

9th International Congress on the Jurassic System, Jaipur, India

Abstracts

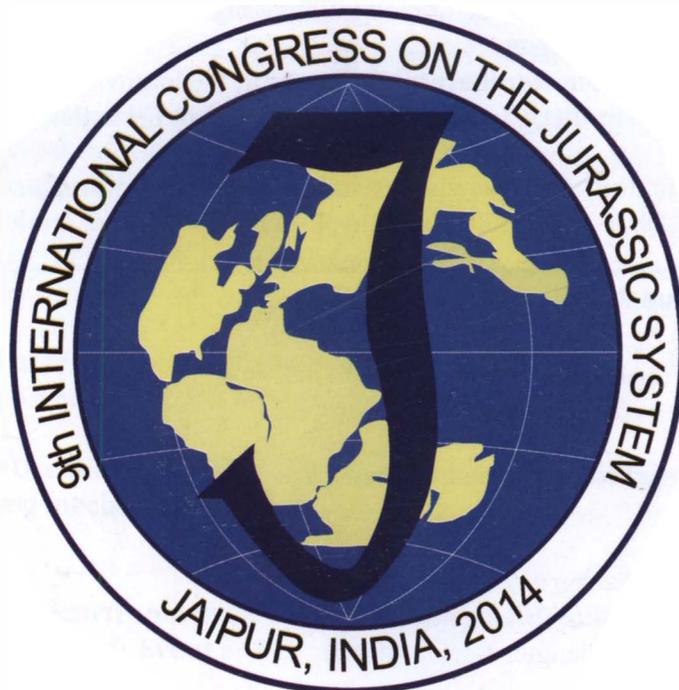
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Preliminary report on the ammonite fauna and stratigraphy of the Beckeri Zone (Upper Kimmeridgian) of the southern Crimea (Ukraine)

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Upper Jurassic strata of Crimea (Ukraine) are mainly represented by shallow-water reef facies, characterized by significant thickness (up to few kilometers), complex tectonics, and rare ammonite records. Only recently Upper Kimmeridgian ammonite-bearing beds were discovered in the eastern Crimea (ARKADIEV & ROGOV 2006), while new records of microfossils suggested that this substage also could be recognized in the southern Crimea (ANIKEYEVA & ZHABINA 2009). A new section, containing rich ammonite assemblages of the uppermost Kimmeridgian, has been discovered recently between Chelebi and Foros mountains near to Foros settlement, southernmost Crimea by the amateur palaeontologist Aleksei Kudryavtsev. This section is represented by a folded marlstone succession with a total thickness ca. 30 m. Ammonites occur in abundance in the lowermost part of this section and become relatively uncommon upwards. Belemnites and bivalves are very rare. Terebratulid brachiopods are relatively numerous in the lowermost part of the section only (beds 59-66), but were not found above.

The following assemblages could be recognized, from youngest to oldest:

(1) Ataxioceratid ammonite, resembling *Lithacoceras*, and *Berckhemeria* sp. were collected from bed 15, suggesting an earliest Tithonian age.

(2) Beds 26-41 are characterized by ammonite assemblages consisting mainly of *Subplanites*-like microconchiate ataxioceratids or leiostrocan ammonites, belonging to the genera *Sowerbyceras*, *Haploceras*, and *Protetragonites*. At least two ataxioceratid-dominated and two leiostrocan-dominated assemblages could be recognized here. The age of these assemblages could not yet be determined precisely, but lies close to the Kimmeridgian-Tithonian boundary.

(3) Slightly below, in bed 44, *Neochetoceras* ex gr. *rebouletianum* (FONT.) and *Silicisphinctes* sp. were collected. These ammonites indicate

a latest Beckeri Zone age (~ *rebouletianum* horizon or closeby level).

(4) A rich ammonite assemblage has been collected from bed 59. It includes, along with phylloceratids (*Pseudophylloceras* and *Sowerbyceras*), a few *Ochetoceras semimutatum* (FONT.) and small-sized ataxioceratids resembling *Virgataxioceras minutum* (BERCKH.) This assemblage could be dated as belonging to the Setatum Subzone of the Beckeri Zone.

(5) Ammonites were most abundant (more than 100 specimens were collected) in bed 66. The ammonite assemblage is dominated by *Taramelliceras* cf. *compsum* (OPP.), which includes more than 70% of all ammonite records. In addition to this species *Sowerbyceras* are relatively common here, while other ammonites (*Euvirgathacoceras* (?) *tantalus* (HERBICH) and indeterminate ataxioceratids, *Aulacostephanus* (*Aulacostephanoceras*) cf. *jasonoides* (PAVL.), *Pseudophylloceras* sp., *Sutneria* sp. etc.) are rare. This assemblage could belong to the uppermost Subeumela or Setatum Subzone of the Beckeri Zone.

(6) Beds 72-73 in the lowermost part of the succession are characterized by a nearly homogeneous ammonite assemblage dominated by *Sowerbyceras* and including also *Haploceras* (?) sp. and *Pseudophylloceras consanguineum* (GEMM.)

The studied succession is characterized by unique ammonite assemblages of the Beckeri Zone, which strongly differ from assemblages of this age known from other areas. Aspidoceratid ammonites are here absent or extremely rare (only one small-sized *Sutneria* was recorded), while *Taramelliceras* from bed 66 is more numerous compared with any other described Kimmeridgian assemblage.

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