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The date of publication of R. A. PHILIPPI's „Beiträge zur Kenntniss der Tertiaerversteinerungen des nordwestlichen Deutschlands“

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Abstract: It is demonstrated that the important paper of R. A. PHILIPPI “Beiträge zur Kenntniss der Tertiaerversteinerungen des nordwestlichen Deutschlands“, hitherto dated as of 1843, needs to be dated as of 1844. The bibliographic evidence is here presented. Further, we highlight the fact that the first part of this work was published in advance in 1841. A list of the new taxa introduced by PHILIPPI in 1841 and 1844 is given.

Keywords: bibliography, dating of new taxa, Tertiary fossils, Oligocene, Germany

Zusammenfassung: Bibliographische Evidenz wird präsentiert, die beweist, dass die wichtige Publikation von R. A. PHILIPPI “Beiträge zur Kenntniss der Tertiaerversteinerungen des nordwestlichen Deutschlands“, die bislang auf 1843 datiert wurde, erst 1844 erschienen ist. Ferner wird auf die Tatsache aufmerksam gemacht, dass ein Teil dieses Werkes bereits 1841 publiziert worden ist. Es wird eine Liste der von PHILIPPI in diesen Arbeiten neu eingeführten Taxa mit korrekten Publikationsdaten gegeben.

Introduction

One of the early and very important papers published on the fossils of the Late Oligocene of Northwestern Germany is R. A. PHILIPPI's “Beiträge zur Kenntniss der Tertiaerversteinerungen des nordwestlichen Deutschlands”, usually dated as of 1843. This publication consists of three parts dealing with the fossils of different localities, namely 1) Wilhelmshöhe near Kassel, 2) Freden and Diekhöhlen, and 3) Luithorst. The first part dealing with the fossils from Wilhelmshöhe was independently published already in August 1841 in the “Programm der höheren Gewerbschule in Cassel”. Although this was mentioned in the introduction to the “Beiträge”, this fact has been ignored by all subsequent authors working on Oligocene faunas. The part on Wilhelmshöhe was then republished in the “Beiträge” with original pagination and – with one important exception – also with identical wording and layout of the text. The exception pertains to page 24 where in 1841 the new genus name *Cerycium* was introduced with *Cerycium paradoxum* n. sp. as monotype. This genus was later synonymized with *Chenopus* PHILIPPI 1836 by PHILIPPI himself on page 24 of the “Beiträge”. The implications of establishing *Cerycium* shall not be discussed here but will be dealt with in a separate publication by R. JANSSEN. With the exception of two species all other taxa validly published by PHILIPPI in 1841 were illustrated by him in the 1844 work.

The importance of PHILIPPI's works is demonstrated by the large number of new taxa (including new names) described in it (Tab. 1 and appendix), but also by the fact that it was the first substantial description of fossils occurring in the Late Oligocene (Chattian) deposits of northwestern Germany. Only about 20 years later the Chattian molluscs were monographed by O. SPEYER in a series of papers (1862-1884). However, the local faunas of Freden and Luithorst were never discussed in detail again until 1978-1979 when R. JANSSEN revised the Chattian molluscs and reported on the discovery of some of PHILIPPI's type specimens in the Römer-Pelizäus-Museum in Hildesheim. In 1999 J. RUST again dealt with the fossils of Freden and Diekhöhlen referring to the materials preserved in the collections of that museum.

A biography of PHILIPPI, along with a complete bibliography of his writings as well as a compilation of all molluscan taxa introduced by PHILIPPI is currently in preparation by KABAT & COAN (pers. comm.).

Tab. 1: New taxa introduced by PHILIPPI 1841-1844

Group	1841		1844		Total	
	Spp.	Gen.	Spp.	Gen.	Spp.	Gen.
Foraminifera	4		11		15	
Anthozoa (Corals)		1	3		3	1
Annelida			1		1	
Gastropoda	24	1	34		58	1
Bivalvia	8		8		16	
Brachiopoda	1				1	
Bryozoa	2		16		18	
Crustacea (Ostracoda)			1		1	
Total	39	2	74	0	113	2
Spp. = species-group taxa						
Gen. = genus-group taxa						

Dating of PHILIPPI's works

R. A. PHILIPPI published in the "Programm der höheren Gewerbschule in Cassel, Schuljahr Michaelis 1841-1842" [Program of the advanced trade-school in Cassel, school year Michaelmas 1841-1842] descriptions of Chattian fossils from Wilhelmshöhe near Cassel. This brochure was published once a year in advance of the beginning of the school year on Michaelmas (29. Sept.). Apart from information about the school and the forthcoming school year some issues contain original studies of Tertiary fossils, including the introduction of new taxa, by PHILIPPI (1841, 1846) and DUNKER (1853); the latter taught Mineralogy and Geology at this school. An abstract of PHILIPPI's 1841 paper appeared in *Neues Jahrbuch für Mineralogie etc.* 1841 (4): 613-614. This issue (4) contains letters to the editors dated up to 27.7.1841, i. e. the editors received PHILIPPI's work around this date at the latest. PHILIPPI himself (1844: I) stated the publication date to be August 1841. Thus the likely publication date is early August 1841, and may be arbitrarily taken as 1.8.1841.

On the title page of the "Beiträge" the year 1843 is imprinted, and the foreword is dated March, 5th of 1843. There is no evidence in the text, either directly or by cited references, that this date could be wrong. Therefore 1843 has been taken as publication date by all subsequent workers on fossil molluscs from NW Germany. However, the authors of this note, independently from each other, found three notes published in *Neues Jahrbuch für Mineralogie, etc.* of which the last two point to a later publication date.

The work is first mentioned in the vol. for 1844, issue 2, p. 191 in a listing of new books published in 1843. Issue 2 contains letters to the editors dated up to 31.12.1843, and therefore the editors appear to have received the work, or at least knowledge about it, at the end of 1843. However, such date directly contradicts the subsequent mentionings in the same journal (see below). As this citation lacks bibliographic details such as the number of pages and plates (which are given in the subsequent citations of this work), the editors of *Neues Jahrbuch* may just have received a notice of intention to publish in 1843, or proofs of the text without the plates.

In issue 6 of the 1844 volume, p. 702, the "Beiträge" are listed again as a new book, but now 1844 is given as publication date and the bibliographic reference is complete. Issue (6) contains letters to the editors up to 30.8.1844; therefore an end-August publication date, i. e. 31.8.1844 (IRZN Art. 21.3.2) can be assumed for the "Beiträge".

In the 1845 volume, issue 4, the "Beiträge" of PHILIPPI are reviewed (probably by BRONN) on pages 510-511. In this review it is said that "... the text is already printed since 2 years, its publication, however, has been delayed until end of 1844 because of the lithographs prepared by the author himself" (translated from the German "... deren Text schon seit fast 2 Jahren gedruckt, deren Herausgabe aber vom Vf. [Verfasser] selbst gefertigter Lithographie'n wegen bis Ende 1844 verzögert worden ist". This confirms again that the "Beiträge" were published in 1844, and that the first listing

which seemed to give end-1843 as publication date, can only refer to proofs of the text which do not constitute a publication. Later we found that already SHERBORN (1922: cii) noted “wrapper is dated 1844” and referred to Neues Jahrbuch 1845, but not to the 1844 listings. SHERBORN dated the new taxa of PHILIPPI as of 1841 or 1844, respectively.

This later publication date has consequences as to the priority of conflicting names for a small number of species published in a contemporaneous work of NYST 1845 which also had been erroneously foredated to 1843 but was published only in 1845 (see ANDERSON 1964: 121). In subsequent literature authors had used for some species either a name coined by NYST or a synonymous name published by PHILIPPI. JANSSEN (1978, 1979), based on the 1843 date for PHILIPPI’s work, stated that PHILIPPI’s names have priority over NYST 1845. This remains still true, however some names had been already validly published in a largely ignored short paper by NYST in 1843 and thus antedate those of PHILIPPI.

It is not the purpose of the present note to discuss the taxonomic and nomenclatural implications of these discoveries. This will be object of a separate paper by R. JANSSEN (in prep.).

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Appendix

New taxa introduced by PHILIPPI 1841 and 1844

- * available name
- nomen nudum

Corals

- * 1841 *Oeme* PHILIPPI: 4 (type species (monotypy): *Turbinolia granulata* MÜNSTER in GOLDFUSS 1829) [SHERBORN (18): 4549 cites *Oeme* as of PHILIPPI 1844: 4]
- * 1844 *Cyathina firma* PHILIPPI: 66, T. 1 F. 6
- * 1844 *Cyathina pusilla* PHILIPPI: 66, T. 1 F. 5
- * 1844 *Flabellum Roemeri* PHILIPPI: 24, T. 1 F. 2

Bryozoa

- * 1841 *Eschara clathrata* PHILIPPI: 4 (1844: T. 1 F. 24)
- * 1841 *Discopora circumcincta* PHILIPPI: 4 (1844: T. 1 F. 25)
- * 1844 *Millepora punctata* PHILIPPI: 67, T. 1 F. 13
- * 1844 *Hornera gracilis* PHILIPPI: 35, 67, T. 1 F. 7
- * 1844 *Hornera biseriata* PHILIPPI: 36, 67, T. 1 F. 8
- * 1844 *Hornera subannulata* PHILIPPI: 36, T. 1 F. 9
- * 1844 *Idmonea? biseriata* PHILIPPI: 67, T. 1 F. 15
- * 1844 *Ceriopora minuta* PHILIPPI: 37, T. 1 F. 11
- * 1844 *Ceriopora verrucosa* PHILIPPI: 67, T. 1 F. 12
- * 1844 *Ceriopora spongiosa* PHILIPPI: T. 1 F. 22 (name only in the plate legend)
- * 1844 *Cellaria gracilis* PHILIPPI: 38, T. 1. F 14
- * 1844 *Manon? cylindraceum* PHILIPPI: 69, T. 1 F. 17
- * 1844 *Eschara glabra* PHILIPPI: 38, 68, T. 1 F. 21
- * 1844 *Eschara punctata* PHILIPPI: 38, 68, T. 1 F. 19
- * 1844 *Eschara porosa* PHILIPPI: 38, 68, T. 1 F. 18
- * 1844 *Eschara diplostoma* PHILIPPI: 38, 68, T. 1 F. 20
- * 1844 *Eschara imbricata* PHILIPPI: 68, T. 1 F. 16
- * 1844 *Discopora mammillata* PHILIPPI: 68, T. 1 F. 23

Foraminifera

- * 1841 *Frondicularia linearis* PHILIPPI: 5 (1844: T. 1 F. 32)
- * 1841 *Marginulina compressiuscula* PHILIPPI: 5 (1844: T. 1 F. 29; *Marginula* ? (s. potius *Planularia* ?))
- * 1841 *Marginulina arcuata* PHILIPPI: 5 (1844: T. 1 F. 28 *Marginula* ? (s. potius *Planularia* ?))
- * 1841 *Marginulina spirata* PHILIPPI: 5 (1844: T. 1 F. 27 *Marginula* ? (s. potius *Planularia* ?))
- * 1844 *Nodosaria acicula* PHILIPPI: 39, T. 1 F. 33
- * 1844 *Frondicularia? lancea* PHILIPPI: 39, T. 1 F. 31
- * 1844 *Marginulina Gladius* PHILIPPI: 40, T. 1 F. 37 (*Marginulina* ?)
- * 1844 *Planularia intermedia* PHILIPPI: 40, T. 1 F. 38
- * 1844 *Planularia oblonga* PHILIPPI: 41
- * 1844 *Planularia semicircularis* PHILIPPI: 41, T. 1 F. 39
- * 1844 *Polymorphina anceps* PHILIPPI: 41, 70, T. 1 F. 34
- * 1844 *Polymorphina compressa* PHILIPPI: 69, T. 1 F. 35
- * 1844 *Rotalia discifera* PHILIPPI: 42, T. 1 F. 26
- * 1844 *Triloculina carinata* PHILIPPI: 43 (1844: T. 1 F. 36)
- * 1844 *Triloculina angusta* PHILIPPI: 43, T. 1 F. 40

Annelida

- * 1844 *Serpula contorta* PHILIPPI: 43
- o 1844 *Serpula pappigera* PHILIPPI: 44 (recent, Mediterranean) [nom. nud.; not in SHERBORN]

Brachiopoda

- * 1841 *Terebratulula pusilla* PHILIPPI: 17 (1844: T. 2 F. 15)

Bivalvia

- * 1841 *Solen Ensis* var. *minor* PHILIPPI: 6
- * 1841 *Corbula carinata* PHILIPPI: 7 (1844: T. 2 F. 5)
- * 1841 *Psammodia angusta* ? PHILIPPI: 7 (1844: T. 2 F. 6)
- * 1841 *Venus Lens* PHILIPPI: 11 (1844: T. 2 F. 10)
- * 1841 *Venus? decipiens* PHILIPPI: 11 (1844: T. 2 F. 9)
- * 1841 *Pectunculus crassus* PHILIPPI: 13
- * 1841 *Modiola pygmaea* PHILIPPI: 15 (1844: T. 2 F. 14)
- * 1841 *Ostrea bullata* PHILIPPI: 16 (1844: T. 2 F. 17)
- * 1844 *Crassatella minuta* PHILIPPI: 45, T. 2 F. 4
- * 1844 *Corbula? granulata* PHILIPPI: 45, T. 2 F. 2
- * 1844 *Corbula Kochii* PHILIPPI: 70, T. 2 F. 3
- * 1844 *Diplodonta lumularis* PHILIPPI: 46, T. 2 F. 7
- * 1844 *Cardium pulchellum* PHILIPPI: 47, T. 2 F. 8 [not in SHERBORN]
- * 1844 *Pecten textus* PHILIPPI: 50, 72, T. 2 F. 16
- * 1844 *Pecten antiquatus* PHILIPPI: 50
- * 1844 *Anomia asperella* PHILIPPI: 50, 72, T. 2 F. 12

Gastropoda

- * 1841 *Bulla lineata* PHILIPPI: 18 (1844: T. 3 F. 2)
- * 1841 *Bulla intermedia* PHILIPPI: 18 (1844: T. 3 F. 4)
- * 1841 *Bulla retusa* PHILIPPI: 18 (1844: T. 3 F. 3)
- * 1841 *Bulla terebelloides* PHILIPPI: 18 (1844: T. 3 F. 5)
- * 1841 *Melania quadristriata?* PHILIPPI: 19 (1844: T. 3 F. 9; *Eulima (Melania)*)
- * 1841 *Melania secalina* PHILIPPI: 19 (1844: T. 3 F. 15; *Melania* ?)
- 1841 *Pyrgiscus* PHILIPPI: 20 (included species: *Melania Campanellae*, *rufa*, *scalaris*, *pallida*, all of PHILIPPI 1836) [SHERBORN (21): 5339 cites only PHILIPPI 1841, Archiv für Naturgeschichte, 7 (1): 50, which most probably has priority]
- * 1841 *Natica dilatata* PHILIPPI: 20 (1844: T. 3 F. 20)
- * 1841 *Cryptostoma elegans* PHILIPPI: 20 (1844: T. 3 F. 24; *Sigaretus (Cryptostoma)*)
- * 1841 *Tornatella punctato-sulcata* PHILIPPI: 20 (1844: T. 3 F. 22)
- * 1841 *Scalaria rudis* PHILIPPI: 21 (1844: T. 3 F. 27)
- * 1841 *Delphinula dubia* PHILIPPI: 21 (1844: T. 3 F. 28; *Delphinula* ?)
- * 1841 *Delphinula carinata* PHILIPPI: 21 (1844: T. 3 F. 26; *Delphinula* ?)
- * 1841 *Delphinula crispula* PHILIPPI: 21 (1844: T. 3 F. 31)
- * 1841 *Trochus scrutarius* PHILIPPI: 22 (1844: T. 3 F. 37)
- * 1841 *Trochus elegantulus* PHILIPPI: 22 (1844: T. 3 F. 35)
- * 1841 *Cerithium bitorquatum* PHILIPPI: 23 (1844: T. 4 F. 5)

- * 1841 *Pleurotoma undatella* PHILIPPI: 24 (1844: T. 4 F. 6; *undatellum*)
- * 1841 *Cerycium* PHILIPPI: 24 (type species (monotypy): *C. paradoxum* PHILIPPI)
- * 1841 *Cerycium paradoxum* PHILIPPI: 24 (1844: T. 4 F. 13; *Chenopus paradoxus*)
- * 1841 *Fasciolaria Fusus* PHILIPPI: 25 (1844: T. 4 F. 14)
- * 1841 *Fusus exilis* PHILIPPI: 25 (1844: T. 4 F. 12)
- * 1841 *Pyrula megacephala* PHILIPPI: 26 (1844: T. 4 F. 18)
- * 1841 *Murex (Typhis) simplex* PHILIPPI: 26 (1844: T. 4 F. 22)
- * 1841 *Tritonium rugosum* PHILIPPI: 27 (1844: T. 4 F. 25)
- * 1841 *Ringicula striata* PHILIPPI: 28 (1844: T. 4 F. 23)
- * 1844 *Emarginula punctulata* PHILIPPI: 51, T. 3 F. 1
- * 1844 *Auricula gracilis* PHILIPPI: 73, T. 3 F. 6
- * 1844 *Auricula subcylindrica* PHILIPPI: 73, T. 3 F. 11
- * 1844 *Rissoa Ovulum* PHILIPPI: 51, T. 3 F. 12 (*ovulum*)
- * 1844 *Rissoa nana* PHILIPPI: 52 (nom. nov. pro *Rissoa pusilla* PHILIPPI 1836 preoccupied)
- * 1844 *Rissoa rimata* PHILIPPI: 52, T. 3 F. 17
- * 1844 *Rissoa Terebellum* PHILIPPI: 52, T. 3 F. 19 (*terebellum*)
- * 1844 *Eulima Leunisia* PHILIPPI: 53, 73 (*Eulima* ?), T. 3 F. 8 (*Eulima (Melania)*)
- * 1844 *Niso minor* PHILIPPI: 53, 74, T. 3 F. 16
- * 1844 *Pyrgiscus elongatus* PHILIPPI: 53, T. 3 F. 10 (*Chemnitzia (Pyrgiscus)*)
- * 1844 *Pyrgiscus Kochii* PHILIPPI: 53, T. 3 F. 7 (*Chemnitzia (Pyrgiscus)*)
- * 1844 *Scalaria amoena* PHILIPPI: 54, T. 3 F. 23
- * 1844 *Scalaria insignis* "LEUNIS" PHILIPPI: 54, T. 3 F. 21
- * 1844 *Scalaria pusilla* PHILIPPI: 54, T. 3 F. 29
- * 1844 *Scalaria reticulata* PHILIPPI: 55, T. 3 F. 25
- * 1844 *Delphinula minima* PHILIPPI: 55, T. 3 F. 30 (*Delphinula* ?)
- * 1844 *Delphinula suturalis* PHILIPPI: 55, T. 3 F. 34
- * 1844 *Delphinula scabricula* PHILIPPI: 55, T. 3 F. 33 (*Delphinula* ?)
- * 1844 *Solarium Acies* PHILIPPI: 74, T. 3 F. 32 (*acies*)
- * 1844 *Turbo simplex* PHILIPPI: 56, 74, T. 4 F. 4
- * 1844 *Turbo exiguus* PHILIPPI: 56, T. 4 F. 2
- * 1844 *Turbo bicarinatus* PHILIPPI: 74, T. 4 F. 3
- * 1844 *Pleurotoma Leunisia* PHILIPPI: 56, T. 4 F. 7
- * 1844 *Pleurotoma Roemeri* PHILIPPI: 56
- * 1844 *Pleurotoma simplex* PHILIPPI: 57, T. 4 F. 8
- * 1844 *Pleurotoma Hausmanni* PHILIPPI: 57, T. 4 F. 9
- * 1844 *Pleurotoma discors* PHILIPPI: 58, T. 4 F. 10
- * 1844 *Pleurotoma rugulosum* PHILIPPI: 58 [Apparently the description of this species originally was intended as based on the fossil material from Freden although it is also mentioned as living in the Mediterranean and as fossil from Palermo. Because of the delay of publication of his paper, the original publication of *Pleurotoma rugulosum* in fact becomes his work *Enumeratio molluscorum Siciliae*, vol. 2: 169 which has priority (published in first quarter of 1844). Here the description is based exclusively on recent specimens although later in the text (p 175 is was also listed as fossil from Palermo and Carrubbare. Thus the publication in the "Beiträge" became an incorrect redescription].
- * 1844 *Fasciolaria pusilla?* PHILIPPI: 59, T. 4 F. 11 (*Fasciolaria* ?)
- * 1844 *Fusus chersucus* PHILIPPI: 59, T. 4 F. 21
- * 1844 *Fusus Schwarzenbergii* PHILIPPI: 59, T. 4 F. 15
- * 1844 *Fusus elegantulus* PHILIPPI: 59, 76, T. 4 F. 16
- * 1844 *Murex capito* PHILIPPI: 60, T. 4 F. 19-20
- * 1844 *Tritonium tortuosum* PHILIPPI: 60, T. 4 F. 24

Ostracoda

- * 1844 *Cytherina ventrosa* PHILIPPI: 63

References

- ANDERSON, H.-J. (1964): Die miocäne Reinbek-Stufe in Nord- und Westdeutschland und ihre Mollusken-Fauna. — Fortschritte in der Geologie von Rheinland und Westfalen, **14**: 31-368, pls. 1-52, Krefeld.
- [BRONN, H. G.] (1845): Auszüge: R. A. PHILIPPI: Beiträge zur Kenntniss der Tertiär-Versteinerungen des nord-westlichen Deutschlands. — Neues Jahrbuch für Mineralogie, Geognosie, Geologie und Petrefakten-Kunde, **1845** (4): 510-511, Stuttgart.

- DUNKER, W. (1853): Über die in der Braunkohlenformation von Gross-Almerode in neuerer Zeit entdeckten Süßwasser-Mollusken. — Programm der höheren Gewerbeschule in Cassel, zu Michaelis **1853**: 2-18, Kassel.
- JANSSEN, R. (1978): Die Mollusken des Oberoligozäns (Chattium) im Nordsee-Becken. 1. Scaphopoda, Archaeogastropoda, Mesogastropoda. — Archiv für Molluskenkunde, **109** (1/3): 137-227, pls. 9-14, Frankfurt a. M.
- JANSSEN, R. (1979): Die Mollusken des Oberoligozäns (Chattium) im Nordsee-Becken. 2. Neogastropoda, Euthyneura, Cephalopoda. — Archiv für Molluskenkunde, **109** (4/6): 277-376, pls. 15-18a, Frankfurt a. Main.
- JANSSEN, R. (1979): Revision der Bivalvia des Oberoligozäns (Chattium, Kasseler Meeressand). — Geologische Abhandlungen Hessen, **78**: 181 S., 4 pls., Wiesbaden.
- NYST, H. (1843): Note par Mr. H. NYST. — Bulletin de la Société géologique de France, **14**: 451-456, Paris.
- NYST, H. (1845): Description des coquilles et des polypiers fossiles des terrains tertiaires de la Belgique. — Mémoires couronnées et Mémoires savantes de la Académie royale de Bruxelles, **17**: 697 pp., 15 pls. (Private print with 48 pls.), Brussels.
- PHILIPPI, R. A. (1841): Ueber die Tertiärversteinerungen der Wilhelmshöhe bei Kassel. — Programm der höheren Gewerbeschule in Cassel, Schuljahr Michaelis **1841/42**: 1-32, Kassel.
- PHILIPPI, R. A. (1844): Beiträge zur Kenntniss der Tertiaerversteinerungen des nordwestlichen Deutschlands. — IV+85+3 pp., 4 pls., Kassel (Th. Fischer).
- PHILIPPI, R. A. (1846): Verzeichniss der in der Gegend von Magdeburg aufgefundenen Tertiärversteinerungen. — Programm der höheren Gewerbeschule in Cassel, Schuljahr Michaelis **1846-1847**: 3-17 [published between 9.7.1846 and 10.8.1846, see p. 24], Kassel.
- RUST, J. (1999): Das Oberoligozän von Diekholzen bei Hildesheim, Bodenburg und den Eichteichen bei Neuhof/Lamspringe (mit Beiträgen von C. H. VON DANIELS, N. MOSTAFAWI u. S. RITZKOWSKI). — Mitteilungen aus dem Roemer-Museum Hildesheim, Abhandlungen (Neue Folge), **7**: 1-108, pls. 1-15, Hildesheim.
- SHERBORN, C. D. (1922): Index animalium. Sectio secunda, Part I. — i-cxxxi, 1-128, London (British Museum Natural History).
- SPEYER, O. (1862-1870): Die Conchylien der Casseler Tertiär-Bildungen. — Palaeontographica, **9** (3): 91-141, pls. 18-22 (1862); (5): 153-198, pls. 30-34 (1863); **16** (5): 175-218, pls. 16-24 (1867); (7): 297-339, pls. 31-35 (1869); **19** (2): 47-101, pls. 10-15 (1870); (4): 159-202, pls. 18-21 (1870), Stuttgart.
- SPEYER, O. (1864): Die Tertiärfauna von Söllingen bei Jerxheim im Herzogthum Braunschweig. — Palaeontographica, **9**: 247-337, pls. 40-43, Stuttgart.
- SPEYER, O. (1866): Die ober-oligocänen Tertiärgebilde und deren Fauna im Fürstenthum Lippe-Detmold. — Palaeontographica, **16**: 1-52, pls. 1-5, Stuttgart.
- SPEYER, O. (& KOENEN, A. v.) (1884): Die Bivalven der Casseler Tertiär-Bildungen. — Abhandlungen zur geologischen Specialkarte von Preussen und den Thüringischen Staaten, **4** (4): I-XII, 31 pls. (herein: KOENEN, A. v. (1884): Vorwort, Inhalts-Verzeichniss, Tafel-Erklärungen), Berlin.

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