

GLAUCONITE OCCURRENCES IN EAST SERBIA

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In the East Serbian part of the Carpatho-Balkanides sediments of the Lower Cretaceous age appear in three clearly different palaeogeographic units named Carpathian (CA), Balkanian (BA) and Krajina (KA) area (Andjelković, 1975). Occurrences of glauconite are related to the Carpathian area only (Fig. 1).

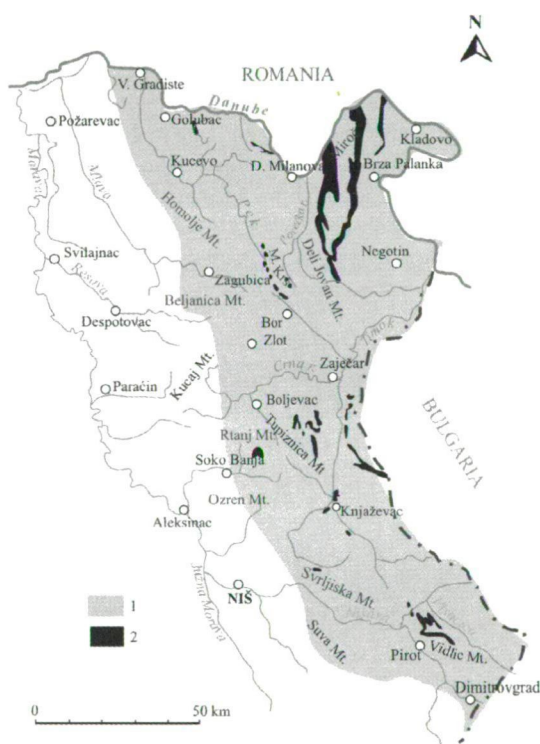


Fig. 1: Distribution of Albian and Albian-Cenomanian sediments in the East Serbian part of the Carpatho-Balkanides: 1. Carpathian area; 2. sediments of Albian and Albian-Cenomanian age with glauconite occurrences

The CA extends in the NW-SE direction and continues in Bulgaria. Differentiation of the sea bottom from the Upper

Jurassic throughout the Lower Cretaceous resulted in the deposition of shallow-marine sediments. At the end of the Aptian time a large part of the CA was underwent sea-regression and later, during the Albian time, transgression. Evolved terrigenous shallow marine sediments overlie transgressively Barmian limestones or Aptian sandstones and marls. This sediments known as Lenovac beds are rich in glauconite.

The Lower, Middle and Upper Albian are separated according to fossil fauna comprising Ammonites and shells.

The Lower Albian is composed of detrital glauconitic sandstone. The Middle Albian comprises green and red ferruginous sandstone. Sediments of the Upper Albian and Albian-Cenomanian age are the most wide-spread and overlie Middle Albian sandstones or transgressively older rocks. They are built up of green fine-grained sandstone and marly sandstone alternating with a shale rich in Ammonite species.

The Lenovac beds extend from Vlaole on the north through Krivelj, Tupiznica, Knjazevac, Trgovski Timok, Strbce, Temska to the Mount Stara planina on the southeast.

On Mount Tupiznica Lenovac beds crop out at a few localities (Lenovac, Brzakovica, Pecla, Gornja Bela reka, Mergin grob) and comprise glauconitic sandstones and sandy marls. The coarse-grained, sometimes conglomeratic, mostly ferruginous sandstones appear as non-stratified masses of 10 to 100 m thickness and contain 45 to 60vol% glauconite. North of Mount Tupiznica, in the area between Kucevo and Bor glauconitic sandstones are slightly clayey, while east of Zajecar, on both side of river Crna reka, clayey sandstones with high amounts of glauconite (45 to 55vol%) overlie Urganian limestone. South of Mount Tupiznica, in the area of Knjazevac and Mount Stara planina glauconite is the main constituent of detrital sandstones associated with conglomerates and marly or clayey sandstones and ferruginous limestones. On the east side of Mount Golubac (village Radenka) fossiliferous glauconitic limestones alternate with coarse-grained quartzitic sandstone and fine-grained glauconitic sandstone.

Reference

ANDJELKOVIĆ, M. (1975): Geology of Serbia II-2. 103-253.