

THE LAST MAASTRICHTIAN AMMONITES IN POLAND

Machalski, Marcin

Institute of Paleobiology, Polish Academy of Science, ul. Twarda 51/55, PL-00-818 Warszawa, Poland.

E-mail: mach@twarda.pan.pl

Latest Maastrichtian ammonites are known from a few regions in Europe (Kennedy 1993). Recent studies of the Late Maastrichtian ammonites from Kazimierz Dolny area, Poland (Marcinowski & Radwanski 1996; Machalski 1996; Machalski & Jagt 1998; Jagt *et al.* 1999), add to the previous data (Blaszkiewicz 1980; Kennedy 1993) on this youngest Polish ammonite fauna. The sections studied comprise a siliceous chalk called Kazimierz Opoka, and an overlying Danian greensand with reworked Maastrichtian fossils.

In total, seven ammonite taxa representing both Ammonitina and Ancyloceratina have been recognised. Of these, *Baculites* sp. and *Hoploscaphites constrictus* (J. Sowerby) occur abundantly throughout the Kazimierz Opoka. Other taxa are extremely rare: *Acanthoscaphites (Euroscaphites) varians varians* (Łopuski) (see Jagt *et al.* 1999) and *Diplomoceras cylindraceum* (Defrance) occur in the lower part of Kazimierz Opoka, whereas *Menuites terminus* (Ward & Kennedy), *Pachydiscus jacquoti* Seunes, and *Sphenodiscus binckhorsti* (Böhm) are known from its upper part. The greensand has yielded two specimens of *H. constrictus*.

Two parataxa of aptychi have also been recorded (Machalski in prep.). These are "*Aptychus portlocki* Sharpe, which occurs throughout the Kazimierz Opoka and in the greensand, and *Rugaptychus rugosus* (Sharpe) in the lower part of the Kazimierz Opoka.

The presence of *M. terminus* places the upper part of the Kazimierz Opoka in the highest Maastrichtian ammonite zone, the *M. terminus* Zone. However, a biometric study of *H. constrictus* as well as dinoflagellate data suggest a stratigraphic gap at the top of the unit (Machalski 1996).

References:

- Blaszkiewicz, A., 1980. Campanian and Maastrichtian ammonites of the Middle Vistula River valley, Poland: a stratigraphic-paleontological study. – *Prace Instytutu Geologicznego* 92, 3-63.
- Jagt, J.W.M., Kennedy, W.J. & Machalski, M., 1999. Giant scaphitid ammonites from the Maastrichtian of Europe. – *Bulletin de l'Institut royal des Sciences naturelles de Belgique, Sciences de la Terre* 69, 133-154.
- Kennedy, W.J., 1993. Ammonite faunas of the European Maastrichtian: diversity and extinction. – In: M.R., House (ed.), *The Ammonoidea: Environment, Ecology, and Evolutionary Change*. – Systematics Association Special Volume 47, 285-326. Clarendon Press, Oxford.
- Machalski, M., 1996. Scaphitid ammonite correlation of the Late Maastrichtian deposits in Poland and Denmark. – *Acta Palaeontologica Polonica*, 41, 369-383.
- Machalski, M. & Jagt, J.W.M., 1998. Latest Maastrichtian pachydiscid ammonites from The Netherlands and Poland. – *Acta Geologica Polonica*, 48, 121-133.
- Marcinowski, R. & Radwanski, A., 1996. Jost Wiedmann's share in recognition of the latest Maastrichtian *Pachydiscus* from the Nasilów section (Middle Vistula Valley, Central Poland). – *Acta Geologica Polonica*, 46, 137-140.