

JERZY TRAMMER

Beyrichites (*Beyrichites*) sp.
from the Lower Muschelkalk of the
Holy Cross Mts

ABSTRACT: An ammonite identified as *Beyrichites* (*Beyrichites*) sp. was found in the Lower Muschelkalk of the Holy Cross Mts. This ammonite, typical for the Upper Scythian and Anisian of the Tethyan province, is further evidence of strong Alpine influences in the Lower Muschelkalk of Poland.

At Wolica village, in the SW margin of the Holy Cross Mts (cf. Trammer 1971, Fig. 1) within *Lima striata* Beds (after lithostratigraphy by Senkowiczowa 1957; cf. also Trammer 1971, Fig. 2), a fragment of ammonite was found. This ammonite belongs to the nominative subgenus of the genus *Beyrichites* Waagen, 1895. Despite careful searching at Wolica and in other outcrops of the Lower Muschelkalk in the Holy Cross Mts, no more representatives of this subgenus were found. Poor preservation of the specimen precluded its identification to the specific rank.

The ammonites of the subgenus *Beyrichites* (*Beyrichites*) Waagen are known from the Upper Scythian and Anisian of the Alps, Balkan Peninsula (and Chios Id), Caucasus, Himalaya, Timor, Japan, Siberia, Spitsbergen, British Columbia, Nevada and Chile (cf. Shevyrev 1968 and references therein).

There are only two reports on the occurrence of *Beyrichites* (*Beyrichites*) Waagen in the epicontinental (German) Triassic. Wagner (1891) described a new species, *Beneckeia cognata*, from the Lower Muschelkalk of the vicinity of Jena; thereafter this species was included into the genus *Beyrichites* Waagen and renamed as *Beyrichites cognatus* (Wagner) by Frech (1903—1908). The other new species, *Beyrichites thuringiacus*, was described from the Lower Muschelkalk of Thuringia by Fritsch (1906). Both these specimens are poorly preserved and insufficiently illustrated; thus full comparison with the Polish form is impossible. Nevertheless

the differences are obvious and the discussed Holy-Cross specimen is not related to these German species. Moreover, it seems that inclusion of both German forms into the genus *Beyrichites* Waagen was not well considered. This viewpoint seems to be held also by Arkell, Kummel & Wright (1957) who do not mention Germany in the distribution of this genus.

In the Holy Cross Mts, the only known representative of the ammonite fauna in the Lower Muschelkalk was hitherto (Senkowiczowa 1956) the species *Beneckeia buchi* v. *Alberti*, a common form in the contemporaneous deposits of Germany. On the other hand, the nautilid, *Pleuro-nautilus mosi* Mojsisovics, recorded by Luniewski (1923) from the Lower Muschelkalk of the northern margin of the Holy Cross Mts is known, besides the latter area, only from the Anisian of the Tethys.

Recently of other animals' groups, two conodont species typical for the Alpine province, and unknown in Germany, were found in the Lower Muschelkalk limestones in the SW margin of the Holy Cross Mts (Trammer 1971).

The find of the ammonite, being frequent in the Alpine province, in the Lower Muschelkalk of the Holy Cross Mts is of a further evidence confirming the viewpoint held by Samsonowicz (1929) that "Polish-Silesian province", including the Holy Cross Mts, was connected more closely with the Alpine province than with the German province during the Lower Muschelkalk time.

SYSTEMATIC DESCRIPTION

Family *Beyrichitidae* Spath, 1934

Genus *BEYRICHITES* Waagen, 1895

Subgenus *BEYRICHITES* Waagen, 1895

Beyrichites (*Beyrichites*) sp.

(Figs 1a—b; Pl. 1, Figs 1a—b)

Material. — One specimen preserved as an incomplete mould, which comprises, the final body chamber (attaining half a whorl) with incomplete aperture, as well as final part of the phragmocone.

Description. — Form strongly involute, flat, 71 mm in diameter. Lateral sides slightly convex, narrowing towards the ventral side; maximal width close to umbilical margin, in one-third of whorl height equals 47 mm. Ventral side rounded. Umbilicus, 7 mm in diameter, conceals inner whorls; umbilical wall vertical with upper margin slightly rounded. Lateral sides of the last whorl are ornamented with fine and in places obscured dichotomic ribs; ribs somewhat bent backwardly and disappear close to aperture; ventral side smooth. Lobe lines are not evidently marked. In the preserved final part of the phragmocone, their approximation may be noticed. Lobe line of the last septum is most distinct. It is of sub-ammonite type; sinuses are somewhat ragged (however, amplitudes of sinus teeth seem to be decreased due to weathering), whereas lobes are bipartite. Because of poor preservation of the specimen, number of lobes cannot be estimated.

Remarks. — The specimen is similar to the representatives of the species *Beyrichites (Beyrichites) reuttensis* (Beyrich 1867) figured by Mojsisovics (1882; Pl. 9, Figs 1—3) from the Anisian of the Alps and Balkan Peninsula, by Asserato (1963; Pl. 2, Fig. 2) from the Anisian of Lombardia, and by Shevyrev (1968; Pl. 9, Figs 1a—b) from the Anisian of the Caucasus. It differs however from those specimens in larger size and elements of its lobe line, particularly lobes are less dentate.

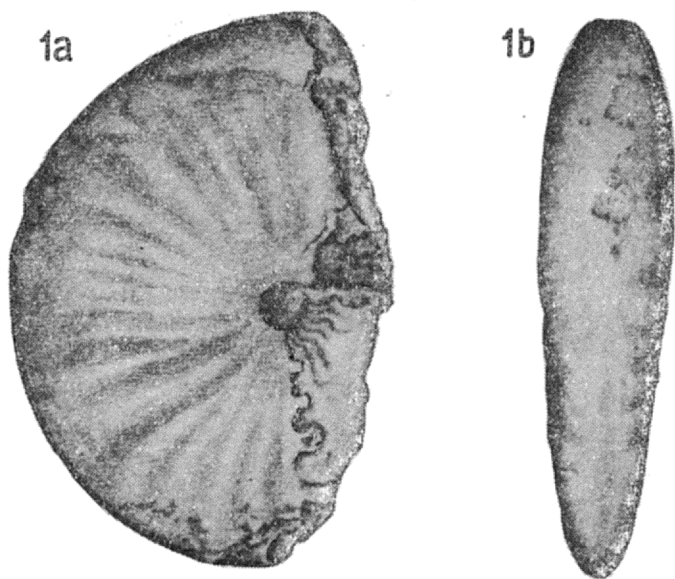


Fig. 1

Beyrichites (Beyrichites) sp.; Lower Muschelkalk, Wolica
a side view, b ventral view; nat. size

Occurrence. — Wolica in the Holy Cross Mts, waste of the *Lima striata* Beds. In the Tethyan province, the stratigraphical range of the subgenus *Beyrichites (Beyrichites)* Waagen extends from the Upper Scythian to Anisian (cf. Arkell, Kummel & Wright 1957; Shevyrev 1963).

Acknowledgements. The specimen was found by A. Matyja M. Sc., and the drawing performed by A. Kozłowski M. Sc., to whom the author offers his most sincere thanks. He is also very indebted to Professor H. Makowski for a critical reading of the typescript.

Institute of Geology
of the Warsaw University
Warszawa 22, Al. Zwirki i Wigury 93
Warsaw, September 1971.

REFERENCES

- ARKELL W. J., KUMMEL B. & WRIGHT C. W. 1957. Mesozoic Ammonoidea. In: R. C. Moore (Ed.), *Treatise on Invertebrate Paleontology, Part L (Mollusca 4)*. Lawrence.

- ASSERATO R. 1963. Il Trias in Lombardia (Studi geologici e paleontologici). IV. Fossili dell'anisico superiore della Val Camonica. — Riv. Ital. Paleont. Stratigr., vol. 69, no. 1 Milano.
- FRECH F. 1903—1906. Lehaea geognostica. T. III, Bd. 1, Lief. 1—4. Stuttgart.
- FRITSCH K. 1906. Beitrag zur Kenntnis der Tierwelt der deutschen Trias. — Abh. Naturforsch. Ges., 24. Halle.
- LUNIEWSKI A. 1923. O formach alpejskich w faunie wapienia muszlowego na północnym zboczu gór Świętokrzyskich (Sur les éléments alpins dans la faune du Muschelkalk sur le versant nord des montagnes de Święty Krzyż). — Spraw. PIG (Bull. Serv. Géol. Pol.), t. 2, nr 1/2. Warszawa.
- MOJSISOVICIS E. 1882. Die Cephalopoden der mediterranen Triasprovinz. — Abh. Geol. Reichsanst., Bd. 10. Wien.
- SAMSONOWICZ J. 1929. Cechsztyń, trias i lias na północnym zboczu Lysogór (Le Zechstein, le Trias et le Liasique sur le versant nord du Massif de S-te Croix). — Spraw. PIG (Bull. Serv. Géol. Pol.), t. 5, nr 1/2. Warszawa.
- SENKOWICZOWA H. 1956. Wapień muszlowy na północnym obrzeżeniu Gór Świętokrzyskich (Muschelkalk on the northern periphery of the Święty Krzyż Mountains). — Biul. Inst. Geol. 113. Warszawa.
- 1957. Wapień muszlowy na południowym zboczu Gór Świętokrzyskich między Czarną Nidą a Chmielnikiem (The Muschelkalk on the southern slope of the Święty Krzyż Mts. between Czarna Nida and Chmielnik). — *Ibidem*, 122.
- SHEVYRIEV A. A. 1963. Triasovyje ammonoidy juga SSSR. — Trudy Paleont. Inst. (Paleont. Inst. Works), vol. 119. Moskwa.
- TRAMMER J. 1971. Middle Triassic (Muschelkalk) conodonts from the SW margin of the Holy Cross Mts. — Acta Geol. Pol., vol. 21, no. 3. Warszawa.
- WAGNER R. 1891. Ueber einige Versteinerungen des unteren Muschelkalks von Jena. — Z. Deutsch. Geol. Ges., Bd. 43. Berlin.

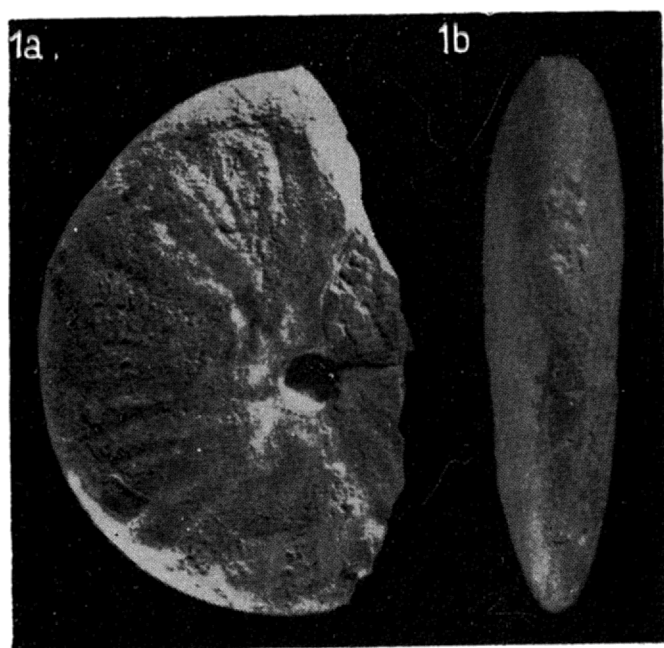
J. TRAMMER

**BEYRICHITES (BEYRICHITES) SP. Z DOLNEGO WAPIENIA MUSZLOWEGO
GÓR ŚWIĘTOKRZYSKICH**

(Streszczenie)

W profilu Wolicy, na południowo-zachodnim obrzeżeniu Gór Świętokrzyskich (por. Trammer 1971, fig. 1), w obrębie warstw z *Lima striata* (wg podziału litostratigraficznego Senkowiczowej, 1957; por. także Trammer 1971, fig. 2) znaleziony został fragment amonita (fig. 1a—b; pl. 1, fig. 1a—b) należącego do podrodzaju *Beyrichites* Waagen, 1895. Podrodzaj ten znany jest z górnego scytyku oraz anizyku i charakteryzuje głównie osady Tetydy. Stwierdzenie jego obecności w dolnym wapieniu muszlowym Gór Świętokrzyskich stanowi kolejny dowód silnych wpływów alpejskich w ówczesnych zespołach faunistycznych na terenie Polski (por. Luniewski 1923, Samsonowicz 1929, Trammer 1971).

*Instytut Geologii Podstawowej
Uniwersytetu Warszawskiego
Warszawa 22, Al. Żwirki i Wigury 93
Warszawa, we wrześniu 1971 r.*



Beyrichites (Beyrichites) sp.; Lower Muschelkalk, Wolica
1a side view, 1b ventral view; nat. size
Photos taken by B. Drozd, M. Sc.