

SUBCOMMISSION ON NEOGENE STRATIGRAPHY

ANNUAL REPORT 2000

1. TITLE OF CONSTITUENT BODY

Subcommission on Neogene Stratigraphy (SNS)

2. NEOGENE CHRONOSTRATIGRAPHIC UNITS

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

3. OVERALL OBJECTIVE

The prime objective of the subcommission is to provide optimum clarity and stability in the Neogene Chronostratigraphic Scale by carefully selecting and defining Global Stratotype Sections and Points (GSSPs) for Series and Stages. The base and top of the Neogene System, and the base of the Gelasian, Piacenzian, Zanclean (= base of Pliocene Series), and Messinian Stages are now all defined by GSSPs. Stages not yet defined by a GSSP are the Tortonian, Serravallian, Langhian, and Burdigalian.

4. ORGANIZATION

The SNS is a subcommission of the International Commission on Stratigraphy, founded in 1971. Reference is made to the annual report of 1995 for a brief historical resume of the Subcommission. Since August 2000, the subcommission consists of 20 voting members and 38 corresponding members. Officers of the renewed subcommission are: Willem Jan Zachariasse (Chairman, Utrecht University, The Netherlands), Davide Castradori (Vice-Chairman, ENI/Agip, San Donato M., Italy) and Frederik J. Hilgen (Secretary, Utrecht University, The Netherlands). The subcommission has four regional committees (Mediterranean, Pacific, Atlantic and Nordic) and presently one working group. The mandate of this working group (chaired by Nick Shackleton) is to propose GSSP's for the remaining Miocene stages and to place them in an astronomically-calibrated Miocene time scale.

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

Financial support comes from IUGS (via ICS). The budget suffice to keep the bureau going and to allow some traveling, but too limited to provide the necessary funds to those surveying and sampling candidate GSSP's sections. These field campaigns are costly and usually funded at the university level.

6. INTERFACE WITH OTHER INTERNATIONAL PROJECTS

There are close links with ODP and IGCP. Especially, ODP has played an important role in the development of integrated time scales for the Neogene, in testing the global correlation potential of bioevents, and in a better understanding of climate and ocean history during this time span.

7. CHIEF ACCOMPLISHMENTS IN 2000

The GSSP for the Zanclean Stage (and Pliocene Series) and that for the Messinian Stage were ratified by IUGS in January 2000, after subsequent approval by SNS and ICS. Both GSSP proposals have been recently published in Episodes (September 2000, Vol. 23, no.3).

The long and somewhat painful process of reducing the number of voting members from 31 to 20 (to meet the new ICS rules) was completed in Spring 2000. The new bureau began their duties after the 31st International Geological Congress in Rio de Janeiro.

The working group on the Miocene time scale, set up in 1999, is still in the warming-up period and has- according to Chairman- some difficulties in seeing the direction to go.

8. PROBLEMS ENCOUNTERED IN 2000

The major problem is that the budget does not allow to financially support field activities related to the search for suitable GSSP's.

9. CHIEF PRODUCTS IN 2000

F. J. Hilgen, S. Iaccarino, W. Krijgsman, G. Villa, C. G. Langereis, and W. J. Zachariasse, 2000. The Global Boundary Stratotype Section and Point (GSSP) of the Messinian Stage (uppermost Miocene). Episodes, 23: 172-178.

J.A. van Couvering, D. Castradori, M. B. Cita, F. J. Hilgen, and D. Rio, 2000. The base of the Zanclean Stage and of the Pliocene Series. Episodes, 23: 179-187.

10. SUMMARY OF EXPENDITURES IN 2000:

Carry-over from 1999	\$ 0
IUGS Contribution 2000	\$ 3700

The contribution was divided as follows:

SNS Chair (Padova)	\$ 2200
SNS Secretary (S. Donato M.)	\$ 1000
RCPNS (Shizuoka)	\$ 250
RCMNS (Lyon)	\$ 250
TOT	\$ 3700

The budget for the bureau:

INCOME	
From ICS-IUGS	\$ 3200
TOT	\$ 3200

EXPENDITURES

SEQS meeting (September 2000), Chairman	\$ 1000
Other business travels (Cambridge, Bologna)	\$ 1000
SEQS meeting (September 2000), Secretary	\$ 500
Newsletters, communication, overheads	\$ 700
TOT	\$ 3200

11. WORK PLAN FOR THE NEXT YEAR AND FOLLOWING YEARS

The long term objective has been and will be the definition of GSSP's for all the stages of the Neogene System. At present four Neogene stages lack a GSSP. The ambition of the new bureau is to provide such GSSP's, but probably the 4 years term is too short to fully achieve this objective. We believe that defining GSSPs for the Tortonian and Serravallian should be feasible, particularly since a few promising candidate sections located in Italy are presently explored by Italian and Dutch stratigraphers. These sections have well-preserved calcareous microfossils and thus a high (semi)global correlation potential. They are also cyclically-bedded which should offer good possibilities for calibration to astronomical target curves. The subcommission will organize on short notice a meeting of the working group chaired by Nick Shackleton to discuss what is the best way to proceed. One of the issues is whether or not to form a separate task force in which current and future studies on the location and definition of GSSPs for the Tortonian and Serravallian should be combined. The new bureau has furthermore the strong wish to set up an own SNS website for communicating information and for providing a platform for discussion.

12. BUDGET REQUEST FOR 2001

INCOME

Request from bureau	\$ 4000
Request from RCPNS	\$ 1000
Request from RCMNS	\$ 1000
TOT	\$ 6000

ANTICIPATED EXPENDITURES

Preparation/distribution of Newsletter n. 8	\$ 500
Travel/organization workshops	\$ 3500
Setting-up SNS website	\$ 2000
TOT	\$ 6000

Allotment requested from IUGS/ICS for 2001 \$ 6000

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Signature:

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