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A New Foraminiferan Genus *Bassoviellum* gen. nov. (Subfamily Recurvoidinae) from the Upper Jurassic and Lower Cretaceous of the Arctic

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Abstract—The taxonomic affiliation of the species *Haplophragmoides* (?) *emeljanzevi* Schleifer, 1966 and *Recurvoides paucus* Dubrovskaja, 1962 is revised. It is shown that both species should be assigned to the subfamily Recurvoidinae Alekseychik-Mitskevich, 1973, and classified in a new genus *Bassoviellum* gen. nov. Representatives of the new genus from the Volgian, Ryazanian and Valanginian Stages of the Arctic (Upper Jurassic and Lower Cretaceous) are described. The identification criteria of the species have been clarified.

Keywords: benthic foraminifera, Recurvoidinae, *Bassoviellum*, Volgian, Ryazanian, Valanginian, Arctic

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INTRODUCTION

A new foraminiferal species *Haplophragmoides* (?) *emeljanzevi* Schleifer in Sharovskaya (1966) was described from the Jurassic–Cretaceous boundary deposits. The species differs from other representatives of the family Haplophragmoididae Maync, 1952 in its large evolute test with a lobed outline composed of numerous subspherical isometric chambers. The species is abundant in the Upper Volgian. Wide geographic distribution and dominance in a wide range of facies settings determine the importance of this foraminifera group for stratigraphy and paleogeography. The unusual test shape test led to its ambiguous generic affiliation. Different authors assigned the species to the genera *Haplophragmoides* Cushman, 1910 (Sharovskaya, 1966, 1968; Basov, 1968), *Schleiferella* Bulynnikova, 1971 (Bulynnikova, 1973), *Evolutinella* Mjatliuk, 1971 (Bulynnikova et al., 1990) and *Trochamminoides* Cushman, 1910 (Marinov and Zakharov, 2001). Representative collections of foraminifera tests were studied to clarify the generic affiliation of the species and morphologically similar forms.

MATERIAL AND METHODS

Material

This study used representative collections of tests assembled by the author and given to him by colleagues from various regions of the Arctic (Fig. 1; Table 1).

Methods

The classification of supraspecific taxa of foraminifers used in this work follows Kaminski (2014); this taxonomic system updates the most widely used taxonomy (Loeblich ad Tappan, 1987) to modern concepts, in terms of the systematics of agglutinating forms.

The internal structure of tests was studied in transmitted light. Before photographing in transmitted light, the tests were placed in an immersion liquid. Four voluminous foraminiferal tests, the internal cavity of which is filled with pyrite, were studied in thin sections and polished sections.

Measurements of the morphometric parameters of tests were carried out using a Micromed 2 optical microscope (Tables 2, 3). Most of the tests studied show traces of plastic deformation. Some of the morphometric parameters of deformed tests cannot be established.

Photographs of the tests were taken on "TESCAN MIRA 3LMU" a scanning microscope (Czech Republic) at the Core Research Center of the Tyumen Petroleum Scientific Center (TNSC) and on a Micromed 2 optical microscope.

Collections. The illustrated and measured specimens are housed in the Central Siberian Geological and Mineralogical Museum (CSGM), collection no. 1072; in the reference paleontological collection of the Tyumen Petroleum Scientific Center (TPSC), collections no. 1-zLod-2 and no. 4-Pkh-69.

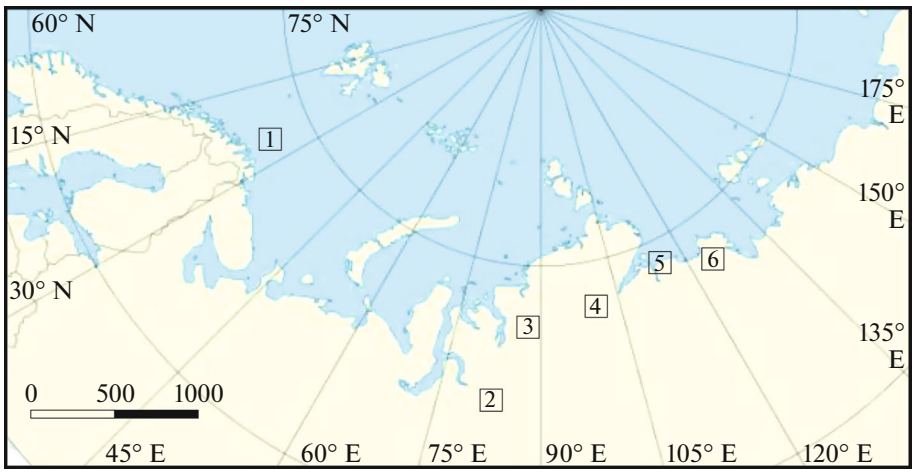


Fig. 1. Locations of the studied specimens of the species *Haplophragmoides* (?) *emeljanzevi* Schleifer, 1966 and morphologically similar forms: (1) Barents Sea shelf of Norway, Borehole 7430/10-U-1; (2) Bolshaya Kheta Megasyneclise of Western Siberia, Boreholes Zapadno-Lodochnaya 1, Khalmerpayutinskaya 2099; (3) Yenisei-Khatanga Regional Trough (Western Siberia), Boreholes Payakhskaya 1, 4; (4) Boyarka River basin, north of central Siberia; (5) Paksa Peninsula, Eastern Taimyr; (6) Angardam channel, mouth of the Lena River.

RESULTS

The study of representative samples of tests of the species *Haplophragmoides* (?) *emeljanzevi* (Schleifer, 1966) and morphologically similar forms from deposits of the Volgian, Ryazanian and Valanginian stages of various Arctic regions, including from the topotypic area, made it possible to clarify their morphology, structural features, quantitative and dimensional characteristics.

It has been established that the tests of the species *Haplophragmoides* (?) *emeljanzevi* are characterized by the stability of the main morphological characters, as well as a regular change in the size and quantitative parameters of the test during ontogeny (Tables 2, 3; Fig. 2).

This is a large, flattened test, completely evolute in the later stages of ontogenesis, with a cryptocrystalline silicic wall and numerous subspherical chambers forming a spiral. The first whorl of the test has a streptospiral coiling (Pl. 4, figs. 1b and 4—streptospiral coiling of the initial whorl is visible in transmitted light; Pl. 4, in figs 6 and 7, in juvenile tests the position of the aperture surface is shifted relative to the axis of whorl coiling). The coiling in subsequent whorls is planispiral. The contour of the test is lobed, the peripheral margin is rounded, the aperture surface is convex, rounded.

Table 1

No.	Sample site	Locality	Number of specimens
1	Paksa Peninsula, Outcrops 32, 33 Members VII-X	Eastern Taimyr, Paksa Formation	over 300
2	Borehole 7430/10-U-1	Barents Sea Shelf of Norway, Hekkingen Formation	150
3	Boreholes Zapadno-Lodochnaya- 1 and Khalmerpayutinskaya 2099	Northeast of Western Siberia, Bolshaya Kheta Syneclise, Yanovstan and Nizhnyaya Kheta formations	over 250
4	Boreholes Payakhskaya 1, 4	North of Western Siberia, Yenisei-Khatanga regional trough, Golchikha and Shurat formations	40
5	Boyarka River, Outcrop 12	north of central Siberia, Anabar-Khatanga trough, Bukatyi Formation	180 specimens
6	Ystannakh-Khocho section	North of Siberia, mouth of the Lena River. Lena, Leno-Anabar trough, Khairga and Kigilyakh formations	49 specimens

Table 2. Morphometric parameters of *Bassoviellum emeljanzevi* tests (Schleifer, 1966). Nordvik Peninsula, Cape Urdyuk-Khaya, outcrop 32, sample 15-33-89, member VI, 0.1 m from the top; Upper Jurassic, Upper Volgian Substage, *Craspedites okensis* Zone; Paksa Formation. Test sizes in mm

Specimen no.	*D*	*d*	*H*	*n*	*N*	n_1	n_2	*dp*
1072-620	1.06	0.88		13	27	7	9	0.12
1072-621	0.96		0.39	12				
1072-622	0.89	0.70		11	26	8	11	0.10
1072-624	0.70		0.31	9				
1072-627	0.61	0.50		11	18	7	11	0.12
1072-628	0.60		0.20	10				
1072-629	0.60		0.17	9				
1072-630	0.56	0.43		10	15	8		0.14
1072-631	0.50	0.42		8				0.14
1072-632	0.50		0.19	8				
1072-633	0.48	0.41		8	14	7		0.14
1072-634	0.38	0.35		8.5	12	7		0.10
1072-635	0.35	0.32		7	9	7		0.10

Explanation: *D*—large diameter; *d*—small diameter; *H*—width of apertural surface; *N*—total number of chamber; *n*—number of chambers in the outer whorl; n_1—number of chambers in the first whorl; n_2—number of chambers in the second whorl; *dp*—diameter of the proloculus.

Table 3. Morphometric parameters of the tests of *Bassoviellum paucus* (Dubrovskaja, 1962). Specimens 1-zL2/1, 1-zL-2/2, 1-zL-2/3, 1-zL-2/4, 1-zL2/5, 1-zL-2/6 come from the Zapadno-Lodochnaya 1 Borehole, Sample 1-zL-2, Bolshaya Kheta Syneclise (Western Siberia), 3320.5–3331.2 m, depth 2.5 m from the top; Lower Cretaceous, Lower Valanginian Substage, *Neotollia klimovskiensis* Zone; Nizhnyaya Kheta Formation. Specimen 4-PX-69/8, 4-PX-69/9 come from Borehole Payakhsskaya 4, Sample 4-PX-69, Yenisei–Khatanga Regional Trough (Western Siberia), interval 3335.0–3350.0 m, 13.8 m from the top of the interval; Lower Cretaceous, Lower Valanginian, *Neotollia klimovskiensis* Zone; Shurat Formation

Specimen no.	*D*	*d*	*H*	*n*	*N*	n_1	n_2	*dp*
1-zL-2/1	1.06	0.88	0.42	9				
1-zL-2/2	0.82	0.72	–	9.5	18	6	8	0.6
1-zL-2/3	0.75	0.70	0.36	9				
1-zL-2/5	0.68	0.55	0.32	8				
1-zL-2/4	0.55	0.40	0.27	8				
1-zL-2/6	0.62	0.57	0.31	8.5				
4-PX-69/8	0.36	0.28	0.18	6.5	10	6		0.75
4-PX-69/9	0.24	0.20	0.15	5.5	7	5.5		0.8

Explanation see in Table 1.

The above morphological characters have different taxonomic significance. Some characters are used to characterize taxa of multilocular spiral foraminifera at the family rank level, others at the genus and species level.

The taxonomic significance of morphological characters in agglutinating foraminifera currently has no unambiguous assessment, however, in the currently most widely used foraminiferal classification systems (Loeblich and Tappan, 1987; Kaminski, 2004, 2014), the structure and microstructure of the wall is a character of a higher rank than type of test morphology. The pattern of adding chambers and the number of chambers are less important. According to the classification of agglutinating foraminifera proposed by Kaminski (2014), the general type of test morphology is a character of superfamilial rank.

Structural features, such as the coiling pattern, the nature of the joining of the chambers, and the appearance of the test, are characters of family rank. Generic characteristics include structural details, degree of whorl overlap, and morphometric parameters of tests, such as the relative number of chambers. For the clas-

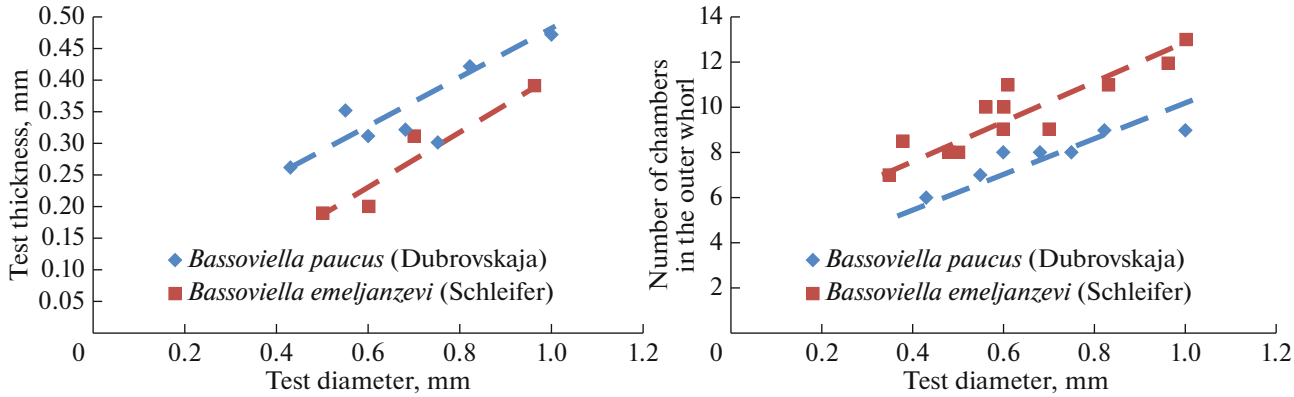


Fig. 2. Ontogenetic changes test thickness (a) and the number of chambers (b) in the external whorl in representatives of the species *Bassoviellum paucus* (Dubrovskaja, 1962) and *Bassoviellum emeljanzevi* (Schleifer, 1966).

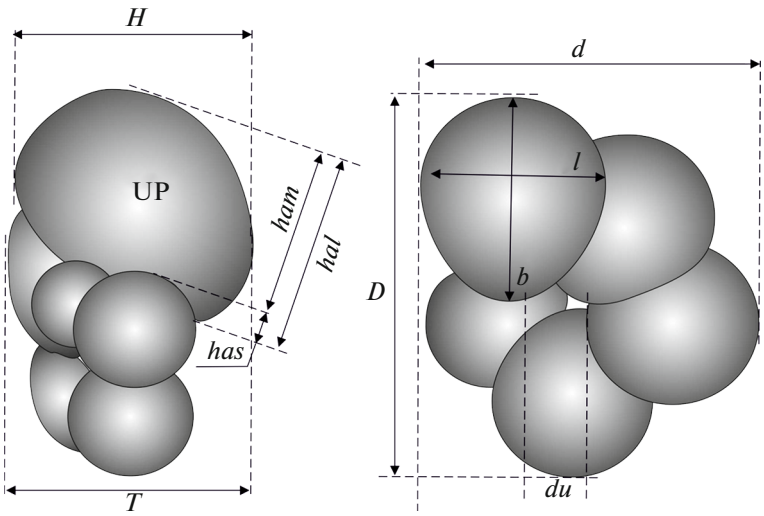


Fig. 3. Elements of morphology and a system of measuring elements of tests of the species *Bassoviellum emeljanzevi* (Schleifer, 1966). Explanations: UP—apertural surface; *T*—test thickness; *H*—width of the wellhead surface; *D*—large diameter; *d*—small diameter; *du*—diameter of the umbilical region; *b*—chamber width; *l*—chamber height; *hal*—total height of the apertural surface; *ham*—median height of UE; *has* is the height of the notch at the base of the apertural surface.

sification of family and generic categories, both secretory (Korchagin, 2003) and agglutinating foraminifera (Bulynnikova, 1973; Podobina, 1978), an important characters is the shape of the chambers, since it determines the structure and appearance of the test, the contour, and the nature of the peripheral margin.

The shape of the chambers in spirally coiled foraminifera can be shown from the ventral and spiral sides (Korchagin, 2003). The shape can also have a volumetric characteristic. To characterize the volumetric shape of chambers, it is convenient to use such indicators as the ratio of height, width and length of chambers (Bulynnikova, 1973). These morphometric parameters are stable for generic taxa and can be reliably identified even on deformed tests (Fig. 3).

According to the classification adopted in the work (Kaminski, 2014), all agglutinated multocamerate tests, planispiral or streptospiral, belong in whole or in part to the superfamily Recurvoidoidea Alekseychik-Mitskevich, 1973.

The tests of the species *Haplophragmoides* (?) *emeljanzevi* in the early stages of ontogeny has streptospiral coiling, in the later stages it is planispiral. This type of test morphology does not allow the species to be assigned either to the genus *Haplophragmoides* Cushman, 1910, or to the family Haplophragmoididae Maync, 1952, which includes multicamerate tests with only planispiral coiling. Multicamerate tests with a streptospiral coiling are united in the accepted classification into the superfamily Recurvoidoidea Alekseychik-Mitskevich 1973. Within the scope of the superfamily, the species *Haplophragmoides* (?) *emeljanzevi* belongs to the family Ammosphaeroidinidae Cushman. 1927, which includes foraminiferal genera without a uniserial division, and to the subfamily Recurvoidinae Alekseychik-Mitskevich 1973. The subfamily Recurvoidinae unites foraminifers that have an agglutinated multicamerate test with streptospiral coiling entirely or only on the initial whorls with a large number of chambers in the outer whorl.

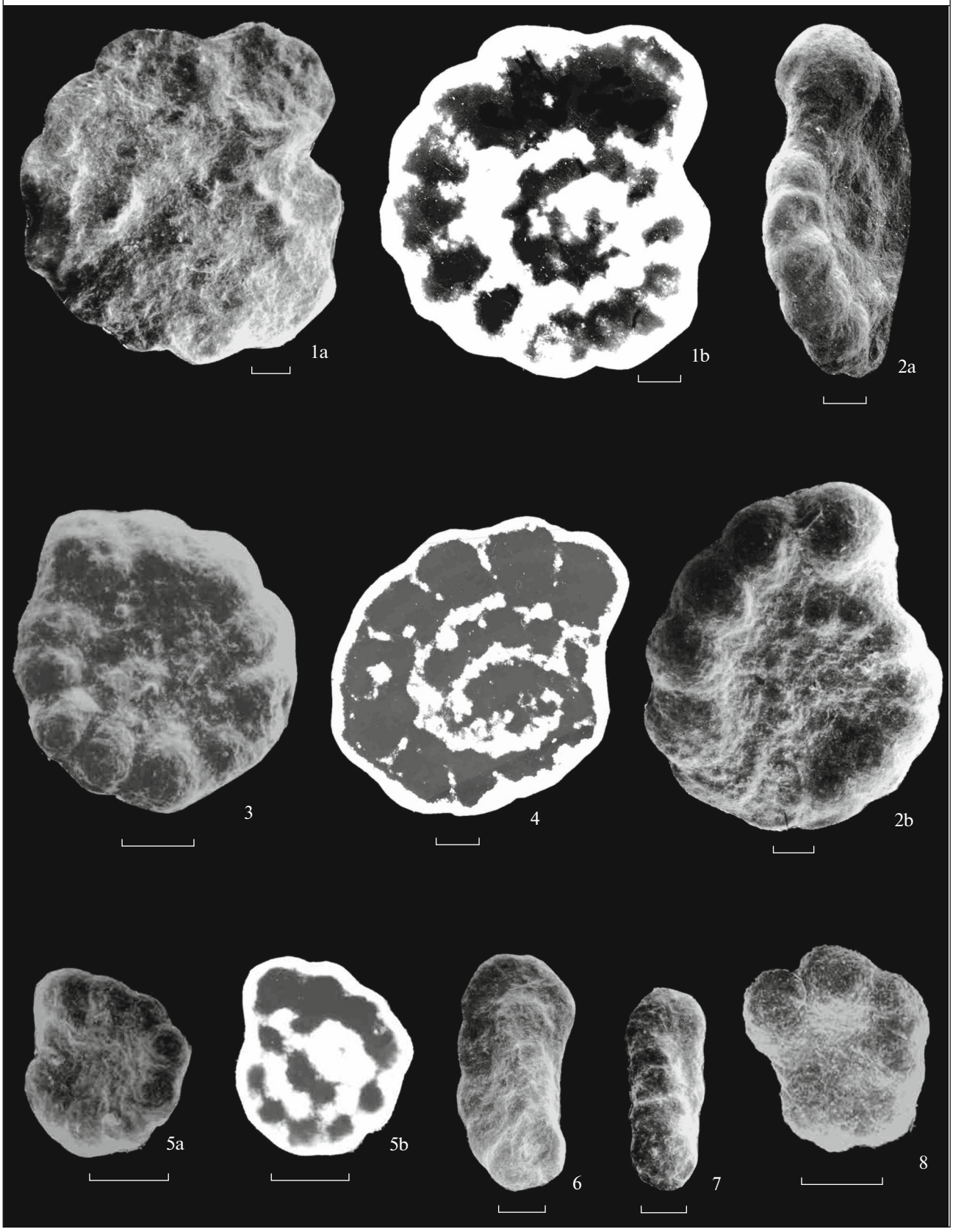
The species *Haplophragmoides* (?) *emeljanzevi* differs from all genera of this subfamily in the test morphology, which is completely evolute, with a lobed outline, consisting of numerous subspherical chambers (see the "Comparison" section below). Studying the details of test morphology and their changes in ontogeny made it possible to identify a new genus, *Bassoviellum* Marinov gen. n., found in Jurassic and Cretaceous of Western Siberia.

Representatives of the species *Haplophragmoides* (?) *emeljanzevi* and the species described as *Recurvoides paucus* Dubrovskaja, 1962 have diagnostic characters of the new genus *Bassoviellum*. During the first description of the species *Recurvoides paucus* and its subsequent revision, Dubrovskaya and Bulynnikova (Dubrovskaya, 1962; Bulynnikova, 1967; Bulynnikova et al., 1990) had limited material that did not allow the study of ontogenetic variability.

Therefore, in the scope of the species, they considered juvenile tests that have only the initial streptospiral section. Adult specimens, consisting of two parts, a coiled initial part and a second part planispirally coiled, were assigned to the species *Haplophragmoides grandis* (Romanova, 1855), although the image of the test clearly shows the streptospiral coiling of the early whorl (Bulynnikova, 1967, pl. VII, fig. 2).

The author had at his disposal a significant number of representatives of the species *Recurvoides paucus* (Dubrovskaja, 1962) from various regions of Siberia:

Plate 4



from the Nizhnyaya Kheta Formation of the Bolshaya Kheta Megasyneclise (Western Siberia, Zapadno-Lodochnaya 1 Borehole, 67 specimens); Shurat Formation of the Yenisei-Khatanga regional trough (Western Siberia, Borehole Payakhskaya 4, 10 specimens); Kigilyakh Formation of the Lena-Anabar Trough (mouth of the Lena River, village of Ysstanakh-Khocho, 27 specimens).

The study of this collection of tests showed that the species *Recurvoides paucus* has a streptospiral structure only in the early stages of ontogeny (Pl. 5, figs. 2, 3, 5, 6). In the later whorls, the coiling is planispiral (Pl. 5, figs. 1, 3, 4, 8). Therefore, this species cannot belong to the genus *Recurvoides*. The test morphology and whorl overlap degree, the shape of the chambers, the nature of the peripheral edge, the shape of the aperture surface, the structure of the umbilical region, unite it with representatives of the species *Bassoviellum emeljanzevi* (Schleifer, 1966). The main characteristics that allow us to separate the species *Bassoviellum emeljanzevi* and *Bassoviellum paucus* are their absolute and relative morphometric parameters and the natural sequence of their changes in ontogeny (Fig. 2; Tables 2, 3), as well as the morphology of the initial streptospiral part of the test. In the studied samples, the tests of *Bassoviellum emeljanzevi* have a first whorl diameter of 0.20–0.25 mm; the first whorl of the spiral consists of seven to eight chambers (Table 2); the diameter of two whorls of the test spiral is 0.62–0.70 mm, the second whorl consists of 9–11 chambers. In the species *Bassoviellum paucus*, the first whorl consists of 5.5–6 chambers (Table 3) and has a diameter of 0.2–0.3 mm; the second whorl has eight chambers; the diameter of the second whorl is 0.5–0.65 mm.

In the species *Bassoviellum emeljanzevi*, on the initial whorls the deviation of the coiling direction from the planispiral is small and reaches about 30°. This is clearly visible both in the image of the holotype (specimen no. 1009/38 from the collection of the Institute of Arctic Geology) (Fig. 4), and in the photograph of tests in thin section (Pl. 4, fig. 4), in transmitted light in immersion liquid (Plate 4, figs. 1b, 5b).

In *Bassoviellum paucus* tests, the direction of coiling of the first and, partially, the second whorl changes significantly more, up to a turn at an angle of 90° (Pl. 5, figs. 2, 6, 7). A natural increase in the diameter, thickness of tests and the number of chambers in the external whorl during ontogeny was established, which is a diagnostic character (Fig. 2). With the same test diameter, the species *Bassoviellum paucus* differs from *Bassoviellum emeljanzevi* in its thicker test and fewer chambers.

SYSTEMATIC PALEONTOLOGY

Superfamily Recurvoidoidea
Alekseychik-Mitskevich, 1973

Family Ammosphaeroidinidae Cushman, 1927

Subfamily Recurvoidinae Alekseychik-Mitskevich, 1973

Genus *Bassoviellum* Marinov, gen. nov.

Etymology. In honor of micropaleontologist V.A. Basov; masculine.

Type species. *Haplophragmoides* (?) *emeljanzevi* Schleifer, 1966

Diagnosis. Test multicamerate, composed of two, three, or four whorls. Early whorls streptospiral, variously expressed, at later ontogenetic stages coiling planispiral, test completely evolute, with lobed contour, test periphery rounded; chambers convex, similar to isometric, subspherical in shape, with width (b) approximately equal to the width of apertural surface (H), septal sutures narrow, impressed; umbilical area (du) in adult tests shallow and wide, with no noticeable grains of agglutinated material in the wall composition; aperture surface convex, rounded, its slightly width (H) greater (1.2–1.5 times) than its median height (ham), the height of the cut-out at the base of the wellhead surface (has) is much smaller (0.2–0.125) than the height of the apertural surface (hal) (Fig. 3). No aperture visible. Only in tests with internal cavity filled with pyrite, the basal or close to basal position of the foramen is visible in transmitted light.

The state of preservation of tests of agglutinated foraminifera of the superfamily Recurvoidoidea from the Mesozoic of Siberia does not allow reliable identification of the shape and structure of the apertural apparatus, which is an important taxonomic character

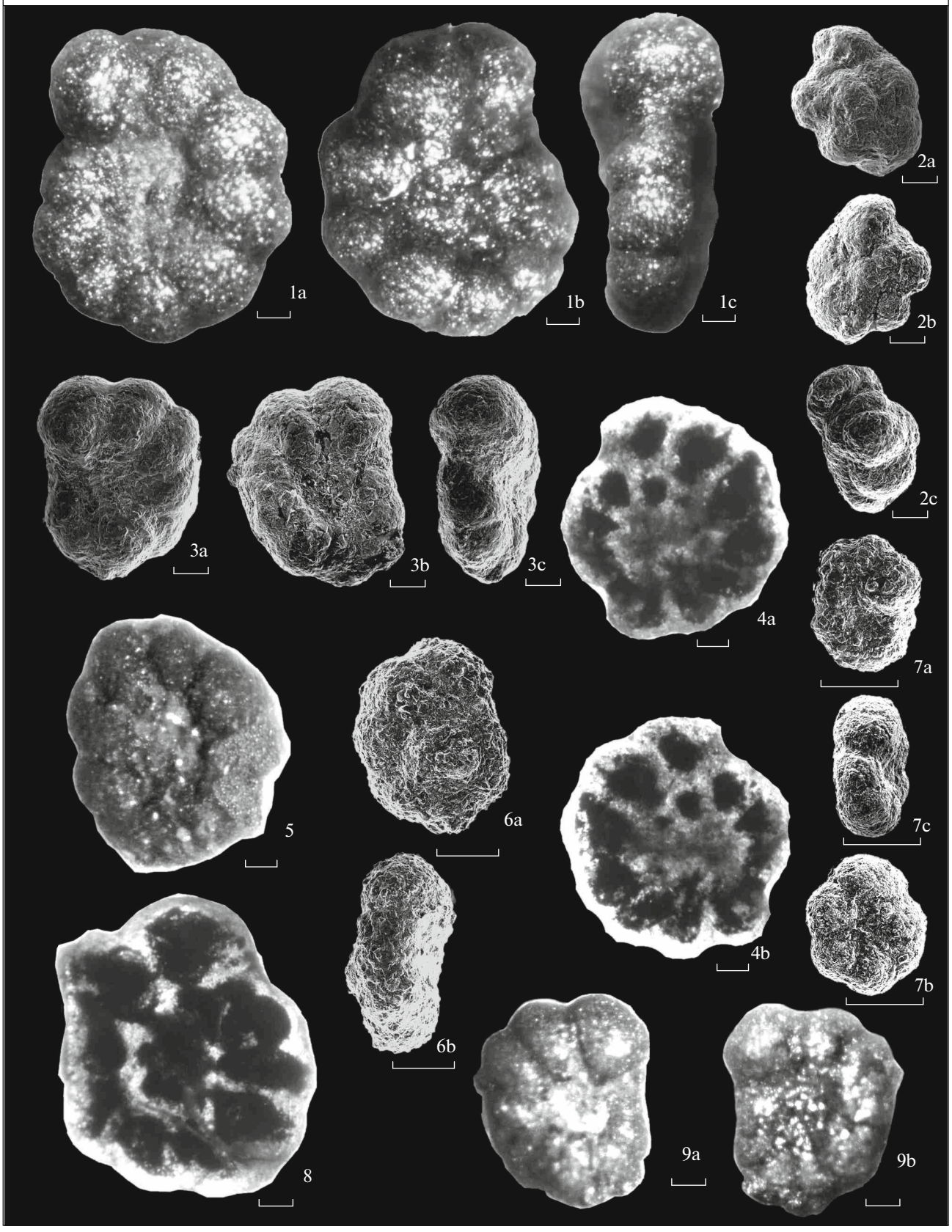
Explanation of Plate 4

Figs. 1–8. *Bassoviellum emeljanzevi* (Schleifer, 1966): (1) specimen TsSGM, no. 1072/620: (1a) general view of the test, (1b) streptospiral coiling of the initial whorl is visible in transmitted light; (2) specimen TsSGM, no. 1072/636: (2a) lateral view, (2b) general view of the test; (3) specimenf TsSGM, no. 1072/627; (4) specimen TsSGM, no. 1072/622, thin section, longitudinal section, streptospiral coiling of the initial whorl is visible; (5) specimen TsSGM, no. 1072/646: (5a) general view of the test, (5b) streptospiral coiling of the initial whorl is visible in transmitted light; (6 and 7) juvenile tests, the position of the aperture surface is shifted relative to the axis of whorl coiling: (6) specimen TsSGM, no. 1072/624, (7) specimen TsSGM, no. 1072/628; (8) specimen of TsSGM, no. 1072/635.

North of Eastern Siberia, Eastern Taimyr, Paksa Peninsula, Cape Urdyuk-Khaya: (Figs. 2 and 5) Outcrop 33, Sample 3-32-89, Member XI, 0.4 m from the base; Lower Cretaceous, Ryazanian Stage, Paksa Formation, *Chetaites sibiricus* Zone; (1, 3, 4, 6–8) Outcrop 32, Sample 15-33-89, Unit VI, 0.1 m from the top; Upper Jurassic, Upper Volgian Substage, Paksa Formation, *Craspedites okensis* Zone.

(1a, 2, 3, 5a, 6, 7, 8) SEM photographs; (4) thin section, photograph taken using a light microscope; (1b, 5b) photograph taken on a light microscope in transmitted light in an immersion liquid. Scale bar 100 μm.

Plate 5



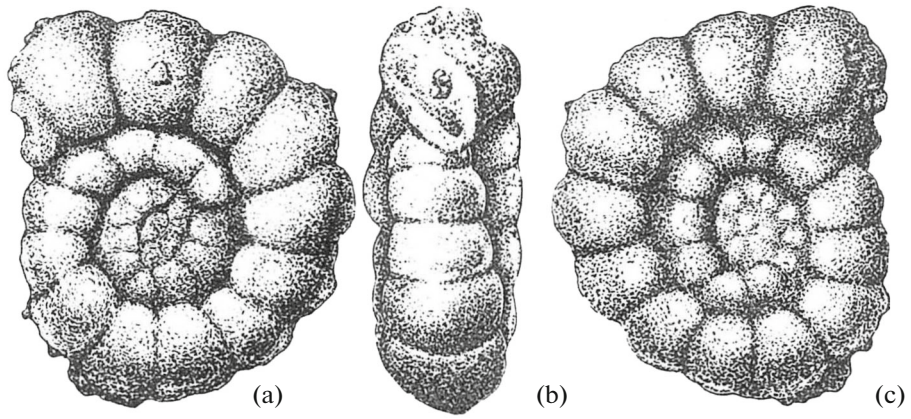


Fig. 4. Species *Haplophragmoides* (?) *emeljanzevi* Schleifer, 1966, holotype, no. 1009/38 from the collection of the Institute of Arctic Geology (after Sharovskaya, 1966, p. 75, pl. 3, fig. 1): (a, c) general view of the test from two different sides, (b) side view.

of family and generic rank. The position of the foramen suggests only the position of the aperture, not its shape. However, only one character, even important for taxonomy, is not a criterion for confident diagnosis of foraminifers. As a rule, a taxon has a specific set of interrelated characters (Subbotina et al., 1981).

S p e c i e s c o m p o s i t i o n. Two species: *Bassoviellum emeljanzevi* (Schleifer, 1966) from the Jurassic-Cretaceous boundary interval of the Arctic; *Bassoviellum paucus* (Dubrovskaja, 1962) from the Ryazanian and Valanginian stages of Siberia.

C o m p a r i s o n. The new genus *Bassoviellum* differs:

(1) from genera from the subfamily Recurvoidinae in the numerous subspherical chambers, distinctly convex, close to isometric, and in the evolute test;

(2) from the genera *Recurvoidella* Uchio, 1960, *Cribrostomellus* Saidova, 1970, and *Cribrostomoides* Cushman, 1910 in the evolute test with many chambers in the last whorl; besides, the chambers of the tests of the compared genera are slightly convex, subtriangular in shape on the lateral side, the median height of the apertural surface and the height of the notch at its base are approximately equal, whereas in the new genus the chambers The chambers are subspherical, convex, their median height is much greater than the height of the aperture at the base of the apertural surface.

(3) from the genus *Budashevaella* Loeblich et Tappan, 1964, the new genus *Bassoviellum* differs in the distinct lobate test contour, impressed sutures, in the shape of chambers and apertural surface; in the genus *Budashevaella,* the tests have an even or weakly lobate contour, surface sutures, chambers have a width slightly exceeding the height, the median height is approximately equal to the height of the notch at its base, and the mouth surface is flat or slightly convex, while in the new genus, the chambers are isometric, the apertural surface is convex, the notch at its base is much less than the median height.

(4) From the genus *Thalmannammina* Pokorny, 1951, the genus *Bassoviellum* differs in the streptospiral structure present only in the early whorls, a larger number of chambers in the outer whorl and the shape of the chambers, whereas in the genus *Thalmannammina*, the test has no more than eight oval-rectangular chambers in the outer whorl, the width of which is approximately twice the height, the median height of the apertural surface is approximately equal to the height of the notch at its base.

(5) from the genus *Recurvoides* Earland, 1934, the new genus *Bassoviellum* is distinguished by the presence of a planispiral part in tests of adult specimens

E x p l a n a t i o n o f P l a t e 5

Figs. 1–9. *Bassoviellum paucus* (Dubrovskaja, 1962): (1) specimen TNNTs, no. 1-zLod-2/1; 2—specimen TNNTs, no. 1-zLod-2/7; (3) specimen TNNTs, no. 1-zLod-2/3; (4) specimen TNNTs, no. 1-zLod-2/2; (5) specimen TNNTs, no. 1-zLod-2/8; (6) specimen TNNTs, no. 4-Pkh-69/8; (7) specimen TNNTs, no. 4-Pkh-69/9; (8) specimen TNNTs, no. 1-zLod-2/4; (9) specimen TNNTs, no. 1-zLod-2/5.

Western Siberia: (1–5, 8, 9) Bolshaya Kheta Megasyneclise, Borehole Zapadno-Lodochnaya 1, interval 3320.2–3331.6 m, Sample 2 was taken 5.7 m from the top of the interval; Lower Cretaceous, Valanginian Stage, lower substage, Nizhnyaya Kheta Formation, *Neotollia klimovskiensis* Zone; (6, 7) Yenisei-Khatanga Regional Trough, Borehole Payakhskaya 4R, interval 3335.0—3350.0 m, sample 4 Pkh-69 was taken 13.8 m from the top of the interval; Lower Cretaceous, Valanginian Stage, lower substage, Sukhaya Dudinka Formation.

(2, 3, 5, 6, 7) SEM photographs; (1, 5, 9) photography taken on a light microscope in reflected light; (4, 8) photograph taken on a light microscope in transmitted light in an immersion liquid. Scale bar 100 μm.

and by the shape of the chambers. In the genus *Recurvoides,* the test is composed of only a streptospiral part, the chambers are low and wide, their height (ham) is smaller (0.67–0.5) than the length (l), whereas in the new genus, the width, length, and height of the chambers are approximately equal.

Remarks. Tests of similar morphology are known in other families and superfamilies of foraminifera. The genus *Trematophragmoides* Brönnimann et Keij, 1986 from the family Haplophragmoididae Maync, 1952 (Kaminski, 2000) has an evolute test formed by numerous convex chambers. The new genus *Bassoviellum* is distinguished by isometric chambers, which in representatives of *Trematophragmoides* are high and narrow (the width of the chambers is 2–2.5 times greater than the height). Some representatives of the superfamily Trochamminacea also have a very low-trochoid test, practically indistinguishable from a planispiral one, for example, the genera *Balticammina* Brönnimann, Lutze et Whittaker, 1989, *Jadammina* Bartenstein et Brand, 1938, and *Zavodovskina* Brönnimann et Whittaker, 1988.

The tests of foraminifera of these genera are formed by numerous subspherical chambers. The genera listed above differ from the new genus *Bassoviellum* by varying degrees of evoluteness on the spiral and ventral sides of the test: (1) one side is completely evolute, and all previous turns of the spiral are visible on it, (2) the other side is involute or semi-evolute. In addition, streptospiral coiling of early whorls is absent in these genera.

The genus *Bassoviellum* gen. nov. may include the species *Recurvoides inflatus* Bulynnikova, 1973 from the Hauterivian stage of Western Siberia (Bulynnikova, 1973) and *Trochamminoides lamentabilis* Podobina, 1998 from the Paleogene of Western Siberia (Podobina, 1998), however, the author does not have enough material for a confident generic diagnosis of these species.

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This work does not contain any studies involving human or animal subjects.

CONFLICT OF INTEREST

The author of this work declares that she has no conflict of interest.

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