

SUBCOMMISSION ON PERMIAN STRATIGRAPHY

ANNUAL REPORT 2006

1. TITLE OF CONSTITUENT BODY and NAME OF REPORTER

International Subcommission on Permian Stratigraphy (SPS)

SUBMITTED BY:

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2. OVERALL OBJECTIVES, AND FIT WITHIN IUGS SCIENCE POLICY

Subcommission Objectives: The Subcommission's primary objective is to define the series and stages of the Permian, by means of internationally agreed GSSP's, and to provide the international forum for scientific discussion and interchange on all aspects of the Permian, but specifically on refined regional correlations.

Fit within IUGS Science Policy: The objectives of the Subcommission involve two main aspects of IUGS policy:

1. The development of an internationally agreed chronostratigraphic scale with units defined by GSSP's where appropriate and related to a hierarchy of units to maximize relative time resolution within the Permian System; and
2. Establishment of frameworks and systems to encourage international collaboration in understanding the evolution of the Earth during the Permian Period.

3. ORGANIZATION

The Subcommission has an Executive consisting of a Chairman, a Vice-Chairman, and a Secretary; all three are Voting Members of the Subcommission. There are sixteen total Voting Members representing most regions of the world where Permian rocks are exposed.

The objectives of the Subcommission are pursued by both stratigraphic and thematic Working Groups that are disbanded upon completion of their directed task. For example, the Working Groups on the Carboniferous-Permian Boundary, on the Guadalupian stages (Middle Permian), on the base-Lopingian boundary (base-Wuchiapingian Stage), and on base-Changhsingian have been disbanded upon the successful establishment of their defining GSSP's and ratification by IUGS. The current working groups include the following: 1. Cisuralian stages, 2. Continental Permian, 3. Transitional biotas as gateways for global correlation, and 4. Neotethys, Palaeotethys, and S. China intraplateform basin correlation.

3a. Officers for 2004-2008:

Chair: Professor Charles M. Henderson, University of Calgary

Vice-Chair: Dr. Vladimir Davydov, Boise State University

Secretary: Dr. Shuzhong Shen, Nanjing Institute of Geology and Palaeontology

SPS website is located at <http://www.nigpas.ac.cn/permian/web/index.asp>. This site includes all back issues of *Permophiles* in downloadable PDF format (#1 in 1978 to #48 Dec. 2006). A link to *Permophiles*/Permian research has also been established at <http://www.geo.ucalgary.ca/asrg>.

4. INTERFACES WITH OTHER INTERNATIONAL PROJECTS

SPS interacts with many international projects on formal and informal levels. SPS is taking an active role on the development of integrated chronostratigraphic databases by participating with CHRONOS and PALEOSTRAT, which are NSF funded initiatives. Vladimir Davydov is concentrating on the Permian-Triassic Time Slice Project and the development of improved taxonomic dictionaries, database sharing and manipulation with PALEOSTRAT. SPS is also involved in a core study from a drilling project of the Permian-Triassic boundary at Meishan, China; this project is an international collaboration investigating the signature and causes of the P-T extinction.

5. CHIEF ACCOMPLISHMENTS AND PRODUCTS IN 2006

GSSPs: The base-Wuchiapingian and base-Changhsingian (Upper Permian or Lopingian Series) GSSPs were published in Episodes (volume 29, No. 3&4).

Publications: The June 2006 issue of *Permophiles* (#47) was produced at Nanjing China during June 2006 and distributed as a pdf document to a mailing list of 280. The December 2006 issue of *Permophiles* (#48) was produced at the University of Calgary during November 2006 and distributed as a pdf on our website. We now have a complete series of *Permophiles* on our website (1978 to 2006).

Meetings: The SPS conducted one business meeting at the 2nd International Palaeontology Congress in Beijing, China in June 2006.

Membership: Two changes were made to voting membership in 2006. Dr. John Utting retired as a voting member and was named by the SPS Executive as a Honorary Member given his long service to SPS (past Secretary) and distinguished research record in Late Paleozoic palynology. Honorary Members will receive GSSP proposals and be invited to comment on the merits of the proposal, but they will not vote on the proposal. The revisions suggested by Honorary Members will be included in subsequent versions of the proposal. Dr. Lucia Angiolini was nominated by the executive to fill this vacancy. This increased the membership from Europe bringing it more in line with other major regions. Secondly, we sadly lost our distinguished colleague and friend Professor Jin Yugan who died in June 2006 (see *Permophiles* 48 for a tribute). His was a very distinguished career in Late Paleozoic paleontology and service including as a past-Secretary and past-Chairman of SPS. He has been replaced as a voting member by Professor Yue Wang.

6. CHIEF PROBLEMS ENCOUNTERED IN 2006

There were no major problems in 2006. The Cisuralian excursion planned for 2006 was delayed to 2007. This may delay production of GSSP proposals.

7. SUMMARY OF EXPENDITURES IN 2006:

INCOME

Donations:	\$ 700.00
University of Calgary (1):	\$2,000.00
NIGPAS (2):	\$2,000.00
ICS:	\$ 800.00

TOTAL: \$5,500.00 (quoted in US\$ using .88 as the conversion from Canadian\$)

- (1) University of Calgary support from NSERC grant to Charles Henderson for travel to Nanjing.
 (2) NIGPAS (Nanjing Institute of Geology and Palaeontology) support from NSF-C grant to Shuzhong Shen for travel to Calgary.

EXPENDITURES

Printing and Mailing of <i>Permophiles</i> :	\$1,000.00
Travel support for <i>Permophiles</i> Production:	\$4,500.00
TOTAL: \$5,500.00 (quoted in US\$ using .88 as the conversion from Canadian\$)	
BALANCE: \$0.00	

8. WORK PLAN, CRITICAL MILESTONES, ANTICIPATED RESULTS AND COMMUNICATIONS TO BE ACHIEVED NEXT YEAR (2007):

1. Cisuralian Working Group Workshop to be conducted in early July, 2007.
2. Analysis of samples collected by working group in #1.
3. Production of *Permophiles* #49 in Nanjing during June 2007.
4. Business meeting to be held during XVI ICCP (International Congress on the Carboniferous and Permian) June 2007 in Nanjing China.
5. Completion of base-Sakmarian GSSP proposal by December 2007.
6. Production of *Permophiles* #50 by January 2008.

9. BUDGET AND ICS COMPONENT FOR 2007

Expenditures

Cisuralian Working Group Field Excursion (1)	\$36,000.00
Annual Business Meeting, Nanjing ICCP (2)	\$3,000.00
<i>Permophiles</i> and GSSP proposals printing and postage	\$1,000.00

- (1) Based on \$1,000.00/participant internal costs in Russia for 15 participants and average airfare of \$1,400 times 15 international participants.
 (2) Cost of travel to ICCP for Executive

TOTAL 2007 BUDGET **\$40,000.00**

Income

Support from University of Calgary (Henderson; NSERC)	\$5,000.00
Support from NIGPAS (Shen; NSF-C)	\$2,000.00
Fieldtrip Participants to form Cisuralian Working Group	\$31,200.00
Anticipated donations for <i>Permophiles</i>	\$ 700.00
Requested ICS contribution	<u>\$1,100.00</u>
	0.00

TOTAL BUDGET REQUEST (ICS) \$1,100.00

10. REVIEW CHIEF ACCOMPLISHMENTS OVER PAST FIVE YEARS (2002-2006)

The SPS has approved the general divisions of the Permian and has now had 6 GSSP's ratified by ICS and IUGS (Asselian, Roadian, Wordian, Capitanian, Wuchiapingian, Changhsingian). Proposals for the latter two stages were published in Episodes in 2006. Support for documentation (fieldwork and publications) of the various chronostratigraphic methods for the establishment of the GSSP's has been the most outstanding and differentiating character of this Subcommittee. *Permophiles* has become an internationally respected newsletter and bears an ISSN designation (1684-5927) and is

deposited in the National Library of Canada; nine issues were published during the five year period. See Accomplishments in 2006 (above) for additional details.

11. OBJECTIVES AND WORK PLAN FOR NEXT 4 YEARS (2006-2009)

The primary objective is to complete the GSSP process by 2008 although delays in the field excursion to Urals may delay this process. We currently anticipate that the last three GSSP's (Sakmarian, Artinskian, and Kungurian) should be ratified by 2008. In order to achieve this, the SPS executive is preparing an International Workshop for July 2007 at the probable Cisuralian GSSP sites along the west flank of the Urals. This field workshop will be limited to twenty researchers and they will be charged with completing analysis of new samples and producing first drafts of GSSP proposals by early 2008. New samples will document geochemical signatures and augment extensive geochronologic work, and conodont samples will highlight the accessibility of the sections and reproducibility of the chosen potential points. We anticipate the following schedule:

1. A vote by SPS on the Sakmarian proposal may be conducted during early 2008.
2. A vote by SPS on the Artinskian is anticipated during late 2008.
3. A vote by SPS on the Kungurian is anticipated during late 2008.

Once this process is completed SPS will shift focus toward three directions in 2009: 1. correlations into continental deposits, 2. correlations across provincial boundaries and within the Tethys region, 3. detailed documentation of the geologic evolution of the Earth during the Permian with respect to the established chronostratigraphic framework.

APPENDIX

Officers and Voting Members as of December 2006

Dr. Lucia Angiolini

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Dr. Boris I. Chuvashov

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Honourary Members

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List of Working Groups and their officers

1. Cisuralian stages; Chairman is **Boris Chuvashov**
2. Continental Permian Correlations; Chairman is **Joerg Schneider**
3. Transitional biotas as gateways for global correlation; Chairman is **Guang Shi**
4. Neotethys, Palaeotethys, and S. China intraplatform basin correlation; Co-Chairmen are **Vladimir Davydov** and **Heinz Kozur**.