

**ELASMOBRANCHII FROM LIMONITIC SANDSTONE OF SIADŁO GÓRNE
NEAR SZCZECIN, POLAND**

by

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Bosch, M. van den. Elasmobranchii from limonitic sandstone of Siadłó Górne near Szczecin, Poland. - Meded. Werkgr. Tert. Kwart. Geol., 18(3): 127-131, 1 pl., Rotterdam, September 1981.

From an erratic block of limestone of Siadłó Górne, Poland, some 20 teeth of Elasmobranchii were collected.

A comparison with Oligocene faunas from the Netherlands and Belgium indicates that the age of this sandstone agrees with the lower part of the Brinkheurne Member/Ratum Member in the eastern part of the Netherlands and the Nuculaclay near Tongeren in Belgium. The sandstone is slightly younger than the Berg Sands s.s. in the Tongeren area.

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On the request of Mr A.W. Janssen of the Rijksmuseum van Geologie en Mineralogie at Leiden a stratigraphical correlation of an Elasmobranch association from Poland, with Oligocene deposits in the Netherlands and Belgium is attempted. The fauna was collected by Mr A.W. Janssen in September 1979 at Siadłó Górne (Poland, wojw. Szczecin), in the western bank of a former railway cut, in an erratic block of limonitic sandstone. Initially this sandstone was regarded as so-called 'Stettiner Gestein' (Janssen, 1980). This latter author, after a preliminary study of the mollusc fauna, found similarities between the Siadłó Górne fauna and the Nucula Clay in Belgium.

The fauna was concentrated by manual preparation and sieving on a 0.4 mm mesh of the entire sample. So, the collecting method enables a comparison with other faunas (van den Bosch, 1978).

In this way the following material was collected:

<i>Odontaspis acutissima</i> (Ag.)	7 specimens	= 35%
<i>Cetorhinus</i> sp. - gill-raker	1 specimen	5%
<i>Galeorhinus latus</i> (Storms)	3 specimens	15%
<i>Carcharhinus elongatus</i> (Leriche)	1 specimen	5%
<i>Squalus alsaticus</i> (Andreae)	5 specimens	25%
<i>Squatina angeloides</i> van Beneden	1 specimen	5%
<i>Raja heinzellini</i> Steurbaut & Herman	1 specimen	5%
<i>Raja</i> sp. - dermal spine	1 specimen	5%
	<u>20 specimens</u>	<u>100%</u>

(Because of the small number of specimens the percentages given are approximate)

Most striking in fact is, that the number of species in this sample of only some kg is already rather large. The ratios between the numbers of specimens of *O. acutissima*, *G. latus* and *S. alsaticus* compared with the small number of Rajidae point to a correlation with the lower part of the Brinkheurne Member, possibly including the Ratum Member (Rupelian) in the eastern part of the Netherlands (van den Bosch, 1980). A higher age seems improbable; the slightly older fauna from the Berg Sands s.s. near Tongeren in Belgium is different (van den Bosch, in press). In somewhat younger deposits of the Rupelian *Squalus alsaticus* is strongly dominating. A correlation with the Belgian Nucula Clay is obvious, but is difficult to demonstrate because of the restricted number of specimens known from this deposit.

It is clear that the limonitic sandstone of Siadłó Górne does not belong to the 'Stettiner Gestein'. This 'Stettiner Gestein' belongs to a younger Rupelian deposit. The conclusions of Janssen (1980) and Gaemers (1981) on respectively the molluscs and the otoliths of the same limonitic sandstone, are in agreement with the results of the Elasmobranch fauna.

Summarizing, the conclusion is that the fauna from the limonitic sandstone from Siadłó Górne in Poland, as described here, correlates with the lower part of the Brinkheurne Member/Ratum Member in the eastern part of the Netherlands, possibly with the Nucula Clay of Belgium, viz. the lower part of the Boom Clay Formation (= non Boom Clay Member, N.A.M. & R.G.D., 1980).

[This paper is an adaptation of an internal report (10.3.80) of the R.G.M.]

LITERATURE

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- Janssen, A.W., 1980. Preliminary report on the mollusc fauna of the 'Stettiner Tertiärgestein' (Rupelian, Oligocene) of SiadŹo Górne near Szczecin, Poland. Report nr. 63, Dept. Europ. Cenozoic Molluscs, Rijksmuseum van Geologie en Mineralogie, Leiden, 6 pp (not published).

EXPLANATION OF THE PLATE

(Bar length represent actual size!)

- 1 *Odontaspis acutissima* (Ag.), right upper anterior tooth, exterior view, RGM 176 624.
- 2 *Cetorhinus* sp., fragmentary juncture of gill-raker, RGM 176 625.
- 3 *Galeorhinus latus* (Storms, 1894), right upper lateral tooth, exterior view, RGM 176 626.
- 4 *Carcharhinus elongatus* (Leriche, 1910), fragment of left lower lateral tooth, RGM 176 627.
- 5 *Squalus alsaticus* (Andreae, 1892), anterior tooth, exterior view, RGM 176 628.
- 6 *Squatina angeloides* van Beneden, 1873, lateral tooth, exterior view, RGM 176 629.
- 7 *Raja heinzeli* Steurbaut & Herman, 1978, tooth, backside, RGM 176 630.
- 8 *Raja* sp., dermal spine, lateral view, RGM 176 631.

All specimens are kept in the collections of the Rijksmuseum van Geologie en Mineralogie, Leiden (RGM registration numbers). All specimens from limonitic sandstone of Siadło Górne, Poland.

