

SUBCOMMISSION ON NEOGENE STRATIGRAPHY

ANNUAL REPORT 2002

1. TITLE OF CONSTITUENT BODY

Subcommission on Neogene Stratigraphy (SNS)

2. OVERALL OBJECTIVES

Now the merger between SNS and SQS has come to an end and a new SQS has taken up the formalization of GSSPs for Pleistocene subseries boundaries and base Holocene, the SNS is again the primary body responsible for providing optimum clarity and stability in the *Neogene* Chronostratigraphic Scale by carefully selecting and defining Global Stratotype Sections and Points (GSSPs) for Series and Stages.

3. 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. The subcommission has four regional committees (Mediterranean, Pacific, Atlantic and Nordic) and keeps close contacts with the Russian Neogene Commission chaired by Prof. Yuri B. Gladenkov. The present SNS executive consists of Willem Jan Zachariasse (Chairman, Utrecht University, The Netherlands), Davide Castradori (Vice-Chairman, ENI/Agip, San Donato M., Italy) and Frits Hilgen (Secretary, Utrecht University, The Netherlands). The SNS has presently 3 working groups: 1) WG on Miocene Time Scale chaired by Nick Shackleton, 2) WG for defining GSSP sections for the Tortonian and Serravallian chaired by Frits Hilgen, and 3) WG for defining GSSP sections for the Langhian and Burdigalian chaired by Isabella Raffi.

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

The SNS does not receive financial support from outside IUGS-ICS, except for office support from the host institutions of the bureau. The 2002 budget suffice to allow some travelling and to contribute to workshops and field activities. The budget is however too limited to fully cover the expenses related to surveying, measuring, and sampling candidate GSSP sections. These field campaigns are costly and usually funded at the university level.

5. INTERFACE WITH OTHER INTERNATIONAL PROJECTS

There are close links with (I)ODP and the 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.

6. CHIEF ACCOMPLISHMENTS AND PRODUCTS IN 2002

The past year the SNS bureau has spent a disproportional part of its time in the unsuccessful merger between SNS and SQS (see resume in SNS Newsletter 9 on www.geo.uu.nl/SNS). However one of the positive results of this aborted merger is that a new and active SQS is presently in formation and that the short and forced contacts between SNS and (the active part of) SQS (a.o. materialized in a joint contribution to the ICS position paper prepared for the Urbino meeting and active participation of the SNS bureau in a workshop on the subdivision of the Quaternary) are made permanent through the appointment of the SNS vice-chair Davide Castradori as voting member of the new SQS and chairman of the new WG on the formalization of the Lower/Middle Pleistocene boundary. Further, SNS prepared a summary report on the current status of Neogene chronostratigraphy, which was read at the ICS meeting in Urbino June 2002 (see Newsletter 9). Much progress was made in the formalization of a GSSP for the base of the Tortonian Stage. In a workshop organized by Frits Hilgen in Coldigioco on 14-16 May 2002 it was agreed that the best choice for a Tortonian GSSP would be the level corresponding with the midpoint of the sapropel of cycle 76 in the Monte dei Corvi beach section near Ancona (for a full report of this meeting, see SNS Newsletter 9). Meanwhile a draft proposal for the Tortonian GSSP has been written and will be submitted to all voting SNS members before the end of 2002. Substantial progress is also made with respect to the Serravallian GSSP. Suitable sections of open marine sediments with the potential of tuning have been found on Malta and Tremiti Islands (Italy) and are under study by various groups. Since the Maltese sequence contains the longest exposed record extending a fair distance beyond the critical interval and has a promising magnetic signal it seems the most promising of the two. During a second field campaign on Malta in October 2002 - led by Frits Hilgen - a preliminary tuning of the complex sedimentary cycle pattern to the newly calculated solutions of Laskar was made using imported astronomical ages of bioevents and detailed records of magnetic susceptibility and carbonate content. Although the tuning seems to make sense it differs from the tuning published earlier by Sprovieri et al. (Riv. It. Pal. Strat. 108: 183-193, 2002). The SNS bureau believes that the Maltese sequence is an excellent candidate section for the Serravallian GSSP once the discrepancy in the tuning is solved.

7. PROBLEMS ENCOUNTERED IN 2001

Apart from the temporary adventures associated with the merger between SNS and SQS no problems were encountered in 2002.

8. SUMMARY OF EXPENDITURES IN 2002 (ANTICIPATED THROUGH MARCH 2003):

Carry-over from 2001	€ 1041
IUGS Contribution 2002	€ 3407

The contribution was divided as follows:

SNS Chair/secretary (Utrecht)	€ 3848
RCPNS	€ 300
RCMNS	€ 300
TOT	€ 4448

The budget for the bureau:

INCOME

From ICS-IUGS	€ 3848
TOT	€ 3848

EXPENDITURES

Participation SNS bureau in SQS workshop Leiden July 2002	€ 522
Contribution to measuring/sampling candidate section for defining the Serravallian GSSP (Malta) October 2002	€ 1000
Contribution to WG meeting Coldigioco	€ 350
Contribution to measuring/sampling candidate section for defining the Serravallian GSSP (Malta) Spring 2003	€ 1000 (reservation)
Planned business meeting WG for Langhian – Burdigalian GSSPs	€ 1000 (reservation)
TOT	€ 3872

9. WORK PLAN AND MILESTONES TO BE ACHIEVED FOR NEXT YEAR PLUS ANTICIPATED RESULTS:

The bureau expects that the SNS and ICS voting on the Tortonian GSSP will be completed summer 2003 so that it can perhaps be ratified by the IUGS late 2003 to early 2004. The bureau also expects the submission of a proposal for the Serravallian GSSP late 2003 to early 2004. The planning further includes the organisation of a workshop on guiding criteria for Langhian and Burdigalian boundaries and potential GSSP sections.

10. BUDGET REQUEST FOR 2003

INCOME

Request from bureau	€ 3000
TOT	€ 3000

ANTICIPATED EXPENDITURES

Travel/organisation WG meeting on defining GSSP for the base of the Serravallian	€ 2400
Contribution to RCPNS and RCMNS	€ 600
TOT	€ 3000

Allotment requested from IUGS/ICS for 2003	€ 3000
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11. REVIEW CHIEF ACCOMPLISHMENTS OVER LAST FIVE YEARS (1998-2002)

1998: Preparation and submission to the ICS of proposals for Zanclean and Messinian GSSP sections. Organisation of a postal ballot within SQS and SNS on the proposal to lower the Pliocene/Pleistocene boundary from its defined position in the Vrica section to a new position corresponding with the Gelasian GSSP section. Preparing a memorandum against such a lowering by the SNS bureau as attachment to the postal ballot. Release of Newsletter 5.

1999: Acceptance of proposals for Zanclean and Messinian GSSP sections by the ICS. Proposal for lowering the position of the Pliocene/Pleistocene boundary rejected. Requests to the ICS by the SNS bureau to communicate the outcome of the voting on the lowering of the P/P boundary in Episodes or any other suitable journal failed. Setting up of a WG on Miocene chronology chaired by Nick Shackleton. Beginning of the reorganisation of the SNS. Release of Newsletter 6.

2000: Ratification of Zanclean and Messinian GSSP sections by IUGS and publication in Episodes 23. Reorganisation of SNS completed. The new organisation consists of 20 voting members and 38 corresponding members. Chairman is W.J. Zachariasse (Utrecht University, The Netherlands), vice-chairman is D. Castradori (ENI/Agip, San Donato, Italy), and secretary is Frits Hilgen (Utrecht University, The Netherlands).

2001: Establishment of Tortonian and Serravallian GSSP WG (chaired by Frits Hilgen) and Langhian and Burdigalian GSSP WG (chaired by Isabella Raffi). Launching of the SNS website and submission of a proposal for 2 excursions in Sicily and the Marche during the 2004 Florence Geological Congress.

2002: see above

12. OBJECTIVES AND WORK PLAN FOR NEXT 5 YEARS (2003-2007)

The objective of the SNS is to define GSSP sections for all stages of the Neogene system. At present 4 Neogene stages lack a GSSP. The ambition of the present bureau is to get proposals for Tortonian and Serravallian GSSP sections ratified before August 2004 (end of present office). The bureau anticipates that it will take another term to complete the selection of GSSP sections for the Langhian and Burdigalian.

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