Summarised description

Unit name

Stolzembourg Member

Code

STO

Status

Formal Member

Parent unit

Our Formation

Child units

None

Characteristic description

Bluish to greenish-grey shale, siltstone, with a brownish patina when weathered.

Age

Early Emsian

Thickness

1400 metres

Area of occurrence

Northeastern limb of the Neufchâteau – Eifel Synclinorium, east of Troisvierges Fault.

Type locality

Sections along the Our River between Kalborn (Grand Duchy of Luxembourg) and Burg-Reuland (Belgium).

Alternative names

Schistes de Stolzembourg

Authors

Lucius (1950)

Modified after

Denayer, J. & Mottequin, B., 2024. Lower Devonian lithostratigraphy of Belgium. Geologica Belgica, 27/3-4, 115–154.

Date

23/09/2025

Cite as

Denayer, J. & Mottequin, B., 2025. The Stolzembourg Member, 23/09/2025. National Commission for Stratigraphy Belgium. https://ncs.naturalsciences.be/lithostratigraphy/Stolzembourg-Member

Full description

Unit name

Stolzembourg Member

Code

STO

Status

Formal Member

Parent unit

Our Formation

Child units

None

Origin of the name

After the Stolzembourg locality the Grand Duchy of Luxembourg.

Alternative names

Schistes de Stolzembourg

Authors

Lucius (1950, p. 10): *Schiefer von Stolzemburg*

Modified after

Denayer, J. & Mottequin, B., 2024. Lower Devonian lithostratigraphy of Belgium. Geologica Belgica, 27/3-4, 115–154.

Date

23/09/2025

Cite as

Denayer, J. & Mottequin, B., 2025. The Stolzembourg Member, 23/09/2025. National Commission for Stratigraphy Belgium. https://ncs.naturalsciences.be/lithostratigraphy/Stolzembourg-Member

Characteristic description

The Stolzembourg Member is dominated by the shale and siltstone but sandstone beds occur in the lower part and become more abundant upsection. The sandstone is badly washed, poorly sorted, argillaceous and frequently arkosic. At the base of the Member, many horizons with load-casts are present. Some of these structures are up to 50 cm in diameter and affect preferentially the siltstone and fine-grained sandstone (Macar & Antun, 1950).

Area of occurrence

The Member is developed on the north-eastern limb of the Neufchâteau Synclinorium, east of the Troisvierges Fault but is hardly distinguished from the overlying Schuttbourg Member in Belgium. The distinction is clearer in the Grand Duchy of Luxembourg.

Type locality

The historical type section of Stolzembourg (Stolzemburg) in the Grand Duchy of Luxembourg is not accessible anymore, but Dejonghe (2019) proposed the sections along the Our River between Kalborn

(Grand Duchy of Luxembourg) and Burg-Reuland (Belgium) overcome this drawback. However, none of these sections fully exposes the formation.

Age

Asselberghs (1932) reported the presence of an invertebrate fauna typical of the lower Emsian in the *Quartzophyllades de Schuttbourg.* In Burg-Reuland, the Formation yielded the brachiopods *Arduspirifer antecedens*, *Euryspirifer* cf. *latissimus*, and *Meganteris ovata* indicating the middle to upper part of the Lower Emsian (De Baets et al., 2013).

Thickness

Dejonghe (2019) indicates a thickness of 1400 m for the Stolzembourg Member in the Grand Duchy of Luxembourg.

Lower boundary

There is no clear boundary between the Soltzembourg Member and the underlying Kautenbach-Troisvierges Formation but the progressive development greenish colour and brownish patina can be use.

Upper boundary

The transition to the overlying Schuttbourg Member marked by the progressive increase of frequence of the sandstone beds.

Regional correlations

In Germany, these lithologies are included in the *Shleiden-Schichten* and the *Wüstebach-Schichten* (Ribbert et al., 1992).

References

Asselberghs, E., 1932. Le Dévonien inférieur de la Prusse rhénane à l'ouest des bassins calcaires de l'Eifel. Mémoires de l'Institut géologique de l'Université de Louvain, 5/1, 1–46.

De Baets, K., Goolaerts, S., Jansen, U., Ritbergen, T. & Klug, C., 2013. The first record of Early Devonian ammonoids from Belgium and their stratigraphic significance. Geologica Belgica, 16/3, 148–156.

Dejonghe, L., 2019. Notice explicative de la carte géologique du Luxembourg à 1/25 000, feuille n° 1 Troisvierges. Bulletin du Service géologique du Luxembourg, 18, 5–35.

Lucius, M., 1950. Das Oesling. Erläuterungen zu der geologischen spezialkarte Luxembourgs. Ministère des Travaux publics, Service géologique du Luxembourg, 6, 1–174.

Macar, P. & Antun, P., 1950. Pseudo-nodules et glissements sous-aquatiques dans l'Emsien inférieur de l'Oesling (Grand-Duché de Luxembourg). Annales de la Société géologique de Belgique, 73/3-7, B121–B150.

Ribbert, K.-H., Brunemann, H.-G., Jäger, B., Knapp, G., Michel, G., Reinhaerdt, M., Weber, M. & Wrede, V., 1992. Geologische Karte von Nordrhein-Westfalen 1/100 000, Erläuterungen zu Blatt C 5502 Aachen. Geologisches Landesamt Nordrhein-Westfalen, Krefeld, 84 p.