

Summarised description

Unit name

Wépion Formation

Code

WEP

Status

Formal Formation

Parent unit

none

Child units

Grand Ri Member, Bois des Collets Member, Staneux Member

Characteristic description

Green quartzite beds with a conglomeratic base, greenish or reddish sandstone with thickly bedded, grey, green or red shale and siltstone, then coarse-grained to conglomeratic sandstone.

Age

Emsian

Thickness

200 to 450 metres

Area of occurrence

North and eastern margins of the Dinant Synclinorium, up to the Mormont Fault, and Theux Window.

Type locality

After the village of Wépion in the Meuse River valley.

Alternative names

Grès de Wépion

Authors

Gosselet (1888)

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 Wépion Formation, 23/09/2025. National Commission for Stratigraphy Belgium. <https://ncs.naturalsciences.be/lithostratigraphy/Wepion-Formation>

Full description

Unit name

Wépion Formation

Code

WEP

Status

Formal Formation

Parent unit

none

Child units

Grand Ri Member, Bois des Collets Member, Staneux Member

Origin of the name

After Les Collets locality in Wépion, in the Meuse River valley

Alternative names

Grès de Wépion

Authors

Gosselet (1888, p. 355): *Grès de Wépion*

Modified after

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

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Characteristic description

The Wépion Formation was divided into two members by Stainier (1994), namely the Grand Ri and Bois des Collets members. The **Grand Ri Member** (*Membre du Grand Ri* in Stainier, 1994, p. 128) begins with a thick bed of green quartzite with a conglomeratic base (white quartz, green or red sandstone and tourmalinite pebbles). It then passes to thick units of blue-grey, greenish or reddish sandstone and quartzite that alternate with thickly bedded, grey, green or red shale and siltstone beds that include some thin sandstone beds. Then come quartzites and blue or greenish argillaceous sandstones of which beds are frequently lenticular. They form thick bundles that are separated by thick units of grey, black or mottled shales and siltstones. These finer lithologies comprises decimetre- to pluridecimetre-thick beds of green and red sandstone beds, generally well-stratified. Desiccation cracks and raindrop impressions occur in the pelitic horizons, which often contain plant debris (e.g. Gerrienne, 1994).

The **Bois des Collets Member** (*Poudingue du Bois des Collets* in Stainier, 1891, p. M44) consists of very coarse-grained to conglomeratic sandstones that are separated by shales. The siliciclastic rocks of this member are all ferruginous, cellular and green. The coarse-grained and conglomeratic beds are more

and more frequent upsection, marking the coarsening-upward trend that culminates in the overlying Burnot Formation.

In the Theux Window, a unit of whitish coarse-grained quartzitic sandstone with thin shaly interbeds develops laterally to the sandstone. It is here named **Staneux Member** (*Grès de Staneux* in Asselberghs, 1954, p. 106).

Area of occurrence

North and eastern margins of the Dinant Synclinorium, up to the Mormont Fault (van Tuijn, 1927), where it passes to the Vireux Formation (Marion & Barchy, in press). According to Asselberghs (1946), the Bois des Collets Member is observed from Binche to the Fond d'Oxhe, south-east of Ombret. The Staneux Member is only known from the Theux Window.

Type locality

On both sides of the Meuse River valley, at Dave and Wépion. The disused Dave quarry exposes the contact between the Acoz and Wépion formations whereas the abandoned Bois des Collets quarry at Wépion displays the upper part of the Formation. The contact with the overlying Burnot Formation is observed south of the southernmost quarry located at Wépion, near the ruins of an old masonry building (Delcambre & Pingot, 2017). The Staneux Member is exposed in the eponymous quarry, south of Theux (Marion et al., in press).

Age

Emsian AB Zone (Steenmans, 1989). The Staneux Member yielded an assemblage indicative of the Su to AB zones, i.e. an age slightly older than the Wépion Formation in the Meuse River valley (Steenmans, 1987).

Thickness

The Formation is 200 m thick in the Sambre River valley (Hennebert, 2008), 280 m at Acoz (Stainier, 1994), 300–400 m thick in the Meuse River valley (Delcambre & Pingot, 2017), 400–450 m thick in the Hoyoux valley (Mottequin et al., 2021), 200–300 m thick in the Ourthe River valley (Marion et al., in press) and thins out to 0 m in the Theux Window.

Lower boundary

First thick sandstone bed overlying the red shale and siltstone of the underlying Acoz Formation.

Upper boundary

Below the first bed of reddish sandstone or conglomerate of the overlying Burnot Formation.

Regional correlations

In the Aisne River valley, the Wépion Formation passes laterally to the Vireux Formation (Marion & Barchy, in press).

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