

2016

IFG 1612F DATESTRA, a Database of Terrestrial European Stratigraphy

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SEQS for the 2016-2019 Intercongress period will aim to build a Database of Terrestrial European Stratigraphy (DATESTRA). This is seen as an European Geographic Stratigraphical Database that follows the activities and the projects carried out by SEQS during the previous Intra-Congress periods.

DATESTRA will focus on the creation of a common and shared geographic Database that should constitute the first step to create a common base for all the Quaternary scientists who want to have a concise overview of the main stratigraphical subdivisions across the boundaries of Europe.

DATESTRA will summarize the main sites containing Terrestrial Quaternary deposits in Europe trying to bypass their fragmentary nature and giving rapid access to the sections, techniques and methods used for their study.

The launch of DATESTRA project occurred at the INQUA-SEQS 2016 Meeting: «Bridging Europe and Asia: Quaternary stratigraphy and Palaeolithic human occupation in Armenia and South Georgia», organized by the Institute of Geological Sciences, Armenian National Academy of Sciences (IGS) under the guidance of SEQS-INQUA Section on European Quaternary Stratigraphy associated with ASQUA-INQUA Section on Asian Quaternary Stratigraphy under the umbrella of SACCOM-INQUA Commission on Stratigraphy and Chronology. The Meeting was held from the 3th to the 11th of September 2016 in Erevan, Armenia with the participation of ca. 50 participants and 43 oral and poster contributions. A four days Field trip gave the chance to the participants to visit many of the most interesting Quaternary sites of Armenia, spanning from Late Pliocene-Early Pleistocene basalts and their relationships with terrestrial mainly fluvial sedimentation. The fieldtrip allowed also the visit to well constrained Paleolithic sites (Haghtanak-3, Kurtan, Karakhach, Nor Geghi-1 etc.) as well as Holocene and Historical sites. One day was devote to the visit of Dmanisi (South Georgia) to the famous early hominine site (dated back at 1.8 Ma).

Unfortunately, the IFG Leader in charge for the DATESTRA activities (Pierluigi Pieruccini) did not attend the Meeting due to house troubles after the earthquake that affected Central Italy last 24th of August. During the Meeting a DATESTRA Session and the IFG was launched involving people from different regions of Europe and ECR scientists who presented their data and opened the discussion for the future perspectives.

Several talks were devoted to the DATESTRA Project. The Project was presented by the Leaders (P. Pieruccini, M. Fiebig, G. Danukalova). The Pleistocene stratigraphy and the key sites in Estonia were presented by Katrin Lasberg (granted by DATESTRA IFG). Natalia Gerasimenko (granted by DATESTRA IFG) and colleagues introduced sites from Ukraine related to the Late Pleistocene. Guzel Danukalova (granted by DATESTRA IFG) introduced the biostratigraphy of the late Early Pleistocene of the Southern Urals Region and Lower Volga area. Again, Tivadar Gaudenyi (granted by DATESTRA IFG) showed the stratigraphical units of the Pleistocene temperate stage fluvial successions in Serbia. Aleksey Zastrozhnov presented the russian experience about the database of Quaternary key-sites and horizon stratotypes of the European part of Russia. The problems related to the absolute chronology of Quaternary successions were introduced by Mauro Coltorti and colleagues who presented the INQUA-funded Project CROSSSTRAT pointed on the reliability of

radiometric dating in a test-region like Sardinia, in Italy. Mauro Coltorti also introduced the Italian potential key-sites.

The main outcome expected by the activities of DATESTRA is a GIS-based Geographic Database containing the basic information about the key-sites of the Terrestrial Quaternary Stratigraphy of Europe. The definition, structuring and sharing of information by easy-to-use platforms as Google Earth © or as web-GIS applications like “Story Maps” is a unique tool to provide a geographic based summary of the main knowledge about the significance of the Terrestrial Quaternary that can be compiled, shared and updated easily and at low costs, reaching the wider audience as possible.

For this purpose, the activities for the 2017 will aim to discuss in detail the structure and design of the database, assessing a minimum number of information to be featured. The next DATESTRA activity will be a Workshop to be held possibly in Siena (Italy) at the beginning of 2017, where people involved will be called to discuss in detail the principles and the features to be represented starting from a prototype developed for selected sites. In September 2017, a DATESTRA session is already planned in the frame of the SEQS 2017 Meeting, organized in Tautavel (France) among the others by Vincenzo Celiberti of the University of Perpignan. Here, Quaternary scientists from different countries of Europe will be invited to contribute illustrating the key sites that can be included in the database.

In our plans, young (ECR) and low GDP countries scientists will be granted to participate to DATESTRA activities, as occurred for the SEQS Meeting in Armenia. We warmly invite all the people interested to contact us for information and details and young scientists to apply for granting their participation to the DATESTRA events.

The main target of this IFG is the presentation, in a dedicated session at the next INQUA Congress (2019 Dublin), the final results and outputs and share the Database among the INQUA community. More information and news at <http://datestra-seqs.strikingly.com/>.