

# **International Union for Quaternary Research**

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Dear Stan:

## INQUA's position on the base of the Quaternary System/Period

The INQUA Executive Committee has closely followed the deliberations of ICS over the duration and status of the Quaternary. We recognize that ICS alone will make a recommendation to IUGS on this matter, but the status of the Quaternary obviously is of central concern to INQUA and the more than 50,000 Quaternary scientists around the world that our Union represents. Further, the Quaternary is a period over which INQUA claims significant jurisdiction. INQUA and IUGS are equal partners in the International Council for Science (ICSU), and INQUA strives for a harmonious relationship with IUGS that includes agreement over a common time scale.

In light of these facts, we respectfully wish to reiterate the position that some 700 delegates to the 2007 INQUA Congress in Cairns, Australia, unanimously endorsed and to briefly outline the reasons for our position. This position is identical to that of SQS, thus I will not repeat at length the arguments made by that subcommission in its letter to ICS, dated 27 February 2009.

It is important for ICS voting members to remember that IUGS ratified the Quaternary as a Period/System on 28 May 2007, thus its status and rank are settled and should not be debated at this time. The only issue that requires resolution is the position of the base of the Quaternary and the bases of the Pleistocene Epoch/Series and Gelasian Age/Stage.

The new INQUA Executive Committee, like its predecessor, endorses what has become, de facto, common usage by Quaternary scientists throughout the world, namely that the base of the Quaternary Period/System be lowered from its present IUGS-sanctioned position at the base of the Pleistocene Vrica GSSP (1.8 Ma) to the base of the Gelasian Stage GSSP (at 2.588 Ma). The change acknowledges unique and profound changes in Earth's environment at about 2.6 Ma. The current boundary is inappropriate because there are no important global changes at 1.8 Ma. Further, the base of the Gelasian Stage is already

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defined and thus requires no significant disruption of the Geological Time Scale. More importantly, it coincides with events that can be recognized and correlated globally, both in oceans and on land.

INQUA rejects the idea of two independent time scales, one for Quaternary workers and another for the remainder of the geological community. Adoption of an awkward, two-tier nomenclature with different boundaries would violate stratigraphic hierarchical principles and would, no doubt, be unacceptable to IUGS. It certainly is unacceptable to INQUA.

In closing, INQUA strongly and unequivocally endorses SQS's proposal for a small change in the Geological Time Scale, namely that both the base of the Quaternary Period/System and Pleistocene Epoch/Series be defined by the base of the Gelasian Age/Stage, with a GSSP at Monte San Nicola, dated at 2.588 Ma. This position has been previously supported by ICS, and we hope that ICS will renew its support this spring.

Yours sincerely,

Prof. John J. Clague INQUA Past President

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Prof. Brad Pillans Chair, INQUA Commission on Stratigraphy and Chronology

on behalf of the INQUA Executive Committee