

**SUBCOMMISSION ON PERMIAN STRATIGRAPHY
ANNUAL REPORT 2020**

1. TITLE OF CONSTITUENT BODY and NAME OF REPORTER

International Subcommittee on Permian Stratigraphy (SPS)

Submitted by:

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2. OVERALL OBJECTIVES, AND FIT WITHIN IUGS SCIENCE POLICY

Subcommission Objectives: The Subcommittee's primary objective is to define the series and stages of the Permian by means of internationally agreed GSSPs and establish a high-resolution temporal framework based on multidisciplinary (biostratigraphical, geochronologic, chemostratigraphical, magnetostratigraphical etc.) approaches, and to provide the international forum for scientific discussion and interchange on all aspects of the Permian, but specifically on refined intercontinental and regional correlations.

Fit within IUGS Science Policy: The objectives of the Subcommittee involve two main aspects of IUGS policy: 1) The development of an internationally agreed chronostratigraphic scale with units defined by GSSPs where appropriate and related to a hierarchy of units to maximize relative time resolution within the Permian System; and 2) the establishment of framework and systems to encourage international collaboration in understanding the evolution of the Earth and life during the Permian Period.

3 ORGANISATION - interface with other international projects / groups

3a. Officers for 2020-2024 period:

Current Officers (from 1 August 2020):

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Officers until 1 August 2020:

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4. EXTENT OF NATIONAL/REGIONAL/GLOBAL SUPPORT FROM SOURCES OTHER THAN IUGS

Shuzhong Shen and Michael Stephenson are investigating the possibility of support for SPS through the Deep-time Digital Earth (DDE) Big Science Program of IUGS focused on informatics support for biostratigraphic data management and palaeogeographic reconstructions.

5. CHIEF ACCOMPLISHMENTS IN 2019 (including any relevant publications arising from ICS working groups)

- General proposals for the bases of the Artinskian and Kungurian stages have been prepared and published in the SPS Newsletters *Permophiles* 69 by Chernykh (2020).
- A multidisciplinary study of the Mechetlino Quarry section (Southern Urals, Russia), the GSSP candidate for the base of the Kungurian Stage has been published by Chernykh et al. (2020, *Palaeoworld* 29).
- The Sakmarian-base GSSP by Chernykh et al. has been accepted for publication in *Episodes* in April 2020.
- Two issues of *Permophiles* have been published (SPS Newsletters *Permophiles* 68 and 69)

- The Guadalupian timescale has been refined based by Wu et al. (2020, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 548). A comprehensive paper on the three GSSPs and their correlation of the the Guadalupian Series has been published (Shen et al., 2020, *Earth-Science Review*, 211)
- A comprehensive review of the terrestrial Permian stratigraphy has been provided by Schneider et al. (2020, *Palaeoworld*, 29).
- A voting members webinar has been organized on 22 October 2020.
- A corresponding members webinar has been organized on 13 November 2020.

6. SUMMARY OF EXPENDITURE IN 2020

No expenditure was incurred in 2020 due to the health emergency for covid-19 which prevented travel for congresses and field trips.

7. SUMMARY OF INCOME IN 2020

An amount of Euros 3356,84 was allocated from ICS.

8. BUDGET REQUESTED FROM ICS IN 2021***

We apply for 5700 US\$ from ICS for SPS activities in 2021. This will be mainly for the activities to turbocharge first the establishment of the base-Artinskian GSSP at Dal'ny Tulkas section, Russia and then the base-Kungurian GSSP at Mechetlino, Russia, and to organize (if possible depending on the development of the Covid-19 emergency) a voting members field trip in the area.

We will use a part of the money for producing a professional video to advertise SPS and eventually for some publication costs.

9. WORK PLAN, CRITICAL MILESTONES, ANTICIPATED RESULTS AND COMMUNICATIONS TO BE ACHIEVED NEXT YEAR:

- We plan to ratify the GSSP of the base of Artinskian and start to work on that of the base of Kungurian.
- We plan to produce a video to advertise SPS.

10. KEY OBJECTIVES AND WORK PLAN FOR THE PERIOD 2020-2024

- Establish the Artinskian and Kungurian GSSPs.
- Revise the Permian timescale where it needs to be improved (Guadalupian stages, replacement GSSP section of the base-Lopingian).
- Establish a robust palaeogeographic frameworks for the Permian and focus on N-S correlations.
- Propose DDE-sponsored informatics support for biostratigraphic data management and palaeogeographic reconstructions.
- Organize webinars to increase the size, diversity and international coverage of the Permian Community
- Publish at least two *Permophiles* issues each year

APPENDIX [Names and Addresses of Current Officers and Voting Members)

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Working group leaders

- 1) Artinskian-base and Kungurian-base GSSP Working Group; Chair-Valery Chernykh.
- 2) Correlation between marine and continental Guadalupian Working Group; Chair-Charles Henderson.
- 3) Correlation between marine and continental Carboniferous-Permian Transition Working Group; Chair-Joerg Schneider.