian (BM)

Activities

The revision of the lithostratigraphic scale of Belgium was published in a special volume of *Geologica Belgica* as volume 27/3-4 (edited by Mottequin & Denayer). Three papers (six authors in total, all members of the Subcommittee on Devonian Stratigraphy) deal with the Lower, Middle and Upper Devonian. It is an update of the previous overview by Bultynck & Dejonghe (2002), mostly based on major contributions from the Carte géologique de Wallonie and additional works published since 2002. It proposes a revised hierarchy (Group/Formation/Member) and introduces remarkable horizons and beds; 237 units are described and discussed.

The newly introduced units and already existing units with modified definitions were submitted in early January to the Secretary of the NCS who spread the files to the board members of the subcommittees. According to NCS rules, comments are expected before early April.

Publications about the Devonian of Belgium in 2024

Barchy, L., Dejonghe, L. & Marion, J.-M., 2024. Carte géologique de Wallonie : Rochefort – Nassogne 59/3-4. 1/25 000. Service public de Wallonie, Agriculture, Ressources naturelles et Environnement, Namur, and its explanatory booklet, 92 p.

Boulvain, F. & Ludet, J.-P., 2024. Meandering alluvial systems in the Lower Devonian, La Roche-en-Ardenne area (Saint-Hubert Formation). *Professional Papers of the Geological Survey of Belgium*, 323, 1–38.

Dejonghe, L., 2024. Carte géologique de Wallonie : Wibrin – Houffalize 60/3-4. 1/25 000. Service Public de Wallonie, Agriculture, Ressources naturelles et Environnement, Namur, and its explanatory booklet, 60 p.

- Denayer, J. & Mottequin, B., 2024. Lower Devonian lithostratigraphy of Belgium. *Geologica Belgica*, 27/3-4, 115–154. <https://doi.org/10.20341/gb.2024.004>
- Denayer, J., 2024. Rugose corals across the Early–Middle Devonian boundary in southern Belgium. *Palaeobiodiversity and Palaeoenvironments*. <https://doi.org/10.1007/s12549-024-00627-0>
- Denayer, J., Coen-Aubert, M. & Mottequin, B., 2024. Middle Devonian lithostratigraphy of Belgium. *Geologica Belgica*, 27/3-4, 155–192. <https://doi.org/10.20341/gb.2024.009>
- Michel, J., 2024. Carte géologique de Wallonie : Sainte-Marie-Chevigny – Sibret 65/1-2. 1/25 000. Service public de Wallonie, Agriculture, Ressources naturelles et Environnement, Namur, and its explanatory booklet, 48 p.
- Mottequin, B. & Denayer, J., 2024. Revised lithostratigraphic scale of the Devonian of Belgium: An introduction and an homage to Pierre Bultynck. *Geologica Belgica*, 27/3-4, 105–114. <https://doi.org/10.20341/gb.2024.008>
- Mottequin, B., Denayer, J., Delcambre, B., Marion, J.-M. & Poty, E., 2024. Upper Devonian lithostratigraphy of Belgium. *Geologica Belgica*, 27/3-4, 193–270. <https://doi.org/10.20341/gb.2024.007>

Varia

The board of the Devonian Subcommittee has been entirely renewed in 2024: Julien Denayer (president) and Francis Tourneur (secretary).

2.3 Carboniferous (EP)

Activities

The Dinantian lithostratigraphic units are currently being revised for a new publication. This will include more detailed and updated descriptions of the formations and their members, as well as new data concerning the stratigraphy of the dolomitic units compared with Poty et al.'s. (2002) paper.

In addition, an attempt is being made to time-calibrate the Tournaisian and Visean formations of southern Belgium, based on the duration of forced orbital cycles.

By analysing precession cycles and eccentricity parasequences, it was established that third-order sequences 1 to 4B of the Strunian–Tournaisian and third-order sequences 5, 6, 9, 10A and 10B of the Visean corresponded to a period of 2.38 Ma, and sequences 7 and 8 of the Visean to 4.76 and 0.79 Ma, respectively. This makes it possible to estimate the duration of the lithostratigraphic formations making up these sequences. For example, it has been established that the duration of the Pont d'Arcole Formation was around 370 Ka and that of the Landelies Formation around 1.376 Ma. This work could be completed by the end of 2025.

A revision of the Sileseian is also upcoming, but there are still issues to be solved.

2.4 Permian–Triassic–Jurassic (MD)

Activities

The main interest is in the outcropping transboundary area between Gaume, Gutland and Lorraine, with focus on the Grand-Duchy of Luxembourg, especially paleontological work facilitated by the Musée national d'histoire naturelle de Luxembourg, geoheritage promotion on the schistes carton and former minette mines at the border between GDL and France and the Mëllerthal Geopark at the border between GDL and Germany. Applied geotechnical studies or subsurface reconnaissance is an ongoing activity but rarely makes it to a publication list. Some studies on Jurassic building stones in Belgian monuments or archeological context are included in the publication list.

No particular activities were performed on the Permian – Triassic – Jurassic of the concealed Campine Basin in 2024, except indirectly by deep subsurface mapping projects in The Netherlands. Cartographic data for Flanders can be consulted on <<https://dov.vlaanderen.be/page/3d-subsurfaceviewer>>

Selective publication list 2024

Gaume / Lorraine / GDL

Fuchs, D., Weis, R. & Thuy, B., 2024. *Simonitheutis*, a new vampyromorph coleoid with prey in its arms from the Early Jurassic of Luxembourg. *Swiss Journal of Palaeontology*, 143-6, 10 p.

- Weis, R., Delsate, D., Klug, C., Argyriou, T. & Fuchs, D., 2024. Pachycormid fish fed on octobrachian cephalopods: new evidence from the 'Schistes bitumineux' (early Toarcian) from southern Luxembourg. *Swiss Journal of Palaeontology*, 143:5, 16 p.
- Remacle, L. & Michel, G., 2024. Sur les traces des mineurs de Gaume. Visite au Musée Minier Métallurgique de Musson - Halanzy (4MH). *Eco Karst*, N° 136 - 2ème trimestre 2024: 6-12.
- Gruslin, S., Hennebaut, T., Meyer, R. & Colbach, R., 2024. First evidence of Triassic above the Devonian of the Oesling (Luxembourg)? 8th International Geologica Belgica Meeting 2024 - Liège 11-12-13 September 2024: poster + abstract book pp. 188-189
- Gruslin, S., Hennebaut, T. & Tirone, M., 2024. Multiple landslides in a natural touristic area (Mullerthal, Luxembourg). XIVth International Symposium on Landslides, 8th-12th July 2024, Chambéry, France: abstract + poster
- GEOCONSEILS, Lotissement rue du paquis à Halanzy, Avis géologique concernant la problématique des « schistes cartons », report 20240376-GC-GEOTEC-GEOL, 08/07/2024

Campine

- Cecchetti, E., Martinius, A.W., Bruna, P-O, Bender, A. & Abels, H.A., 2024. Structural controls on the Triassic Main Buntsandstein sediment distribution in the Roer Valley Graben, the Netherlands. *Netherlands Journal of Geosciences / Geologie en Mijnbouw*, 103 e23 doi.org/10.1017/njg.2024.17, 19 p.
- ten Veen, J.H., den Dulk, M., Nelskamp, S., Houben, A.J.P., Kaliar, A.L., Witteman, T.T. & Altenburg, R.J., 2024. H3O-Diep Zuid-NL. Rapport in concept: De ondergrond van de provincies Noord-Brabant en Zeeland in meer detail. TNO 2024 R11169 – 14 oktober 2024, 98 p.

Building stones

- De Schutter, L., Duser, M., & De Ceukelaire, M., 2024. Archeologische opgraving Noorderterras. Natuursteen in de depositie van ballaststeen en hergebruikte bouwmaterialen van de Burcht, Scheldekaaien – Noorderterras (Antwerpen): aanvullend onderzoek van gesteenten opgeslagen in het Felixarchief. *Scientific Reports of the Geological Survey of Belgium*, 2024/03, 56 p.
- Dreesen, R., Duser, M., Debonne, V. & Declercq, W., 2024. Contexte géologique du grès à ciment calcaire de Boulogne (« Pierre de Baincthun »), pierre de construction médiévale importante des Comtés d'Artois et de Flandre. *Revue du Nord*, no 50 hors série Collection Histoire: 113-130.
- Dreesen, R., Goemaere, E. & Kremer, G., 2024. Provenance analysis of the natural stones in funerary monuments from the western part of the Civitas Treverorum. In: *Zeit(en) des Umbruchs. Akten des 17. Internationalen Kolloquiums zum provinzialrömischen Kunstschaffen*, Wien – Carnuntum, 16.–21.5.2024. *Veröffentlichungen aus den Landessammlungen Niederösterreich*, Nr. 7: 43-50.
- Duser, M., 2024. Heilige Geesthof en kapel van Overloo - natuursteenidentificatie. Studie t.a.v. Thijs Goemans. Koninklijk Belgisch Instituut voor Natuurwetenschappen - Belgische Geologische Dienst, 12/08/2024, 34 p.

Members

No changes in the subcommission membership have occurred.

2.5 Cretaceous (MD)

Activities/special manifestations

Special Issue in the *Netherlands Journal of Geosciences*: Jagt, John W.M., Fraaije, René H.B., Jagt-Yazykova, Elena A. & Vellekoop, Johan (eds). *Aspects of Maastrichtian (Late Cretaceous) stratigraphy and palaeontology*. *Netherlands Journal of Geosciences*, volume 103, e2.

A conference in Maastricht celebrated the 175th anniversary of the Maastrichtian by A. Dumont:



An unusual exhibition with fossils and ghost fossils in silicified cretaceous was organized in Tongeren:



Current research (unpublished)

Molecular structure or organic-walled dinocysts from noreholes Kallo and Nieuwkerke (S. Louwye, UGent)

Natural heritage from the Cretaceous in Riemst commune (M. Lahaye PhD in heritage studies, UAntwerpen, promoters T. De Kock & M. Dusar)

Publications

Fay, Ophélie; Kroth, Mateus; Claes, Hannes; Farrant, Andrew; Vandycke, Sara; Woods, Mark, 2024. Chalk marl seams: not quite what they seem... In: 19^{ème} Congrès Français de Sédimentologie, Lille, 27-29 novembre 2024. Association des Sédimentologues Français – ASF. <https://hdl.handle.net/20.500.12907/50156>

Fay, O., Claes, H., Gonze, N., Pigot, L., Georgieva, T., Van Malderen, E., De Oliveira-Silva, R., Sakellariou, D., Galaup, S., Ajdanlijsky, G., Kouzmanov, K., Vandycke, S., Descamps, F., & Swennen, R. (11 September 2024). Effect of water saturation on the mechanical properties of various chinks characteristic of the Northwest European geoheritage [Paper presentation]. International Geologica Belgica Meeting 2024, Liège, Belgium. <https://hdl.handle.net/20.500.12907/49658>

- Fay, O., Vandycke, S., Claes, H., Swennen, R., & Descamps, F. (26 June 2024). Lithofacies and depositional settings of the Coniacian- Campanian Chalk in the Mons Basin [Paper presentation]. IAS Conference 2024, Aberdeen, United Kingdom. <https://hdl.handle.net/20.500.12907/49444>
- Jagt, J.W.M.; Jagt-Yazykova, E.A., del Prado-Rebordinos & Teschner, E.N., (eds.) The 175th Anniversary of the Maastrichtian – a Celebratory Meeting, Maastricht, September 8-11, 2024 / /Mosasaur Meeting. 7th Triennial Mosasaur Meeting – A global perspective on Mesozoic marine amniotes, Maastricht, September 12-15, 2024. Natuurhistorisch Museum Maastricht / Maastricht University / Centre Céramique. Abstract Volume and Programme: 214 p. (ISBN 9789464916560).
- Jagt, J.W.M., Deckers, M.J.M. & Jagt-Yazykova, E.A., 2024. ‘Changing of the guard’ amongst holasteroid echinoids in the upper Maastrichtian of the south-east Netherlands: exit Echinocorys, enter Hemipneustes. *Cretaceous Research*, 158: 105850. <https://doi.org/10.1016/j.cretres.2024.105850>
- Schulp, A.S., Sloopjes, D., Jagt, J.W.M., Mulder, E.W.A. & Bardet, N., 2024. A nomenclatural note on *Mosasaurus hoffmanni* (Squamata, Mosasauroidae). In: Jagt, J.W.M., Fraaije, R.H.B., Jagt-Yazykova, E.A. & Vellekoop, J. (eds). *Aspects of Maastrichtian (Late Cretaceous) stratigraphy and palaeontology*. *Netherlands Journal of Geosciences*, 103: e2. <https://doi.org/10.1017/njg.2023.13>
- Barten, L.P.J., Mulder, E.W.A. & Jagt, J.W.M., 2024. A plesiosaurian autopodial element (Plesiosauria indet.) with remarkable articular subchondral surfaces from the Maastrichtian type area (south-east Netherlands). In: Jagt, J.W.M., Fraaije, R.H.B., Jagt-Yazykova, E.A. & Vellekoop, J. (eds). *Aspects of Maastrichtian (Late Cretaceous) stratigraphy and palaeontology*. *Netherlands Journal of Geosciences*, 103: e8. <https://doi.org/10.1017/njg.2024.4>
- Field, D.J., Benito, J., Werning, S., Chen, A., Kuo, P.-C., Crane, A., Widrig, K.E., Ksepka, D.T. & Jagt, J.W.M., 2024. Remarkable insights into modern bird origins from the Maastrichtian type area (north-east Belgium, south-east Netherlands). In: Jagt, J.W.M., Fraaije, R.H.B., Jagt-Yazykova, E.A. & Vellekoop, J. (eds). *Aspects of Maastrichtian (Late Cretaceous) palaeontology and stratigraphy*. *Netherlands Journal of Geosciences*, 103: e15. <https://doi.org/10.1017/njg.2024.11>
- Jagt, J.W.M., Claessens, L.P.A.M., Fraaije, R.H.B., Jagt-Yazykova, E.A., Mulder, E.W.A., Schulp, A.S. & Wallaard, J.J.W., 2024. The Maastrichtian type area (Netherlands-Belgium): a synthesis of 250+ years of collecting and ongoing progress in Upper Cretaceous stratigraphy and palaeontology. In: Clary, R.M., E.J. Pyle & W.M. Andrews (eds). *Geology’s significant sites and their contributions to geoheritage*. Geological Society (London), Special Publication, 543: 281-294. <https://doi.org/10.1144/SP543-2022-232>
- Mitchell, S.F., Steuber, T. & Jagt, J., 2024. Comment on Dubicka et al. (2024): Multi-proxy record of the mid-Maastrichtian event in the European Chalk Sea: paleoceanographic implications. *Gondwana Research*, 129, 1-22. *Gondwana Research*, 134: 410-412. <https://doi.org/10.1016/j.gr.2024.07.012>
- Vallon, L.H., Milàn, J., Jagt, J.W.M. & Bromley, R.G., 2024. Marvellous Maastrichtian miners – bioerosional trace fossils as natural casts from the type area of the Maastrichtian Stage, the Netherlands. In: Jagt, J.W.M., Fraaije, R.H.B., Jagt-Yazykova, E.A. & Vellekoop, J. (eds). *Aspects of Maastrichtian (Late Cretaceous) stratigraphy and palaeontology*. *Netherlands Journal of Geosciences*, 103: e20. <https://doi.org/10.1017/njg.2024.19>
- Huygh, J.J.C., Sinnesael, M., Kaskes, P., Vellekoop, J., Van der Geest, H., Jagt, J.W.M. & Claeys, P., 2024. Astronomical pacing of flint bands in the Maastrichtian chalk sea of north-western Europe, pp. 65-67. In: Jagt, J.W.M., E.A. Jagt-Yazykova, A. del Prado-Rebordinos & E. Teschner (eds). *Maastrichtian 175 years. The 175th Anniversary of the Maastrichtian – a Celebratory Meeting, Maastricht, September 8-11, 2024/Mosasaur Meeting. 7th Triennial Mosasaur Meeting – A global perspective on Mesozoic marine amniotes, Maastricht, September 12-15, 2024. Abstract volume and programme: 65-67. Maastricht, Natuurhistorisch Museum Maastricht/Maastricht University/Centre Céramique. ISBN 9789464916560*
- Kaskes, P., Vellekoop, J., Percival, L., Jagt, J.W.M., Claeys, P. & Smit, J., 2024. A geochemical revisit of the expanded Cretaceous-Paleogene (K/Pg) boundary section in the Maastrichtian type area, pp. 87-90. In: Jagt, J.W.M., E.A. Jagt-Yazykova, A. del Prado-Rebordinos & E. Teschner (eds). *Maastrichtian 175 years. The 175th Anniversary of the Maastrichtian – a Celebratory Meeting, Maastricht, September 8-11, 2024/Mosasaur Meeting. 7th Triennial Mosasaur Meeting – A global perspective on Mesozoic marine amniotes, Maastricht, September 12-15, 2024. Abstract volume and programme: 87-90. Maastricht, Natuurhistorisch Museum Maastricht/Maastricht University/Centre Céramique. ISBN 9789464916560*

- Vellekoop, J., Kaskes, P., Sinnesael, M., Jagt, J.W.M., Renkens, S., Nieuwenhuis, E. & Zijlstra, H.J.P., 2024. The Maastrichtian Geoheritage Project, a fertile cross-pollination of citizen science and academia, pp. 178-181. In: Jagt, J.W.M., E.A. Jagt-Yazykova, A. del Prado-Rebordinos & E. Teschner (eds). Maastrichtian 175 years. The 175th Anniversary of the Maastrichtian – a Celebratory Meeting, Maastricht, September 8-11, 2024/Mosasaur Meeting. 7th Triennial Mosasaur Meeting – A global perspective on Mesozoic marine amniotes, Maastricht, September 12-15, 2024. Abstract volume and programme: 178-181. Maastricht, Natuurhistorisch Museum Maastricht/Maastricht University/Centre Céramique. ISBN 9789464916560
- Van Bakel, B.W.M., Jagt, J.W.M., Fraaije, R.H.B., Guinot, D., Artal, P. & Goolaerts, S., 2024. Binkhorstiidae, a new family of crabs (Decapoda, Brachyura, Retroplumoidea) from the Upper Cretaceous of the Netherlands and Belgium. In: Jagt, J.W.M., Fraaije, R.H.B., Jagt-Yazykova, E.A. & Vellekoop, J. (eds). Aspects of Maastrichtian (Late Cretaceous) stratigraphy and palaeontology. Netherlands Journal of Geosciences, 103: e21. <https://doi.org/10.1017/njg.2024.16>
- Claeys, P.; Senel, C. B.; Kaskes, P.; Temel, O.; Vellekoop, J.; Goderis, S.; Prins, M. A.; Karatekin, O., 2024. Fine silicate dust from Chicxulub crater excavation shuts down photosynthesis for up to 2 years after the K-Pg impact. EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024 <doi: 10.5194/egusphere-egu24-6595 >
- Kesselhut, Oliver; Goffings, Luc; Vellekoop, Johan, 2024. Bryozoan assemblages of the Gulpen Formation (upper Campanian - upper Maastrichtian) in the Limburg - Liège area (Belgium, the Netherlands). Netherlands Journal of Geosciences / Geologie en Mijnbouw, 103 <https://doi.org/10.1017/njg.2024.14>, 23 p.
- Willems, A.; Jagt, J. W. M. & Vellekoop, J., 2024. High-resolution paleoseasonality records across the Late Maastrichtian Warming Event (Late Cretaceous) as revealed by oyster shells from the Maastrichtian type area (SE Netherlands, NE Belgium). EGU General Assembly, Vienna, 14-19.4.2024 <doi.org/10.5194/egusphere-egu24-7846>
- Dusar, M.; Dreesen, R.; Dubelaar, C.W.; Lagrou, D. & Nijland, T.N., 2024. Maastrichtian building stones from the Mergelland type region; more than Maastricht Stone. In: Jagt, J.W.M., E.A. Jagt-Yazykova, A. del Prado-Rebordinos & E. Teschner (eds). Maastrichtian 175 years. The 175th Anniversary of the Maastrichtian – a Celebratory Meeting, Maastricht, September 8-11, 2024/Mosasaur Meeting. 7th Triennial Mosasaur Meeting – A global perspective on Mesozoic marine amniotes, Maastricht, September 12-15, 2024. Abstract Volume and Programme: 47-50 (ISBN 9789464916560).
- Lahaye, M. & De Kock, T., 2024. A historical perspective on underground limestone quarrying in Limburg, Belgium: the archives of the former Department of Mines. International Geologica Belgica Meeting 2024, Liège, Belgium: 163-164.
- Walschot, L. et al.(Lahaye, M.), 2024. Lespakket Mergel (kinderen), 20 p.
- Walschot, L. et al. (Lahaye, M.), 2024. Mergel lespakket voor volwassenen, 28 p.

Members

Johan VELLEKOOP (KULeuven/RBINS) has joined the Subcommission. No other changes in the subcommission membership have occurred.

2.6 Paleogene-Neogene (JV)

There was a change in organisation of the subcommission. Katrien resigned as secretary because she has a new job at DOV. Jasper takes over her position. All information on the Paleogene and Neogene is present on the website.

The Neogene has been recently fully updated and is quite extensive. For the Paleogene, work is started at member level, starting with the Maldegem Formation lead by Jef Dekkers.

The Rupel Group descriptions by Noël Vandenberghe was formalised.

Research on the Ieper Group is ongoing with new nice cores from Ronse; extensive sampling was done.

Johan Matthijs is taking new initiative to formalise the Beselare and Maaseik members.

Work on the Neogene has now slowed down somewhat. Rik Houthuys and Stijn Everaert did analysis and fieldwork on Rumst, a publication is expected in the second half of 2025.

Stijn Everaerts also has a new publication on a temporary outcrop in Putte.

2.7 Quaternary

Nothing received

2.8 Région Wallonne (JD)

As pointed out in ongoing mapping projects, several lithostratigraphic units are currently defined/re-defined/re-calibrated and will be discussed with the subcommissions before the publication of the results. These include the downgrading of the Ville-Pommeroeul, Thulin and Thivencelles formations to member status and the promotion of the Erquelinnes formation to formation rank (maps Beloeil-Baudour, Jurbise-Obourg, Quievrain-Saint-Ghislain, Mons-Givry). Moreover, several units have the same name, e.g. the Barremian-Albian ('Wealdian') Haine Group and the Paleocene Haine Group (Montien auct.), the first has the priority (introduced by Marlière, 1954, vs. Marechal, 1993 for the second). To fit with the rules of the International Stratigraphic Guide, a new name should be proposed for the second term. Proposals to the subcommissions on Cretaceous and Paleogene-Neogene Stratigraphy will be submitted in the future.

The Devonian units have been also revised (see the report of the SDS above).

A series of boreholes drilled in the eastern Belgium for the prospective study of the implantation of the Einstein Telescope brought a lot of new data on Upper Devonian and Carboniferous that should be considered in the future. It revealed little-known lithological variations in the Carboniferous succession of this region, particularly in the development of the Tournaisian dolostones.

Varia

The board of the Subcommission 'Region wallonne' is presided by Julien Denayer since 2024, no secretary has been designated.

2.9 Alteration units (MD)

The alteration units have never been of great interest. JY suggested to organise a conference with publications, participating members of other SCs are still welcome. There is a general call for collaboration with the other SCs.

2.10 Lithotectonic units (KP)

The SC expertise coverage is sufficient for conducting base work, but there are some knowledge gaps and new members are welcome.

Several SC meetings were held, and initiatives are taken at national (GB conference, UGent seminar) and EU level (GSEU project).

The lithotectonic framework has received its first "field tests", applied to the geology of Flanders for a report commissioned by VPO. A small quiz was also designed to test the framework on student and expert understanding of Belgian geology, and evoking discussions on how to reason about geology.

Actions for 2025 are:

- Continue workgroup meetings (~5 per year)
- Finish first order lithotectonic definitions
- Keep framing it in European initiatives

3 Website (KW)

The structure of the new website is presented, together with the status of uploading information. All data of the old website is now available either on the unit html pages or as linked pdf document.

A document with a proposal for stratigraphic orthographic guidelines is circulated for input, to be published on the website alongside two other practical guides (nomenclature and procedures).

Each subcommission should review their menu structure for unit descriptions, and review the description on the subcommission landing pages (subcommission itself (admin) and period (content/descriptions)).

If there are stratigraphic announcements to be made, they can be sent to KW for publication on the site.

4 Varia

Several Belgian locality names are used to designate lithostratigraphic units of different ages, which is contrary to the recommendations of the International Stratigraphic Guide. For example:

- Eisden Member (Opglabbeek Formation, Paleogene, de Geyter & Laga, 1988) – Eisden Member (Lanklaar Formation, Quaternary, Paulissen & Gullentops in Gullentops et al., 2002)
- Fosses Member (Ardennes Formation, Quaternary, Gullentops in Gullentops et al., 2002) – Fosses Formation (Ordovician, Gosselet, 1873)
- Hastière Member (Ardennes Formation, Quaternary, Gullentops in Gullentops et al., 2002) – Hastière Formation (Carboniferous, de Dorlodot, 1895)
- Opgrimbie Facies (Bolderberg Formation, Neogene, Louwye et al., 2023) – Opgrimbie Member (Gent Formation, Quaternary, Beerten et al., 2016)

In addition, there are still members which are not formally named (e.g. Lower, Middle and Upper members of the Malmedy Formation).

We therefore invite each subcommissions to propose alternative names to remove any ambiguity.