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20 2004 .

*fragmentarius*  
*assanoviensis* –

?-

?-

*Ammobaculites*  
*Verneuilinoides borealis*

**AGGLUTINATED FORAMINIFERA ASSEMBLAGES  
FROM KHANTY-MANSIYSK SUITE (ALBIAN, LOWER CRETACEOUS)  
IN THE MIDDLE AND SOUTH ZAURALYE (TRANS-URALS)**

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In the article are considered questions of stratigraphy and paleogeography of Albian (terminal lower Cretaceous) epoch of time-existence of Cretaceous Westsiberian epicontinental marine basin within the limits of territory in recent Middle and Southern Zauralye (Trans-Urals). The detailed lithologic-stratigraphic characteristics of regional Khanty-Mansiysk Suite, which rocks corresponds to this stage, is resulted. Khanty-Mansiysk Suite in examined area is represented by only its upper member. Fossil remains of macrofauna in rocks of the Suite here are not found, others fossils are represented mainly by foraminifers. Forams are exclusively arenaceous agglutinated, they form two stratigraphically significant assemblages, which intervals of distribution are singled out in a rank of layers with characteristic fauna. Lower assemblage with *Ammobaculites fragmentarius* is dated as early?-middle Albian, upper assemblage with *Verneuilinoides borealis assanoviensis* – as middle?-late Albian. Age determinations are made on the basis of finds in rocks of Khanty-Mansiysk Suites of ammonites and

inocerams (outside of limits of examined territory), and also with wide use of correlational comparisons of local forams assemblages to ones in other regions of Paleoarctic belt. Paleogeographically, the territory of Southern Zauralye represented itself during Albian the rather narrow southern gulf of Westsiberian sea, thus its physic-geographical parameters carried features of euxinic type basin. Foraminiferal fauna, dwelled the gulf, has been completely generated by the migrants whom have come from more northern water areas of the north of Western Siberia, Yamal, Kara sea. The article is conducted with brief overview of history of study Albian sediments in examined territory since 30th years of XX century up to present time.

Key words: *the Albian, Lower Cretaceous, Western Siberia and Zauralye (Trans-Urals), foraminifera, stratigraphy, paleogeography.*

1954 . . . . .  
 ( .1662,0-1376,0 ), : , ,  
 1. , , - , -  
 , 540 000 <sup>2</sup> [ , -  
 ., 1968]<sup>2</sup>. ( , ) -  
 [ ., 1968].  
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 60-300 [ ., 1968]. , , -  
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<sup>1</sup> - , 25  
 5 1952 ., 22 1954 . 9 1951 .  
 2500 ; 376  
 ; 43,4 % [ ., 1961].  
<sup>2</sup> -  
 1 . <sup>2</sup> [ ., 2000 ].

КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

[ , 2002]. 1960 . 50-70- XX , ,  
 - [ -  
 .., 1968; ..., 1961, 1969, -  
 1970, 1991]. [ -  
 1980; [ ..., 1997]. ..., , ,  
 - - - -  
 - [ - -  
 .., 1968]. - -  
 - : ***Ammobaculites***  
 - ***agglutinans*** ( . 1665-1600 )  
 - ***Verneuilina assanoviensis***<sup>3</sup> ( . 1600-1505 ).  
 -  
 - , -  
 : - , -  
 ( ), -  
 , -  
 ( ), ***Ammobaculites agglutinans***  
 ( ), ***Cleoniceras bicurvatooides*** Sinz.,  
 ( ), ( . 1657-1649 , , -  
 ), ( -  
 ) [ ..., 1991; ..  
 2000 , ]. [ .., 1961].  
 -  
 - 1- 1207 -  
***Inoceramus anglicus***  
 Woods ( . . . ), -  
 ( ) 1- 1587  
***Syncyclonema ex gr. darius*** Orb.  
 - ( . . . ), -  
 [  
 .., 1960]. . .  
 -  
 . 1538-1530 ***Inoceramus cf.***  
***hercynicus*** Petr. ( . . . ).  
 - . . . ***I. hercynicus***  
 , -  
 , -  
 1- : « -  
 - 1- ,  
 - 426-420 , -  
 , . . . ***Inoceramus ex. gr.***  
 - ***labiatus*** Schl. ,

<sup>3</sup> -

*Inoceramus sp. (cf. labiatus Schl.)* ( ), *I. sp. ex gr. labiatus* Schl. ( [ , 1969; , 1974; ..., 1987, .]. )» [ 1960, . 33].  
*I. labiatus*  
[ , 1962].  
, 1960, . 33, 141],  
*I. hercynicus* [ , 1961, . 51].  
« » [ , 2000 , ].  
[ ..., 1964, . 34].  
1538-1530 [ , 1997].  
***Verneuilioides borealis assanoviensis,*** *Inoceramus anglicus* Woods ( ).  
1- 1369-1344  
*Inoceramus anglicus* Woods, [ , 1976 ].  
[ , 1976 , ].  
***Gaudryina tailleuri,***  
***Ammosiphonia nonioninoides,***  
***Gaudryina tailleuri***  
***Ammobaculites fragmentarius*** ***Verneuilioides borealis assanoviensis***

КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

1936 . . .

*Verneulinoides borealis assanoviensis* ( ) 4;  
 1937 . . .

( )

[1948].

[ ., 2000 ].

*Verneulina asanoviensis*  
*Rhabdammina? aptica*  
 Dampel, *Miliammina? sp.*, *Haplophragmoides excavatus* Cushman et Waters var. *umbilicatula*

				[ ., 2000 , . 775]			
				<i>Inoceramus anglicus</i>	<i>Verneulinoides borealis assanoviensis</i> - <i>Ammosiphonia jamalica</i>	<i>Verneulinoides borealis assanoviensis</i>	
				<i>Inoceramus anglicus</i> - <i>Pseudopulchellia</i>	<i>Verneulinoides borealis assanoviensis</i> - <i>Ammosiphonia beresoviensis</i>		<i>Verneulinoides borealis assanoviensis</i>
				<i>Arcthoplites</i> , "Cleonicerias cf. <i>bicurvatoides</i> (Sinz.)"	<i>Ammobaculites fragmentarius</i> - <i>Ammosiphonia beresoviensis</i>		<i>Ammobaculites fragmentarius</i>
					<i>Ammosiphonia nonioninoides</i>		
				<i>?Pseudosaynella</i>	<i>Thurammina undosa</i>		

. 1.  
 ( [ ., 2000 , . 775]),  
 ( ).



[ , 1961].

*I* - [ , 1961].

*Haplophragmoides schumikhaensis*, *H. darwini*, *Ammobaculites agglutinoides* - *Verneilina asanoviensis* Zasp. ( , 3- ),

*Trochammina dampelae*, - *Haplophragmoides schumikhaensis* - *Ammobaculites agglutinoides*. 1964 .

( , ) 126

52 [ , , 1961].

« »

: *Ammodiscus ex gr. incertus* (Orb.), *Glomospira* sp., *Miliammina* sp., *Haplophragmoides umbilicatus* Dain, *Textularia constricta* Ehrem. sp. n., *Verneilina asanoviensis* Zasp., *Trochammina* sp. (*Ammobaculites fragmentarius* *Ammobaculites agglutinans*, *Ammobaculites fragmentarius* Cushm., *Hyperammina aptica* (Damp. et Mjatl.), *Haplophragmoides umbilicatus* Dain, *Ammomarginulina obscurus* LoebL., *Miliammina owunensis* Tapp., *M. sprolei* Nauss, *Verneuilinoides praeassanoviensis* Balakhm., *Verneilina urnula* Balakhm., *Spirolocamina subcirculata* (Tapp.). *Eponides morani* Tapp., *Globulina gibba* Orb., *Rectoglandulina netrona* Tapp.;

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(*Hyperammina aptica*, *Haplophragmoides umbilicatus*, *Verneuilinoides borealis assanoviensis*,  
 ).  
 1976 .  
***Verneuilinoides borealis assanoviensis***,  
 [ , 1976 ].  
 ( .2)  
*Verneuilinoides borealis* Tappan  
*assanoviensis* Zaspelova,  
 : *Hippocrepina vermiculata* Bulat. sp. n., *Reophax heterolocus* Bulat. sp. n., *R. manci* Balakhm., *Haplophragmoides umbilicatus* Dain., *Verneuilinoides* sp., *Miliammina spolei* Nauss, *Gaudryina oblonga* Zasp., *Gaudryinella irenensis* Stelck et Wall, *Saccammina orbiculata* Bulat. sp. n., *S. testideformabilis* Bulat. sp. nov., *Thurammina undosa* Bulat. sp. nov., *Crithionina granum* Goes., *C. dubia* Bulat. sp. n., *Hyperammina aptica* (Damp. et Mjatl.), *Hippocrepina vermiculata* Bulat. sp. n., *Hyperamminoides patella* Roman., *Agathammina miliolidaeformis* Balakhm., *Miliammina* sp., *Uvigerinammina uvigeriniformis* (Balakhm.).  
 [ , 1970, 1976 ],  
 7, [1970]  
*Discorbis* *Guttulina*.  
***Gaudryina tailleuri***  
***Gaudryina tailleuri***  
 ( , ***Gaudryina tailleuri***  
 [Tappan, 1962]).  
 ; ,  
***Gaudryina tailleuri***  
 [ , 1970, .56; 1976 , .26].  
 [1977] , ***Gaudryina tailleuri***  
***Ammobaculites fragmen-***



КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

*tarius, Verneulinoides borealis assanoviensis*

( . 2).

[ , 1976 ].  
[1977, . 47]

<i>Verneulinoides borealis assanoviensis</i>	<i>Miliammina pseudoinflata</i>	Miliammina pseudoinflata Bulatova sp. nov., M. awunensis Tapp., Verneulinoides borealis assanoviensis (Zasp.)	
	<i>Psamminopelta bowsheri, Ammobaculites junceus</i>	Hippocrepinella vermiculata Bulat., Reophax manci Balakhm., R. hetereloculus Bulat., Miliammina manitobensis Wick., Psamminopelta bowsheri Tapp., P. operta Bulatova sp. nov., Ammobaculites junceus ush. et Appl., Ammomarginulina obscura (Loebl.), Ammotium braunsteini (Cush. et Appl.), Verneulinoides borealis assanoviensis (Zasp.)	
	<i>Ammobaculites goodlandensis, Eggerella improvisa</i>	Saccamina scabra Bulat., Miliammina sproulei Naus, Haplophragmoides gigas Cush., Pseudobolivina rayi (Tapp.), Trochammina ribstonensis Wick., Ammobaculites subcretaceus Cush. et Alex., A. goodlandensis Cush. et Alex., Gaudryina oblonga Zasp., Verneulinoides borealis assanoviensis (Zasp.), Eggerella improvisa Bulatova sp. nov.	
<i>Ammobaculites fragmentarius</i>	<i>Eggerella kansasensis</i>	Ammodiscus rotalarius Loebl. Et Tapp., Haplophragmoides gigas ush., A. fragmentarius ush., Ammomarginulina cragini Loebl. et Tapp., Acruliammina trochospirale Bulatova sp. nov., Eggerella kansasensis (Loebl. et Tapp.), Saracenaria jarsalensis Bulatova sp. nov., Globorotalites alaskensis Tapp.	
	<i>Recurvoides leushiensis</i>	Reophax troueri Tapp., Ammodiscus kiowensis Loebl. et Tapp., Glomospirella gaultina (Berth.), Cribrostomoides flossiformis Bulatova sp. nov., Ammobaculites fragmentarius ush., A. wenonahae Tapp., A. beresoviensis Bulatova sp. nov., Recurvoides leushiensis Bulatova sp. nov., Gaudryina filiformis Berth., Spiroplectinata sibirica Bulatova sp. nov.	
	<i>Pseudobolivina contorta</i>	Glomospira corona Cush. et Jar., Miliammina rasilis Bulatova sp. nov., Haplophragmoides stis Stelck et Wall, Ammobaculites fragmentarius Gush., Phenacophragma selenae Bulatova sp. nov., Pseudobolivina contorta Bulatova sp. nov., Quadrimorphina ruckerae (Tapp.)	
	<i>Gaudryina tailleuri</i>	Glomospira corona Cush. et Jar., Glomospirella gaultina (Berth.), Haplophragmoides topagorukensis Tapp., Gaudryina tailleuri (Tapp.) Trochammina eilete Tapp.	

. 2.

[1976 , . 22-23]).

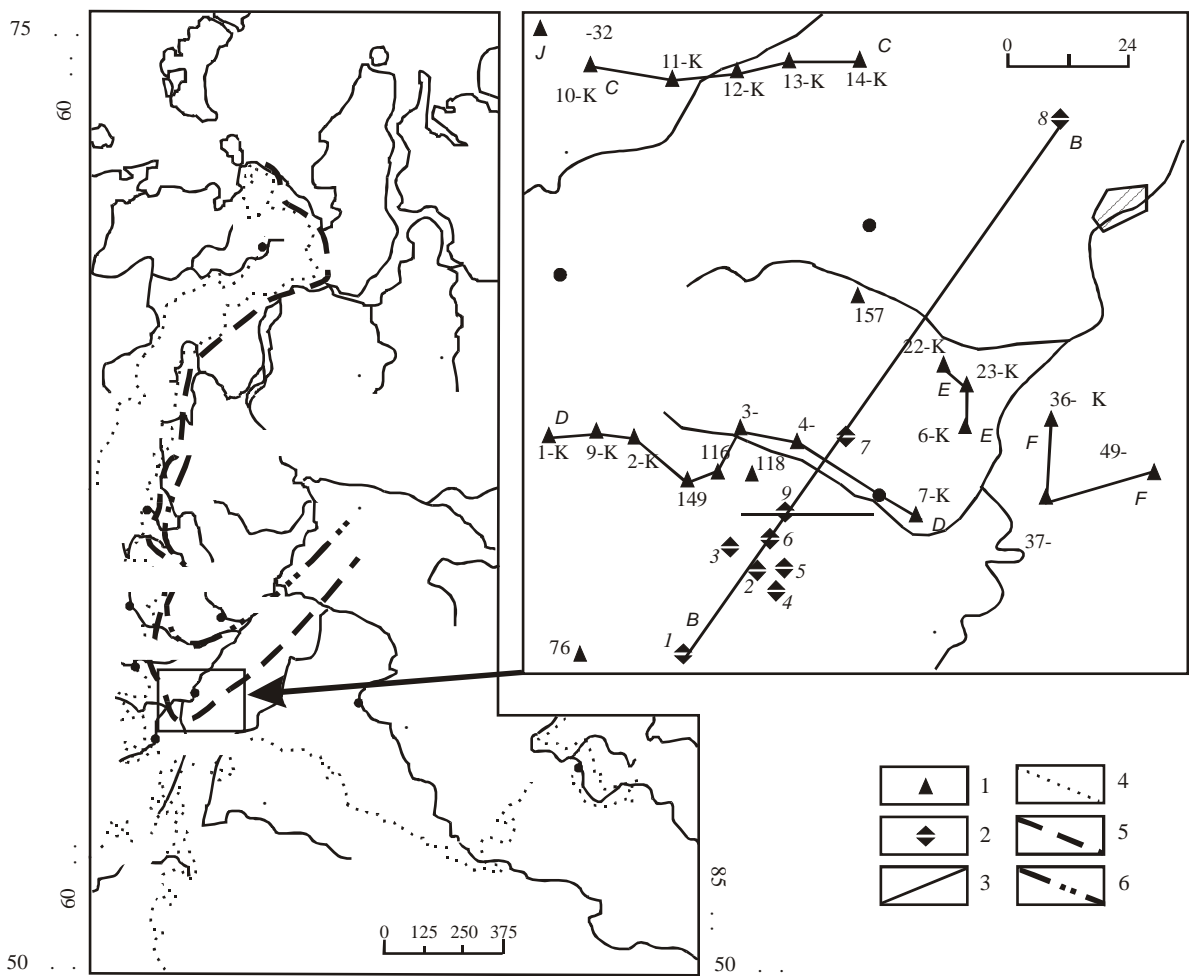
[2000, . 773],  
*Inoceramus anglicus.*  
 [1976 ],  
 [2000, ].  
 «  
 », ( . 1).  
 80- [ ,  
 2000, ],  
 [ , ..., 1991].  
*Verneuilioides borealis*  
*assanoviensis.*  
*Thurammia undosa*  
*Ammosiphonia nonioninoides*  
 ): *Gaudryina tailleuri*, *Ammobaculites*  
*fragmentarius*, *Verneuilioides borealis*  
*assanoviensis*, *tailleuri* [ , 1976 ;  
 ..., 1991].  
*Gaudryina tailleuri*  
*Ammosiphonia nonioninoides*  
 «*Cleoniceras cf. bicurvatooides*».  
*Verneuilioides borealis assano-*  
*viensis*  
*Ammobaculites fragmentarius*,  
*Ammobaculites fragmentarius*  
*Verneuilioides borealis assanoviensis* [ ,  
 ., 2000, . 782].  
*Vnigrigeras* (V) *Ammosiphonia beresoviensis*  
*sinzovi.* *Verneuilioides borealis* *Ammo-*  
*assanoviensis* *baculites fragmentarius* [ , ..., 1991].





КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

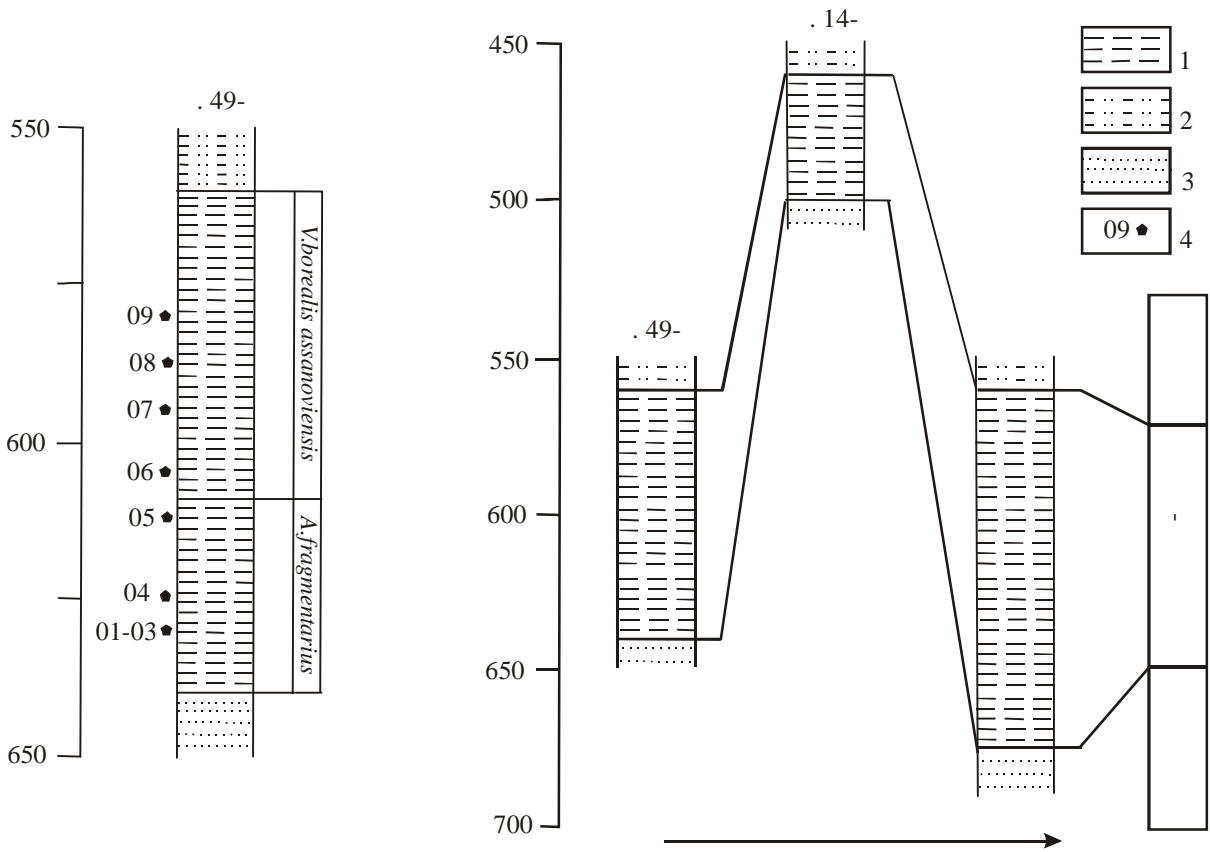
., 1968; , 1974; ., 1985; , 1990; , 1972, 2000; , , ), 2002, 2004] ( . 3, . 1) - ( ) , 37 , ( 116, 149, 3- , 7- 37- ) ( )



. 3. ( ) , 1- ; 2- ; 1- , 2- , 3- , 4- , 5- , 6- , 7- , 8- , 9- ; 3- : - - , C-C - , D-D - , E-E - , F-F - ; 4- ; 5- ; 6- - [ ., 1985; , , 2002, 2004].



КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ



. 4. . 49- ( ) ; 2- ; 3- . 3.

49-05 ( . 613,0 ) 46-06  
 ( . 605,0 )  
 609 ( . 2, . 4). 630,5-613,0  
 605,0-570,0

. 49-

	Ammobaculites fragmentarius					Verneuilinoides borealis assanoviensis			
	49-01	49-02	49-03	49-04	49-05	49-06	49-07	49-08	49-09
Bathysiphon proprius Bulatova [Ba-pr]						*			
Saccamina sp. [Sa-sp]	*		*		*			*	*
S. orbiculata Bulatova [Sa-or]			*			*	*		
S. lathrami Tappan [Sa-la]				*					
S. regula Bulatova [Sa-re]	*	*			*		*		*
S. micra Bulatova [Sa-mi]							**		
S. testideformabilis Bulatova [Sa-te]	**						***	*	
S. alexanderi Loeblich et Tappan [Sa-al]	*								
Reophax sp. [Re-sp]				*					*
R. sherborniana (Chapman) [Re-sh]				*					
R. manci Balakhmatova [Re-ma]					*				*
R. troyeri Tappan [Re-tr]				**					
R. heterolocus Bulatova [Re-he]				*			**		
Miliammina ischnia Tappan [Mi-is]					**			*	
M. virgata Bulatova [Mi-vi]								*	
M. awunensis Tappan [Mi-aw]							*	*	
M. sproulei Nauss [Mi-sp]							*	**	
M. rasilis Bulatova [Mi-ra]							**	***	
M. cognata Bulatova [Mi-co]								*	
Psamminopelta sp. [Ps-sp]	*								



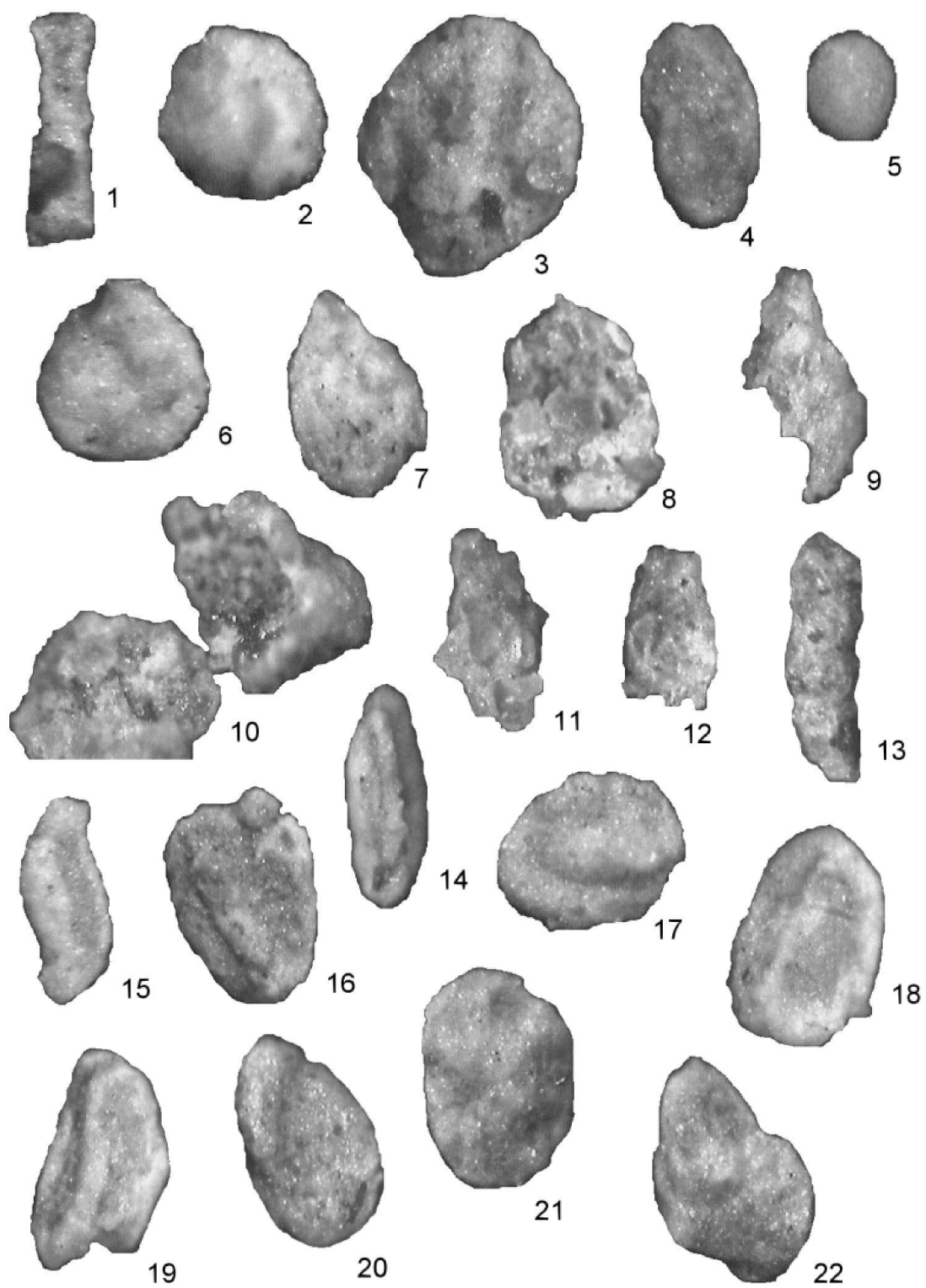
	Ammobaculites fragmentarius					Verneuilioides borealis assanoviensis			
	49-01	49-02	49-03	49-04	49-05	49-06	49-07	49-08	49-09
<i>Ammosiphonia beresoviensis</i> (Bulatova) [Am-be]	*	*	*						
<i>A. nonioninoides</i> (Reuss) [Am-no]	*								
<i>A. jamalica</i> Marinov [Am-ja]									*
<i>Recurvoides leushiensis</i> Bulatova [Rc-le]				*	*				
<i>Ammobaculites fragmentarius</i> Cushman [Ab-fr]	*		**	*	**				
<i>A. wenonahae</i> Tappan [Ab-we]			**	**			**	*	
<i>A. inornatus</i> Bulatova [Ab-in]	*				***				
<i>Placopsilina captiosa</i> Bulatova [Pl-ca]				*					
<i>Ammotium braunsteini</i> (Loeblich et Tappan) [At-br]	*								
<i>Evolutinella</i> cf. <i>topagorukensis</i> (Tappan) [Ev-to]			**						*
<i>Pseudobolivina contorta</i> Bulatova [Ps-co]	*				*			*	
<i>P. merita</i> Bulatova [Ps-me]									*
<i>P. rayi</i> (Tappan) [Ps-ra]	*								
<i>Verneuilioides borealis assanoviensis</i> Zaspelova [Ve-as]			*		***		*	*	***
<i>Eggerella improvisa</i> Bulatova [Eg-im]		*		*	**	*	**		
<i>E. kansasensis</i> (Loeblich et Tappan) [Eg-ka]									*
<i>Gaudryina oblonga</i> Zaspelova [Ga-ob]									***
<i>Gravellina urnula</i> (Balakhmatova) [Gr-ur]	*	*			*	*	*		
<i>Trochammina</i> cf. <i>umiatensis</i> Tappan [Tr-um]			*	*			*		*

\* – (few), \*\* – (rare), \*\*\* – (common).  
 . 5.

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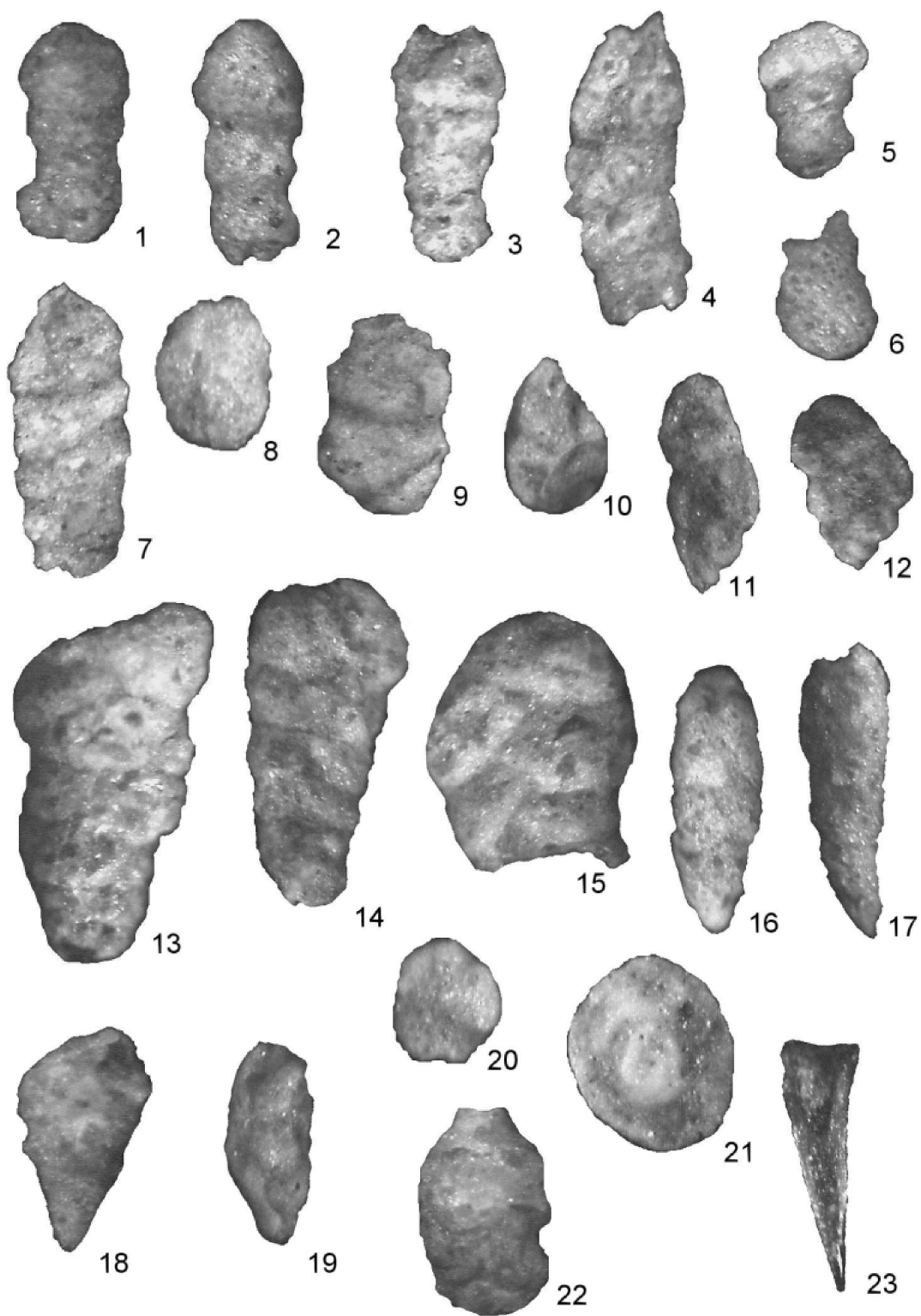
. 1. <i>Bathysiphon proprius</i> Bulatova. × 53.	. 107,	. 605,0 ,
. 49-06-01.		
. . . . <i>Saccammina orbiculata</i> Bulatova. × 67.	. 106,	. 595,0 ,
. 49-07-14.		
. 3. <i>Saccammina lathrami</i> Tappan. × 45.	. 110,	. 626,0 ,
. 49-04-14.		
. 4. <i>Saccammina regula</i> Bulatova. × 60.	. 102,	. 570,0 ,
. 49-09-19.		
. 5. <i>Saccammina micra</i> Bulatova. × 80.	. 106,	. 595,0 ,
. 49-07-07.		
. 6. <i>Saccammina testideformabilis</i> Bulatova. × 64.	. 106,	
. 595,0 , . 49-07-09.		
. 7. <i>Saccammina alexanderi</i> Loeblich et Tappan. × 58.	. 112,	
. 630,5 , . 49-01-09.		
. 8. <i>Reophax sp.</i> × 45.	. 110,	. 626,0 , . 49-04-25.
. 9. <i>Reophax sherborniana</i> (Chapman). × 45.	. 110,	. 626,0 ,
. 49-04-04.		
. 10. <i>Reophax manci</i> Balakhmatova. × 45.	. 102,	. 570,0 ,
. 49-09-21.		
,		
. 11. <i>Reophax sherborniana</i> (Chapman). × 45.	. 110,	. 626,0 ,
. 49-04-35.		
. 12. <i>Reophax troyeri</i> Tappan. × 51.	. 110,	. 626,0 ,
. 49-04-16.		
. 13. <i>Reophax heterolocus</i> Bulatova. × 45.	. 110,	. 626,0 ,
. 49-04-06.		
. 14. <i>Miliammina ischnia</i> Tappan. × 47.	. 108,	. 613,0 ,
. 49-05-04.		
. 15. <i>Miliammina virgata</i> Bulatova. × 57.	. 104,	. 587,0 ,
. 49-08-01.		
. 16. <i>Miliammina awunensis</i> Tappan. × 50.	. 104,	. 587,0 ,
. 49-08-20.		
. 17. <i>Miliammina sproulei</i> Nauss. × 61.	. 104,	. 587,0 ,
. 49-08-07.		
. 18. <i>Miliammina virgata</i> Bulatova. × 50.	. 106,	. 595,0 ,
. 49-07-01.		
. 19. <i>Miliammina virgata</i> Bulatova. × 51.	. 106,	. 595,0 ,
. 49-07-02.		
. 20. <i>Ammosiphonia beresoviensis</i> (Bulatova). × 50.	. 111,	
. 629,0 , . 49-03-07.		
. 21. <i>Ammosiphonia nonioninoides</i> (Reuss). × 56.	. 112,	
. 630,5 , . 49-01-21.		
. 22. <i>Ammosiphonia jamalica</i> Marinov. × 57.	. 102,	. 570,0 ,
. 49-09-20.		

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## II

	. 1. <i>Ammobaculites fragmentarius</i> Cushman. × 52.	. 112,
. 630,5	, . 49-01-15.	
	. 2. <i>Ammobaculites fragmentarius</i> Cushman. × 45.	. 111,
. 629,0	, . 49-03-11.	
	. 3. <i>Ammobaculites wenonahae</i> Tappan. × 45.	. 111,
. 629,0	, . 49-03-06.	
	. 4. <i>Ammobaculites wenonahae</i> Tappan. × 45.	. 110,
. 626,0	, . 49-04-21.	
	. 5. <i>Ammobaculites inornatus</i> Bulatova. × 45.	. 110,
. 626,0	, . 49-04-09.	
	. 6. <i>Ammobaculites inornatus</i> Bulatova. × 53.	. 110,
. 626,0	, . 49-04-33.	
	. 7. <i>Placopsilina captiosa</i> Bulatova. × 45.	. 110,
. 626,0	, . 49-04-17.	
	. 8. <i>Recurvoides leushiensis</i> Bulatova. × 60.	. 110,
. 626,0	, . 49-04-16.	
	. 9. <i>Ammotium braunsteini</i> (Loeblich et Tappan). × 45.	
. 112,	. 630,5 , . 49-01-25.	
	. 10. <i>Evolutinella cf. topagorukensis</i> (Tappan). × 45.	. 102,
. 570,5	, . 49-09-09.	
	. 11. <i>Pseudobolivina contorta</i> Bulatova. × 45.	. 112,
. 630,5	, . 49-01-05.	
	. 12. <i>Pseudobolivina rayi</i> (Tappan). × 45.	. 112, . 630,5 ,
. 49-01-10.		
	. 13. <i>Verneuilioides borealis</i> Tappan <i>assanoviensis</i>	
Zaspelova. × 45.	. 108, . 613, , . 49-05-18.	
	. 14. <i>Verneuilioides borealis</i> Tappan <i>assanoviensis</i>	
Zaspelova. × 45.	. 102, . 570,5 , . 49-09-06.	
	. 15. <i>Verneuilioides borealis</i> Tappan <i>assanoviensis</i>	
Zaspelova. × 45.	. 102, . 570,5 , . 49-09-16.	
	. 16. <i>Eggerella improvisa</i> Bulatova. × 45.	. 106,
. 595,0	, . 49-07-08.	
	. 17. <i>Gaudryina oblonga</i> Zaspelova. × 45.	. 108,
. 613, ,	. 49-05-10.	
	. 18. <i>Gravellina urnula</i> (Balakhmatova). × 52.	. 106,
. 595,0	, . 49-07-15.	
	. 19. <i>Eggerella kansasensis</i> (Loeblich et Tappan). × 52.	
. 102,	. 570,5 , . 49-09-10.	
	. 20. <i>Trochammina cf. umiatensis</i> Tappan. × 55.	. 110,
. 626,0	, . 49-04-02.	
	. 21. <i>Psamminopelta sp.</i> × 45.	. 112, . 630,5 ,
. 49-01-14.		
	. 22. <i>Saccamina sp.</i> × 45.	. 102, . 570,5 ,
. 49-09-10.		
	. 23.	. × 40. . 110,
. 626,0	, . 49-04-07.	



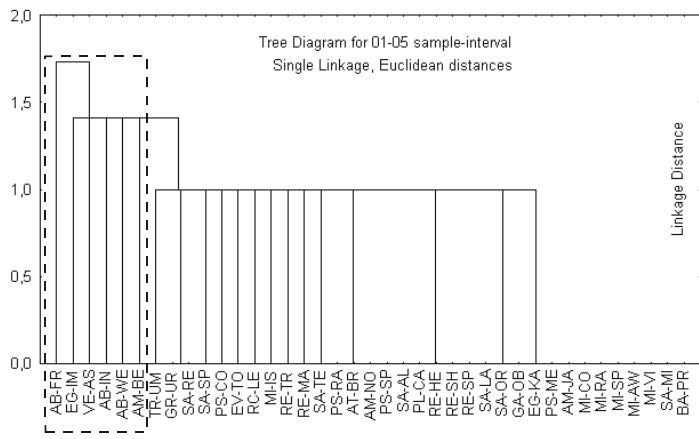
( )  
*Verneuilinoides borealis assanoviensis*.

- *cf. topagorukensis* (Tappan), *Pseudobolivina contorta* Bulatova, *P. rayi* (Tappan), *Verneuilinoides borealis assanoviensis* Zaspelova, *Eggerella improvisa* Bulatova, *Gravellina urnula* (Balakhmatova), *Trochammina cf. umiatensis* Tappan.

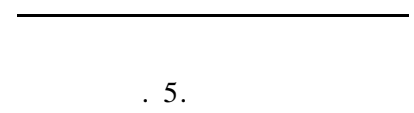
. . . 25  
 : *Bathysiphon proprius*

Bulatova, *Saccammmina sp.*, *S. orbiculata* Bulatova, *S. regula* Bulatova, *S. micra* Bulatova, *S. testideformabilis* Bulatova, *Reophax sp.*, *R. heterolocus* Bulatova, *Miliammina ischnia* Tappan, *M. virgata* Bulatova, *M. awunensis* Tappan, *M. sproulei* Nauss, *M. rasilis* Bulatova, *M. cognata* Bulatova, *Ammosiphonia jamalica* Marinov, *Ammobaculites wenonahae* Tappan, *Evolutinella cf. topagorukensis* (Tappan), *Pseudobolivina contorta* Bulatova, *P. merita* Bulatova, *Verneuilinoides borealis assanoviensis* Zaspelova, *Eggerella improvisa* Bulatova, *E. kansasensis* (Loeblich et Tappan), *Gaudryina oblonga* Zaspelova, *Gravellina urnula* (Balakhmatova), *Trochammina cf. umiatensis* Tappan.

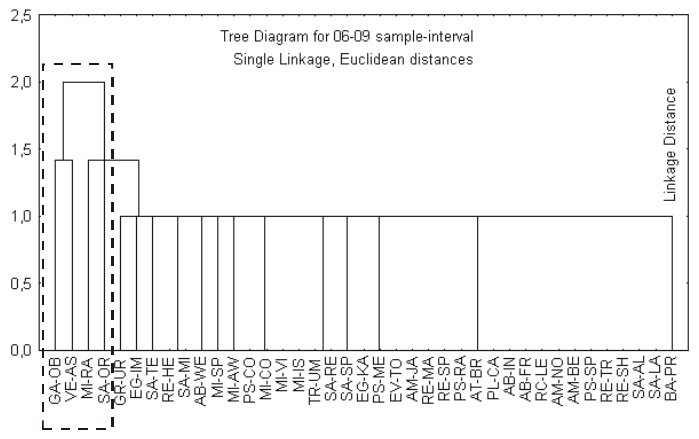
26 : *Saccammmina sp.*, *S. lathrami* Tappan, *S. regula* Bulatova, *S. alexanderi* Loeblich et Tappan, *Reophax sp.*, *R. sherborniana* (Chapman), *R. manci* Balakhmatova, *R. troyeri* Tappan, *R. heterolocus* Bulatova, *Miliammina ischnia* Tappan, *Psammimopelta sp.*, *Ammosiphonia beresoviensis* (Bulatova), *A. nonioninoides* (Reuss), *Recurvoides leushiensis* Bulatova, *Ammobaculites fragmentarius* Cushman, *A. wenonahae* Tappan, *A. inornatus* Bulatova, *Placopsilina captiosa* Bulatova, *Ammotium braunsteini* (Loeblich et Tappan), *Evolutinella*



A



. 5.  
 A – *Ammobaculites fragmentarius* 49-01 – 49-05; B – *Verneuilinoides borealis assanoviensis* 49-06 – 49-09.



B

КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

- *V. borealis assanoviensis*, *M. rasilis*, *S. orbiculata*.  
 - ,  
 .49-  
 ( )  
 ( .5). : / - , , - , -  
 ( ) - , , - , -  
 , , -  
 : , , -  
 , *V. borealis*  
 . *assanoviensis*  
 ;  
 « » - , -  
 « » - , .  
 , -  
 , « », 40-03, 49-04, 49-05,  
 - 49-07, 49-09.  
 « -  
 », -  
 , , -  
 ;  
 , -  
 « ». - , -  
 , , -  
 , 14 , - 20.  
 , 13 , , . -  
 - 24. -  
 , -  
 , « -  
 » - *Verneuilinoides borealis assanoviensis*  
 . . ( .1)  
 [ ., 2000 , ].  
 : *A. fragmentarius*, *A.*  
*inornatus*, *A. wenonahae*, *E. improvisa*, *V. borealis*  
*assanoviensis*, *A. beresoviensis*; *Ammobaculites*  
*fragmentarius* – *Ammosiphonia beresoviensis*,  
*G. oblonga*, – *Verneuilinoides borealis*

*assanoviensis* – *Ammosiphonia beresoviensis*.

( . 1) [ ., 2000 ],

*V. borealis assanoviensis*

( ):  
*Ammobaculites fragmentarius* – *Ammosiphonia beresoviensis*; *Verneuilinoides borealis assanoviensis* – *Ammosiphonia beresoviensis*; *Verneuilinoides borealis assanoviensis* – *Ammosiphonia jamalica*.

*Ammobaculites fragmentarius* – *Ammosiphonia beresoviensis* [ ., 2000 , . 782-783]

*Ammobaculites fragmentarius* Cushman, *Ammosiphonia beresoviensis* (Bulatova), *A. nonioninoides* (Reuss), *Evolutinella topagorukensis* (Tappan), *Pseudobolivina contorta* Bulatova, *Quadrimorphina ruckerae* (Tappan), *Verneuilinoides borealis assanoviensis* Zaspelova.

*Eggerella improvisa* Bulatova  
*Verneuilinoides borealis assanoviensis* Zaspelova, [ ., 2000 , . 785, . 5]

*Ammobaculites fragmentarius*,  
*Verneuilinoides borealis assanoviensis*.

[ ., 1991].

*Ammobaculites fragmentarius* – *Ammosiphonia beresoviensis* [ ., 2000 , . 783-784]

*Bathysiphon proprius* Bulatova, *Miliammina ischnia* Tappan, *Ammobaculites wenonahae* Tappan, *Ammodiscus rotalarius* Loeblich et Tappan, *Ammosiphonia beresoviensis* (Bulatova), *A. nonioninoides* (Reuss), *Quadrimorphina ruckerae* (Tappan), *Verneuilinoides borealis assanoviensis* Zaspelova, *Trochammina rutherfordi* Stelk et Wall, *Eggerella improvisa* Bulatova.

*Verneuilinoides borealis assanoviensis*

*Verneuilinoides borealis assanoviensis* – *Ammosiphonia jamalica*

[ ., 2000 , . 784-785]

*Ammobaculites fragmentarius* – *Ammosiphonia beresoviensis*,

*Verneuilinoides borealis assanoviensis* – *Ammosiphonia beresoviensis*,

-91, [ ., 2000 ],

*Verneuilinoides borealis assanoviensis* – *Ammosiphonia beresoviensis*





[ , 2001]. - *Gaudryina tailleuri*. -

[ , 1997], -

*Thurammia undosa*, -

*Ammobaculites fragmentarius* -

( - ) -

[ , 2000 , . 3]. -

(Christofer -

Formation, Eastern Sverdrup Basin, Canadian -

Arctic Archipelago) [Sliter, 1981; Wall, 1983]. -

( *Ammobaculites frag-* : *Gaud-*

*mentarius* .) [ , 1997]. *ryina tailleuri* – *Quadrिमorphina albertensis* -

*Verneulinoides al-* -

*bertensis*; -

: *Ammobacu-* ,

*lites fragmentarius* – *Haplophragmoides gigas* – -

*Discorbis norrisi* *Ammobaculites frag-* -

*mentarius* – *Haplophragmoides nonioninoides* – -

*Nodosariidae*<sup>8</sup>. *Ammobaculites frag-* *Ammobaculites frag-*

*mentarius* *mentarius* – *Haplophragmoides gigas* – *Discor-*

*bis norrisi* -I -

*Gaudryi-*

*na tailleuri* – *Quadrिमorphina albertensis* -

[ , 1997, . 146]. -

*Ammobaculites frag-* -

*mentarius* – *Discorbis norrisi* – *Quadrिमorphina* -

*ruckerae*, -

[ -

, 1997]. -

[1997, . 145] , -

*Ammobaculites fragmentarius* « -

» : *Ammobaculites*

<sup>8</sup> -

( -I, – 3), -

[ , 1997, . 143-145]. -



*Marginulinopsis umiatensis* – *Marssonella* spp. -  
*Ammobaculites fragmentarius* - ,  
*Gaudryina canadensis*,  
 [Chamney, 1978, tabl. 1, 2].  
*Ammo-* (Interior  
*baculites fragmentarius* Plains of Western Canada), -  
*Verneuilinoides borealis assanoviensis* -  
*Psamminopelta subcircularis* – *Saracenaria trollopei* –  
*Verneuilinoides tailleuri* , - *M. collinsi* – *Glomospirella* spp.,  
*H. gigas* – *G. nanushukensis* – *H. topagorukensis*,  
*P. subcircularis* –  
*M. manitobensis* – *Valvulineria loetterlei* –  
*Gavelinella strictata* [Chamney, 1973, 1978;  
 Stelck, Hedinger, 1983]. -  
 [Chamney, , . -  
 1978]. -  
 80-90 % -  
 (Upper Buckinghorse Shale, Sikanni Fm.,  
 lower Sully Fm., Sikanni Chief River area,  
 northeastern British Columbia, Canada) [Steck,  
 Hedinger, 1983]. *Miliam-*  
*mina manitobensis* -  
 51 , -  
*Ammobaculites frag-*  
*mentarius* *Verneuilinoides borealis assa-*  
*noviensis* -  
*A. fragmentarius* *V. borealis* *A. fragmentarius*  
*Miliammi-*  
*na manitobensis.*  
*Ammobaculites fragmentarius* -



fragmentarius (FAD)<sup>9</sup>,  
 ?  
 ( ),  
 ?  
 A.  
*fragmentarius* : *Ammoba-*  
*Ammobaculites fragmentarius* – ?-  
*Verneulinoides borealis assanovien-*  
*sis* – ?-  
 [Chamney, 1978].  
 «  
 » *Gaudryina tailleuri*  
*Ammobaculites fragmentarius* ( . ).  
 [ , 1976 ]),  
 2003],  
 ( 50°-60°  
*Ammoba-*  
*culites fragmentarius*  
*Verneulinoides borealis assano-*  
*viensis*,  
 (assemblage zones) (akme zones)  
 [ , 1991].  
 GSSP  
 [ , 2003].

<sup>9</sup>– FAD (first appearance dating)  
 GSSP (GSSP –  
 (golden spikes)

КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

, . . . . . ,  
 , . . . . . ,  
 / , (Clear-  
 water Sea, ),  
 (Notikiwin Sea, ),  
 Sea, (Joly Fou [ . . . . . , 2000 ],  
 (Mowry Sea, ) (?)- 49- ,  
 [Chamney, 1978]. , -  
 - 700 . ,  
 - 8 . , ,  
 , - 88 / . (~ 9 / ).  
 - . . . . .  
 [ . . . . . , 1997] . . . . .  
 - [ . . . . . , 1968; . . . . . , 1985].  
 ,  
 [Chamney, 1978] . . . . .  
 - . . . . .  
 [2000 ], . . . . .  
 , [ . . . . . , 2000 ],  
 . . . . .  
 . . . . . 50–200 ,  
 ,  
 [Project..., 2000],  
 12 . . . . .  
 ( - 108 . . . . . , - 96 . . . . . ). . . . .  
 , . . . . .

(*Reophax*,  
*Rhizammina*, *Rhabdammina*, *Trochammina* .)

21–200 ,

[ ., 1979]. ,

(12,5-21,6°

[ ., 2002]).

1997],

(passage),

*Arcthoplites*

«

» [2000],

ways),

(sea-

[Birkelund, Hakansson, 1983, p. 14-15, fig. 6].

[2000 , ],

( . ),

( . 4),

[Alve, Murray, 1995],

(Mowry Sea)

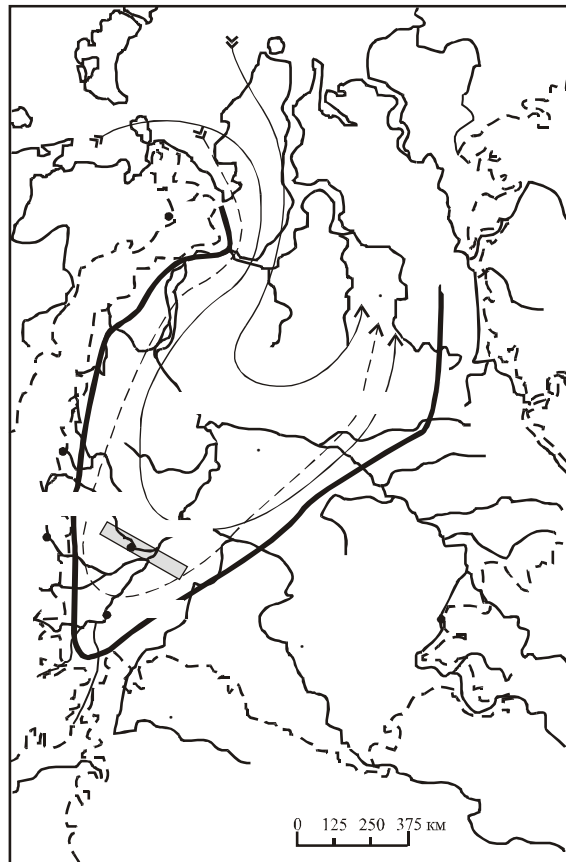
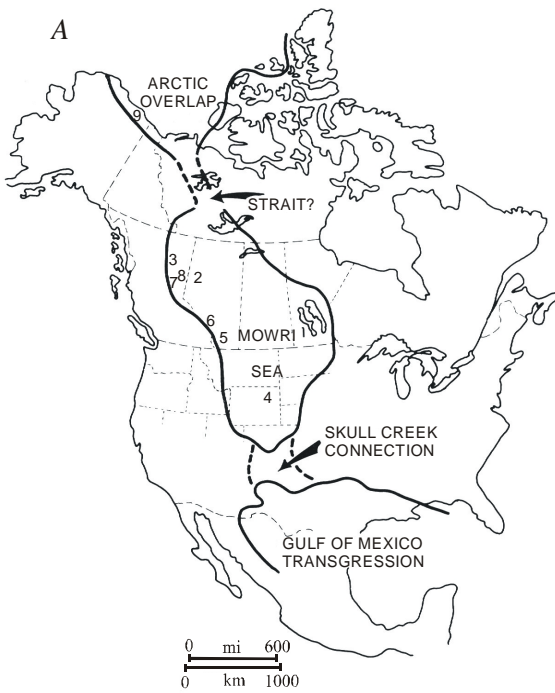
[Steck, Hedinger, 1983]





*Miliammina, Ammobaculites,*  
*Haplophragmoides* (

)



6.

A:

- 1 – (Ashville, Manitoba escarpment);
- 2 – (Judah, lower Smoky River, Peace River area, Alberta);
- 3 – (Sikanni Chief River locality, northeast British Columbia);
- 4 – (Wyoming);
- 5 – (Lethbridge area, Alberta);
- 6 – (Prairie Creek, Strachan area, Alberta);
- 7 – (Moberly Lake area, British Columbia);
- 8 – (Fort St. John, British Columbia);
- 9 – (arctic coast of Alaska) ( [Stelck, Hedinger, 1983]).



« ... » – ... ,1961. .4-42.  
 // ...  
 ,2000. .29. // ...  
 1961. .3-190.  
 ( ... ,1962. 122 .  
 // ... ,1948. .189-210.  
 // ... .1997.  
 ,1957. .284-289. .38. 5. .927-956.  
 // ...  
 .2000 . .41. 6. .769-791.  
 // ...  
 1970. .53-57. . .2. : , // ...  
 ,2000 . .39.  
 ,1976 .129 .  
 // ...  
 // ... ,2000 . .6-7.  
 1976 . .122-125. // ...  
 // ... .2003. .44. 11. .1093-1103.  
 1992. .71-77. // ...  
 ( )// ... ( :  
 ,1997. .143-152. . I . c . : - ,2002.  
 .44-45.  
 // ... //  
 2001. .20-33. // ... ( -  
 ,1961. .11-48. :  
 // ... //  
 : - ,2002. .24.  
 // ... ,1977. .45-48.  
 1960. 231 . // ...  
 ( ... ). : ,  
 1961. 76 . // ...  
 // ... .XII. “ ”:  
 ? //

КОМПЛЕКСЫ АГГЛЮТИНИРУЮЩИХ ФОРАМИНИФЕР ИЗ ХАНТЫ-МАНСИЙСКОЙ СВИТЫ

2003. .11. 5. .111-116. ( - -  
 , 1974. 202 . ) . : - // : -  
 , 2002. .186-188. : -  
 , 1964. .47-60. : -  
 , 2004. .45. 3. // .319-326.  
 3. : , 1956. 222 . : -  
 1956. .178-186. . : , 1969. 296 . : -  
 : - , 1989. . : -  
 232 . ( ) . : -  
 , 1971. 262 . , 1985. 140 . : -  
 // -1970. : , 1971. 18-21. ( ,  
 3. : , 1956. .187-206. .18-21. ) . : ,  
 , 1997. , 1961. 465 . /  
 , 1987. 2. 326 . : -  
 . .1. - : , 1969. 143 . : -  
 , 1968. 83 . : -  
 . .2. : , 1980. : -  
 , 1970. 273 . V - /  
 , 1964. 454 . : -  
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 tinated foraminiferal assemblages // Proc. IV Inter-  
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 bowski Foundation, 1995. .3. P. 1-11.  
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 cal analysis // II Symp. Kreide. Zitteliana. 1983. V. 10.  
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*Wall I.H.* Jurassic and Cretaceous foraminiferal biostratigraphy in the Eastern Sverdrup Basin, Canadian Arctic Archipelago // Bull. Can. Petrol. Geol. 1983. V. 31. 4. P. 246-281.