

SUBCOMMISSION ON NEOGENE STRATIGRAPHY ANNUAL REPORT 1998

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. Postal ballots for the definition of GSSPs for the Zanclean Stage (and Pliocene Series) and the Messinian Stage have been carried out in summer 1998. Both reached a large majority of positive votes and will be submitted to ICS soon.

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.

Regional Committees and WGs

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

Membership

The Neogene Subcommittee has 31 voting members and 25 corresponding members.

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

The present level of funding of the Subcommittee by IUGS through ICS is very low: the real expenses met to carry out the reported activities is one to two orders of magnitude greater. 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 1997 - OCTOBER 1998

- Following agreement reached during the Erice workshop (see report in Neog. Newsl., 4), two proposals on the bases of the Zanclean Stage (and of the Pliocene Series) and of the Messinian Stage were prepared during the first months of 1998. The first one was prepared by a group led by J. Van Couvering and D. Castradori, whereas the second was edited under the guidance of Frits Hilgen.

The proposed Zanclean (and Pliocene) GSSP is located in the Eraclea Minoa section (Sicily), close to the classical area of Capo Rossello. The proposed Messinian GSSP is located in the

Oued Akrech section of the Atlantic Morocco. This is quite a revolutionary choice, since the Messinian Stage was surely born within the Mediterranean. However, the proposed location is meant to serve two purposes: first, of course, it is believed to be the best section in terms of its integrated magnetostratigraphy, cyclostratigraphy and biostratigraphy; second, it demonstrates and exemplifies how the Messinian Stage should be global in scope.

Both proposals has received 29 votes out of 31 voting members (i.e. 93%). The proposed Zanclean (and Pliocene) GSSP has received 22 positive and 3 negative votes, with 4 abstentions. The proposal for the Messinian GSSP was appreciated by 24 members, with only one negative vote and 4 abstentions. The two proposals will be soon forwarded to the ICS Secretary General for organizing the ballot within ICS.

- Two papers on the Gelasian and Piacenzian GSSPs appeared in the June issue of Episodes (v. 21, n. 2).
- Following suggestions by the IUGS ad-hoc committee (see Neog. Newsl. 4), a joint postal ballot within the INQUA Commission on Stratigraphy (regretfully acting as IUGS Subcommission on Quaternary Stratigraphy) and our Subcommission was scheduled for September 1998. The Quaternary Subcommission provided arguments in favour of lowering the Pliocene-Pleistocene boundary down to the base of the Upper Pliocene Gelasian Stage. We asked the Chairman of ICS to give us three additional weeks to prepare a reply to their document, where we could counter their arguments and ask for the maintenance of the present Pliocene-Pleistocene boundary.

The postal ballot is taking place in these days. Should the lowering of the boundary (regretfully) win this first round, a postal ballot would then be organized within ICS. Otherwise, the matter would be (hopefully) settled "forever".

- We provided the Chairman of ICS with our help and advice in the construction of the new edition of the Global Chronostratigraphic Scale, so that the Neogene part of it could have the most updated look both in term of chronostratigraphic architecture and of geochronologic age estimates.
- Creation and dissemination of Neogene Newsletters n° 5, distributed in October 1998.

8. PROBLEMS ENCOUNTERED IN THE PERIOD OCTOBER 1997 - OCTOBER 1998

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

9. WORKPLAN FOR THE END OF 1998 AND FOR 1999

- Editing of the the proposals on the GSSPs of the Zanclean Stage (and Pliocene Series) and of the Messinian Stage, according to the suggestion made by SNS voting members. Since both proposals received a large consensus within our Subcommittee, they will be soon submitted to ICS for the next formal step.
- Should the proposal on lowering the Pliocene-Pleistocene boundary win the first round (joint postal ballot within SQS and SNS), we will be in charge of providing ICS with copies of our memorandum and papers in favour of the maintenance of the present boundary, for the organization of the postal ballot within the whole commission.
- Establishment of an informal Working Group on the Miocene pre-Messinian Time-scale, that should also focus on the next GSSPs to be proposed.
- Astronomic calibration of the Miocene Time-scale.
- Creation and dissemination of Neogene Newsletters n° 6 (October 1999).

10. POTENTIAL FUNDING SOURCES OUTSIDE IUGS

Requests of other fundings will be forwarded to the University of Padova and to CNR of Italy, with little hope of success.

11. ACCOUNTS FOR 1997

Carry-over from 1997	\$ 0
IUGS Contribution 1998	\$ 2150

The contribution was divided as follows:

SNS Chair (Padova)	\$ 1000
SNS Secretary (S. Donato M.)	\$ 650
RCPNS (Shizuoka)	\$ 250
RCMNS (Lyon)	\$ 250
	\$ 2150

The budget for the Bureau:

INCOME

From ICS-IUGS	\$ 1650
From other sources (CNR, ENI-Agip)	\$ 1250
TOT	\$ 2900

EXPENDITURES

Pliocene-Pleistocene Memorandum	\$ 560
SNS Newsletters n. 5 reproduction	\$ 720
Erice and Catania meetings (Chairman)	\$ 1300
Communication	\$ 320
TOT	\$ 2900

12. BUDGET REQUEST FOR 1998

INCOME

Request from Chair (also for RC & WG)	\$ 3000
Request from RCPNS	\$ 1000
Request from RCMNS	\$ 1000
TOT	\$ 5000

ANTICIPATED EXPENDITURES

Preparation & distribution of Newsletter n. 6	\$ 1500
Travel	\$ 2000
Communication	\$ 1500
TOT	\$ 5000

Allotment requested from IUGS/ICS for 1998 \$ 5000

13. PREPARE OF INFORMATION

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