

	S-Deutschland		Kaukasus (1)		Russland (4)		Grönland (15)	
Herveyi	<i>K. toricellii</i> Hildesheim, Mühlenberg	<i>Pseudocadoceras</i>			<i>K. russiensis</i>	<i>C. stuckenbergi</i> (14)		
	<i>K. hildesheimensis</i> Hildesheim, Wolfsburg	<i>Pseudocadoceras</i>	<i>K. rionensis</i> (2) Tsessi	<i>M. caucasicus</i>	<i>K. russiensis</i>	<i>C. subpatruus</i>		
		<i>Cadoceras suevicum</i> β		<i>C. stupachenkoi</i> (3)		<i>C. surense</i>		
		<i>Cadoceras suevicum</i> α		<i>C. tschenischewi</i> (3)		<i>C. stupachenkoi</i> (13)		
	<i>Cadoceras quenstedti</i>		<i>C. suevicum</i> (3)		<i>C. tschenischewi</i> (12)			
					<i>C. elatmae</i>			
					<i>C. falsum</i> (11)			
	<i>K. keppleri</i> , <i>K. n. sp.</i> Pfeffingen, Eningen, Anwil	<i>Cadoceras cf. sakharovi</i>	<i>K. keppleri</i> Tsessi, Kemulta	<i>C. sakharovi</i> (3)	<i>K. keppleri</i> Pestrovka 1, Sura (6)	<i>C. frearsi / primaevum</i> (10)	29-30 <i>K. aff. traillensis</i>	<i>C. nordenskjöldi</i> <i>Paracadoceras</i> sp.
	<i>K. keppleri</i> Lautlingen, Liesberg			<i>C. teschegenicum</i> (3)	<i>K. keppleri</i> Chvadukassi (7)	<i>C. breve / poultoni</i> (9)	28 <i>K. aff. traillensis</i>	<i>C. cf. aff. breve</i>
Retrocostatum	<i>K. radiatus</i> Klingenbachtal		<i>K. radiatus</i> , <i>K. n.sp.</i> Gerchyoch Pass	<i>C. aff. perratum</i> (3)		<i>C. bodylevskyi / ammon</i> (8)	27 <i>K. tenuifasciculatus</i>	
	<i>K. dietli (=traillensis)</i> Sengenthal, Schicht 17c	<i>Clydoniceras hochstetteri</i> Blumberg			<i>K. aff. dietli = traillensis</i> (6) <i>K. vardekloeftensis</i> (Alatyr)		24-26 <i>K. cf. aff. keppleri</i> <i>K. traillensis</i>	<i>C. apertum</i>
	<i>K. aff. aigii</i> Sengenthal Schicht 17b				<i>K. aff. aigii</i> Lekarevka, Pestrovka 2 (6)	<i>P. infimum</i>	23 <i>K. vardekloeftensis</i>	<i>C. victor</i> , <i>C. calyx</i> , <i>C. franciscus</i> , <i>C. ammon</i>
	<i>K. aigii (= cf. aff. peramplus)</i> Sengenthal Schicht 17a				<i>K. aigii</i> , <i>K. aff. peramplus</i> (6) <i>K. svalbardensis</i> (Alatyr II)		22 <i>K. peramplus</i> <i>K. svalbardensis</i>	<i>C. cf. victor</i> , <i>C. perratum</i> <i>C. cf. franciscus</i> ,
		<i>Clydoniceras hochstetteri</i> Lochpass, Lautlingen, Anwil			<i>K. cf. rosenkrantzi</i> <i>K. svalbardensis</i> (Prosek) (5)	<i>P. barnstoni/nageli/perratum</i>	21 <i>K. rosenkrantzi</i>	<i>C. variabile</i> , <i>C. ventroplanum</i> <i>C. subcostoma</i> , cf. <i>barnstoni</i>
		<i>Epistren. histrichoides</i> Anwil, Sengenthal					20 <i>K. inflatus</i>	<i>A. sp.</i>
		<i>Hemigarantia julii</i> Sengenthal, Schicht 16a					19 <i>K. tychonis</i>	<i>A. aff. cranocephalide</i>
		<i>Procerites?</i> Sengenthal, Schicht 15					18 <i>K. stephanoides</i>	<i>A. cranocephalide</i>
	<i>Procerites, Wagnericeras</i> Sengenthal, Schicht 14						<i>Arcticoceras</i> sp.	

Keplerites Macrocephalites

Notes of the D. Gulyaev:

- (1) It appears that now it is impossible to construct the Bathonian-Callovian infrazonal scale of the Caucasus. It is based on not enough evidence of local sections and too speculative.
- (2) According to its habitus *K. rionensis* Khim. belongs to the group of *K. keppleri* (Opp.) and it should be placed near the Bathonian/Callovian boundary.
- (3) This is only speculative succession which is not based on direct stratigraphic evidence.
- (4) Here in many parts (especially in the Upper Bathonian – lowermost Callovian interval) species and local sections are strongly entangled. Equal stratigraphic levels separated different stratigraphic levels combined and mixed. See fig. 1, 2 of Gulyaev.
- (5) Originally (Gulyaev, Kiselev, 1999) these forms of the Prosek section came from the *P. infimum* Biohorizon (see fig. 1, note 3; fig. 2, sect. 4).
- (6) It appears that most of these Keplerites are the same (see fig. 1, note 3; fig. 2, sect. 4, 6, 11). Only Keplerites from “Pestrovka 1” (Kiselev, Rogov, 2007b, pl. 2, fig. 1, 2) clearly belongs to earlier *K. rosenkrantzi* (see fig. 1, note 1; fig. 2, sect. 12).
- (7) This stratigraphic level in the Chvadukassi is pre-Callovian. There has not yet appeared *M. jacquoti* (and not appeared Macrocephalites at all), but there there is archaic *Paracadoceras* (*Catacadoceras*) *sakharovi* (see fig. 1, note 6, 7; fig. 2, sect. 5).

- (8) Apparently, the original *P. bodylevskyi* (Frebald, 1964) from “lower *Cadoceras* beds” of Axel Heiberg Island is a junior synonym of *Paracadoceras variabile* (Spath, 1932) from Jameson Land (Gulyaev, 2011). Russian “bodylevskyi” is designated by V.V. Mitta (2000) and D.N. Kiselev (Kiselev, Rogov, 2007a,b) incorrectly (see fig. 1, note 5, 7).
- (9) *P. breve* (as well as *P. nordenskjöldi* and *P. catostoma* sensu Imlay, 1953) belongs to the independent specific lineage of *Paracadoceras* which was extended in East Greenland and Alaska (Gulyaev, 2011, 2012, 2014). Only rare immigrants (from E. Greenland) of *P. breve* are present in the *M. terebratus* α Biohorizon of Britain (Page, 1988 (PhD Tes.); Callomon et al., 1988). It is not known true *P. breve* in the European Russia (see fig. 1, note 12).
- (10) See note 15 on fig. 1.
- (11) See note 17 on fig. 1.
- (12) See notes 29 and 31 on fig. 1.
- (13) See notes 29 and 31 on fig. 1.
- (14) See notes 33 and 34 on fig. 1.
- (15) The Greenland scale unfairly “lowered” on two-three Biohorizons (see correlation on fig. 1; Gulyaev, 2011, 2012).