

**SUBCOMMISSION ON NEOGENE STRATIGRAPHY
ANNUAL REPORT 1999**

1. NAME OF CONSTITUENT BODY

Subcommission on Neogene Stratigraphy (SNS)

2. SUMMARY TABLE OF THE SUBDIVISION OF THE STUDIED PERIOD

SYSTEM	SERIES	STAGES	
N E O G E N E	PLIOCENE	L GELASIAN	
		M PIACENZIAN	
		E ZANCLEAN	
	MIOCENE	L	MESSINIAN
			TORTONIAN
		M	SERRAVALLIAN
			LANGHIAN
		E	BURDIGALIAN
			AQUITANIAN

3. OVERALL OBJECTIVE

The task of the Subcommission is to clarify and precise the stratigraphic subdivision of the Neogene by means of defining Global Stratotype Sections and Points (GSSPs) of Series and Stages. The base and the top of the Neogene System, as well as the base of the Piacenzian and Gelasian Stages, are already defined by GSSPs. The GSSPs for the Zanclean Stage (and Pliocene Series) and the Messinian Stage have been approved by SNS and ICS. Ratification by IUGS is expected in January 2000.

4. ORGANIZATION

SNS is a Subcommission of the International Commission on Stratigraphy, created in 1971. Reference is made to the annual report of 1995 for a brief historical resume of the Subcommission. As a result of the postal ballot for the election of the new bureau, the entire directory changed during 1996, with the former Chair, vice-chairman and secretary stepping down, and the new chairman elect, three vice-chairman and secretary taking over. The entire board will change again in August 2000. In that occasion, a substantial renewal (with considerable reduction) of the membership will be accomplished.

Regional Committees and WGs

- The Subcommittee has four regional Committees (Mediterranean, Atlantic, Pacific and Nordic). They will be reorganized in the future.
- The Transcaspien correlation (informal) Working Group chaired by Semenenko is making slow progress, due to political and funding problems.

Membership

Presently, the Neogene Subcommittee has 31 voting members and 25 corresponding members. Postal ballots are being carried out in order to reduce the voting member to 20, also appointing a few new members. The new Subcommittee will take over in August 2000.

5. EXTENT OF NATIONAL/REGIONAL/GLOBAL SUPPORT OF PROJECTS

There is no official funding of SNS besides IUGS (through ICS), which prevents from giving more visibility to the progress and the accomplishments, that are only possible by the dedicated efforts of some scientists of high international standard. Also, SNS takes advantage of the performances of a very successful scientific program, the Ocean Drilling Program (ODP), that has dedicated several months of shiptime a year, in the last several years, to investigate Neogene targets.

6. INTERFACE WITH OTHER INTERNATIONAL PROJECTS

As mentioned above, a close link connects SNS and the Ocean Drilling Program (ODP): over 30% of the voting and corresponding members are active in ODP as shipboard scientists (several served as co-chief scientist) and panel members: therefore, they played an important role in shaping the scientific objectives of the most important scientific program in Earth Sciences.

A close connection also exists with International Geological Correlation Program (IGCP).

7. ACCOMPLISHMENTS AND PRODUCTS GENERATED IN THE PERIOD OCTOBER 1998 - OCTOBER 1999

- The Zanclean (and Pliocene) proposal was submitted to ICS in November 1998. The postal ballot within ICS took place early in 1999 and resulted in the approval of the proposed GSSP (75% of positive votes). Ratification by IUGS is expected in January 2000.

- After the successful postal ballot within SNS, the Messinian proposal underwent some minor adjustments by the authors that caused a little delay in its submission to ICS (March 1999). The subsequent postal ballot led to the acceptance of the proposal by a 94% majority of ICS members. Even in this case, the ratification by the IUGS Executive Committee is expected in January 2000.

- At the time of the last Newsletter, the joint postal ballot within the SNS and the Subcommittee on Quaternary Stratigraphy (SQS) on the possible lowering of the Pliocene-Pleistocene boundary was taking place. Despite attempts by the SQS Chairman Prof. Partridge to cancel the vote and put it off for "several years" (sic), the postal ballot was carried out regularly and the proposal to lower the Pliocene-Pleistocene boundary was definitely rejected. We sincerely hope that this official postal ballot, where the relevant arguments of both sides were presented in an exhaustive and clear manner, will hopefully put an end to all the controversies of the recent years. We formally ask IUGS to use all its authority to ascertain that this and all formally agreed boundary definitions be respected by the scientific community.

- All these matters having been settled, SNS turns to face the formidable task of elaborating an up-to-date Miocene Time Scale. This obviously requires a multidisciplinary approach, including

magnetostratigraphy, biostratigraphy, isotopic stratigraphy and others, all of them framed in the astronomical time scale which is coming to existence in these days.

Needless to say, an absolutely necessary outcome of this effort should be the selection of appropriate boundary-stratotypes for the remaining Miocene Stages.

Therefore, we decided to set up an ad-hoc Working Group (WG) within our Subcommittee and we warmly invited Prof. Shackleton to take its leadership.

The WG is now moving its first steps.

- As the next IGC approaches (Rio de Janeiro, August 2000), SNS should face a substantial renewal for what concerns both the Board (Chairperson and Vice-Chairperson) and the membership.

Concerning the Board, an official ballot is being carried out within ICS on the names of Prof. Zachariasse (as future Chairman) and Dr. Davide Castradori (as future Vice-Chairman) as suggested by the results of the ballot within SNS.

The present Statutes of ICS clearly state that each Subcommittee should be made up by 10 to 20 voting members, far less than the present 31 of SNS. In addition, the same Statutes suggest that at least 1/3 of the membership be renewed at the end of each four years term. Therefore, approximately one half (15 or 16) of the present voting members will have to retire and 4 or 5 new voting members should be appointed by August 2000.

The process of renewal is going through several steps, in order to reach a democratic agreement within our Subcommittee. The final outcome of this process is expected in Spring 2000.

- Creation and dissemination of Neogene Newsletters n° 6, distributed in October 1999.

8. PROBLEMS ENCOUNTERED IN THE PERIOD OCTOBER 1998 - OCTOBER 1999

As stressed in item 5, the only problem encountered is represented by the low funding level.

9. WORKING PLAN FOR THE END OF 1999 AND FOR 2000

- As mentioned above, SNS faces now the great task of defining the remaining GSSPs of the Miocene Series (Burdigalian, Langhian, Serravallian, Tortonian).

This requires a multidisciplinary approach, including magnetostratigraphy, biostratigraphy, isotopic stratigraphy and others, all of them framed in the astronomical time scale which is coming to existence in these days.

Therefore, we decided to set up an ad-hoc Working Group (WG) within our Subcommittee and we warmly invited Prof. Shackleton to take its leadership.

We hope to report on the first achievements of this WG in the next Newsletter.

- Creation and dissemination of Neogene Newsletters n° 7 (October 2000).

10. ACCOUNTS FOR 1999

Carry-over from 1998 \$ 0
IUGS Contribution 1999 \$ 2100

The contribution was divided as follows:

SNS Chair (Padova) \$ 1000
SNS Secretary (S. Donato M.) \$ 500
RCPNS (Shizuoka) \$ 300
RCMNS (Lyon) \$ 300
TOT \$ 2100

The budget for the Bureau:

INCOME

From ICS-IUGS \$ 1500
From other sources \$ 1000
(CNR, ENI-Agip)
TOT \$ 2500

EXPENDITURES

SNS Newsletters n. 6 reproduction \$ 1000
FIST Congress (Bellaria, Italy) (Chairman) \$ 1000
Business meeting in Padova (Secretary) \$ 200
Communication \$ 300
TOT \$ 2500

Note: in April 1999, the IUGS Bureau decided to allocate 1600 USD to the WG on the Miocene Timescale. The budget for this WG will be communicated in the next annual report.

11. BUDGET REQUEST FOR 2000

INCOME

Request from Chair \$ 3000
Request from RCPNS \$ 1000
Request from RCMNS \$ 1000
TOT \$ 5000

ANTICIPATED EXPENDITURES

Preparation & distribution of Newsletter n. 7 \$ 1500
Travel \$ 2000
Communication \$ 1500
TOT \$ 5000

Allotment requested from IUGS/ICS for 2000 \$ 5000

12. PREPARE OF INFORMATION

Name of Chair Person: Domenico Rio

Address: Dipartimento di Geologia, Paleontologia e Geofisica, Università di Padova, 35137 Padova, Italy, Via Giotto 1

Phone: + 39 49 8272084; **Fax:** + 39 49 8272070; **E-mail:** domenico@dmp.unipd.it

Date: October 5, 1998

Signature of Chair Person