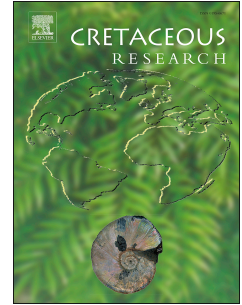


Accepted Manuscript

Mosasaurid and plesiosaurian remains from marginal facies of the lower Campanian (Upper Cretaceous) Bottrop and Vaals formations of western Germany

Sven Sachs, Jahn J. Hornung, Udo Scheer



PII: S0195-6671(16)30422-0

DOI: [10.1016/j.cretres.2017.05.026](https://doi.org/10.1016/j.cretres.2017.05.026)

Reference: YCRES 3623

To appear in: *Cretaceous Research*

Received Date: 30 December 2016

Revised Date: 22 May 2017

Accepted Date: 25 May 2017

Please cite this article as: Sachs, S., Hornung, J.J., Scheer, U., Mosasaurid and plesiosaurian remains from marginal facies of the lower Campanian (Upper Cretaceous) Bottrop and Vaals formations of western Germany, *Cretaceous Research* (2017), doi: 10.1016/j.cretres.2017.05.026.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 Mosasaurid and plesiosaurian remains from marginal facies of the lower Campanian
2 (Upper Cretaceous) Bottrop and Vaals formations of western Germany

3

4 Sven Sachs ^{a,b,*}, Jahn J. Hornung ^c, Udo Scheer ^d

5

6 ^a *Naturkundemuseum Bielefeld, Abteilung Geowissenschaften, Adenauerplatz 2, 33602 Bielefeld, Germany*

7 ^b *Im Hof 9, 51766 Engelskirchen, Germany*

8 ^c *Fuhlsbüttler Straße 611, 22337 Hamburg, Germany*

9 ^d *Stiftung Ruhr Museum, Fritz-Schupp-Allee 15, 45141 Essen, Germany*

10

11 * Corresponding author.

12 *E-mail addresses:* Sachs.Pal@gmail.com (S. Sachs), jahn.hornung@yahoo.de (J.J. Hornung), udo.scheer@ruhrmuseum.de

13 (U. Scheer).

14

15 A B S T R A C T

16 Isolated remains of mosasaurids and plesiosaurians are recorded from the lower Campanian Bottrop
17 and Vaals formations of North Rhine-Westphalia, western Germany. A tooth crown from Bottrop-
18 Fuhlenbrock, referred to an elasmosaurid plesiosaurian, represents the first record of this group from
19 late-Upper Cretaceous strata of the area. Another presumed plesiosaurian remain is a fragmentary
20 gastralium from Duisburg-Walsum. Some of the mosasaurid material from the Bottrop Formation (a
21 tooth crown and vertebrae from Bottrop-Fuhlenbrock and Duisburg-Walsum) is assigned to the
22 subfamily Plioplatecarpinae. The Vaals Formation, which is a lateral equivalent of the Bottrop
23 Formation, yielded a single tooth crown, found at Aachen-Bildchen, that is here referred to the genus
24 *Hainosaurus*. These finds from the Bottrop and Vaals formations constitute evidence of the presence
25 of these taxa in proximal shelf to nearshore settings during the Campanian. The mosasaurid
26 occurrences in particular may be an indicator that diversity and abundance increased in more
27 basinward facies and greater palaeowaterdepth.

28

Download English Version:

<https://daneshyari.com/en/article/8916310>

Download Persian Version:

<https://daneshyari.com/article/8916310>

[Daneshyari.com](https://daneshyari.com)