

FORAMINIFERA FROM THE CRETACEOUS OF SOUTH-LIMBURG, NETHERLANDS, LXXVIII.

The occurrence of *SIPHOGENERINOIDES ELEGANTA* (Plummer)

as a time-marker in Holland and Belgium.

by
J. HOFKER

In a former paper I described this species and gave already many data about its occurrence (Natuurhist. Maandblad, 1957, vol. 46, pp. 101—102, figs A—E). More localities have now been traced with this typical guide-fossil which many authors already have indicated as a very reliable guide for the Cretaceous-Tertiary boundary. From the data found here we can be sure that also in Holland and Belgium this species is of utmost value to detect that boundary. I will give here a list of all appearances of the species known to me now from specimens which I determined without doubt.

1. Drill-hole Grand Vivier, near Mons, Belgium, 63 m. Tuffeau de Saint Symphorien.
2. Samples Hofker 350 and 351, quarry North, just at the boundary between Cr 4 and Mb, North Eastern Belgium.
3. Canal Albert, samples Hofker 628 and 629, North Eastern Belgium, just at the boundary between Cr 4 and Mb. Samples A13, A14, A21, A22, gathered by Prof. Calembert in Canal Albert, Upper Cr 4 and boundary Cr4/Mb.
4. Saint Pietersberg, quarry ENCI, Ma-layer just behind the administration-building, sample Hofker 154.
5. Sample 709, quarry Blankenberg, Ma-layer.
6. Samples 668 and 669, Way Wylre-Berg-hoven, Ma-layer and just below that layer.
7. In many samples taken from the holes in the hard ground at top of the Md in the quarry Curfs, Houthem (Brotzen's Paleocene).

8. Sample Hofker 493, Way Wittem-Eys, near Eyslerinde, top of the Cr 4.
9. In a sample from Kjölby-Gaard, Jutland, Denmark, in the top of the *Pseudo-textularia*-zone.
10. In several samples from the Lower Danian at Stevns Klint, and in samples from the Middle Danian from Fakse.
11. In the Wills Point Formation, Stream Bluff, Texas, America. (Hofker, l.c., p. 102, fig. A).
12. In the Basin of Gams, Austria, Coll. Wicher, from the Paleocene.
13. In the Lower Paleocene of Sweden (Brotzen, Sver. geol. Unders., 1948, C. 493, pl. 10, fig. 11, given here as *Loxostoma applinae*).
14. In a sample of uppermost Cr 4 in the hollow way from Wahlwylre to Eys.
15. K 3122, Petit Lanaye, Belgium (Chateau Caster), 20 cm below the typical Mb.

So in Holland and Belgium we find the species in two levels: one at the boundary between the Cr 4 or Craie Tuffoide and the Mb, or in the Tuffeau de Saint Symphorien, which corresponds with that level; in Denmark at the boundary of the Skrivekridt and the Danian, and in the Danian itself; and than once again in the Lower Paleocene of Belgium and Holland (Brotzen's Paleocene), and in Austria, and many other localities of the Tethys-region (literature), in Texas, New Jersey, Alabama, in America. As yet, in the Maestrichtian Chalk Tuff, stratigraphically found between those two levels, the species was found very rarely; this may be due to facial circumstances; but its occurrence in the Danian of Denmark gives the continuation in more favorable circumstances. So we may resume, that *Siphogenerinoides eleganta* is typical for the boundary Maestrichtian-Paleocene, in which boundary the Maestrichtian Chalk Tuff as well as the Danian is found.

Wicher (Paläont. Zeitschr., vol. 30, 1956, p. 113) mentions *Siphogenerinoides eleganta* as „die stratigraphisch wichtigste Art..... die in Paläozän besonders häufig wird“ (im Becken

