

Fossils of the type Maastrichtian

J.W.M. Jagt, S.K. Donovan & E.A. Jagt-Yazykova

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John W.M. Jagt, Natuurhistorisch Museum Maastricht, de Bosquetplein 6-7, NL-6211 KJ Maastricht, the Netherlands (john.jagt@maastricht.nl); Stephen K. Donovan, NCB Naturalis, Department of Geology, Postbus 9517, NL-2300 RA Leiden, the Netherlands (Steve.Donovan@ncbnaturalis.nl); Elena A. Jagt-Yazykova, Uniwersytet Opolski, Zakład Paleobiologii, Katedra Biosystematyki, ul. Oleska 22, PL-45-052 Opole, Poland (eyazykova@uni.opole.pl).

The present special issue is the first in a series to be devoted to the macrofossil content of the uppermost Cretaceous chalks and biocalcarenes in the type area of the Maastrichtian Stage, the youngest time slice of the Mesozoic Era, dated 70.6 ± 0.6 at the base and 65.5 ± 0.3 Ma at the top (www.stratigraphy.org; see also Husson *et al.*, 2011). The time is right to have such a series, because macrofossils from the area are immensely popular with professional and amateur palaeontologists alike. In fact, new taxa are being discovered almost every month; these either present new records for the area of species known from elsewhere or undescribed forms in need of a name. This may come as some surprise, because several smaller, albeit prolific, quarries in southern Limburg have been closed down in recent years and quarrying activities at the ENCI-HeidelbergCement Group quarry (Maastricht) are to cease on July 1, 2018. In addition, on a daily basis, we receive queries from both collectors and fellow professionals on how to track down literature items on particular fossils from the type Maastrichtian. In general, papers on most biota are seriously outdated, and older works often are hard to come by and suffer from a lack of stratigraphical detail. Other data are widely dispersed in the literature and time-consuming library searches would be needed to get hold of these. Other complicating factors are that not all papers are in English, or appeared in local or regional journals, with a limited distribution.

Although macrofossils of all kinds from the type Maastrichtian are renowned, there has always been a strong bias towards vertebrates (mosasaurs, turtles, sharks, rays and bony fish), echinoids and ammonites. It is not surprising, therefore, to see a plethora of recent papers on these groups (e.g., Herman, 1977; Kennedy, 1987; van der Ham *et al.*, 1987, 2006; Mulder, 2003; Schulp, 2006; Brouwers *et al.*, 2012), while others are more or less ignored. They do deserve better, though.

In an attempt to bring several of the lesser-loved fossil groups to the attention of collectors, a series of smaller contributions in the Dutch journal *Natuurhistorisch Maandblad*, entitled, 'Opmerkelijke Luiks-Limburgse Krijtfossielen', has been running since 1995. In addition, a profusely illustrated catalogue of fossils from the ENCI-HeidelbergCement Group quarry was published in 1998 by Jagt *et al.*; this was rapidly sold out, illustrating the need for such overviews. Fortunately, interest in other types of macrofossils has increased in recent years. For instance, thecideid and craniid brachiopods, monographed in 1959 and 1969, respectively (Backhaus, 1959; Krutzler, 1969), are now being revised, and other articulate genera and species have been erected in

recent years (Simon, 2003, 2004a, b, 2005, 2007a, b, 2011; Simon & Owen, 2001). Additional groups have also witnessed a surge of interest, including crabs (Collins *et al.*, 1995; van Bakel *et al.*, 2003; Fraaije, 1996a, b, 1997, 2002a, b, 2003; Fraaije & van Bakel, 1998; Jagt *et al.*, 2010), branchiurans (Fraaije *et al.*, 2003), cirripedes (Jagt, 2011), crinoids, ophiuroids and asteroids (Jagt, 1999, 2000), and terrestrial plants and associated fungi (van der Ham *et al.*, 2001, 2003a, b, 2004, 2010, 2011; van der Ham & Dortangs, 2005). But the large majority, including bivalves, gastropods, nautiloids, sponges, scleractinian corals and trace fossils, are still waiting for a detailed taxonomic treatment.

All of these drawbacks we wish to counter by issuing a kind of identification guide to the macrofossil content of these strata, in several parts, to be published on a regular basis. Each special issue will comprise a certain number of peer-reviewed papers. Rather than publish a pocket-sized field guide, like the admirable ones issued by the Palaeontological Association (London), we have opted for such a series, because it offers authors the opportunity to erect new taxa and, in time, revise or modify chapters for successive issues.

The present volume contains a revision of the stratigraphy of all strata of Maastrichtian age in the type area of that stage and five chapters on macrofossils. These treat larger benthic foraminifera, sabellid and serpulid polychaete worms, scaphopod molluscs, coleoid cephalopods and ray-finned fish. Contributions to the present issue were reviewed by L. Cavin, J. Kriwet, C.P. Palmer and the present editors.

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