Kazan Golovkinsky Stratigraphic Meeting, 2019

Late Palaeozoic Sedimentary Earth Systems: Stratigraphy, Geochronology, Petroleum Resources

Fifth All-Russian Conference "Upper Paleozoic of Russia"

September 24-28, 2019, Kazan, Russia

SECOND CIRCULAR

Dear colleagues, please note that the deadline for Registration and Abstract submission is **May 25, 2019.**

The registration form is available on the website: https://kpfu.ru/stratikazan2019/registration

Abstracts of oral and poster presentations are welcome. Please indicate your preference when submitting. All submissions will be peer-reviewed and published in an Abstract volume. Please submit your abstract by e-mail (attached file in .doc, .docx or .rtf formats) to: stratikazan2019@mail.ru

FORMAT: abstracts are limited to two A4-sized pages including text, figures and tables; *margins* (top, bottom, left, right): 25 mm; *title*: upper and lower case, left justified; Arial, 14 pt bold; *author's names*: upper and lower case, left justified, first name first, surname last, Arial, 12 pt.; *affiliation*: upper and lower case, left justified, Arial, 10 pt.; numbered superscripts should be used to indicate the affiliation of each author; *main text*: single-spaced text, Arial 12 pt; *references*: alignment justified, Arial, 10 pt.

Please check the example of Abstract on the Appendix 1 and on the conference website: https://kpfu.ru/stratikazan2019/abstracts

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Simultaneously with the Abstracts, we are accepting articles in the **Proceeding of the Kazan Golovkinsky Stratigraphic Meeting**, which will be submitted for indexing in Web of Science. All articles in the Proceeding will be assigned with the DOI.

The First 40 articles will be published for free. Articles are limited to 4–6 A4-sized pages including text, figures, tables and references. Please check the Instructions for authors in Appendix 2 and on the conference website: https://kpfu.ru/stratikazan2019/instructions-for-authors

Please check the example of an Article and the example of References in Appendix 3 and 4.

Submition of the articles is accepted from April 28 to August 20, 2019. Please submit abstracts by e-mail to urazaeva.m.n@mail.ru (copy to nika_zharinova@mail.ru).

The previous Proceeding of the Kazan Golovkinsky Stratigraphic Meeting, 2017, which includes 62 articles, was published in May, 2018 and was indexed in Web of Science. The previous Proceeding is available here: https://kpfu.ru/portal/docs/F1456854952/Proceedings_Golovkinsky_2017.pdf

SESSION TITLES

1. Stratigraphy, Palaeontology
2. Geochemical methods and their application in different aspects of geology
3. Environments, Palaeoclimate, Palaeogeography, Biota and Facies
4. Mineralogy, Lithology, Geophysical methods, Resources
5. Temporal and spatial aspects of sedimentary basins evolution: types of basins, stages of development, modeling and petroleum potential

WORKSHOPS

1. Permian Stage boundaries. Moderator Galina V. Kotlyar

2. Carboniferous boundaries globally and regionally. Moderators Alexander S. Alekseev, Olga L. Kossovaya

3. General and regional Devonian correlation charts of Russia, the stadial boundaries position. Moderators Irina O. Evdokimova, Alexander O. Ivanov.

4. Chronostratigraphy and the methods of synchronization of geological events. Moderator Vladimir I. Davydov.

4.1. Biostratigraphic methods in chronostratigraphy (marine and continental facies).

4.2. Palaeomagnetic methods in chronostratigraphy.

4.3. Chemostratigraphic methods in chronostratigraphy.

4.4. Radioisotopic methods utilized in chronostratigraphy

5. Business Meeting of the Late Carboniferous-Permian-Early Triassic Nonmarine-Marine Correlation Working Group of the International Subcommissions on Carboniferous, Permian, and Triassic stratigraphy. Moderator Joerg W. Schneider.

6. The Third V.G. Chalimbadja Memorial Workshop "Conodonts: systematics, biostratigraphy, paleogeography". Moderator Guzal M. Sungatullina.

MEETING FORMAT

Each talk is limited to 15 minutes (+ 5 minutes for questions and discussion). The poster session will run throughout the conference. Speakers will be limited to two presentations (talks) at the

meeting. The number of poster presentations not limited. The format of workshops will be determined by their moderators.

LANGUAGE: The official languages for the scientific program and all the business of the meeting are Russian and English. Talks given in Russian language should have English explanations in the PowerPoint presentations. The working languages are English and Russian.

SCHEDULE FOR MEETING

September 24, 2019: Arrival in Kazan, Registration

September 25, 2019: Opening Ceremony**,** Scientific Sessions

September 26, 2019: Scientific Sessions, meeting of the Working Group "Stratigraphy of oil-and-gas bearing reservoirs of the Late Palaeozoic". Banquet.

September 27, 2019: Scientific Sessions

September 28, 2019: Departure from Kazan

IMPORTANT DATES

May 25, 2019: Deadline for registration and abstract submission.

August 20, 2019 Deadline for article submission.

September 10, 2019: Third Circular with final Program of the Meeting available for distribution by mail and online.

Appendix 1

Depositional model of the East European Platform during Kazanian (Roadian) times

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The type area of the Kazanian regional stage (correlated with the Roadian stage) is located near Kazan in the Volga-Kama region, Tatarstan, Russia. Within this area, the Kazanian reaches a thickness of up to 100-200 m, with marine carbonates (limestones, dolomites) in the west-southwest and a progressive change from grey-coloured marine and lagoonal deposits (limestone, dolomite, marlstone with siltstone and gypsum intercalations) to continental red-coloured deposits (siltstone, claystone, marlstone, sandstone alternations) towards the east-northeast.

During Kazanian times, the eastern part of the East European Platform was covered by an elongated, bay-shaped marine basin (600-1200 x 3000 km) connected with the Boreal Ocean in the Northwest. The bay shows a south-east to north-west extension and was located approximately between 15° and 40° north latitude, in arid and semiarid climate zones in the south and sub-humid to humid climate zones in the north.

A desert plain composed of eroded sulfate and carbonate adjoined the bay from the southwest. The northeast coast of the bay was characterized by foothill lowlands (with a width of 50 to 500 km) with numerous lakes, which were filled by rivers flowing down from the Ural Mountains. The mountain slopes were covered by a red-coloured weathering crust whose materials were transported in large volumes by rivers to the plain. This process led to the formation of thick red-coloured continental successions containing lacustrine, alluvial and soil deposits. Thus, during Kazanian times, two different but connected sedimentary basins are located within the East European Platform: a marine and continental, each characterized by distinct biota. The entire Kazan Sea area can be subdivided into seven distinct depositional environments from the West to the East (Forsh, 1955; Golubev, 2001) (Fig. 1)…….

Acknowledgements

This work is based on the research supported by the Russian Government Program of Competitive Growth of Kazan Federal University and by the Russian Foundation for Basic Research, project nos. 13-05-00592, 13-05-00642, and 14-05-93964.

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Götz, A. E., Silantiev, V. V. (2014). Palynology of the Kazanian stratotype section (Permian, Russia): palaeoenvironmental and palaeoclimatic implications. Palaeobiodiversity and Palaeoenvironments. [in press]

Golubev V. K. (2001). Event Stratigraphy and Correlation of Kazanian Marine Deposits in the Stratotype Area. Stratigraphy and Geological Correlation 9 (5), pp. 454–472.

Appendix 2

Instructions for authors

Save file in Microsoft Word format (for Windows or Macintosh) and name it with your work code (found in our letter).
Check text carefully before sending it. Contents of articles are not reviewed and any error will be published as it is. No corrections of texts received are allowed.

Paper Title **[Times New Roman 16, bold, left alignment, capitalize the first letter]**

FAMILY-NAME Name[1], FAMILY-NAME Name[2] [Times New Roman, 13-point, bold]

[1] *Author Affiliation (COUNTRY) [9-point, italic]*
[2] *Author Affiliation (COUNTRY) [9-point, italic]*
E-mails [9-point, italic, separated by comas]

Abstract [Times New Roman, 12-point, bold, left alignment]

This template will assist you in formatting your paper. Please, copy it on your computer and insert the text keeping the format and styles indicated. The various components of your paper (title, abstract, keywords, sections, text, etc.) are already defined on the style sheet, as illustrated by the portions given in this document.

Keywords: Innovation, technology, research projects, etc. [Times New Roman italic 9-point].

Section [Times New Roman, 12-point, bold, left alignment]

There is a limitation of 4/6 pages. All pages size should be A4.
The top, bottom, right, and left margins should be 2.5 cm. All the text must be in one column and Times New Roman font, including figures and tables, with single-spaced 10-point interline spacing.

Subsection [Times New Roman, 12 bold italic, left alignment, capitalize the first letter]

The text included in the sections or subsections must begin one line after the section or subsection title. Do not use hard tabs and limit the use of hard returns to one return at the end of a paragraph. Please, do not number manually the sections and subsections; the template will do it automatically.

Sub-subsection: Guidelines for Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Do not use abbreviations in the title or heads unless they are unavoidable.

Sub-subsection: Guidelines for Figures and Tables

Tables, figures, and graphics should be centred, numbered and accompanied by a legend. Figure captions should be below figures; table heads should appear above tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.

Sub-subsection: Guidelines for Page numbers and Footnotes

Please, do not add any kind of pagination anywhere in the paper. Avoid using headers and use footnotes only within the page margins (2.5 cm of white margins).

Sub-subsection: Guidelines for References

The list of the references should be given at the end of the paper. References are numbered in brackets by order of appearance in the document (e.g. [1], [2], [3]). The same reference can be cited more than once in the text with the same reference number.

Section

Use as many sections and subsections as you need (e.g. Introduction, Methodology, Results, Conclusions, etc.) and end the paper with the list of references.

REFERENCES [Times New Roman, 12-point, bold, left alignment]

Einstein, A. (1916). General Theory of Relativity. Annalen der Physik 49(7), pp. 769-770

Appendix 3

Viséan-Asselian (Early Carboniferous-Early Permian) foraminiferal faunas from the Sanandaj-Sirjan Zone (Shahreza and Abadeh Regions), Iran

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Abstract

The Viséan-Asselian (Early Carboniferous-Early Permian) foraminiferal faunas and biostratigraphy were studied in three sections of the Shahreza-Abadeh regions, in the Sanandaj-Sirjan Zone, in Iran. These sections with a thickness of about 528-1180 m are mainly composed of the siliciclastics and carbonates. The succession consists of the Shishtu and Sardar groups of the Carboniferous and the Anarak Group of the uppermost Carboniferous-Lower Permian. The sequence under studied contains 217 species belonging to 75 genera within the six foraminiferal zones; namely, (1) the *Uralodiscus rotundus* - *Glomodiscus miloni* Zone of a late early Viséan age, (2) the *Plectostaffelle jakhensis* - *Eostaffella pseudostruvei* Zone of a Voznesenkian (earliest Bashkirian) age, (3) the *Tikhonovichiella tikhonovichi* - *Profusulinella* (*Depratina*) *prisca* - *Aljutovella* spp. Zone of a Melekessian-Vereian (latest Bashkirian-earliest Moscovian) age, (4) the *Beedeina* ex gr. *samarica* - *Taitzehoella mutabilis* Zone of a late Kashirian age, (5) the *Fusulinella* (*Fusulinella*) *pseudobocki* Zone of an early Podolskian age, and (6) the *Praepseudofusulina kljasmica* Zone of a latest Gzhelian-Asselian age. Among the identified foraminifers, 21 genera and 39 species are reported for the first time in the Sanandaj-Sirjan Zone. The foraminiferal zones and their characteristic index species allow to correlate the Viséan-Asselian sequence in the Sanandaj-Sirjan Zone with the foraminiferal biozonation acknowledged for the Viséan-Asselian in the Russian Platform, Southern and Northern Urals, South China; Istanbul Terrane and Central Taurides (Turkey), and the Western Europe. These new foraminiferal faunas, furthermore, share some common species with the concurrent faunas of the Alborz, East Iran, and Central Iran. In this study, the foraminiferal assemblages of the Voznesenkian (earliest Bashkirian) age, the Melekessian-Vereian (latest Bashkirian-earliest Moscovian) age, and the Biozone MFZ11B (late early Viséan) are reported for the first time in the Sanandaj-Sirjan Zone.

Keywords: Sanandaj-Sirjan Zone, Iran, Shishtu Group, Sardar Group, Vazhnan Formation, foraminifers, biostratigraphy.

Introduction

This study is devoted to enhance the understanding of the Viséan-Asselian (Lower Carboniferous-Lower Permian) biostratigraphy in the Shahreza-Abadeh regions of the

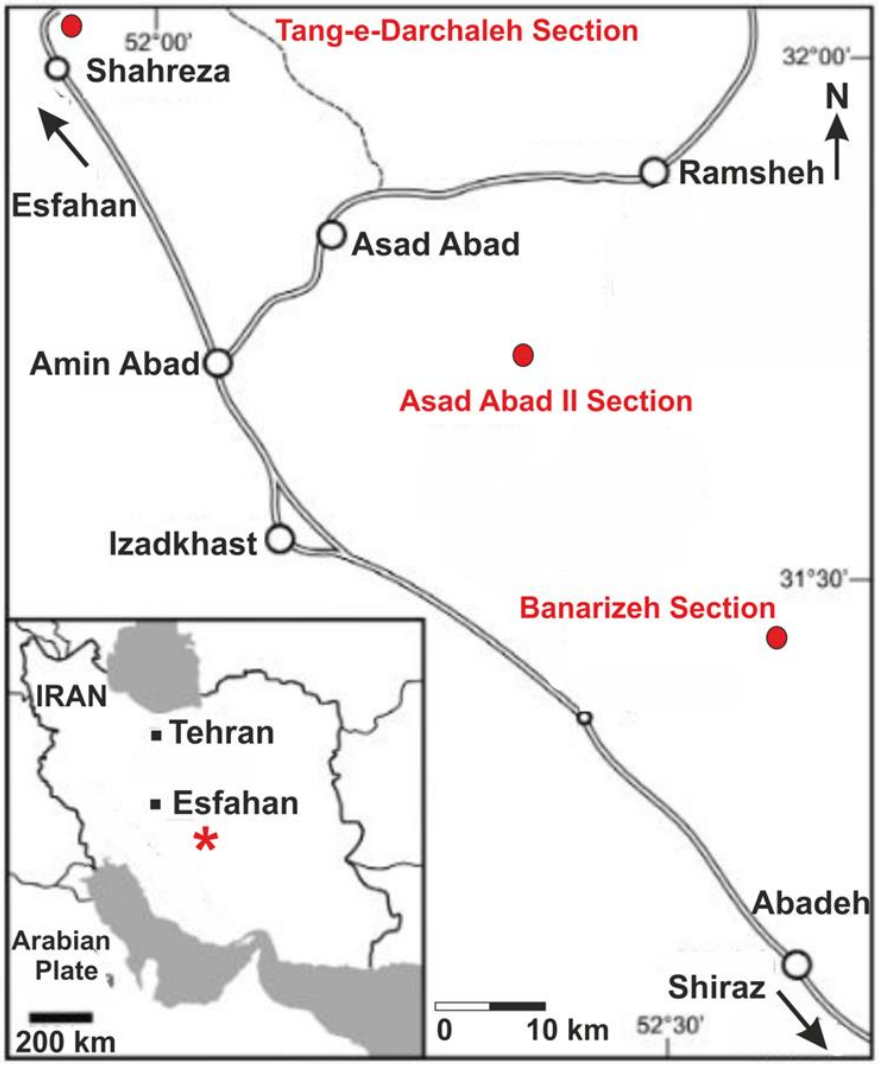

Fig.1: Map of the Shahreza-Abadeh areas showing the location of the three sections under studied in this research (modified after [2]).

Sanandaj-Sirjan Zone in Iran. For this purpose three stratigraphic sections; namely, the Banarizeh, Asad Abad II, and Tang-e-Darchaleh sections have been measured (Fig. 1). These three sections belong to a belt of the Carboniferous and Permian strata that distribute almost continuously from Esfahan to Sirjan along the Sanandaj-Sirjan Zone [1].

Results and discussions

The Viséan-Asselian succession in the Sanandaj-Sirjan Zone consists of the Shishtu and Sardar groups of the Carboniferous and the Anarak Group of the uppermost Carboniferous-Lower Permian. In the Sanandaj-Sirjan Zone, except for the Tournaisian, Serpukhovian, and Kasimovian Stages, the characteristic foraminiferal assemblages of the Early Carboniferous-

Early Permian age exist in the almost entire Viséan-Asselian sequence. The sequence under studied contains 217 species belonging to 75 genera within the six foraminiferal zones; namely, (1) the *Uralodiscus rotundus - Glomodiscus miloni* Zone of a late early Viséan age, (2) the *Plectostaffelle jakhensis - Eostaffella pseudostruvei* Zone of a Voznesenkian (earliest Bashkirian) age, (3) the *Tikhonovichiella tikhonovichi - Profusulinella* (*Depratina*) *prisca - Aljutovella* spp. Zone of a Melekessian-Vereian (latest Bashkirian-earliest Moscovian) age, (4) the *Beedeina* ex gr. *samarica - Taitzehoella mutabilis* Zone of a late Kashirian age, (5) the *Fusulinella* (*Fusulinella*) *pseudobocki* Zone of an early Podolskian age, and (6) the *Praepseudofusulina kljasmica* Zone of a latest Gzhelian-Asselian age.

Definitions of the Recognized Foraminiferal Zones

The Uralodiscus rotundus - Glomodiscus miloni Zone (late early Viséan Age)

The sediments bearing the *Uralodiscus rotundus - Glomodiscus miloni* Zone are represented by quartz arenitic sandstone, mudstone, bioclastic wackestone, packstone, grainstone, and oolitic grainstone. The foraminiferal assemblage in this biozone is dominated by the species of *Parathuramminites, Pseudoammodiscus, Brunsia, Lapparentidiscus, Viseidiscus, Uralodiscus, Glomodiscus, Paraarchaediscus, Planoarchaediscus, Forschia, Endothyra, Laxoendothyra*?, *Endolaxina, Omphalotis, Rhodesinella*?, *Endothyranopsis, Plectogiranopsis, Eogloboenothyra, Dainella, Bessiella, Pojarkovella, Inflatoendothyra, Mediocris, Tetrataxis, Valvulinella,* and *Eoparastaffella*. Characteristic for this biozone is the first appearance of the species of *Glomodiscus* and *Uralodiscus rotundus* (Chernysheva) which are among the index smaller foraminifers to define the Viséan age (e.g. [3], [4]). The contact of the lower part of this interval is not exposed, and the top of this zone is limited by an unconformity followed by sequence belonging to the earliest Bashkirian (Voznesenkian) age. This biozone is correlated with the foraminiferal biozonation acknowledged for the late early Viséan in the Western Europe (e.g. [5], [3]), Eastern European Platform [6], Urals (e.g. [7], [8]), South China [9], and Istanbul Terrane in northwest Turkey [4]. This new foraminiferal fauna, furthermore, shares some common species with the concurrent fauna of the Alborz in Iran (e.g. [10], [11], [12]).

The Plectostaffella jakhensis - Eostaffella pseudostruvei Zone (Voznesenkian Age)

The sediments bearing the *Plectostaffella jakhensis - Eostaffella pseudostruvei* Zone are represented by quartz arenitic sandstone, sandy oolitic grainstone, mudstone, bioclastic wackestone, packstone, and grainstone. The foraminiferal assemblage of the Voznesenkian age differs from the previous one in appearance of the first fusulinid taxa of the earliest Bashkirian age. One of them is *Plectostaffella jakhensis* Reitlinger which is among the meaningful species to define the earliest Bashkirian age in sections of the Russian Platform and Urals [13]. In addition to *Plectostaffella jakhensis* Reitlinger this assemblage is dominated by species of *Eostaffella, Planoendothyra, Endothyra, Mediocris,*

Paraarchaediscus, Earlandia, Globivalvulina, Biseriella, Howchinia, Tetrataxis, Pseudoglomospira, Consobrinella, Deckerella, Koskinotextularia, Palaeotextularia, and *Climacammina*. The biozone in question is correlated with the fusulinid biozonation acknowledged for the earliest Bashkirian in the Russian Platform, Turkey, Donets Basin, and Southern Urals (e.g. [14], [15], [16], [17]). On the other hand, the Voznesenkian fusulinids in Iran are correlated with the concurrent assemblages in the Alborz and East Iran (e.g. [18], [19], [20]). The biozone under consideration is overlain unconformably by the *Tikhonovichiella tikhonovichi* - *Profusulinella* (*Depratina*) *prisca* - *Aljutovella* spp. of a latest Bashkirian-earliest Moscovian age.

The Tikhonovichiella tikhonovichi - Profusulinella (Depratina) prisca - Aljutovella spp. Zone (Melekessian-Vereian Age)

The *Tikhonovichiella tikhonovichi* - *Profusulinella* (*Depratina*) *prisca* - *Aljutovella* spp. Zone is marked by the first appearance of species of families Profusulinidae and Aljutovellidae including *Profusulinella* (*Depratina*) *prisca* (Deptay), *Tikhonovichiella tikhonovichi* (Rauser-Chernousova), and *Aljutovella* cf. *aljutovica* Rauser-Chernousova. These species are indicative of the uppermost fusulinid zone of the Bashkirian (i.e., the Melekessian Substage) and the lowermost zone of the Moscovian (i.e., the Vereian Substage) in many sections of the Urals and the East European Platform (e.g. [21], [22]). The sediments bearing the latest Bashkirian-earliest Moscovian foraminiferal assemblage are represented by bioclastic wackestone, and grainstone. The smaller foraminifers in this assemblage are very rare and the fusulinids in this interval are dominated by species of *Aljutovella, Tikhonovichiella, Profusulinella, Pseudostaffella,* and *Ozawainella*. The fusulinid zone and its characteristic index species allow correlating the Bashkirian-Moscovian transition layers in the Sanandaj-Sirjan Zone with the fusulinid biozonation acknowledged for the latest Bashkirian-earliest Moscovian in the Russian Platform, Southern and Northern Urals, and Central Taurides (e.g. [14], [21], [23], [24], [25], [26], [27], [28]). On the other hand, fusulinids from the *T. tikhonovichi* - *Pr.* (*Depratina*) *prisca* - *Al.* spp. zone in this report can be partly correlated with the Vereian assemblages of Central and East Iranian blocks [19], [20]. Besides, the biozone identified in the Sanandaj-Sirjan Zone is partly correlative with the coeval assemblage identified in the Alborz (e.g. [18], [29]). The sediments bearing this assemblage are overlain unconformably by sediments of a late Kashirian age.

The Beedeina ex gr. samarica - Taitzehoella mutabilis Zone (Late Kashirian Age)

The sediments bearing the late Kashirian foraminiferal assemblage are represented by sandstone, oolitic grainstone, bioclastic wackestone, packstone, and grainstone. The rare smaller foraminifers in this assemblage are characterized by species of *Earlandia, Palaeotextularia,* and *Globivalvulina.* Fusulinids in this interval are distinguished by species of *Taitzehoella, Beedeina, Ozawainella, Pseudostaffella, Millerella,* and *Fusiella.* An

important feature of this assemblage is the first appearance of fusulinids with four layered spirotheca, which implies a new phase in their evolution [20]. *Aljutovella* with three layered spirotheca gives place here to *Beedeina* with four layers. Another meaningful component in our Kashirian fusulinid assemblage is the species of *Taitzehoella*. In sections of the Russian Platform, the boundary between the Vereian and Kashirian substages is tentatively determined by the first occurrence of *Taitzehoella, Aljutovella priscoidea*, and *Hemifusulina* (e.g. [1], [20]). As the Melekessian-Vereian fusulinid assemblge, fusulinids of *Pseudostaffella* are significant components of the Kashirian interval. Representatives of *Ozawainella and Profusulinella* have also been identified in the assemblage. The biozone in question can be correlated with the standard fusulinid biozonation acknowledged for the Kashirian Substage in the Russian Platform (e.g. [30], [31], [32]), Turkey [33], and Darvaz [34]. The sediments bearing this assemblage are overlain unconformably by the sediments of an early Podolskian age.

The Fusulinella (Fusulinella) pseudobocki Zone (Early Podolskian Age)

The sediments bearing the early Podolskian foraminiferal assemblage are represented by sandstone, mudstone, oolitic grainstone, bioclastic wackestone, packstone, and grainstone. Fusulinid species supporting the early Podolskian age for this assemblage are relatively abundant representatives of the *Fusulinella* known from many sections of the Podolskian Substage in the Russian Platform and Southern Urals [20]. Since some *Profusulinella* species, which are atypical of the Moscovian upper part, are also found here, the assemblage is attributed to the basal part of the Podolskian Substage. In this assemblage, the number of fusulinids with four layered structure of the spirotheca gradually increases. In addition to listed taxa, this interval is dominated by the species of *Taitzehoella, Fusiella, Schubertella,* and *Ozawainella*. The sparse smaller foraminifers are characterized by the species of *Tetrataxis* and *Globivalvulina*. The fusulinid zone and its characteristic index species allow correlating the early Podolskian assemblage in the Sanandaj-Sirjan Zone with the fusulinid biozonation acknowledged for the Podolskian Substage in the Russian Platform (e.g. [30], [31], [32]), Spain [35], and Turkey [36]. The sediments bearing this assemblage are overlain unconformably by the sediments of latest Gzhelian-Asselian age.

The Praepseudofusulina kljasmica Zone (Latest Gzhelian-Asselian Age)

The youngest foraminiferal biozone appearing in the Viséan-Asselian interval in the Sanandaj-Sirjan Zone is identified as the *Praepseudofusulina kljasmica* Zone of a latest Gzhelian-Asselian age. The sediments bearing this assemblage are represented by sandstone, mudstone, bioclastic wackestone, packstone, and grainstone. This assemblage is dominated by fusulinids with tectum and keriothecal wall structure. They are the species of *Praepseudofusulina*, *Pseudoschwagerina*?, *Nonpseudofusulina, Anderssonites,* and others. The species *Praepseudofusulina kljasmica* (Sjomina) is the meaningful component of this

assemblage. In many sections of the Russian Platform and the Southern Urals, this species is characteristic of the uppermost Gzhelian and Asselian stages [37]. Besides the listed fauna, the assemblage includes the species of smaller foraminefers such as *Nodosinelloides, Pseudovidalina, Rectogordius, Cornuspira, Eolasiodiscus, Pseudoacutella, Hemigordius, Globivalvulina, Hemidiscus, Pseudoagathammina, Protonodosaria, Geinitzina, Syzrania,* and *Hemigordiellina.* The fusulinid zone and its characteristic index species allow correlating the latest Gzhelian-Asselian transition layers in the Sanandaj-Sirjan Zone with the fusulinid biozonation acknowledged for the latest Gzhelian-Asselian in the Russian Platform, and the Southern Urals (e.g. [20], [38], [39]). This new foraminiferal fauna, furthermore, shares some common species with the concurrent fauna of the Central and East Iran (e.g. [19], [20], [40]), and Alborz [18]. The sediments bearing the assemblage in question are overlain unconformably by the Surmaq Formation, corresponding in age to the upper Lower Permian-Middle Permian.

Conclusions

The Viséan-Asselian successions in Sanandaj-Sirjan Zone of the Shahreza and the Abadeh regions have been studied in three sections. Based on the foraminiferal assemblages the following conclusions can be drawn:

- The Viséan-Asselian interval in this study contains 217 species belonging to 75 genera within the six foraminiferal zones; namely, (1) the *Uralodiscus rotundus - Glomodiscus miloni* Zone of a late early Viséan in age, (2) the *Plectostaffelle jakhensis - Eostaffella pseudostruvei* Zone of a Voznesenkian (earliest Bashkirian) in age, (3) the *Tikhonovichiella tikhonovichi - Profusulinella* (*Depratina*) *prisca - Aljutovella* spp. Zone of a Melekessian-Vereian (latest Bashkirian-earliest Moscovian) in age, (4) the *Beedeina* ex gr. *samarica - Taitzehoella mutabilis* Zone of a late Kashirian age, (5) the *Fusulinella* (*Fusulinella*) *pseudobocki* Zone of an early Podolskian in age, and (6) the *Praepseudofusulina kljasmica* Zone of a latest Gzhelian-Asselian in age.
- The foraminiferal zones and their characteristic index species allow to correlate the Viséan-Asselian sequence in the Sanandaj-Sirjan Zone with the foraminiferal biozonation acknowledged for the Viséan-Asselian in the Russian Platform, Southern and Northern Urals, Istanbul Terrane and central and eastern Taurides (Turkey), and Western Europe (e.g. [3], [4], [5], [14], [15], [16], [17], [20], [21], [23], [24], [25], [26], [27], [28], [38], [39]).
- The new foraminiferal faunas, furthermore, share some common species with the concurrent faunas of the Alborz, East Iran, and Central Iran (e.g. [18], [19], [20], [40]).
- In this study, the foraminiferal assemblages of the Voznesenkian (earliest Bashkirian) age, the Melekessian-Vereian (latest Bashkirian-earliest Moscovian) age, and also the Biozone MFZ11B (late early Viséan) are reported for the first time in the Sanandaj-Sirjan Zone.

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