

THE MAASTRICHTIAN STAGE; THE CURRENT CONCEPT

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Campanian-Maastrichtian fossils from southern Belgium and neighbouring countries curated at the University of Liège

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The historical collections of Liège University were amassed mainly by Gustave Dewalque (1826-1905), who held the chair of geology between 1857 and 1897. They include a large number of animal macrofossils from the Cretaceous of southern Belgium, but also from elsewhere in western Europe (e.g., France, the Netherlands and Germany, for the most part). Nevertheless, these collections remain largely unknown to the palaeontological community. This is obviously related to the fact that, contrary to their Palaeozoic counterparts (see Mottequin *et al.*, 2011), they have been barely studied. One of the few papers dealing with Belgian Late Cretaceous material housed at Liège University is that by Cotteau (1875); in this the echinoids from the Cenomanian Bernissart Calcirudites Formation (formerly the 'Tourtia de Tournai') are discussed. However, these collections are of considerable significance as they comprise lots of specimens originating from localities which are no longer accessible, such as Rocourt and Thimister.

The core of the Campanian-Maastrichtian collections consists of several tens of thousands of invertebrate specimens (e.g., ammonites, belemnites, nautiloids, bivalves, brachiopods, bryozoans, echinoderms, gastropods, scleractinians, sponges, foraminifera and decapod crustaceans), which essentially come from the Liège area (e.g., Rocourt, Thimister, Montagne Saint-Pierre) and the Mons Basin (e.g. Ciply, Spiennes), but also from France and the Netherlands. Most of them are still mounted on their original cardboard tablets. Vertebrates from the same regions, which are clearly less abundant, are represented by teleosts, chondrichthyans, diverse mosasaurids, large elasmosaurid plesiosaurians, and probably two different taxa of marine turtles, including one large form. Ichnofossils constitute only a minor part of these collections.

Some type specimens are housed at Liège University. Among the echinoids, we may cite the type of *Micraster? cipliensis* Schlüter, 1897, allegedly from the Maastrichtian of Ciplu. In spite of our efforts, the type of *Leymeriaster maestrichtensis* (Schlüter, 1897) (Maastricht Formation, Maastrichtian), reported by Schlüter (1897) to be part of the Liège collections, has not yet been traced (see also Meijer, 1955). Also worth noting are the types of the ichnofossil *Taonurus saportai* Dewalque, 1881 from the 'Senonian' of northern France (Anzin).

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Poster

Detailed mapping of Santonian-Maastrichtian formations in northeast Wallonia, Belgium

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Cretaceous rocks, unconformably resting on the Palaeozoic basement, are recognised in several regions within the southern and northeastern parts of Wallonia, mainly in the Mons Basin and the Liège area, respectively (e.g., Robaszynski *et al.*, 2002). In northeast Wallonia (Fig. 1), Upper Cretaceous deposits essentially include sands, chalks and calcarenites. Northwest of Liège, they are generally covered by Cenozoic (Paleogene) and/or thick loess deposits. Campanian and Maastrichtian carbonate rocks (Gulpen and Maastricht formations) are still extensively quarried for the production of Portland cement in the valleys of the Meuse and Geer rivers, north of Liège. They are also excellent reservoir rocks, affected by a double porosity (Dassargues & Monjoie, 1993), and constitute the Hesbaye aquifer, which is crucial for the water supply of Liège and its suburbs.