



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

DEPARTMENT
OF GEOSCIENCES

PROGRAMME 2 **SELF-ASSESSMENT**

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	PROGRAMME 2
2.1	Title
	Sediment systems, past life and deep time (Coordinators: Cristina Stefani, Francesco Massari, Domenico Rio)
2.2	Objectives and aims
	Under this program heading we present the activity of the paleontologists and stratigraphers of the DG. Fossils and sediment strata are strongly interconnected natural objects, and both Paleontology and Stratigraphy were born when this connection was realized (cf. <i>De Solido intra Solidum Naturaliter Contento Dissertationis Prodomus</i> by Steno, 1669). Paleontological and stratigraphic studies have a long tradition in the Veneto region, particularly at the University of Padova. It is sufficient to recall the <i>Konservat fossil lagerstätten</i> of Bolca, described in the XVI century, and the definition of a first, albeit rudimentary, Geologic Time Scale made by Arduino in 1759. Both sediments and fossils do bear time significance, and are a terrific archive of the evolution either of Life and the Exogenic Earth System, including past climates. They have been crucial in discovering the “deep time” of the Earth and in constructing the present Geologic Time Scale (GTS). Although Paleontology and Stratigraphy are commonly reckoned as independent disciplines with different methodologies and specific goals, a “modern” approach can only be achieved by means of a tight integration and collaboration with other specialists. For example, knowledge on the evolution of past climates and ocean systems is mandatory for interpreting many aspects of strata, as well as the mode and tempo of organic evolution. Not surprisingly, at the DG there is a strong collaboration between palaeontologists, stratigraphers and many specialists of other institutions, especially magnetostratigraphers and stable isotope geochemists. The scientific results are often largely interdisciplinary with multiple goals, and it is difficult to establish precise disciplinary boundary in most of the papers commented below. For the sake of simplicity, in summarizing our work over the past 5 years we have decided to subdivide papers into four research projects: 1) <u>Regional geology and basin analysis</u>, which includes papers in which the main goals are stratigraphy and sedimentology, often with an emphasis on regional geology and sequence stratigraphy; 2) <u>Investigating past life</u>, which includes papers with a main paleontologic-paleobiologic thrust; 3) <u>Geological time</u>, which comprises papers devoted to the improvement of basic knowledge (i.e., resolution and reliability of chronostratigraphic correlation), needed for assessing the Geologic Time Scale, in particular the International Chronostratigraphic Scale; 4) <u>Past climate</u>, which contains a bunch of papers in Paleoclimatology and Paleoceanography, representing relatively new fields of research at the DG mainly developed with the contribution of post-graduate (Ph.D) students. It should be remarked that, in the last two decades, the main stratigraphic-paleontologic research projects at the DG were focused on well-separated time intervals by two distinct research groups. A first group was dealing with the Triassic System of the Southern Alps

	under the leaderships of late V. De Zanche, while a second group dealt with the Neogene and Quaternary Systems under the leaderships of D. Rio and F. Massari. Quite recently, in the attempt of achieving a major interaction among the two groups, which developed different expertises, a brand new research line has been undertaken concerning the Paleogene System. Aims of the program are manifold, and result in products of regional and/or general interests. A first target is to provide contributions to the understanding of the geologic evolution and tectonics of the study areas, with special reference to the Southern Alps and, in particular, to the Veneto region. Secondly, the program intends to give a contribution to the construction of the Geologic Time Scale of the Neogene, Paleogene and Triassic Systems. Complementary, study of the rich fossil records (also including those used for bio-stratigraphic purposes) from the study areas provided significant advancements in the knowledge of their taxonomy and paleoecological significance. Finally, we are strongly committed to improve the understanding of the evolution of the global climate system, with special reference to its role in leading the sedimentary-stratigraphic processes and trends in the biotic evolution. We will stress in the following pages when, and how, these aims have been accomplished.
2.3	Projects
2.3.1	Project 1: Regional geology and Basin analysis (Coordinator: Vittorio De Zanche, Francesco Massari, Cristina Stefani)
	Multidisciplinary approaches were used in addressing basin analysis in various geological settings, including the Cenozoic Veneto-Friuli foreland basin, the Plio-Pleistocene of Southern Italy, the Late Cretaceous-Early Tertiary basins of Northern Apennines, and the Triassic-Jurassic succession of the Lagonegro Basin (Southern Apennines), Carnia and Dolomites. Methods employed to this purpose range from the cross-correlation of sections, mainly based on physical stratigraphy, to sequence stratigraphy, integrated magnetobiostratigraphy, geochemistry, detrital fission track analysis, analysis of the petrofacies of arenites, structural analysis, and geo-history analysis. On the whole, the presented contributions provided a major improvement in the understanding of regional geology, as well as a precise gauge of both the role of multiple factors in taking control of basin filling processes and the resulting stratigraphic architecture in different geological settings. The main research lines carried out in this project are: Line 1) Triassic and Jurassic platform-to-basin evolution Line 2) Plio-Pleistocene basin analysis in Southern Italy Line 3) Cenozoic Veneto-Friuli foreland basin Line 4) Helminthoid Flysch in Northern Apennines Line 5) Shelf – edge processes Line 6) Venice subsidence Line 7) Geological mapping

Line 1) Triassic and Jurassic platform-to-basin evolution

For many years, a research team of our Department is devoted to the study of Triassic successions in the Dolomites area, with the aims of defining the sequence stratigraphic setting of Mesozoic carbonate platforms and developing a supraregional reference model for Triassic third-order sequences. More recently, in the pursue of reference sections within the pelagic-basinal domain, this working group broadened its scientific concern towards the Mesozoic succession of the Lagonegro-Molise Basin (Southern Apennines). Here, they investigated physical stratigraphy, biostratigraphy and the sedimentological features of the Upper Triassic-Lower Jurassic interval, in order to reconstruct the basin evolution, its depositional settings, and the role of tectonics in shaping the stratigraphic record.

The main results are the following:

stratigraphy of the Carnian of the Southern Alps, previously investigated in the Dolomites, was surveyed in the Dogna area (Julian Alps), where it is represented by a shallow-water, carbonate-siliciclastic ramp setting [23]. New biostratigraphic data suggest that a diachronous demise of the Ladinian carbonate platforms occurred in the Southern Alps, where the onset of clastic-carbonate ramps begun earlier in the Dogna area (i.e., basalmost Carnian) when compared to the Dolomites area (early Carnian).

In the Dolomites area, two research themes have been addressed. on one hand the Middle Triassic limestone–dolostone couplets of the Latemar carbonate platform, whose origin as sedimentary cycles contrasts with Blendinger’s (2004) hydrothermal diagenetic model, demonstrated to be inconsistent with available data; the second, which dealt with the stratigraphic organization of the Dürrenstein Formation, demonstrated that the hierarchical set of peritidal cycles formed on a low-relief carbonate ramp. Its deposition followed the development of rimmed carbonate platforms during the Ladinian and Early Carnian, thus marking a major shift in the growth mode of Triassic shallow-marine carbonates in the Dolomites. Time–frequency analysis unraveled a signature of Milankovitch periodicities, which led to the reconstruction of a high-resolution timescale in good agreement with the estimated duration of the Carnian based on radiometric ages.

Deep-water aragonite dissolution in the Livinallongo Fm. of the Dolomites (Middle Triassic) is thought to have resulted in minor hiatuses and in impoverished ammonoid assemblages. The onset of widespread deposition of nodular cherty limestones, coupled with coeval events of carbonate platform drowning, are tentatively explained by the inflow and local upwelling of cool deep water from Panthalassa into the western Tethys [24].

Analysis of the Upper Triassic-Lower Jurassic succession of the Lagonegro-Molise Basin (Southern Apennines) provided hints on the conodont biostratigraphy, the basin evolution, tectonic controls, as well as evidence of existing connections with the eastern Tethyan paleobiological province and separation from the Proto-Atlantic domain during the Late Triassic [20, 21, 25, 26] . Evidence of the so-called “Carnian pluvial event” at the Julian/Tuvalian boundary is supported by rapid influx of siliciclastics, shallowing of the CCD leading to siliceous sedimentation, and a dramatic biotic crisis [42].

Line 2) Plio-Pleistocene basin analysis in Southern Italy

For many years, a dedicated research team was keen to accomplish a high-resolution reconstruction the Plio-Pleistocene stratigraphy and basin analysis of the Crotona forearc

basin, a tectonically active basin evolving in the rear of the Calabrian Arc. The strong tectonic control on sedimentation was recognized as almost continuous during the Plio-Pleistocene, with alternation of long-living phases dominated by subsidence under extensional regime, associated sometimes with halokinesis, and short-term episodes of transpressional deformation, associated with basin inversion.

The main results of this line in the past five years are the following:

expansion of the stratigraphy in the fault hangingwalls during extensional stages was shown to be particularly spectacular. A dramatic basinal collapse at ca. 2.3 Ma was shown to correlate with the so-called Calabrian transgression *Auctorum*, and to be close in age to the oceanization of the Marsili Basin [29]. In spite of the clear tectonic influence on the overall sedimentary architecture, sequence development was found to have been also controlled by glacio-eustasy.

A stratigraphic section developed around the Matuyama-Brunhes boundary, and spanning from Marine Isotope Stage (MIS) 22 to MIS 18.3 was subjected to a particularly detailed analysis using oxygen isotopes, pollen and planktonic foraminifera. A direct comparison of these data with physical stratigraphy demonstrated that climate-induced changes in sediment supply caused a significant delay of one-quarter of a sea-level cycle in the timing of systems tracts formation [40].

The end or significant slowing down of the Ionian subduction since the middle Pleistocene was found to correspond to the onset of uplift of the Calabrian block, which was characterized by the molding of a flight of marine terraces as a result of the interplay between sea-level changes and progressive uplift [16, 42]. High resolution dating of the substrate of the terraces and of the terrace cover allowed to place a well defined point for the beginning of the uplift and to evaluate the uplift rate. Extensional tectonics continued even in this stage, as documented by normal fault systems dissecting the terraces. Particular attention was paid to the extensive coralline algal build-ups, a rare fossil example of *coralligène de plateau*, occurring on the Cutro marine terrace [32]. The sedimentary cover of the Cutro terrace was recognized as composite, consisting of three superimposed and shingled cycles, assigned by means of optically stimulated luminescence method to different peaks of MIS 7.

The Plio-Pleistocene succession was also investigated, by means of an integrated approach including taphonomy, palaeoecology and sequence stratigraphy, in different tectonic domains, such as the foreland area of Salento peninsula (Puglia) [12] and the Caltanissetta piggy-back basin in Sicily [31]. In both areas the succession is dominated by inner-to-outer shelf heterozoan carbonate and mixed sediments, deposited in slowly subsiding ramps, and typically showing a clear cyclothem organization.

Line 3) Cenozoic Veneto-Friuli foreland basin

In this research line, detrital fission-track and petrographic analyses of sediments from the Neogene Venetian foreland basin (NE Italy) were used for reconstructing the evolution of source areas and constraining the age of thrusting and uplift of the Southalpine domain.

Main results of this project are the following:

a multi-stage evolution of the Alpine source areas has been recognized. A first Chattian to Langhian infilling stage, characterized by mainly Austroalpine provenance, was followed by a second stage (from the Serravallian onwards) during which the foreland basin was incorporated into the Southalpine thrust belt and became the main sediment source [8]. The thrusting and uplift of the Southalpine domain has been documented by Tortonian fission-

	track ages in the hanging wall of the Valsugana thrust; the history of deformation and exhumation of the orogenic belts surrounding the Veneto-Friuli foreland basin was investigated, within an accurate chronostratigraphic framework, by means of arenite petrography and apatite fission-track analysis [44]. Diachronous deformation and exhumation of the Dinaric (eastern Southern Alps) and Northern Apennine belts were found to generate a complex pattern of sedimentation and dispersal during the Cenozoic [45]. Line 4) Helminthoid Flysch in Northern Apennines In the frame of a project concerning the study of Apenninic flysch deposits, in collaboration with members of the Bologna and Modena Universities, the analysis of petrofacies and composition of the Upper Cretaceous-Lower Eocene Helminthoid Flysch has been performed. The investigations have stressed the evaluation of the different sediment sources [13], the composition of the spectacular mega-beds intercalated in the successions [18] and the petrographic characterization of the units. Results suggest that provenances of sedimentary yield were from different crustal levels of the European and Adria plates, and permitted to constrain the paleogeography of the Northern Apennine Tethys in the Late Cretaceous-Early Eocene [10, 27]. Compositional predominance of intrabasinal carbonates demonstrates a paleogeographical location prone to the production of carbonate ooze and storage, and minor sources of terrigenous input. Line 5) Shelf – edge processes Aim of this research line is the analysis of shelf-edge processes, with particular regard to the development of shelf-margin deltas and sediment failures affecting the upper slope setting. The project was performed in three different settings: the Central Tertiary Basin of Spitsbergen, the Ventimiglia area (Ligurian coast) and the Tyrrhenian Sea margin. Main results of this research are the following: - in the Spitsbergen area, shelf-edge deltas characterized by oblique clinoforms, accreted during falling stage and lowstand, are found to be commonly subject to severe erosion at peak regression by their own distributary channels, which appear to be commonly linked directly, across the shelf break, to turbidite-filled channels, gullies and small canyons on the slope. The infill of the slope conduits suggests repeated phases of erosion/bypass that alternated with phases of low-efficiency, hyperpycnal-flow deposition [5]; - in the Ventimiglia area, the focus of attention was a composite Gilbert-type delta system which developed as Early Pliocene infilling of a paleovalley cut during the severe Messinian sea-level drop [36]. A particularity of this setting was that progradation occurred on a narrow and steep-gradient shelf, tectonically controlled by the tilting and collapse of the margin. A third theme concerned the analysis of two extensive mass-failure deposits originated on the eastern Tyrrhenian margin [7]. The analysis revealed that failures occurred close to an interval of accelerated late-Quaternary sea-level rise, suggesting that rapid drowning of unconsolidated sediment resulted in increased water load, and enhanced pore pressure played a role in favoring failure.
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	Line 6) Venice subsidence The subsidence of Venice is a dramatic environmental hazard of general concern. The subject has been, and is, the focus of many researches. However, a sound and reliable estimate of the natural subsidence of the Venice area in the long geologic time domain was lacking. Therefore, in mid 90's we decided to establish a high resolution chronology of the 950 m-thick Plio-Pleistocene succession continuously cored by CNR (1971) in the Venice area. A firm chronostratigraphic framing of the succession was provided by the integration of magnetic polarity stratigraphy, calcareous plankton biostratigraphy, sapropel stratigraphy and pollen climatostratigraphy. Within this time frame, the environmental history of this area since ca. 2.15 Ma has been reconstructed, and natural subsidence has been shown to decrease during the past ca. 400 kyr [14]. Successively, an integrated geohistory analysis was performed by extending the high-resolution stratigraphy of Venezia 1 to the Agip Lido 1 wells (Quaternary–Pliocene interval) and by considering the low-resolution stratigraphy of a simulated well extending Lido 1 down to the base of Cenozoic (Paleocene–Miocene interval). The results highlight that both subsidence and sedimentation were mostly related to the tectonic evolution of the orogenic belts (Apenninic and Southalpine) that surround the Venice basin, influencing the lithosphere vertical motions and the input of clastic sediments through time [34]. Line 7) Geological mapping Since the nineties the National Geological Survey (now APAT) with some Regions have financed the Geological Mapping Project at the 1:50.000 scale (CARG) of some regions (Veneto, Friuli Venezia Giulia, Trentino Alto Adige, Val D'Aosta). Due to the time consuming realization of these kinds of mapping products, some of them have been printed in the last two years [35, 44, 41] (Asiago, Cortina, S. Martino di Castrozza) or will be printed in 2008 (Maniago, Udine, S. Vito al Tagliamento), or are still in progress (Monselice, Portogruaro).
2.3.2	Project 2: Investigating past life (Coordinator: Paolo Mietto)
	Paleontologists at the DG are strongly oriented towards applications of fossils to time telling and environmental-climatic reconstruction. However, some work is necessarily devoted to Taxonomy, which remains the core of any, even applied, paleontologic work. Another part of the work is traditionally dedicated to Paleoichnology, which has a long tradition at the DG. Recently, starting with a new MIUR project (PRIN 2005), we have embarked on a very demanding new topic: which has been the role of environment, climate in particular, in the evolution of Life? The two main evolutionary models proposed so far are conflicting. Van Valen envisages an overwhelming role of the biotic system over the abiotic one (the so-called “Red Queen” hypothesis); on the contrary, Stenseth and Maynard Smith suggest that evolutionary changes are mainly driven by modifications in the physical environment (the “Stationary” model). These two models have sparked hot debates, but no conclusive evidence has yet emerged. Our starting point is that evolution occurs at the time scale of the millennial time scale, which is a resolution usually unavailable for most of the

	fossil records and for most depositional settings. One possible exception is the superb geologic record of calcareous plankton in early Paleogene marine sediments, which - from different perspectives - are presently under our investigation. These data sets offer the bonus of a fine time-resolution, which permits an accurate estimate of the timing of major biotic crisis and turnovers with respect to the climatic-environmental evolution, as documented by several proxies. For the clarity of presentation, we have subdivided contributions of the last 5 years into the following topics: Line 1) Taxonomy Line 2) Paleoichnology Line 3) Biotic crisis and faunal turnovers Line 1) Taxonomy Main results of this research line are the following: Five species, belonging to five genera, and one unidentified rhynchonellid have been recognized in the Late Eocene (Priabonian) assemblage of Castelnuovo (Euganean Hills, NE Italy) [8]. Three new verrucid cirripede species from the Upper Eocene “Marls with pillow lavas” of Castelnuovo (Euganean Hills, NE Italy), the oldest known verrucids from Italy, were described and discussed [7]. A new species of irregular echinoid from the Danian of the Veneto region (NE Italy), <i>Ovulaster protodecima</i>, was described. This is the very first documentation of an Early Paleocene echinoid from Italy [9]. A new agglutinated foraminifer genus and species from the Bathonian (Middle Jurassic) of Sardinia, <i>Posadia feroniensis</i>, was described [2]. The species <i>Pinus priabonensis</i> Omboni 1892, from the Paleogene of Italy, was redescribed and systematically assigned to the subsection Pinastres Loudon of the genus <i>Pinus</i> L. [17] A systematic and biochronological review of Plio-Pleistocene <i>Cervalces</i> and <i>Alces</i> (Cervidae) from Eurasia provided a better scenario of their geographic and chronological distribution [11]. A comparison of the morphological characteristics of <i>Cervalces/Alces</i> and <i>Megaceros giganteus</i> confirms that the postcranial skeleton of the Alceini in the Late Pliocene constituted an already well-defined morphological type and did not undergo further structural postcranial remodelling [6]. Line 2) Paleoichnology A particular research field, developed for a couple of decades in our Department, is paleo-ichnology, especially concerning the tracks of terrestrial vertebrates. Investigation has been first focused on the Upper Carboniferous to Jurassic successions of the Southern Alps and, more recently, on the Upper Jurassic units of the Moroccan chain of High Atlas. This
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	research contributed significantly to the documentation of dinosaur tracks in Italy, with a special regard to the Upper Triassic of the Dolomites and the Lower Jurassic mega-ichnosite of Lavini di Marco (Rovereto, NE Italy), which represents one of the most important ichnosites in Europe. Besides the definition of parataxonomy and the identification of the tracemakers, palaeoichnological investigations provided innovative results in terms of palaeoenvironmental and palaeogeographical reconstruction. A remarkable aspect of this research has been the construction of a biostratigraphic framework, mainly validated for the Middle Triassic to Early Jurassic time interval, for which a quasi-continuous and well time-constrained record of tetrapod tracks is available. More recently, the discovery of human tracks in the middle Pleistocene ash falls of Roccamonfina (Caserta, Campania, Southern Italy) triggered a multidisciplinary research, involving both national and international research teams, under the leaderships of P. Mietto. Main results of this line are the following: Human footprints were discovered in middle Pleistocene volcanic ashes from the Roccamonfina volcanic complex (Southern Italy) [3]. These ancient evidences are the oldest known tracks left by fully bipedal humans so far. Large subcircular or horseshoe-shaped depressions found in Tuvalian (Upper Carnian) peritidal carbonate rocks of the Dogna valley (NE Italy) were interpreted as reptile nests [15]. Footprints found in association indicate that, most probably, Archosaurian were the nest makers. By comparison with famous ichnofaunal sites of NE America, NNE Europe and Africa, it is suggested that the Early Jurassic ichnogenus <i>Kayentapus</i>, which is found at the Lavini di Marco ichnosite (NE Italy), should be regarded as a parataxon with global distribution [12]. The Lower-Jurassic Lavini di Marco dinosaur ichnosite (Southern Alps) shows a variety of footprints and tracks testifying the presence of theropods, early sauropods, unidentified bipedal dinosaurs and some non-dinosaurian reptiles [5]. Pollen data indicate that the footprint-rich interval was laid under humid climates, with respect to the overall arid conditions that are found above and below. A new ichnotaxon, <i>Lavinipes cheminii</i>, has been described from the Lower Jurassic carbonate tidal flats of the central-eastern Southern Alps. A possible sauropodomorph affinity of the trackmaker was discussed, and an attempt was made at reviewing the Late Triassic-Jurassic tracks traditionally related to sauropod and protosauropod [1]. The ichnofauna preserved in the calcareous turbidites interbedded in the Upper Cretaceous Scaglia Rossa is very different from that of siliciclastic turbidites of flysch successions. The latter yield post-event ichnoassociations, consisting of traces that are nearly contemporaneous and reflect either the depth of penetration and/or post-depositional shifts of the redox boundary [4]. Line 3) Biotic crisis and faunal turnovers As stated above, this is a new line of research at the DG. Actually, most of the work performed so far has not yet been finalized, although it was partly presented at international meetings. Within this topic, which focuses on the study of major biotic crisis triggered by
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	global modifications in the ocean-atmosphere system, we have published in the past five years organic works substantially concerning two time slices. Specifically, these are the Cretaceous-Tertiary (K-T) transition and the Paleocene-Eocene Thermal Maximum (PETM), which are being intensively studied worldwide. After a quarter of century since the extraterrestrial bolide impact hypothesis was proposed, the K-T event continues to catch the attention of Earth and Life scientists as the best documented of the “Big five” mass extinctions. Indeed, it represents the most easily available case history that can be used for disentangling the causal mechanisms of mass extinctions and the pattern of ensuing evolutive radiations. The PETM is the best known and most pronounced of the short and transient hyperthermal events that punctuated the climate evolution of the early Paleogene greenhouse world. We have shown that both the K-T and PETM events are documented by fairly continuous and expanded records in the eastern Veneto region. In particular, the PETM record from the Forada section is likely to be one of the best sections available worldwide for studying this intriguing and mysterious paleoclimatic episode. Several lines of evidence suggest that nannoplankton evolution is not always directly triggered by stressed environmental conditions, since it could be also driven by endogenous biotic control. The main results achieved so far are the following: An integrated micropaleontological (planktonic foraminifera and calcareous nannofossils), mineralogical and stable isotopic investigation was performed across the Cretaceous-Tertiary (K-T) boundary in the previously undescribed, highly expanded, hemipelagic Forada section, cropping out in the Piave River Valley (Southern Alps). The study provides evidence that the adaptive radiation of planktonic foraminifera was very rapid, in contrast with the delayed diversification of coccolithophores. In a transient interval corresponding to the basalmost Danian, the ecospace formerly occupied by coccolithophores was seized by calcareous dinoflagellates (<i>Thoracosphaera</i> spp.); on the contrary, planktonic foraminifer associations appear to have reached to stable conditions earlier. It was speculated that this altered ecological structure of plankton communities might have severely affected the dynamics of carbon cycle, thus supporting the early Danian “living ocean” model of D'Hondt et al. (1998) [18]. We have described and presented an integrated stratigraphic dataset from the Paleocene–Lower Eocene Forada section (Venetian Pre-Alps, which preserves a spectacularly expanded and continuous record of the PETM [20]. Based on different evidences of an alleged precession-related cyclicity, the interval of carbon isotope excursion (CIE) – which records an interval of drastic acidification of the ocean waters and super-greenhouse conditions – is likely to have lasted longer than the previous estimates by 5-10%. Changes in nannofossil assemblages might reflect a sharp increase in nutrient availability, probably resulting from augmented terrigenous input in response to increased weathering and runoff [14]. The lower part of the CIE is characterized by pervasive dissolution of planktonic foraminifer tests, thus suggesting a dramatic shallowing of the CCD. The paroxysmal phase of the CIE is characterized by dominant acariniids, reflecting extremely warm and eutrophic conditions, possibly associated with oxygen depletion in the upper water column [21].
2.3.3	Project 3: Geologic time

	(Coordinator: Domenico Rio)
	Time is of essence of Geosciences. Since the mid XIX century, geologists and palaeontologists have been striving in constructing the <i>Geologic Time Scale</i> (GTS), which however remains an eternal “work in progress”. The modern GTS is constituted by several component scales, although it is most often reported as a set of geochronologic-chronostratigraphic units associated with a numerical (absolute) time scale, best referred to as the <i>International Chronostratigraphic Scale</i> (ICS). The ICS does represent the common language within the geosciences community for unravelling and chronicle the history of Earth and Life, as well as quantifying rates of geologic and paleobiologic processes. Actually, the widely known ICS is based on a set of other scales bearing time significance, among which of paramount importance are the Geomagnetic Polarity Time Scale (GPTS) and several biostratigraphic scales based on multiple fossil groups. These scales need to be integrated in order to improve the reliability and the resolution in telling geologic time. Italy preserves a paramount stratigraphic record of Mesozoic and Cenozoic marine sediments, which have been most significant in the development of the modern Geologic Time Scale; furthermore, the Italian stratigraphic record has been historically important in introducing and defining the standard Chronostratigraphic Units. Hence, several scientists of the DG have been for a long time involved in assessing the Geologic Time Scale, with a specific bias on the Triassic, the Neogene, and, quite recently, the Paleogene Systems. In particular, we have contributed in the past to the definition of the Pliocene and Quaternary Time Scales [5]. Within this context, D. Rio has been chairing the Subcommittee of Neogene Stratigraphy from 1996 to 2000, and has been acting as Vice chairman of the International Commission of Stratigraphy from 2000 to 2004. Presently, P. Mietto is a voting member of the Subcommittee on Triassic Stratigraphy, D. Rio is corresponding member of the Subcommittee of Neogene Stratigraphy, and L. Capraro is voting member of the Working Group for the definition of the Early/Middle Pleistocene Boundary. As outlined below, our efforts were devoted to refining ammonoid biostratigraphy (for the Triassic) and the biostratigraphy, magnetobiochronology and astrochronology of calcareous nannofossils (for the Paleogene and Neogene). A final, important goal of this research is to propose GSSP (Global Stratigraphic Sections and Points) in order to fulfill the need for standard stratigraphic subdivisions and nomenclature by using continuous, on-land marine successions. In the past five years, we have been involved in proposing the formal definitions of the Carnian and Priabonian Stages and of the Mediterranean Marine Pleistocene Regional Stages. We present the relevant contributions concerning the time slices mentioned above in three main research lines: Line 1) Triassic Line 2) Paleogene Line 3) Neogene and Quaternary Line 1) Triassic This research line is aimed at providing contributions to the improvement of Triassic time scale by establishing global-scale, high-resolution correlations based on ammonoid biostratigraphy, calibrating pollen assemblages with the ammonoid biozonal scale, and presenting GSSP proposals. The main results of this line are the following: A refined ammonoid biostratigraphy has been accomplished for a critical time interval in the Bagolino section (Giudicarie Area, Northern Italy), which was accepted as the

	reference stratotype for the Anisian/Ladinian boundary [1, 2, 6]. An extensive study of the ammonoid fauna from an expanded section in the Middle Triassic Latemar platform (Dolomites, Italy) permitted to establish a global-scale, high-resolution correlation between the Southern Alps and North America. [7,11]. A high-precision U/Pb zircon dating of an upper Carnian (Upper Triassic) ash bed from Southern Italy provided correlation with other Tethyan sections and the Newark astronomical polarity time scale, as well as a minimum age for some major climatic and biotic events that occurred during the Carnian, thus implying the need for a revision of the Late Triassic time scale [14]. An integrated biostratigraphic record based on palynomorphs and ammonoids from the Dont Fm. (Anisian of the Dolomites area) permitted to correlate several pollen assemblages with ammonoid records across an interval spanning from middle Pelsonian to Illyrian [10]. A GSSP proposal was presented for defining the base of the Carnian Stage (Late Triassic), which should be located in correspondence with the base of the “canadensis Subzone” (FAD of <i>Daxatina</i>) in the Prati di Stuares/Stuares Wiesen section (Southern Alps) [19, 20]. The Pizzo Mondello section in Sicily, has been proposed as the GSSP candidate for the Norian Stage (Late Triassic). Several researchers have studied in detail the section in order to better define the bio-, chemo- and magnetoevents around the boundary [18]. Line 2) Paleogene We are investigating the early part of the Paleogene System in the Eastern Veneto region as well as in the oceanic deep-sea sediments. Our final goals are mainly regarding paleoclimatic and paleobiologic reconstructions, as commented elsewhere. However, these goals would be unreachable without developing a sound time framework, which is not yet available for this interval of time. Specifically, several issues exist in terms of reliability of biohorizons and time resolution within the presently available calcareous nannofossil biostratigraphic schemes; furthermore, difficulties of integrating between the various calcareous plankton biostratigraphic scales and their calibration to the GPTS cannot be disregarded. In addition, an Astronomical Time Scale is not yet assessed for the Paleocene and the Eocene. Various international groups, with which we are collaborating, are engaged to the construction of the ATS for this interval. Our specific tasks within these groups are the calcareous nannofossil paleontology and the finding and analysis of marine sections on land, which are of crucial importance in attempting to reconstruct a global perspective of the Paleocene-Eocene geological record. The most significant contributions to the Paleogene Time Scale in the past 5 years are the following: We have established a high-resolution calcareous nannofossil biocronology in the Upper Paleocene-Middle Eocene Possagno section (Venetian Prealps) [12]; in this work, we have also highlighted a major turnover in the calcareous nannofossil communities at the Early-Middle Eocene transition, which probably set course toward modern structure triggering a reconfiguration of the global ocean life chain. High-resolution analyses of selected calcareous nannofossil taxa from the ODP Site 1262 (Leg 208) documented more than 70 biohorizons in the interval between 62.5 and 52.5 Ma,
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	which have been employed for defining a new Paleocene stratigraphic framework based on cyclostratigraphy and to document, albeit tentatively, steps in the evolution of early Paleogene calcareous nannoplankton [17]. - We have presented at several international meetings the results of our studies on the transition from the Middle to Late Eocene, documented in both the Veneto region and deep-sea sediments. Among the related results are an improved calcareous plankton biochronology for this interval and a proposal of the Alano section (Veneto region, NE Italy) as the GSSP of the Priabonian. The proposal has been well accepted by the scientific community, as also testified by the International Commission of Stratigraphy itself (http://www.stratigraphy.org) [28, 29, 68]. Line 3) Neogene and Quaternary It is well known that the Neogene Time Scale is exceptionally well developed and astronomically “tuned” (Astronomically Tuned Neogene Time Scale, ATNTS). During the last decades, we have been very active in this collective international endeavour. In the past five years, our contributions have been the following: - analysis of systematics, taxonomy and phylogeny of Eurasian Plio-Pleistocene fossil moose gave hints on their distribution in space and time, and provided an updated scenario of the geographical and chronostratigraphic distribution of <i>Cervalces</i> and <i>Alces</i> [8, 9]. - we have updated, in a solicited review paper [16], the astrobiochronological calibration of calcareous nannofossil datum events for the entire Neogene and the Quaternary. A review of astrobiochronological calibration of Late Oligocene to Recent calcareous nannofossil events provided an overview of the relative position of biohorizons versus the astronomically calibrated ages of magnetic reversals and reference isotope stratigraphies. - in the 80’s and 90’s, we have proposed a zonal scheme for the Mediterranean region extending from the late Oligocene to the Holocene on the basis of calcareous nannofossils. A quantitative biostratigraphic study of the Upper Miocene Metochia section (Gavdos Island, Greece) and other reference sections permitted to cover the gap straddling the Tortonian and Messinian Stages [4]. We proposed a set of selected biohorizons which are considered to be especially useful for intra- and extra-Mediterranean correlation in this difficult interval. - in collaboration with geochemists specialists of stable Sr isotopes, we have performed a new calibration of the $^{87}\text{Sr}/^{86}\text{Sr}$-curve for marine analysis in the interval between 4.5 and 2.5 Ma, based on the Middle Pliocene type section of Punta Piccola (Sicily) and ODP Site 758A and B [15]. This calibration has been instrumental for dating the pectinids of the Cockburn Island Fm. in Antarctica, a unit marking a period of warmth and possible glacial retreat in Antarctica. - A proposal was presented to formalize GSSP of the Lower Pleistocene (Calabrian Stage) and Middle Pleistocene (Ionian Stage) in Italy [13]. The reference sections presented so far, presently under the scrutiny of dedicated subcommissions of the ICS, are located in the central Mediterranean, specifically in Southern Italy, which is a classical area for the
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	Neogene and Pleistocene. All candidate sections have the prerequisite of being carefully investigated using multiple criteria.
2.3.4	Project 4: Past climate (Coordinator: Domenico Rio)
	Paleoclimatology and Paleoceanography are necessarily dealt with many of the contributions of Program 2. However, in the past 5 years we have published papers where the main thrust is the paleoclimatic reconstruction and/or paleoceanography. Specifically, we have been contributing to climatic aspects of time intervals presently under investigation also for other purposes, or we have completed works undertaken in the past. A new line of research that has been pursued in the last years is dedicated to development of new proxies or to the exploitation of new types of archive, such as speleothems. Finally, we have put under this Project heading the results of research achieved from drilling of the Arctic Ocean seafloor. Research on non-tropical marine bio-indicators based on trace element and stable isotope composition revealed that scleractinian corals can be successfully used as a tool for climate reconstruction in the Mediterranean [5, 7]. Our efforts mainly focused on the development of analytical methods for the study of slow-growing corals and the investigation of trace elements in coral aragonite. It was discovered that the phosphorus concentration in the skeletal carbonate is a proxy of ocean fertility; furthermore, a geochemical calibration of the Mediterranean coral species <i>Cladocora caespitosa</i> was obtained. The latter species is demonstrated to record fortnightly seawater temperature variations, thus permitting, using the fossil record, to reconstruct the SSTs in the past. In the past we have been involved in ODP Leg 172 (1997) in the Western North Atlantic Ocean, for which D. Rio has acted as co-chief scientist. The main topic was the study of the millennial and centennial scales climatic variability. As one of the last contribution to this topic, we have reconstructed the Early-Middle Pleistocene climate variability and the deep-ocean hydrography in the Atlantic Ocean. This task was accomplished by using the oxygen and carbon isotope records of planktic and benthic foraminifera recovered from an expanded succession at the Bermuda Rise (Leg 172, Site 1063) [3]. It was demonstrated that the relative strength of Antarctic Bottom Water production varied through time, as did that of North Atlantic Deep Water, thus suggesting that these source components of deep water can undergo dramatic changes in their circulation regime through time, with possible influence on global climate changes. New biostratigraphic and chronological data from three cores recovered in the eastern part of the Venice Lagoon extended our knowledge on the Late Pleistocene and Holocene paleovegetational and paleoclimatic history of this sector of the Venetian area [6]. The history of vegetation preserved in a section spanning from Marine Isotope Stage (MIS) 22 to MIS 18.3 in the Crotone Basin (southern Italy) was investigated using oxygen isotopes, pollen and planktic foraminiferal records. As a result, it was put into evidence that a rain-demanding conifer forest dominated the glacials of MIS 20 and MIS 18, which is surprising if compared to the common belief of repetitively arid conditions during

	Pleistocene glacial in the circum-Mediterranean area [2]. A coherent scenario of climate variability for the last ca. 2 Myr was obtained by means of magnetostratigraphy, mammal biostratigraphy and palinology for the Pliocene–Pleistocene Leffe succession (Southern Alps). At around MIS 22, climate cooled drastically and led to a dramatic vegetation withdrawal, enhanced physical erosion and significant southward expansion of Alpine valley glaciers [8]. An interdisciplinary investigation of the Pleistocene clay lacustrine succession of Fornaci di Ranica (Southalpine borderland) documented an episode of marked increase of polar ice volume at MIS 30, or 28 [4]. Arctic Ocean Year 2004 will be remembered as the “<i>annus mirabilis</i>” in the history of deep-sea drilling and the exploration of polar areas. In fact, the unprecedented attempt of drilling in the deep central Arctic Ocean, some 200 Km from the North Pole, where heavy sea ice prevails year-round, was successfully accomplished. The Arctic Coring Expedition (ACEX), which took place in August-September 2004, involved 200 people, including some 15 scientists on board, 3 icebreakers helicopters and even an airplane of the Swedish Royal Navy. Among the invited scientists, was a member of the DG. The expedition (Leg 302 of the Integrated Ocean Drilling Project, IODP) was very successful. A list of the contributions published in the following two years is reported, but the main results are not reviewed here. Excellent summary can be found in the Web. We would just like to underline that ACEX was a scientific milestone, either for the rich information obtained on the geologic and paleoceanographic evolution of the Arctic Ocean and the climatic evolution of the Cenozoic, and especially because it demonstrated to the world the feasibility of drilling in the last frontier of the ocean exploration.
2.4	Human resources
	Vittorio De Zanche – Full Professor Iginio Dieni – Full Professor Francesco Massari – Full Professor Domenico Rio – Full Professor Eliana Fornaciari – Associate Professor Paolo Grandesso – Associate Professor Claudio Mazzoli – Associate Professor Paolo Mietto – Associate Professor Stefano Monari – Associate Professor (since October 2006) Cristina Stefani – Associate Professor Luca Capraro – Assistant Professor Luca Giusberti – Assistant Professor Donatella Mellere (until 2003) – Assistant Professor Nereo Preto – Assistant Professor Ph.D. and post-graduate students: C. Agnini, A. Breda, M. Breda, R. Nalin, C. Consolaro, G. Monegato, P. Montagna, M. Zattin, M.G. Fellin, D. Piubelli, M. Rigo, L. Santello, D. Giardino, Meneguolo, Franceschin

2.5	Financial resources
	See attachment DG 1.7
2.6	Links with other public or private organizations at local, national and international level
	Main collaborations with national institutes: Milano (Prin2003-2005), Chieti (Prin 2003-2005), Firenze (Prin 2003-2005), Parma (Prin 2003-2005); Palermo (Prin 2004-2006, 2006-2008), Napoli (Geomare), Università di Urbino, Università di Ferrara, CNR Padova (Fabio Tateo), Università di Urbino, INGV Roma Dipartimento di Scienze della Terra, Università degli Studi “La Sapienza” Roma Museo Geologico “G.G. Gemmellaro”, Dipartimento di Geologia e Geodesia, Università di Palermo Dipartimento di Georisorse e Territorio, Università di Udine Dipartimento di Scienze della Terra, Università di Pavia Dipartimento di Scienze Geologiche e ambientali, Università di Bologna Dipartimento di Scienze della Terra, Università di Modena e Reggio Emilia Dipartimento di Scienze della Terra, Università di Parma Dipartimento di Biologia evoluzionistica, Università di Parma Dipartimento di Scienze della Terra, Università degli studi di Milano Dipartimento di Scienze della Terra, Università degli studi di Perugia Dipartimento di Scienze della Terra, Università di Palermo Museo Tridentino di Scienze naturali, Trento Bruno Kessler Foundation - Microsystems division, Trento (nell'ambito del dottorato LIDAR del MTSN) Main collaborations with international institutes: Johns Hopkins University, Baltimore USA Tongji University, Shanghai (CN) University of Stockolm University of Southampton Yale University University of Uthrecht University of Barcellona University of Brema Cambridge University National Museum of Natural History of Budapest, Hungary Musée National d'Histoire Naturelle, Luxembourg Institut für Paläontologie, Universität Würzburg
2.7	Other activities relevant for the research Program
	ODP Leg 208 Post Cruise meeting Padova-Belluno April 20-24, 2005 The Triassic climate, Workshop on Triassic palaeoclimatology: Bolzano / Bozen (I), June 3-7, 2008 (Organizing and scientific committee) (Nereo, 3b1) Organizing and scientific committee of Meeting “100 anni di Geologia Feltrina” – Feltre, June 19 – 21, 2008 (C. Stefani)

	ENI Milano: -7-11 giugno 2004 e luglio 2004 (School of Nannoplankton) ENI Milano: -giugno 2007 (School of Nannoplankton) Petrobras Brasile 1-8 agosto 2004 (School of Nannoplankton)																																																																											
2.8	Research products																																																																											
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6.	2003	B2	MIETTO P., RIGO M., DE ZANCHE V., GIANOLLA P., ROGHI G. (2003) - PETINA CHIANA: PASSAGGIO TRA LA FORMAZIONE DI M. FACITO E I CALCARI CON SELCE. IN: F. BARATTOLO AND OTHERS: "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", GUIDA ALL'ESCURSIONE: 23-25, CAPRI.																																																																									
7.	2003	B1	TRINCARDI F., CATTANEO A., CORREGGIARI A., BREDA A., ASIOLI A.,																																																																									

			MONGARDI S. (2003) - "SUBMARINE SLIDES DURING RELATIVE SEA-LEVEL RISE: TWO EXAMPLES FROM THE EASTERN TYRRHENIAN MARGIN" IN: LOCAT, J., MIENERT, J. (EDS.). SUBMARINE MASS MOVEMENTS AND THEIR CONSEQUENCES. KLUWER ACADEMIC PUBLISHER, AMSTERDAM, 457-466. ZATTIN M., STEFANI C., MARTIN S. (2003) - DETRITAL FISSION-TRACK ANALYSIS AND SEDIMENTARY PETROFACIES AS KEYS OF ALPINE EXHUMATION: THE EXAMPLE OF THE VENETIAN FORELAND (EUROPEAN SOUTHERN ALPS, ITALY). JOURN. SEDIM. RESEARCH, 73, 1051-1061. PRETO N., HINNOV L.A. (2003) - UNRAVELLING THE ORIGIN OF SHALLOW-WATER CYCLOTHEMS IN THE UPPER TRIASSIC DÜRENSTEIN FM. (DOLOMITES, ITALY). JOURNAL OF SEDIMENTARY RESEARCH, 73, 774-789. ZECCHIN M., MASSARI F., MELLERE D., PROSSER G. (2003) - ARCHITECTURAL STYLES OF PROGRADING WEDGES IN A TECTONICALLY ACTIVE SETTING, CROTONE BASIN, SOUTHERN ITALY. J. GEOL. SOC., LONDON, 160: 863-880. ARGNANI A., FONTANA D., STEFANI C., ZUFFA G.G. (2004)-LATE CRETACEOUS CARBONATE TURBIDITES OF THE NORTHERN APENNINES: SHAKING ADRIA AT THE ONSET OF ALPINE COLLISION. JOURNAL OF GEOLOGY, 112, 251-259. CASSINIS G., DURAND M., FONTANA D., NERI C., PITTAU P., RONCHI A., STEFANI C. (2004) - THE PERMIAN AND TRIASSIC DEPOSITS AT CALA VIOLA - TORRE DEL PORTICCILO. STOP 5.5. IN: BARCA ET AL., SARDINIAN PALAEOZOIC BASEMENT AND ITS MESO-CAINOZOIC COVERS (ITALY). 32ND INTERN. GEOLOGICAL CONGRESS, FIELD TRIP GUIDE BOOK, P 39, 51-53. D'ALESSANDRO, A., MASSARI, F., DAVAUD, E., GHIBAUDO, G. (2004) - PLIOCENE-PLEISTOCENE SEQUENCES BOUNDED BY SUBAERIAL UNCONFORMITIES WITHIN FORAMOL RAMP CALCARENITES AND MIXED DEPOSITS (SALENTO, SE ITALY). SEDIMENTARY GEOLOGY, 166: 89-144. FONTANA D., STEFANI C. (2004) - EXTRABASINAL AND INTRABASINAL SOURCES IN SILICICLASTIC-CARBONATE TURBIDITE SYSTEMS OF THE NORTHERN APENNINES. IN: QUANTITATIVE PROVENANCE STUDIES IN ITALY, ED. BY R. VALLONI & A. BASU, MEM. DESCR. SERV. GEOL. IT., 61, 41-48. MASSARI F., RIO D., SERANDREI BARBERO R., ASIOLI A., CAPRARO L., FORNACIARI E., VERGERIO P.P. (2004) - THE ENVIRONMENT OF VENICE AREA IN THE PAST TWO MILLION YEARS. PALAEOGEOGR., PALAEOCLIMATOL., PALAEOECOL. 202: 273-308. STEFANI M., BOSELLINI A., BRACK P., GIANOLLA P., KEIM L., PRETO N., 2004 - TRIASSIC CARBONATE PLATFORMS OF THE DOLOMITES (ITALY): CARBONATE PRODUCTION, RELATIVE SEA-LEVEL FLUCTUATIONS AND THE SHAPING OF THE DEPOSITIONAL ARCHITECTURE. 32ND INTERNATIONAL GEOLOGICAL CONGRESS, 20-28 AGOSTO, 2004, FIRENZE, ITALY. ZECCHIN, M., MASSARI, F., MELLERE, D., PROSSER, G. (2004) - ANATOMY AND EVOLUTION OF A MEDITERRANEAN-TYPE FAULT-BOUNDED BASIN: THE LOWER PLIOCENE CROTONE BASIN (SOUTHERN ITALY). BASIN RESEARCH, 2004: 117-143. ZECCHIN, M., NALIN, R., RODA, C. (2004) - RAISED MARINE TERRACES OF THE CROTONE PENINSULA (CALABRIA, SOUTHERN ITALY): FACIES ANALYSIS AND ORGANIZATION OF THEIR DEPOSITS. SEDIMENTARY GEOLOGY, 172: 165-185. ZUFFA G., FONTANA D., MORLOTTI E., PREMOLI SILVA I., SIGHINOLFI G.P., STEFANI C., FONTANI L. (2004) - ANATOMY OF CARBONATE TURBIDITE MEGA-BEDS (M. CASSIO FORMATION, UPPER CRETACEOUS, NORTHERN APENNINE, ITALY). IN: QUANTITATIVE PROVENANCE STUDIES IN ITALY, ED. BY R. VALLONI & A. BASU, MEM. DESCR. SERV. GEOL. IT., 61, 129-144. AGNINI C., FORNACIARI E., GIUSBERTI L., BACKMAN J., CAPRARO L., GRANDESSO P., LUCIANI V., MUTTONI G., RIO D. & TATEO F. (2005). THE EARLY PALEOGENE OF THE VALBELLUNA (VENETIAN SOUTHERN ALPS). FIELDTRIP GUIDEBOOK ODP LEG 208 POST-CRUISE MEEETING. COOPERATIVA LIBRARIA EDITRICE UNIVERSITÀ DI PADOVA (CLEUP), PADOVA, 32 PP. BAZZUCCHI P., BERTINELLI A., CIARAPICA G., MARCUCCI M., PASSERI L., RIGO M., ROGHI G. (2005) - THE LATE TRIASSIC-JURASSIC STRATIGRAPHIC SUCCESSION OF PIGNOLA (LAGONEGRO-MOLISE BASIN, SOUTHERN APENNINES, ITALY. BOLL. SOC. GEOL. IT., 124, 143-153. BERTINELLI A., CIARAPICA G., DE ZANCHE V., MARCUCCI M., MIETTO P., PASSERI L., RIGO M., ROGHI G. (2005) - STRATIGRAPHIC EVOLUTION OF THE TRIASSIC-JURASSIC SASSO DI CASTALDA SUCCESSION (LAGONEGRO BASIN, SOUTHERN APENNINES, ITALY). BOLL. SOC. GEOL. ITAL., 124: 143-153. DIENI I., GIORDANO D., LOYDELL D.K. SASSI F.P. (2005) - DISCOVERY OF LLANDOVERY (SILURIAN) GRAPTOLITES AND PROBABLE DEVONIAN
8.	2003	A1	
9.	2003	A1	
10.	2003	A2	
11.	2004	A1	
12.	2004	B2	
13.	2004	A1	
14.	2004	B1	
15.	2004	A1	
16.	2004	B2	
17.	2004	A1	
18.	2004	A1	
19.	2004	B1	
20.	2005	B2	
21.	2005	A2	
22.	2005	A2	
23.	2005	A1	

			CORALS IN THE SOUTHALPINE METAMORPHIC BASEMENT OF THE EASTERN ALPS (AGORDO, NE ITALY). GEOLOGICAL MAGAZINE. VOL. 142, PP. 1-5.
24.	2005	A2	PRETO N., ROGHI G., GIANOLLA P. (2005) - CARNIAN STRATIGRAPHY OF THE DOGNA AREA (JULIAN ALPS, NORTHERN ITALY): TESSERA OF A COMPLEX PALAEOGEOGRAPHY. BOLL. SOC. GEOL. IT., 124, 269-279.
25.	2005	A1	PRETO N., SPÖTL C., GIANOLLA P., MIETTO P., RIVA A., MANFRIN S. (2005) - ARAGONITE DISSOLUTION, SEDIMENTATION RATES AND CARBON ISOTOPES IN DEEP-WATER HEMIPELAGITES (LIVINALLONGO FORMATION, MIDDLE TRIASSIC, NORTHERN ITALY). SEDIMENTARY GEOLOGY, 181, 173-194.
26.	2005	A2	REGGIANI L., BERTINELLI A., CIARAPICA G., MARCUCCI M., PASSERI L., RICCI C., RIGO M. (2005) - TRIASSIC-JURASSIC STRATIGRAPHY OF THE MADONNA DEL SIRINO SUCCESSION (LAGONEGRO BASIN, SOUTHERN APENNINES, ITALY) - BOLL. SOC. GEOL. IT., 124, 281-291.
27.	2005	A2	RIGO M., DE ZANCHE V., GIANOLLA P., MIETTO P., PRETO N., ROGHI G. (2005) - CORRELATION OF UPPER TRIASSIC SECTIONS THROUGHOUT THE LAGONEGRO BASIN. BOLL. SOC. GEOL. IT., 124, 293-300.
28.	2006	B1	ARGNANI A., FONTANA D., STEFANI C., ZUFFA G.G. (2006) - PALAEOGEOGRAPHY OF THE UPPER CRETACEOUS-EOCENE CARBONATE TURBIDITES OF THE NORTHERN APENNINES FROM PROVENANCE STUDIES. IN: MORATTI G. AND CHALOUAN A. (EDS.) TECTONICS OF THE WESTERN MEDITERRANEAN AND NORTH AFRICA. GEOLOGICAL SOCIETY, LONDON, SPECIAL PUBLICATION, 262, 259-275.
29.	2006	GM	ASTORI A. ET ALII (2006) - CARTA LITOLOGICA E CARTA IDROGEOLOGICA DEI MONTI GRAPPA E CESEN. 24 PP., REGIONE DEL VENETO (ED.), 1 CARTA GEOLOGICA E 1 CARTA IDROLOGICA.
30.	2006	B1	CAPRARO L., CONSOLARO C., FORNACIARI E., MASSARI F., RIO D. (2006) - CHRONOLOGY OF THE MIDDLE-UPPER PLIOCENE SUCCESSION IN THE STRONGOLI AREA: CONSTRAINTS ON THE GEOLOGICAL EVOLUTION OF THE CROTONE BASIN (SOUTHERN ITALY). IN: MORATTI, G. AND CHALOUAN, A. (EDS.) TECTONICS OF THE WESTERN MEDITERRANEAN AND NORTH AFRICA. GEOLOGICAL SOCIETY, LONDON, SPECIAL PUBLICATIONS, 262, 323-336.
31.	2006	A2	DIENI I., GIORDANO D., SASSI F.P. (2006) - SILURIAN AND DEVONIAN BOUDINS WITHIN THE SOUTHALPINE METAMORPHIC BASEMENT OF THE AGORDO AREA (EASTERN ALPS). ATTI - ISTITUTO VENETO DI SCIENZE, LETTERE ED ARTI. CLASSE DI SCIENZE FISICHE, MATEMATICHE E NATURALI. VOL. 164, PP. 7-44 ISSN:0392-6680.
32.	2006	B1	MASSARI F., CHIOCCI F. (2006) - BIOCALCARENITE AND MIXED COOL-WATER PROGRADING BODIES OF THE MEDITERRANEAN PLIOCENE AND PLEISTOCENE: ARCHITECTURE, DEPOSITIONAL SETTING AND FORCING FACTORS. IN: PEDLEY H.M. AND CARANNANTE G. (EDS) 2006. COOL-WATER CARBONATES: DEPOSITIONAL SYSTEMS AND PALAEOENVIRONMENTAL CONTROL. GEOLOGICAL SOCIETY, LONDON, SPECIAL PUBLICATIONS, 255, 96-121.
33.	2006	B1	NALIN, R., BASSO, D., MASSARI, F., (2006) - PLEISTOCENE CORALLINE ALGAL BUILD-UPS (CORALLIGÈNE DE PLATEAU) AND ASSOCIATED BIOCLASTIC DEPOSITS IN THE SEDIMENTARY COVER OF CUTRO MARINE TERRACE (CALABRIA, SOUTHERN ITALY). IN: PEDLEY H.M. AND CARANNANTE G. (EDS) 2006. COOL-WATER CARBONATES: DEPOSITIONAL SYSTEMS AND PALAEOENVIRONMENTAL CONTROL. GEOLOGICAL SOCIETY, LONDON, SPECIAL PUBLICATIONS, 255, 11-22.
34.	2006	A1	ZATTIN M., CUMAN A., FANTONI R., MARTIN S., SCOTTI P. STEFANI C. (2006) - FROM MIDDLE JURASSIC HEATING TO NEOGENE COOLING: THE THERMOCHRONOLOGICAL EVOLUTION OF THE SOUTHERN ALPS. TECTONOPHYSICS, 414, 192-202.
35.	2007	A1	DIENI I., MAI D. H., 2007. REDESCRIPTION AND AGE OF PINUS PRIABONENSIS OMBONI 1892 FROM THE PALAEOGENE OF NE ITALY. PALAEOONTOGRAPHICA 277, 65-74.
36.	2007	A1	BARBIERI C., DI GIULIO A., MASSARI F., ASIOLI A., BONATO M., MANCIN N. (2007) - NATURAL SUBSIDENCE OF THE VENICE AREA DURING THE LAST 60 MYR: HISTORY AND CAUSES. BASIN RES., 19, 105-123, DOI: 10.1111/J.1365-2117.2007.00314.X.
37.	2007	GM	BARBIERI G., GRANDESSO P. ET AL. (2007) - CARTA GEOLOGICA D'ITALIA ALLA SCALA 1: 50.000 - FOGLIO 082 ASIAGO E NOTE ILLUSTRATIVE (PP. 1-135). APAT, SGN, REGIONE VENETO, S. EL.CA, FIRENZE.
38.	2007	A1	BREDA A., MELLERE D., MASSARI F. (2007) "FACIES AND PROCESSES IN A GILBERT-DELTA-FILLED INCISED VALLEY (VENTIMIGLIA, NW ITALY)". SEDIMENTARY GEOLOGY, 200, 31-55.
39.	2007	GM	CARULLI G.B. ET AL. (2007) - CARTA GEOLOGICA DEL FRIULI VENEZIA GIULIA ALLA SCALA 1:150.000. ED. S.E.L.C.A., FIRENZE.
40.	2007	A1	GHINASSI M. (2007). PLIOCENE ALLUVIAL TO MARINE DEPOSITS OF THE VAL D'ORCIA BASIN (NORTHERN APENNINES, ITALY): SEQUENCE STRATIGRAPHY AND BASIN ANALYSIS. RIV. IT. STRAT. PALEONT., 113,

			459-472.
41.	2007	A1	MASSARI F., CAPRARO L., RIO D. (2007). CLIMATIC MODULATION OF TIMING OF SYSTEMS-TRACT DEVELOPMENT WITH RESPECT TO SEA-LEVEL CHANGES (MIDDLE PLEISTOCENE OF CROTONE, CALABRIA, SOUTHERN ITALY). <i>JOURN. SEDIM. RES.</i> , 77, 461-468.
42.	2007	GM	MASSIRONI M., PRETO N., ZAMPIERI D. (2007) - TAVOLETTA SAN MARTINO DI CASTROZZA. SERVIZIO GEOLOGICO DELLA PROVINCIA AUTONOMA DI TRENTO, TRENTO. GEOLOGICAL MAP 1:25000 AND ACCOMPANYING NOTES, 84 PP.
43.	2007	A1	NALIN, R., MASSARI, F., ZECCHIN, M., (2007) - SUPERIMPOSED CYCLES OF COMPOSITE MARINE TERRACES: THE EXAMPLE OF CUTRO TERRACE (CALABRIA, SOUTHERN ITALY) <i>JOUR. SEDIM. RES.</i> , 77: 340-354.
44.	2007	A1	RIGO M., PRETO N., ROGHI G., TATEO F., MIETTO P., 2007 - A RISE IN THE CARBONATE COMPENSATION DEPTH OF WESTERN TETHYS IN THE CARNIAN (LATE TRIASSIC): DEEP-WATER EVIDENCE FOR THE CARNIAN PLUVIAL EVENT. <i>PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOLOGY</i> , 246, 188-205.
45.	2007	GM	SIORPAES C., FURIN S., RIVA A., ODDONE E., TAGLIAVINI F., PASUTO A., SOLDATI M., MANTOVANI F., PANIZZA M., FURLANIS S., MIETTO P., POSENATO R., ROGHI G., SCHIAVON E., MASTELLONE F. & BUSCEMI P. (2007) - IN: NERI C., GIANOLLA P., FURLANIS S., CAPUTO R. & BOSELLINI A. (EDS) - NOTE ILLUSTRATIVE DELLA CARTA GEOLOGICA D'ITALIA ALLA SCALA 1:50.00, FOGLIO 029 CORTINA D'AMPEZZO. 200 PP., REGIONE DEL VENETO, VENEZIA.
46.	2007	A1	STEFANI C., FELLIN M.G., ZATTIN M., ZUFFA G.G., DALMONTE C., MANCIN N., ZANFERRARI A. (2007) - PROVENANCE AND PALEOGEOGRAPHIC EVOLUTION IN A MULTI-SOURCE FORELAND: THE CENOZOIC VENETIAN-FRIULIAN BASIN (NE ITALY). <i>JOURN. SEDIMENTARY RESEARCH</i> , 77, 867-887.
47.	2007	B1	STEFANI C., ZATTIN M., GRANDESSO P. (2007) - PETROGRAPHY OF PALEOGENE TURBIDITIC SEDIMENTATION IN NORTHEASTERN ITALY. IN: <i>SEDIMENTARY PROVENANCE AND PETROGENESIS: PERSPECTIVES FROM PETROGRAPHY AND GEOCHEMISTRY</i> , EDITED BY JOSÉ ARRIBAS, SALVATORE CRITELLI, AND MARK J. JOHNSON, SPE420: ISBN-10 0-8137-2420-1; ISBN-13 978-0-8137-2420-1, 37-55.
48.	2003	F	BAZZUCCHI P., BERTINELLI A., CIARAPICA G., MARCUCCI M., PASSERI L., RIGO M., ROGHI G. (2003) - THE LATE TRIASSIC-JURASSIC STRATIGRAPHIC SUCCESSION OF PIGNOLA (LAGONEGRO-MOLISE BASIN, SOUTHERN APENNINES, ITALY). INTERNATIONAL WORKSHOP: "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", CAPRI, 30 SETTEMBRE - 1 OTTOBRE 2003, ABSTRACTS, 15-16, CAPRI.
49.	2003	F	BERTINELLI A., CIARAPICA G., DE ZANCHE V., MARCUCCI M., MIETTO P., PASSERI L., RIGO M., ROGHI G. (2003) - STRATIGRAPHIC EVOLUTION OF THE TRIASSIC-JURASSIC SASSO DI CASTALDA SUCCESSION (LAGONEGRO BASIN, SOUTHERN APENNINES, ITALY). WORKSHOP "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", ABSTRACTS: 19-20, CAPRI.
50.	2003	F	BREDA A., BONARDI M. (2003) - PRELIMINARY CONTRIBUTION TO THE CORILA PROJECT: SEDIMENTOLOGICAL EVIDENCES OF THE PRESENT MORPHODYNAMIC PROCESSES IN THE VENICE LAGOON (NE ITALY) - ATTI DEL CONGRESSO: GEOSD 2003.
51.	2003	F	BREDA A., BONARDI M. (2003) - THE SEDIMENTOLOGICAL RESPONSE OF SEDIMENTS TO THE MORPHODYNAMIC PROCESSES IN THE VENICE LAGOON (ITALY) - ATTI DEL CONGRESSO: SECONDA RIUNIONE ANNUALE CO.R.I.L.A., PROGRAMMA DI RICERCA 2000-2004.
52.	2003	F	DE ZANCHE V., GIANOLLA P., MIETTO P., PRETO M., RIGO M., ROGHI G. (2003) - AN ATTEMPT OF CORRELATING UPPER TRIASSIC SECTIONS THROUGHOUT THE LAGONEGRO BASIN. WORKSHOP "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", ABSTRACTS: 33, CAPRI.
53.	2003	F	REGGIANI L., BERTINELLI A., CIARAPICA G., MARCUCCI M., PASSERI L., RICCI C., RIGO M. (2003) - TRIASSIC-JURASSIC STRATIGRAPHY OF THE MADONNA DEL SIRINO SUCCESSION (LAGONEGRO BASIN, SOUTHERN APENNINES, ITALY). INTERNATIONAL WORKSHOP: "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", CAPRI, 30 SETTEMBRE - 1 OTTOBRE 2003, ABSTRACTS, 61-62, CAPRI.
54.	2003	F	ZATTIN M., CUMAN A., FANTONI R., MARTIN S., SCOTTI P., STEFANI C., (2003) - THERMOCHRONOLOGICAL EVOLUTION OF THE SOUTHERN ALPS ALONG THE TRANSALP PROFILE. TRANSALP CONFERENCE, TRIESTE, 10-12 FEBBRAIO 2003, MEMORIE DI SCIENZE GEOLOGICHE, 54, 127-130.
55.	2003	F	ZATTIN M., CUMAN A., FANTONI R., MARTIN S., SCOTTI P., STEFANI C. (2003) THERMOCHRONOLOGICAL EVOLUTION OF THE EASTERN SOUTHERN ALPS FROM VITRINITE REFLECTANCE AND FISSION-TRACK DATA. PROCEEDINGS OF THE WORKSHOP ON " THE RECORD OF THERMAL HISTORY IN SEDIMENTARY SUCCESSIONS: SHORT COURSE ON METHODS AND EXAMPLES FROM THE ITALIAN REGION", PAVIA JUNE

			2003, 112-115.
56.	2004	F	ARGNANI A., FONTANA D., STEFANI C., ZUFFA G.G. (2004) – PALAEOGEOGRAPHY OF THE UPPER CRETACEOUS CARBONATE TURBIDITES OF THE NORTHERN APENNINES FROM PROVENANCE STUDIES. 32 IGC, FLORENCE, AUGUST 2004.
57.	2004	F	STEFANI C., ZATTIN M., GRANDESSO P. (2004) - PETROGRAPHIC SIGNATURE OF PALAEOGENIC TURBIDITIC SEDIMENTATION IN NORTH EASTERN ITALY. 32 IGC, FLORENCE, AUGUST 2004.
58.	2005	F	CIARAPICA G., REGGIANI L., RIGO M., ROGHI G. (2005) – NEW DATA ON BIO- AND LITHOFACIES VARIATIONS AROUND THE TRIASSIC/JURASSIC BOUNDARY IN THE PORTO VENERE SECTIONS (LA SPEZIA, ITALY). INTERNATIONAL WORKSHOP: “5 TH FIELD WORKSHOP IGCP 458 PROJECT, TRIASSIC-JURASSIC BOUNDARY EVENTS” TATA (HUNGARY) – PUCH BEI HALLEIN (AUSTRIA), 5-10 SEPTEMBER 2005.
59.	2005	F	DI GIULIO A., ZANFERRARI A., M. ZUFFA G.G., FANTONI R., BARBIERI C., MANCIN N., PICOTTI V., STEFANI C., TOSCANI G., ZATTIN M., MARCHESINI A., ALBERTINI C. (2005) - THE VENETIAN-FRIULIAN BASIN: OVERLAPPING EFFECTS OF THREE THRUST-BELT FORELAND SYSTEMS ON BASIN GEOMETRY, PALEOTOPOGRAPHY AND CLASTIC ROUTING SYSTEMS. GEOITALIA 2005, SETTEMBRE 2005, ABSTRACT DELLE SESSIONI SCIENTIFICHE, 287.
60.	2006	F	BREDA A., MASSARI F., MENEGUOLO R., PRETO N. (2006) - AN ALLUVIAL PLAIN - SABKHA - LAGOON SYSTEM IN THE UPPER TRIASSIC OF THE DOLOMITES, NORTHERN ITALY. – ATTI DEL CONGRESSO: EGU GENERAL ASSEMBLY 2006.
61.	2006	F	NICORA A., RIGO M., GULLO M. (2006) – THE UPPER TRIASSIC CONODONT FAUNA OF PIZZO MONDELLO SECTION (SICANI MOUNTAINS, SICILY). “ICOS 2006 - FIRST INTERNATIONAL CONODONT SYMPOSIUM” LEICESTER, UK, 16-21 JULY, 2006. PROGRAMME AND ABSTRACTS, P. 60.
62.	2007	F	BREDA A., GENNARO M., PRETO N., AVANZINI M. (2007) - PALEOGEOGRAPHIC RECONSTRUCTION OF THE UPPER TRIASSIC TRAVENANZES FORMATION IN THE EASTERN SOUTHERN ALPS. GEOITALIA 2007, SESTO FORUM ITALIANO DI SCIENZE DELLA TERRA, RIMINI, 12-14 SETTEMBRE 2007 IN EPITOME, 2, 168.
63.	2007	F	JADOUL F., GALLI M.T., MUTTONI G., RIGO M., CIRILLI S. (2007) – THE LATE NORIAN-HETTANGIAN STRATIGRAPHIC AND PALEOGEOGRAPHIC EVOLUTION OF THE BERGAMASC ALPS. PRE-CONGRESS FIELD TRIP GUIDE BOOK-FW02, SEPTEMBER 8-9, 2007. GEOITALIA 2007, SESTO FORUM ITALIAN DI SCIENZE DELLA TERRA, RIMINI, 12-14 SETTEMBRE 2007.
64.	2007	F	MONEGATO G., STEFANI C. (2007) - PETROGRAPHIC EVIDENCE OF DRAINAGE BASIN CHANGES IN THE SE ALPS FROM THE MESSINIAN TO PLEISTOCENE: THE TAGLIAMENTO PALEOVALLEY (NE ITALY). SEDIMENT 2007, GEO.ALP, 4, 68.
65.	2007	F	MUTTONI G., KENT D.V., JADOUL F., RIGO M., GALLI M.T. (2007) – RHAETIAN MAGNETOSTRATIGRAPHY FROM THE SOUTHERN ALPS (ITALY): CONSTRAINTS ON THE TRIASSIC CHRONOLOGY. GEOPHYSICAL RESEARCH ABSTRACTS, VOL. 9, 03825. “EUROPEAN GEOSCIENCES UNION - GENERAL ASSEMBLY 2007” VIENNA, AUSTRIA, 15 – 20 APRIL, 2007.
66.	2007	F	RIGO M., GALLI M.T., JADOUL F. (2007) – THE RHAETIAN CONODONT BIOSTRATIGRAPHY IN THE LOMBARDY BASIN (ZU LIMESTONES FORMATION). GEOITALIA 2007, SESTO FORUM ITALIAN DI SCIENZE DELLA TERRA, RIMINI, 12-14 SETTEMBRE 2007.
67.	2007	F	RIGO M., PONTON M., ROGHI G. (2007) – THE COEVAL ANOXIC BASINS WITH THE DOLOMIA PRINCIPALE IN THE EASTERN SOUTHERN ALPS: WHAT CONODONTS TELL US ABOUT PALEOGEOGRAPHY. GEOITALIA 2007, SESTO FORUM ITALIAN DI SCIENZE DELLA TERRA, RIMINI, 12-14 SETTEMBRE 2007.
68.	2007	F	STEFANI C., GRANDESSO P. (2007) - READING PALEOGEOGRAPHY FROM LITHOSTRATIGRAPHY: THE EAXAMPLE OF THE BELLUNO AREA. GEOSD 2007, SIENA, SETTEMBRE 2007, ATTI DEL CONVEGNO, 81.
	2007	F	STEFANI C., FELLIN M.G., ZATTIN M., ZUFFA G.G., DALMONTE C., MANCIN N., ZANFERRARI A. (2007) - PROVENANCE AND PALEOGEOGRAPHIC EVOLUTION IN A MULTI-SOURCE FORELAND: THE CENOZOIC VENETIAN-FRIULIAN BASIN (NE ITALY). GEOITALIA 2007, EPITOME, DOI 1411.
<u>Project 2</u>			

Summary of research products:

	2003	2004	2005	2006	2007	Total
A1	2	1	5	0	5	13
A2	1	0	3	1	3	7
F	2	4	2	0	4	12
Total	5	5	10	1	12	

List of research products:

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|-----|------|----|--|
| 1. | 2003 | A2 | AVANZINI M., LEONARDI P., MIETTO P., (2003) - LAVINIPES CHEMINII ICHNOGEN., ICHNOSP. NOV., A POSSIBLE SAUROPODOMORPH TRACK FROM THE LOWER JURASSIC OF THE ITALIAN ALPS. ICHNOS, V. 10, PP. 179-193. |
| 2. | 2003 | A1 | GIUSBERTI L., COCCIONI R. (2003) - POSADIA FERONIENSIS N. GEN., N. SP. (LITUOLIDA, HORMOSINIDAE) FROM THE BATHONIAN OF SARDINIA, ITALY. JOURNAL OF FORAMINIFERAL RESEARCH, 33(3), PP. 211-218. |
| 3. | 2003 | A1 | MIETTO P., AVANZINI M., G. ROLANDI, (2003) - HUMAN FOOTPRINTS IN PLEISTOCENE VOLCANIC ASH. NATURE, 422: 133. |
| 4. | 2004 | A1 | MILLER W. III., STEFANI C., GRANDESSO P., (2004). ALTERNATION OF ECOLOGIC REGIMES IN A DEEP-MARINE CARBONATE BASIN: CALCITURBIDITES TRACE FOSSILS FROM THE CRETACEOUS SCAGLIA ROSSA, NORTHEASTERN ITALY., PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOLOGY, 204, 317-330. |
| 5. | 2005 | A2 | AVANZINI M., LEONARDI G., MIETTO P., PIUBELLI D., 2005 - THE DINOSAUR ICHNOSITE AT THE LAVINI DI MARCO (CALCARI GRIGI GROUP, LOWER JURASSIC). STUDI TRENT. SC. NAT., ACTA GEOL., SUPPL. V. 80, PP. 31-38. |
| 6. | 2005 | A1 | BREDA M., (2005) - THE MORPHOLOGICAL DISTINCTION BETWEEN THE POSTCRANIAL SKELETON OF CERVALCES/ALCES AND MEGALOCEROS GIGANTEUS AND COMPARISON BETWEEN THE TWO ALCEINI GENERA FROM THE UPPER PLIOCENE-HOLOCENE OF WESTERN EUROPE. GEOBIOS, 38, ISSUE 2, MARCH-APRIL 2005, PAGES 151-170. |
| 7. | 2005 | A1 | CARRIOL, RP., DIENI I. (2005) - THREE NEW VERRUCIDAE (CRUSTACEA: CIRRIPIEDIA) FROM THE UPPER EOCENE OF THE EUGANEAN HILLS (NORTHEAST ITALY). GEOBIOS. VOL. 38, PP. 397-406 ISSN: 0016-6995. |
| 8. | 2005 | A1 | BITNER, MA, DIENI I. (2005) - LATE EOCENE BRACHIOPODS FROM THE EUGANEAN HILLS (NE ITALY). ECLOGAE GEOLOGICAE HELVETIAE. VOL. 98, PP. 103-111 ISSN: 0012-9402. |
| 9. | 2005 | A1 | GIUSBERTI L., FANTIN M., BUCKERIDGE J., (2005) - OVULASTER PROTODECIMAE, N. SP. (ECHINOIDEA, SPATANGOIDA) AND ASSOCIATED EPIFAUNA (CIRRIPIEDIA, VERRUCIDAE) FROM THE DANIAN OF NORTHEASTERN ITALY. RIVISTA ITALIANA DI PALEONTOLOGIA E STRATIGRAFIA, V. 111(3), PP. 455-465. |
| 10. | 2005 | A2 | NICOSIA U., AVANZINI M., BARBERA C., CONTI M.A., DALLA VECCHIA F.M., DAL SASSO C., GIANOLLA P., LEONARDI G., LOI M., MARIOTTI N., MIETTO P., MORSILLI M., PAGANONI A., PETTI F.M., PIUBELLI D., RASA P., RENESTO S., SACCHI E., SANTI G.,, SIGNORE M., (2005) - I VERTEBRATI CONTINENTALI DEL PALEOZOICO E MESOZOICO. IN: L. BONFIGLIO (ED.) - PALEONTOLOGIA DEI VERTEBRATI IN ITALIA. EVOLUZIONE BIOLOGICA, SIGNIFICATO AMBIENTALE E PALEOECOLOGIA. MEM. MUSEO CIVICO ST. NAT., 2° S., SEZ. SC. TERRA, V. 6, PP. 41-66, VERONA. |
| 11. | 2005 | A1 | PARFITT S.A., BARENDREGT R.W., BREDA M., CANDY I., COLLINS M.J., COOPE G.R., DURBIDGE P., FIELD M.H., LEE J.R., LISTER A.M., MUTCH R., PENKMAN K.E.H., PREECE R.C., ROSE J., STRINGER C.B., SYMMONS R., |

			WHITTAKER J.E., WYMER J.J., STUART A.J., (2005) - THE EARLIEST RECORD OF HUMAN ACTIVITY IN NORTHERN EUROPE. <i>NATURE</i> 438 , 1008-1012 (15 DEC 2005) LETTER. DOI:10.1038/NATURE04227.
12.	2005	A2	PIUBELLI D., AVANZINI M., MIETTO P., (2005) - THE EARLY JURASSIC ICHNOGENUS KAYENTAPUS AT LAVINI DI MARCO INCHNOSITE (NE ITALY). GLOBAL DISTRIBUTION AND PALAEOGEOGRAPHIC IMPLICATIONS. <i>BOLL. SOC. GEOL. ITAL.</i> , 124: 259-267.
13.	2006	A2	AVANZINI M., PIUBELLI D., MIETTO P., ROMANO R., ROGHI G., MASETTI D., (2006) - LOWER JURASSIC (HETTANGIAN-SINEMURIAN) DINOSAURS MEGATRACKSITES, SOUTHERN ALPS, NORTHERN ITALY. IN: HARRIS ET AL. - THE TRIASSIC - JURASSIC TERRESTRIAL TRANSITION. NEW MEXICO MUSEUM OF NATURAL HISTORY AND SCIENCE BULLETIN, 37: 207-216.
14.	2007	A1	AGNINI C, FORNACIARI E., RIO D, TATEO F, BACKMAN J, GIUSBERTI L. (2007) - RESPONSES OF CALCAREOUS NANNOFOSSIL ASSEMBLAGES, MINERALOGY AND GEOCHEMISTRY TO THE ENVIRONMENTAL PERTURBATIONS ACROSS THE PALEOCENE/EOCENE BOUNDARY IN THE VENETIAN PRE-ALPS. <i>MARINE MICROPALAEONTOLOGY</i> , 63, 19-38.
15.	2007	A1	AVANZINI M., DALLA VECCHIA F.M., MIETTO P., PIUBELLI D., PRETO N., RIGO M., ROGHI G., (2007) - A VERTEBRATE NESTING SITE IN NORTHEASTERN ITALY REVEALS UNEXPECTEDLY COMPLEX BEHAVIOUR OF LATE CARNIAN REPTILES. <i>PALAIOS</i> , V. 22, PP. 465-475.
16.	2007	A2	BITTER M.A., DIENI I., 2007 . EMENDED DIAGNOSIS OF THE EOCENE CRANIID BRACHIOPOD VENETOCRANIA EUGANEA BITNER & DIENI (2005) AND PROPOSAL OF A NEOTYPE. <i>BOLL. SOC. PALEONT. IT.</i> 46, 93.
17.	2007	A2	DIENI I., MAI D. H., 2007. REDESCRIPTION AND AGE OF PINUS PRIABONENSIS OMBONI 1892 FROM THE PALAEOGENE OF NE ITALY. <i>PALAEONTOGRAPHICA</i> 277, 65-74.
18.	2007	A1	FORNACIARI E., GIUSBERTI L., LUCIANI V, TATEO F, AGNINI C, BACKMAN J, ODDONE M, RIO D. (2007). AN EXPANDED CRETACEOUS-TERTIARY TRANSITION IN A PELAGIC SETTING OF THE SOUTHERN ALPS (CENTRAL-WESTERN TETHYS). <i>PALAEOGEOGRAPHY PALAEOCLIMATOLOGY PALAEOECOGRAPHY</i> . VOL. 255, PP. 98-131 ISSN: 0031-0182. DOI:10.1016/J.PALAEO.2007.02.044
19.	2007	A2	GAUDANT J, CAVALLLO, O, COURME-RAULT, M.D, FORNACIARI E., LAURIAT-RAGE, A, DE LAPPARENT, F, MERLE, D. (2007). PALEONTOLOGIE DES MARNES TORTONIENNES AFFLEURANT DANS LE LIT DU TANARO PRES D'ALBA (PIÉMONT, ITALIE). <i>RIVISTA PIEMONTESE DI STORIA NATURALE</i> . VOL. 28, PP. 3-51 ISSN: 1121-1423.
20.	2007	A1	GIUSBERTI L, RIO D, AGNINI C, BACKMAN J, FORNACIARI E., TATEO F, ODDONE M. (2007) - MODE AND TEMPO OF THE PALEOCENE-EOCENE THERMAL MAXIMUM IN AN EXPANDED SECTION FROM THE VENETIAN PRE-ALPS. <i>GEOLOGICAL SOCIETY OF AMERICA BULLETIN</i> , 119, 391-412.
21.	2007	A1	LUCIANI V, GIUBERTI L, AGNINI C, BACKMAN J, FORNACIARI E., RIO D. (2007) - THE PALEOCENE-EOCENE THERMAL MAXIMUM AS RECORDED BY TETHYAN PLANKTONIC FORAMINIFERA IN THE FORADA SECTION (NORTHERN ITALY). <i>MARINE MICROPALAEONTOLOGY</i> , 64, 189-214.
22.	2003	F	FORNACIARI E., GIUSBERTI L., BACKMAN J., DESTRO C., GRANDESSO P., RIO D., TATEO F. (2003). THE K/P BOUNDARY IN THE FORADA SECTION (SOUTHERN ALPS, NORTHEASTERN ITALY): AN HIGH-RESOLUTION INTEGRATED STUDY. IN: LAMOLDA M.A. (ED.), BIOEVENTS: THEIR STRATIGRAPHICAL RECORDS, PATTERNS AND CAUSES. CARAVACA DE LA CRUZ, 3RD-8TH JUNE 2003 (SPAIN), P. 107, AYUNTAMIENTO DE CARAVACA DE LA CRUZ, SPAIN.
23.	2003	F	PIUBELLI D., AVANZINI M., MIETTO P., 2003 - PALEOGEOGRAPHIC IMPLICATIONS OF THE ICHNOLOGICAL ANALYSIS OF A NEW GROUP OF DINOSAUR TRACKS AT LAVINI DI MARCO (ROVERETO - TRENTO). WORKSHOP "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", ABSTRACTS: 57-58, CAPRI.
24.	2004	F	AVANZINI M., DALLA VECCHIA F.M., MIETTO P., PIUBELLI D., ROGHI G., 2004 - ARE THE ENIGMATIC TRACES FROM THE UPPER TRIASSIC NE ITALY REPTILE'S NESTS? 32° IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS (PART 1): 599-600, FIRENZE.
25.	2004	F	AVANZINI M., DE ANGELIS M., MIETTO P., PANARELLO A., ROLANDI G., 2004 - PLEISTOCENE HUMAN FOOTPRINTS PRESERVED ON A ZEOLITE-RICH PYROCLASTIC FLOW (ROCCAMONFINA, SOUTHERN ITALY). 32° IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS (PART 1): 598, FIRENZE.
26.	2004	F	AVANZINI M., MIETTO P., PIUBELLI D., 2004 - THE LAVINI DI MARCO ICHNOSITE: TWO DIFFERENT APPROACHES TO THE STUDY OF TRIDACTYL DINOSAUR FOOTPRINTS. 32° IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS (PART 1): 600, FIRENZE.
27.	2004	F	FORNACIARI E., GIUSBERTI L., LUCIANI V., RIO D., TATEO F., BACKMAN J., ODDONE M. 2004. THE K/T BOUNDARY RECORD IN THE SOUTHERN ALPS: A MULTIDISCIPLINARY APPROACH. 32 ND IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS
28.	2005	F	AVANZINI M., DE ANGELIS M., MIETTO P., PANARELLO A., ROLANDI G., SIRANO F., 2005 - ORME UMANE PLEISTOCENICHE CONSERVATE IN UN

			DEPOSITO PIROCLASTICO NEL COMPLESSO VULCANICO DI ROCCAMONFINA (COMUNE DI TORA E PICCILLI, CASERTA). XL RIUN. SCIENT. I.I.P.P., STRATEGIE DI INSEDIAMENTO FRA LAZIO E CAMPANIA IN ETÀ PREISTORICA E PROTOSTORICA. RIASSUNTI DI: RELAZIONI, COMUNICAZIONI, POSTER, PP. 38-39, ROMA. DALLA VECCHIA F., BARBERA C., BIZZARRINI F., BRAVI S., DELFINO M., GIUSBERTI L., GUIDOTTI G., MIETTO P., PAPAZZONI C., ROGHI G., SIGNORE M., SIMONE O. (2005). IL CRETACEO MARINO. IN BONFIGLIO L. (ED.), PALEONTOLOGIA DEI VERTEBRATI IN ITALIA. EVOLUZIONE BIOLOGICA, SIGNIFICATO AMBIENTALE E PALEOGEOGRAFICO. MEMORIE DEL MUSEO CIVICO DI STORIA NATURALE DI VERONA, 2^A SERIE. SEZIONE SCIENZE DELLA TERRA, V. 6, PP. 101-112, ISBN: 88-89230-04-5. AVANZINI M., MASETTI D., MIETTO P., ROGHI G., ROMANO R., PIUBELLI D., TOMASONI R., 2007 - LOWER JURASSIC DINOSAUR MEGATRAKSITES, PALAEOBIOLOGY AND PALAEOENVIRONMENT (SOUTHERN ALPS, NORTHERN ITALY), EPITOMES, V. 2, PP. 167-168, RIMINI. BELVEDERE M., MIETTO P., MEHDI M., 2007 - DINOSAUR TRACKS FROM THE UPPER JURASSIC IOUARIDÉNE FORMATION (DEMNAT, MAROCCO). EPITOMES, V. 2, P. 306, RIMINI. D'ORAZI PORCHETTI S., MIETTO P., NICOSIA U., AVANZINI M., 2007 - LATE CARNIAN (TUVALIAN) TETRAPOD FOOTPRINTS IN EASTERN SOUTHERN ALPS: A PRELIMINARY REPORT. EPITOMES, V. 2, P. 305, RIMINI. SANTELLI L., AVANZINI M., DE ANGELIS M., MIETTO P., PANARELLO A., ROLANDI G., 2007 - STRATIGRAPHIC FEATURES OF ROCCAMONFINA VOLCANO (CASERTA, SOUTHERN ITALY) RELATED TO THE PRESENCE OF PLEISTOCENIC HUMAN FOOTPRINTS. EPITOMES, V. 2, P. 311, RIMINI.
29.	2005	F	
30.	2007	F	
31.	2007	F	
32.	2007	F	
33.	2007	F	

Project 3

Summary of research products:

	2003	2004	2005	2006	2007	Total
A1	3	0	4	5	1	13
A2	1	1	0	0	3	5
B1	0	1	0	0	0	1
F	8	17	12	13	20	70
Total	12	19	16	18	24	

List of research products:

1.	2003	A1	MIETTO P., GIANOLLA P., MANFRIN S., PRETO N. (2003) – REFINED AMMONOID BIOCHRONOSTRATIGRAPHY OF THE BAGOLINO SECTION (LOMBARDIAN ALPS, ITALY), GSSP CANDIDATE FOR THE ANISIAN/LADINIAN STAGE BOUNDARY. RIV. IT. PALEONT. STRATIG., 109, 449-462. MIETTO P., MANFRIN S., PRETO N., GIANOLLA P., KRYSTYN L., ROGHI G. (2003) – PROPOSAL OF THE GLOBAL STRATIGRAPHIC SECTION AND POINT (GSSP) FOR THE BASE OF THE LADINIAN STAGE (MIDDLE TRIASSIC). GSSP AT THE BASE OF THE AVISIANUM SUBZONE (FAD OF APLOCOCERAS AVISIANUM) IN THE BAGOLINO
2.	2003	A2	

			SECTION (SOUTHERN ALPS, NE ITALY). ALBERTIANA, 28: 26-34.
3.	2003	A1	RAFFI I, MOZZATO C, FORNACIARI E., HILGEN FJ, RIO D. (2003). LATE MIOCENE CALCAREOUS NANNOFOSSIL BIOSTRATIGRAPHY AND ASTROBIOCHRONOLOGY FOR THE MEDITERRANEAN REGION. MICROPALAEONTOLOGY, 49, 1-26
4.	2003	A1	RIO D., PREMOLI SILVA I., CAPRARO L. (2003). THE GEOLOGIC TIME SCALE AND THE ITALIAN STRATIGRAPHIC RECORD. EPISODES, 26, 259-263.
5.	2004	A2	MIETTO P., GIANOLLA P., MANFRIN S., PRETO N. (2004) - THE AMMONOID SUCCESSION IN THE BAGOLINO SECTION (NE ITALY). ALBERTIANA, 29, 44-47.
6.	2004	B1	PRETO N., HINNOV L.A., DE ZANCHE V., MIETTO P., HARDIE L.A., (2004) - THE MILANKOVITCH INTERPRETATION OF THE LATEMAR CYCLES (DOLOMITES, ITALY): IMPLICATIONS FOR GEOCHRONOLOGY, BIOSTRATIGRAPHY AND MIDDLE TRIASSIC CARBONATE ACCUMULATION. IN: D'ARGENIO B., FISCHER A.G., PREMOLI SILVA I., WEISSERT H. & FERRERI V. (EDS) - CYCLOSTRATIGRAPHY: AN ESSAY OF APPROACHES AND CASE HISTORIES. S.E.P.M. SP. PUBBL. 81, 167-182, TULSA (OKLAHOMA).
7.	2005	A1	BREDA M., MARCHETTI M., (2005) - SYSTEMATICAL AND BIOCHRONOLOGICAL REVIEW OF PLIO-PLEISTOCENE ALCEINI (CERVIDAE; MAMMALIA) FROM EURASIA. QUATERNARY SCIENCE REVIEWS, 24, 775-805.
8.	2005	A1	BREDA M., PINI R., RAVAZZI C., (2005) - THE PALAEOENVIRONMENT OF CERVALCES LATIFRONS (JOHNSON, 1874) FROM FORNACI DI RANICA (LATE EARLY PLEISTOCENE, NORTHERN ITALY). PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOCLOGY, 216, 99-118.
9.	2005	A1	KUSTATSCHER E., MANFRIN S., MIETTO P., POSENATO R., ROGHI G. (2005) - NEW BIOSTRATIGRAPHIC DATA ON ANISIAN (MIDDLE TRIASSIC) PALYNOMORPHS FROM DOLOMITES (ITALY). REV. PALAEOBOTANY & PALYNOLOGY, 140: 79-90.
10.	2005	A1	MANFRIN S., MIETTO P., PRETO N. (2005) - AMMONOID BIOSTRATIGRAPHY OF THE MIDDLE TRIASSIC LATEMAR PLATFORM (DOLOMITES, ITALY) AND ITS CORRELATION WITH NEVADA AND CANADA. GEOBIOS, 38, 477-504.
11.	2006	A1	AGNINI C., MUTTONI G., KENT D.V., RIO D. (2006) - EOCENE BIOSTRATIGRAPHY AND MAGNETIC STRATIGRAPHY FROM POSSAGNO, ITALY: THE CALCAREOUS NANNOFOSSIL RESPONSE TO CLIMATE VARIABILITY. EARTH AND PLANETARY SCIENCE LETTERS, 241, 815-830.
12.	2006	A1	CITA M.B., CAPRARO L., CIARANFI N., DI STEFANO E., MARINO M., RIO D., SPROVIERI R., VAI G.B. (2006) - CALABRIAN AND IONIAN: A PROPOSAL FOR THE DEFINITION OF MEDITERRANEAN STAGES FOR THE LOWER AND MIDDLE PLEISTOCENE. EPISODES, 29, 107-113.
13.	2006	A1	FURIN S., PRETO N., RIGO M., ROGHI G., GIANOLLA P., CROWLEY J., BOWRING S.A., (2006) - A HIGH-PRECISION U/PB ZIRCON AGE FROM THE TRIASSIC OF ITALY IMPLICATIONS FOR THE CARNIAN RISE OF CALCAREOUS NANNOPLANKTON AND DINOSAURS. GEOLOGY, 34, 1009-1012.
14.	2006	A1	MCARTHUR J.M., RIO D., MASSARI F., CASTRADORI D., BAILEY T.R., THIRLWALL M., HOUGHTON S. (2006) - A REVISED PLIOCENE RECORD FOR MARINE-SR-87/SR-86 USED TO DATE AN INTERGLACIAL EVENT RECORDED IN THE COCKBURN ISLAND FORMATION, ANTARCTIC PENINSULA. PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY PALAEOECOCLOGY, 242, 126-136.
15.	2006	A1	RAFFI I., BACKMAN J., FORNACIARI E., PALIKE H., RIO D., LOURENS L., HILGEN F. (2006) - A REVIEW OF CALCAREOUS NANNOFOSSIL ASTROBIOCHRONOLOGY ENCOMPASSING THE PAST 25 MILLION YEARS. QUATERNARY SCIENCE REVIEWS. 25, 3113-3137.
16.	2007	A1	AGNINI C., FORNACIARI E., RAFFI I., RIO D., ROHL U., WESTERHOLD T. (2007) - HIGH-RESOLUTION NANNOFOSSIL BIOCHRONOLOGY OF MIDDLE PALEOCENE TO EARLY EOCENE AT ODP SITE 1262: IMPLICATIONS FOR CALCAREOUS NANNOPLANKTON EVOLUTION. MARINE MICROPALAEONTOLOGY, 64, 215-248.
17.	2007	A2	GUAIUMI C., NICORA A., PRETO N., RIGO M., BALINI M., DI STEFANO P., GULLO M., LEVERA M., MAZZA M., MUTTONI G., 2007 - NEW BIOSTRATIGRAPHIC DATA AROUND THE CARNIAN/NORIAN BOUNDARY FROM THE PIZZO MONDELLO SECTION, SICANI MOUNTAINS, SICILIA. IN: S.G. LUCAS & J.A. SPIELMANN (EDS) - THE GLOBAL TRIASSIC, NEW MEXICO MUSEUM OF NATURAL HISTORY AND SCIENCE BULLETIN, 41: 40-42.
18.	2007	A2	MIETTO P., BURATTI N., CIRILLI S., DE ZANCHE V., GIANOLLA P., MANFRIN S., NICORA A., PRETO N., RIGO M., ROGHI G. (2007) - NEW CONSTRAINTS FOR THE LADINIAN-CARNIAN BOUNDARY IN THE SOUTHERN ALPS. SUGGESTIONS FOR GLOBAL CORRELATIONS. IN:

			S.G. LUCAS & J.A. SPIELMANN (EDS) - THE GLOBAL TRIASSIC, NEW MEXICO MUSEUM OF NATURAL HISTORY AND SCIENCE BULLETIN, 41: 275-281.
19.	2007	A2	MIETTO P., ANDREETTA R., BROGLIO LORIGA C., BURATTI N., CIRILLI S., DE ZANCHE V., FURIN S., GIANOLLA P., MANFRIN S., MUTTONI G., NERI C., NICORA A., POSENATO R., PRETO N., RIGO M., ROGHI G., SPÖTL C., 2007 - A CANDIDATE OF THE GLOBAL BOUNDARY STRATOTYPE SECTION AND POINT FOR THE BASE OF THE CARNIAN STAGE (UPPER TRIASSIC): GSSP AT THE BASE OF THE CANADENSIS SUBZONE (FAD OF DAXATINA) IN THE PRATI DI STUORES/STUORES WIESEN SECTION (SOUTHERN ALPS, NE ITALY). ALBERTIANA, 36, 78-97.
20.	2003	F	CAPRARO L., BERTOLDI R., CONSOLARO C. (2003) - VEGETATIONAL HISTORY ACROSS THE MIDDLE PLEISTOCENE TRANSITION IN THE CENTRAL MEDITERRANEAN (CROTONE BASIN, CALABRIA, SOUTHERN ITALY). POSTER. IN: EARLY-MIDDLE PLEISTOCENE TRANSITIONS: THE LAND-OCEAN EVIDENCE. INQUA MEETING, COMMISSION ON STRATIGRAPHY, CAMBRIDGE (UK), 4 APRIL 2003.
21.	2003	F	CAPRARO L., BERTOLDI R., CONSOLARO C. (2003) - VEGETATIONAL HISTORY ACROSS THE MIDDLE PLEISTOCENE TRANSITION IN THE CENTRAL MEDITERRANEAN (CROTONE BASIN, CALABRIA, SOUTHERN ITALY). ABSTRACT E POSTER. IN: EGS-AGU-EUG JOINT ASSEMBLY, NICE, FRANCE, 6-11 APRIL.
22.	2003	F	GIUSBERTI L., AGNINI C., BACKMAN J., CONSOLARO C., FORNACIARI E., DOMENICO RIO, TATEO F., GRANDESSO P. (2003) - AN HIGH-QUALITY RECORD OF THE PALAEOCENE-EOCENE THERMAL MAXIMUM (PETM) IN THE CENTRAL WESTERN TETHYS: THE FORADA SECTION (SOUTHERN ALPS, NORTHEASTERN ITALY). GEOPHYSICAL RESEARCH ABSTRACTS, V. 5 (ABSTRACTS OF THE CONTRIBUTIONS OF THE EGS-AGU-EUG JOINT ASSEMBLY, NICE, FRANCE, 06-11 APRIL 2003).
23.	2003	F	GIUSBERTI L., FORNACIARI E., AGNINI C., BACKMAN J., CONSOLARO C., GRANDESSO P., LEONE U. RIO D., TATEO F. (2003) - HIGH-RESOLUTION INTEGRATED STUDY AT THE PALEOCENE-EOCENE BOUNDARY IN THE FORADA SECTION (SOUTHERN ALPS, NORTHEASTERN ITALY); IN: LAMOLDA M.A. (ED.), BIOEVENTS: THEIR STRATIGRAPHICAL RECORDS, PATTERNS AND CAUSES, CARAVACA DE LA CRUZ, 3RD-8TH JUNE 2003 (SPAIN), P. 109, AYUNTAMIENTO DE CARAVACA DE LA CRUZ, SPAIN.
24.	2003	F	GIUSBERTI L., FORNACIARI E., BACKMAN J., BILATO D., CONSOLARO C., GRANDESSO P., RIO D., TATEO F. (2003) - A NEW SECTION STRADDLING THE K/P AND P/E BOUNDARIES IN THE CENTRAL WESTERN TETHYS (SOUTHERN ALPS, NORTHEASTERN ITALY). IN: LAMOLDA M.A. (ED.), BIOEVENTS: THEIR STRATIGRAPHICAL RECORDS, PATTERNS AND CAUSES, CARAVACA DE LA CRUZ, 3RD-8TH JUNE 2003 (SPAIN), P. 110, AYUNTAMIENTO DE CARAVACA DE LA CRUZ, SPAIN.
25.	2003	F	HANCHAR J.M., BREWIN M., MCGLYNN I.O., GIANOLLA P., FURIN S., RAMEZANI J., BOWRING S.A., SYLVESTER P., TUBRETT M., PRETO N., DE ZANCHE V., HARDIE L.A., 2003 - CORRELATION, GEOCHRONOLOGY, AND CHEMICAL COMPOSITION OF PIETRA VERDE TUFFS FROM THE DOLOMITES AND LOMBARDY REGIONS, NORTHERN ITALY. TRIASSIC GEOCHRONOLOGY AND CYCLOSTRATIGRAPHY FIELD SYMPOSIUM, SEPTEMBER 11 - 13, 2003, ST. CHRISTINA, ITALY.
26.	2003	F	PRETO N., MIETTO P., MANFRIN S., GIANOLLA P., (2003) - CONTROLS OF HIGHLY VARIABLE SEDIMENTATION RATES IN THE LIVINALLONGO/BUCHENSTEIN BASIN AS REVEALED BY HIGH-RESOLUTION CORRELATIONS (MIDDLE TRIASSIC, SOUTHERN ALPS, ITALY). "TRIASSIC GEOCHRONOLOGY AND CYCLOSTRATIGRAPHY A FIELD SYMPOSIUM", P. 20, ST. CHRISTINA.
27.	2003	F	RIGO M., DE ZANCHE V., MIETTO P., PRETO N., ROGHI G., (2003) - BIOSTRATIGRAPHY OF THE CALCARI CON SELCE FORMATION. WORKSHOP "LATE TRIASSIC-EARLY JURASSIC EVENTS IN THE FRAMEWORK OF THE PANGAEA BREAK-UP", ABSTRACTS: 63-64, CAPRI.
28.	2004	F	AGNINI C., BOLLA E.M., FORNACIARI E., LUCIANI V., GIUSBERTI L., GRANDESSO P., RIO D., STEFANI C., (2004) - III) THE SOUTHERN ALPS EARLY PALEOGENE PELAGIC RECORD: PRELIMINARY DATA ON THE MIDDLE/LATE EOCENE TRANSITION IN THE ALANO SECTION (CENTRAL-WESTERN TETHYS, NE ITALY). CLIMATE AND BIOTA OF THE EARLY PALEOGENE. 5 TH INTERN. CONF. , LUXOR, FEBR. 8-12-2004, ABSTRACT AND PROGRAM BOOK.
29.	2004	F	AGNINI C., FORNACIARI E., GIUSBERTI L., GRANDESSO P., LUCIANI V., RIO D. (2004) - THE EARLY PALAEOGENE PELAGIC RECORD OF SOUTHERN ALPS. 32 ND IGC FLORENCE 2004 - SCIENTIFIC

			SESSIONS: ABSTRACTS.
30.	2004	F	AGNINI C., FORNACIARI E., GIUSBERTI L., GRANDESSO P., LUCIANI V., RIO D., TATEO F. (2004) - I) THE SOUTHERN ALPS EARLY PALEOGENE PELAGIC RECORD: THE PALEOCENE SERIES IN PIAVE RIVER VALLEY (CENTRAL-WESTERN TETHYS, NE ITALY). IN BICE K., AUBRY M. & OUDA K. (EDS), CLIMATE AND BIOTA OF THE EARLY PALEOGENE CBEP V, FIFTH INTERNATIONAL CONFERENCE ON GLOBAL EVENTS AND REORGANISATION OF THE BIOSPHERE IN THE PALEOCENE-EOCENE TRANSITION, FEBRUARY 8-12, 2004, LUXOR-EGYPT, ABSTRACT & PROGRAM BOOK, C-1.
31.	2004	F	AGNINI C., FORNACIARI E., GIUSBERTI L., RIO D. (2004) - AN HIGH-RESOLUTION STUDY OF THE CALCAREOUS NANNOFOSSILS IN THE LATE PALAEOCENE-EARLY EOCENE IN THE SOUTHERN ALPS. 32 ND IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS.
32.	2004	F	AGNINI C., FORNACIARI E., GIUSBERTI L., RIO D., (2004) - II) THE SOUTHERN ALPS EARLY PALEOGENE PELAGIC RECORD: AN HIGH-RESOLUTION STUDY OF THE CALCAREOUS NANNOFOSSILS ACROSS THE P/E BOUNDARY IN THE SOUTHERN ALPS. IN BICE K., AUBRY M. & OUDA K. (EDS), CLIMATE AND BIOTA OF THE EARLY PALEOGENE CBEP V, FIFTH INTERNATIONAL CONFERENCE ON GLOBAL EVENTS AND REORGANISATION OF THE BIOSPHERE IN THE PALEOCENE-EOCENE TRANSITION, FEBRUARY 8-12, 2004, LUXOR-EGYPT, ABSTRACT & PROGRAM BOOK, C-2.
33.	2004	F	AVIGLIANO R., CALDERONI, G., DONEGANA, M., MONEGATO, G., PAIERO, G., PINI, R., RAVAZZI, C. (2004) - PALAEOENVIRONMENTS DURING THE LAST GLACIAL MAXIMUM IN THE FRIULI AREA (NE-ITALY)* - 32ND INTERNATIONAL GEOLOGICAL CONGRESS, FLORENCE.
34.	2004	F	BACKMAN, J., MORAN, K., EVANS, D., THE EXPEDITION 302 PROJECT TEAM (2004) - ACEX—ARCTIC CORING EXPEDITION: PALEOCEANOGRAPHIC AND TECTONIC EVOLUTION OF THE CENTRAL ARCTIC OCEAN. IODP SCI. PROSP., 302, DOI:10.2204/IODP.SP.302.2004.
35.	2004	F	CAPRARO L., BACKMAN J., BERTOLDI R., CHANNELL J.E.T., FORNACIARI E., RIO D. (2004) - LONG-TERM VEGETATION HISTORY ACROSS THE MIDDLE PLEISTOCENE CLIMATIC TRANSITION (MPT) IN SOUTHERN ITALY (CROTONE BASIN, CALABRIA). ABSTRACT E COMUNICAZIONE ORALE. IN: 32ND INTERNATIONAL GEOLOGICAL CONGRESS, FIRENZE, 20-28 AUGUST.
36.	2004	F	CAPRARO L., RIO D., SPROVIERI R., CHANNELL J.E.T., VAI G.B. (2004) - A CANDIDATE SECTION FOR DEFINING THE LOWER-MIDDLE PLEISTOCENE BOUNDARY. ABSTRACT E POSTER. IN: 32ND INTERNATIONAL GEOLOGICAL CONGRESS, FIRENZE, 20-28 AUGUST.
37.	2004	F	COCCIONI R., FERRERO E., GIUSBERTI L., LIRER F., LUCIANI V., MARSILI A., SPEZZAFERRI S. (2004) - NEW FINISIGHT ON THE LATE CRETACEOUS-EOCENE FORAMINIFERAL RECORD FROM THE CLASSICAL BOTTACCIONE AND CONTESSA PELAGIC TETHYAN SECTIONS (GUBBIO, CENTRAL ITALY): RESULTS FROM HIGH-RESOLUTION STUDY AND A NEW SAMPLE PREPARATION TECHNIQUE. 32 ND IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS.
38.	2004	F	CONSOLARO C., CAPRARO L., FORNACIARI E., RIO D., MASSARI F. (2004) - CHRONOLOGY OF THE PLIOCENE SUCCESSION IN THE STRONGOLI AREA (CROTONE, SOUTHERN ITALY): DISANTANGLING TECTONICS FROM GLACIOEUSTASY. ABSTRACT E POSTER. IN: 32ND INTERNATIONAL GEOLOGICAL CONGRESS, FIRENZE, 20-28 AUGUST.
39.	2004	F	GIANOLLA P., HANCHAR J.M., FURIN S., MIETTO P., (2004) - STRATIGRAPHIC, VOLCANOLOGIC, AND GEOCHRONOLOGIC CONSTRAINTS OF A UNIQUE ACCRETIONARY LAPILLI LAYER IN THE LIVINALLONGO/BUCHENSTEIN FORMATION (MIDDLE TRIASSIC, SOUTHERN ALPS, ITALY). 32° IGC FLORENCE 2004 - SCIENTIFIC SESSIONS: ABSTRACTS (PART 2): 957, FIRENZE.
40.	2004	F	KUSTATSCHE E., ROGHI G., MIETTO P., POSENATO R. (2004) - PALYNOLOGIC ANALYSIS FROM THE UPPER ANISIAN (MIDDLE TRIASSIC) OF THE DOLOMITES (ITALY): NEW BIOSTRATIGRAPHIC AND PALAEOCLIMATIC DATA. XI INT. PALYNOLOGICAL CONGR., ABSTRACT VOL., 14, PP. 441-442, GRANADA. (
41.	2004	F	MANCO S., MIETTO P., NICORA A., PRETO N., RIGO M., TOGNON M., (2004) - CONODONT FAUNA AT THE LADINIAN/CARNIAN BOUNDARY INTERVAL IN THE SOUTHERN ALPS. ALBERTIANA, SUPPL. V. 30, P. 9, UTRECHT.
42.	2004	F	MIETTO P., MANFRIN S., PRETO N., GIANOLLA P., (2004) - SELECTED AMMONOID FAUNA AT THE LADINIAN/CARNIAN BOUNDARY INTERVAL IN THE SOUTHERN ALPS. ALBERTIANA, SUPPL. V. 30, P. 10, UTRECHT.

43.	2004	F	MONTAGNA P., MCCULLOCH M., TAVIANI M., REMIA A., MAZZOLI C. (2004) – LASER ABLATION TRACE ELEMENT SYSTEMATICS IN DEEP-WATER CORALS (DESMOPHYLLUM DIANTHUS) FROM THE MEDITERRANEAN SEA AND THE PACIFIC OCEAN. 8TH INTERNATIONAL CONFERENCE ON PALEOCEANOGRAPHY, BIARRITZ, FRANCE, SEPTEMBER 5-10.
44.	2004	F	RIGO M. & MIETTO P., (2004) - UPPER TRIASSIC CONODONT BIOSTRATIGRAPHY IN THE LAGONEGRO BASIN (SOUTHERN APENNINES); WORK IN PROGRESS. ALBERTIANA, SUPPL. V. 30, P. 10, UTRECHT.
45.	2005	F	AGNINI C., MUTTONI G., RIO D., KENT D.V., FORNACIARI E., GIUSBERTI L., TATEO F., (2005) - CALCAREOUS NANNOFOSSIL RESPONSE TO TRANSIENT AND LONG-TERM CLIMATE EVOLUTIONS: THE PETM AND EARLY EOCENE IN THE SOUTHERN ALPS (ITALY). EOS TRANS. AGU, 86(52), FALL MEET. SUPPL., ABSTRACT PP51C-0611. SAN FRANCISCO (USA), DECEMBER 5-9, 2005.
46.	2005	F	AVANZINI M., MIETTO P., (2005) - TETRAPOD ICHNOLOGICAL DIVERSITY IN THE LOWER AND MIDDLE TRIASSIC OF NORTHERN ITALY AND ITS POTENTIAL CONTRIBUTION TO CONTINENTAL BIOCHRONOLOGY. INTERNATIONAL SYMPOSIUM ON DINOSAURS AND OTHER VERTEBRATES PALAEOICHOLOGY, FUMANYA-ST. CORNELI (CERCS, BARCELONA) OCTOBER 4-8TH 2005, ABSTRACTS BOOK, PP. 75-77, BARCELONA.
47.	2005	F	AVIGLIANO R., CALDERONI G., DONEGANA M., MONEGATO G., PAIERO G., PINI R., RAVAZZI C. (2005) - PALAEOENVIRONMENTS DURING THE LAST GLACIAL MAXIMUM IN CENTRAL FRIULI AREA (NE-ITALY)* - AIGEO: MONTAGNE E PIANURE; PADOVA 15-17 FEBBRAIO 2005.
48.	2005	F	COCCIONI R., ANGORI E., GALEOTTI S., GIUSBERTI L., GUASTI E., MONECHI S., SPROVIERI M., TATEO F. (2005) - THE PALEOCENE/EOCENE BOUNDARY IN THE CONTESSA ROAD SECTION (GUBBIO, CENTRAL ITALY): NEW HIGH-RESOLUTION INTEGRATED DATA FROM A CLASSICAL PELAGIC TETHYAN SETTING. IN BICE K., AUBRY M. & OUDA K. (EDS), CLIMATE AND BIOTA OF THE EARLY PALEOGENE CBEP V, FIFTH INTERNATIONAL CONFERENCE ON GLOBAL EVENTS AND REORGANISATION OF THE BIOSPHERE IN THE PALEOCENE-EOCENE TRANSITION, FEBRUARY 8-12, 2004, LUXOR-EGYPT, ABSTRACT & PROGRAM BOOK, C-10.
49.	2005	F	FURIN S., GIANOLLA P., MIETTO P., (2005) - 8-19 POSTER: APPLICATION OF THE GRAPHIC CORRELATION METHOD TO COMPARE THE BIO- AND LITHOSTRATIGRAPHIC RECORD AT THE ANISIAN/LADINIAN BOUNDARY IN THE TYPE AREA: SOUTHERN ALPS DOMAIN (SWITZERLAND, ITALY, SLOVENIA AND HUNGARY). EPITOME, VOL. 1, PP. 48-49, TRIESTE.
50.	2005	F	MONEGATO G. (2005) - PALAEODRAINAGES OF FRIULIAN RIVERS INFERRED BY PETROGRAPHIC AND SEDIMENTOLOGIC ANALYSES OF THE CONTINENTAL SUCCESSIONS OF THE OSOPPO HILLS (FRIULI, NE ITALY)*. GEOITALIA 2005, SPOLETO 21-23 SEPTEMBER 2005.
51.	2005	F	MONEGATO G., DONEGANA M., PINI R., RAVAZZI C., WICK L., CALDERONI G. (2005) - LGM CHRONOLOGY AND PALAEOENVIRONMENT IN THE SE ALPINE FORELAND: EVIDENCES OF A TWO-FOLD GLACIAL ADVANCE IN THE TAGLIAMENTO MORAINIC AMPHITHEATRE – INQUA-SEQS 2005: THE QUATERNARY OF SWITZERLAND, BERN 4-9 SEPTEMBER 2005.
52.	2005	F	MONTAGNA P., MCCULLOCH M., TAVIANI M., REMIA A., MAZZOLI C. (2005) - IN-SITU HIGH RESOLUTION MINOR AND TRACE ELEMENT COMPOSITIONS IN DESMOPHYLLUM DIANTHUS FROM THE MEDITERRANEAN SEA AND THE PACIFIC OCEAN. THIRD INTERNATIONAL SYMPOSIUM ON DEEP SEA CORALS, MIAMI, USA, NOVEMBER 28-DECEMBER 2.
53.	2005	F	MCCULLOCH M., MONTAGNA P., MORTIMER G., FÖRSTERRA G., HÄUSSERMANN V., MAZZOLI C. (2005) - SHALLOW-WATER DESMOPHYLLUM DIANTHUS FROM THE CHILEAN FJORDS: U-SERIES DATING AND IN-SITU TRACE ELEMENT GEOCHEMISTRY. THIRD INTERNATIONAL SYMPOSIUM ON DEEP SEA CORALS, MIAMI, USA, NOVEMBER 28-DECEMBER 2.
54.	2005	F	PINI R., ASIOLI A., AVIGLIANO R., BERTOLINI M., CALDERONI G., DONEGANA M., MASSARI F., MOZZI P., PACIFICO P., PUGLIESE N., RAVAZZI C., STEFANI C., (2005) - A 400 KY STRATIGRAPHIC AND PALAEOCLIMATIC RECORD IN THE EASTERN SOUTHPINE FORELAND (NE ITALY). INQUA – SEQs, BERN 2005.
55.	2005	F	PRETO N., SPOETL C., MIETTO P., GIANOLLA P., FURIN S., (2005) - CORRELATION POTENTIAL OF MIDDLE TRIASSIC HEMIPELAGIC CARBONATE SUCCESSIONS USING CARBON ISOTOPES. GEOPHYSICAL RESEARCH ABSTRACTS, V. 7, N° EGU05-A, WIEN.

56.	2005	F	SPRONG J., GUASTI E., FORNACIARI E., SPEIJER R.P. (2005) - A FORAMINIFERA-BASED PALEOENVIRONMENTAL RECONSTRUCTION OF THE DANIAN/SELANDIAN TRANSITION IN EGYPT. THE MICROPALAEONTOLOGICAL SOCIETY'S FORAMINIFERA AND NANNOFOSSIL GROUPS JOINT SPRING MEETING. THE NATIONAL OCEANOGRAPHY CENTRE SOUTHAMPTON, 15TH-17TH JUNE 2005.
57.	2006	F	AGNINI C., FORNACIARI E., GIUSBERTI L., BACKMAN J., GRANDESSO P., LUCIANI V., RIO D., SCARDANZAN D. (2006) - IN SEARCH OF EARLY EOCENE HYPERTHERMALS: THE FARRA D'ALPAGO SECTION (SOUTHERN ALPS, ITALY). IN CABALLERO ET AL. (EDS), CIMATE AND BIOTA OF THE EARLY PALEOGENE 2006. VOLUME OF ABSTRACTS, BILBAO, P. 2.
58.	2006	F	CAPRARO L. (2006) - THE IONIAN STAGE: A PROPOSAL FOR THE MIDDLE PLEISTOCENE CHRONOSTRATIGRAPHY. ABSTRACT E COMUNICAZIONE ORALE. IN: INQUA-SEQS, QUATERNARY STRATIGRAPHY AND EVOLUTION OF THE ALPINE REGION IN THE EUROPEAN AND GLOBAL FRAMEWORK, MILANO, 11-15 SETTEMBRE.
59.	2006	F	COCCIONI R., ANGORI E., CATANZARITI R., GIUSBERTI L., GUASTI E., LUCIANI V., MARSILI A., MONECHI S., SPROVIERI M., TATEO F. (2006) - THE EARLY PALEOGENE HYPERTHERMAL EVENTS (EPHES): NEW INSIGHTS FROM THE CLASSICAL TETHYAN CONTESSA ROAD SECTION (GUBBIO, ITALY). IN CABALLERO ET AL. (EDS), CIMATE AND BIOTA OF THE EARLY PALEOGENE 2006. VOLUME OF ABSTRACTS, BILBAO, P. 27
60.	2006	F	FORNACIARI, E., CATANZARITI, R., RIO, D., AGNINI, C., BOLLA, E.M., VALVASONI, E. (2006) - IMPROVING RESOLUTION OF CALCAREOUS NANNOFOSSIL BIOSTRATIGRAPHY AT THE MIDDLE TO LATE EOCENE TRANSITION. IN CABALLERO ET AL. (EDS), CIMATE AND BIOTA OF THE EARLY PALEOGENE 2006. VOLUME OF ABSTRACTS, BILBAO, P. 44.
61.	2006	F	FURIN S, PRETO N., CROWLEY J.L, BOWRING S.A, RIGO M, ROGH M, GIANOLLA P., (2006) - A NEW U-PB AGE CONSTRAINT ON THE UPPER TRIASSIC DURATION FROM SOUTHERN ITALY. GEOPHYSICAL RESEARCH ABSTRACTS, VOL. 8, 03610.
62.	2006	F	LOWICK S.E., PREUSSER F., MONEGATO G. (2006) - THE PRINCIPLES OF OPTICALLY STIMULATED LUMINESCENCE AND ITS APPLICATION TO THE DATING OF SEDIMENTS FROM THE PO PLAIN, NORTHEASTERN ITALY - INQUA – SEQs 2006: QUATERNARY STRATIGRAPHY AND EVOLUTION OF THE ALPINE REGION IN THE EUROPEAN AND GLOBAL FRAMEWORK MILANO, 11 – 15 SEPTEMBER 2006.
63.	2006	F	MENEGUOLO R., PRETO N., BREDA A., (2006) - CLIMATIC CONTROL OF ARENITES: AN EXAMPLE FROM THE CARNIAN (UPPER TRIASSIC) OF THE DOLOMITES (NORTHERN ITALY). – ATTI DEL CONGRESSO: EGU GENERAL ASSEMBLY 2006.
64.	2006	F	MIETTO P., MANFRIN S., GIANOLLA P., (2006) - MIDDLE TRIASSIC AMMONOID BIOSTRATIGRAPHIC SCALES: HINTS ON CORRELATIONS, CLIMATIC CHANGES AND GLOBAL EVENTS. NGF ABSTRACTS AND PROCEEDINGS OF THE GEOLOGICAL SOCIETY OF NORWAY (BOREAL TRIASSIC 2006, LONGBYEARBYEN, SVALBARD 16-19 AUGUST 2006), 3: 106-107, TRONDHEIM.2007.
65.	2006	F	MONEGATO G. (2006). THE EVOLUTION OF THE VALLEY OF TAGLIAMENTO RIVER FROM THE MESSINIAN SALINITY CRISIS ONWARDS. GEOSD - MODENA 2006, 25-29 SETTEMBRE 2006.
66.	2006	F	MONEGATO G. (2006) - THE PLIO-PLEISTOCENE EVOLUTION OF THE TAGLIAMENTO RIVER VALLEY (EASTERN PRE-ALPS) - INQUA – SEQs 2006: QUATERNARY STRATIGRAPHY AND EVOLUTION OF THE ALPINE REGION IN THE EUROPEAN AND GLOBAL FRAMEWORK MILANO, 11 – 15 SEPTEMBER 2006.
67.	2006	F	PRETO N., FURIN S, RIGO M, CROWLEY J, BOWRING S.A, ROGH G, GIANOLLA P., (2006) - RADIOMETRIC DATATION OF THE CARNIAN PLUVIAL EVENT, AND IMPLICATIONS FOR ITS POSSIBLE CAUSES. GEOPHYSICAL RESEARCH ABSTRACTS, VOL. 8, 04384.
68.	2006	F	RIO D., PREMOLI-SILVA I., AGNINI C., BRINKHUIS H., FORNACIARI E., GIUSBERTI L., GRANDESSO P., LANCI L., LUCIANI V., MUTTONI G., STEFANI C., VILLA I., (2006) - THE ALANO DI PIAVE SECTION (VENETIAN SOUTHERN ALPS, NE ITALY). A POTENTIAL GSSP OF THE PRIABONIAN STAGE (UPPER EOCENE). IN CABALLERO ET AL. (EDS), CIMATE AND BIOTA OF THE EARLY PALEOGENE 2006. VOLUME OF ABSTRACTS, BILBAO, P. 109.
69.	2006	F	STEFANI C., CAPRARO L., CAROBENE L., CONSOLARO C., FORNACIARI E., , MASSARI F., RIO D. , TATEO F., (2006) - AN INVENTORY OF THE MIDDLE PLIOCENE TO MIDDLE PLEISTOCENE TEPHRA MARKER BEDS IN THE CROTONE BASIN. TEFROSTRATIGRAFIA DEL QUATERNARIO RECENTE ITALIANO

			TRA VULCANOLOGIA E SCIENZE DEL QUATERNARIO" (ROMA 21-23 GIUGNO 2006).
70.	2007	F	AGNINI, C., FORNACIARI, E., RAFFI, I., RIO, D., RÖHL, U., WESTERHOLD, T. (2007) - INTERACTIONS BETWEEN EARLY PALEOGENE CALCAREOUS NANNOPLANKTON EVOLUTION AND CHANGES IN ENVIRONMENTAL CONDITIONS: EVIDENCE FROM ODP SITE 1262 GEOPHYSICAL RESEARCH ABSTRACTS, VOL. 9, 08116. EGU GENERAL ASSEMBLY, VIENNA, APRIL 15-20 2007.
71.	2007	F	AGNINI C, MACRÌ P, BACKMAN J, BRINKHUIS H, FORNACIARI E, LUCIANI V, GIUSBERTI L., RIO D, SLUIJS A, SPERANZA F. (2007) - THE EARLY EOCENE CLIMATE REGIME: THE FARRA HYPERTHERMAL EVENT. EPITOME. (VOL. 2, PP. 273-274). GEOITALIA 2007, SESTO FORUM ITALIANO DI SCIENZE DELLA TERRA, RIMINI 12-14 SETTEMBRE 2007 VOLUME DEGLI ABSTRACT. ISSN 1972-1552.
72.	2007	F	AGNINI C, BRINKHUIS H, FORNACIARI E, GIUSBERTI L., LANCI L, LUCIANI V, MUTTONI G, PALIKE H, RIO D, SPOFFORTH D, ET AL. (2007) - THE MIDDLE EOCENE CLIMATIC OPTIMUM (MECO) IN THE ALANO DI PIAVE SECTION (VENETIAN SOUTHERN ALPS, NE ITALY). EPITOME.02.0966. (VOL. 2, PP. 274). GEOITALIA 2007, SESTO FORUM ITALIANO DI SCIENZE DELLA TERRA, RIMINI 12-14 SETTEMBRE 2007 VOLUME DEGLI ABSTRACT. ISSN 1972-1552.
73.	2007	F	AGNINI C., SPOFFORTH D., FORNACIARI E., GIUSBERTI L., LANCI L., LUCIANI V., MUTTONI G., PALIKE H., RIO D. (2007) - IS THE MIDDLE EOCENE CLIMATIC OPTIMUM (MECO) RECORDED IN THE CENTRAL-WESTERN TETHYS? EOS TRANS. AGU, 88(52), FALL MEET. SUPPL., ABSTRACT OS11A-0188.
74.	2007	F	ANDREETTA R., FURIN S., GIANOLLA P. & MIETTO P. (2007) - NEW BIO- AND CHRONOSTRATIGRAPHIC CONSTRAINTS TO THE UPPERMOST LADINIAN EVOLUTION OF CARBONATE PLATFORMS FROM THE WESTERN DOLOMITES (SOUTHERN ALPS, ITALY). EPITOMES, 2, 151, RIMINI.
75.	2007	F	BONA F., ZORZIN R., ACCORDINI M., MAZZI R., GATTO R., ACCORSI C.A., BANDINI MAZZANTI M., BOSI G., TREVISAN G., TORRI P., (2007) - PRIME CONSIDERAZIONI PALEOAMBIENTALI SUI DEPOSITI PLEISTOCENICI DELLA GROTTA INFERIORE DEI COVOLI DI VELO (VR - ITALIA). BOLL. MUSEO CIV. ST. NAT. VERONA, GEOL., PALEONT., PREISTORIA, V. 31; 11-20.
76.	2007	F	CAPRARO L., ASIOLI A., BACKMAN J., CHANNELL J.E.T., FORNACIARI E., MASSARI F., RIO D. (2007) - THE VALLE DI MANCHE SECTION (CROTONE BASIN, CALABRIA, SOUTHERN ITALY): A CANDIDATE SECTION OF THE LOWER-MIDDLE PLEISTOCENE BOUNDARY. ABSTRACT E POSTER. IN: XVII INQUA CONGRESS, CAIRNS, AUSTRALIA, 28 JULY-3 AUGUST.
77.	2007	F	CAPRARO L., BACKMAN J., RIO D., MASSARI F., FORNACIARI E., CHANNELL J.E.T., ASIOLI A., (2007) - STORIA VEGETAZIONALE E FLORISTICA DELLA SUCCESSIONE MEDIOPLEISTOCENICA DEL BACINO DI CROTONE (CALABRIA). ABSTRACT E COMUNICAZIONE ORALE. IN: AIQUA, STATO DELL'ARTE DELLA RICERCA PALEOBOTANICA E PALINOLOGICA IN ITALIA DAL PLIOCENE AL PLEISTOCENE MEDIO, ROMA, 17-18 DICEMBRE.
78.	2007	F	CAPRARO L., CIARANFI N., CITA M.B., DI STEFANO E., MARINO M., RIO D., SPROVIERI R., VAI G.B. (2007) - THE CALABRIAN, IONIAN, AND TARENTIAN REGIONAL STAGES: A PROPOSAL FOR SUBDIVIDING THE PLEISTOCENE SERIES IN THE MEDITERRANEAN AREA. ABSTRACT E POSTER. IN: XVII INQUA CONGRESS, CAIRNS, AUSTRALIA, 28 JULY-3 AUGUST.
79.	2007	F	CAPRARO L., SPROVIERI M., CONSOLARO C., MASSARI F., RIO D., SPROVIERI R. (2007) - MEDITERRANEAN CLIMATE EVOLUTION DURING MIS 11: EVIDENCE FROM AN INTEGRATED AND HIGH-RESOLUTION MARINE RECORD. ABSTRACT E POSTER. IN: EGS-AGU-EUG JOINT ASSEMBLY, VIENNA, AUSTRIA, 15-20 APRIL.
80.	2007	F	DICKENS, G.R., KOELLING, M., SMITH, D.C., SCHNIEDERS, L., THE IODP EXPEDITION 302 SCIENTISTS (2007) - RHIZON SAMPLING OF PORE WATERS ON SCIENTIFIC DRILLING EXPEDITIONS: AN EXAMPLE FROM THE IODP EXPEDITION 302, ARCTIC CORING EXPEDITION (ACEX). SCI. DRILL. 4, 22-25, DOI:10.2204/IODP.SD.4.08.2007.
81.	2007	F	FORNACIARI E., BACKMAN J. AND JAKOBSSON M. (2007) - CALCAREOUS NANNOFOSSILS FROM THREE HOTRAX SITES IN THE CENTRAL ARCTIC OCEAN. AGU FALL MEETING 2007 ABSTRACTS
82.	2007	F	FRANCESCHI M., PRETO N., GUAIUMI C., LISI N., (2007) - LASER SCANNER STRATIGRAPHY: EXAMPLES FROM HEMIPELAGIC SUCCESSIONS OF ITALY. GEOITALIA 2007, SESTO FORUM ITALIANO DI SCIENZE DELLA TERRA, RIMINI, 12-14 SETTEMBRE 2007 IN EPITOME, V. 2, P. 397-398.
83.	2007	F	GIANOLLA P., DE ZANCHE V., FURIN S., MIETTO P., NERI C.,

			FURLANIS S., ROGHI G., AVANZINI M., (2007) - A MULTIDISCIPLINARY EFFORT TO IMPROVE CHRONOSTRATIGRAPHIC CONSTRAINTS TO THE TRIASSIC SEQUENCE STRATIGRAPHY FRAMEWORK: NEW DATA FROM THE DOLOMITES (SOUTHERN ALPS, ITALY). EPITOMES, V. 2, P. 151, RIMINI. GUAIUMI C., PRETO N., RIGO M., CALLEGARO S., (2007) - A DEEP-WATER RECORD OF THE CARNIAN PLUVIAL EVENT, LAGONEGRO BASIN (SOUTHERN APENNINES, ITALY).GEOITALIA 2007, SESTO FORUM ITALIANO DI SCIENZE DELLA TERRA, RIMINI, 12-14 SETTEMBRE 2007 IN EPITOME, 2, 154. GIUSBERTI L., RIO D, AGNINI C., BACKMAN J, FORNACIARI E, LUCIANI V, TATEO F., (2007) - THE PALEOCENE-EOCENE THERMAL MAXIMUM FROM A CENTRAL WESTERN TETHYS PERSPECTIVE: THE FORADA SECTION (NE ITALY). EPITOME.02.963. (VOL. 2, PP. 273). GEOITALIA 2007, SESTO FORUM ITALIANO DI SCIENZE DELLA TERRA, RIMINI 12-14 SETTEMBRE 2007 VOLUME DEGLI ABSTRACT. ISSN 1972-155. LUCIANI V., AGNINI C., FORNACIARI E., GIUSBERTI L., BACKMAN J., RIO D. (2007) - HIGH RESOLUTION STUDY ON PLANKTONIC FORAMINIFERA ACROSS THE PALEOCENE-EOCENE THERMAL MAXIMUM IN THE EXPANDED TETHYAN FORADA SECTION (ITALY): PALEOECOLOGICAL AND PALEOENVIRONMENTAL IMPLICATION. GEOPHYSICAL RESEARCH ABSTRACTS, VOL. 9, 09698, 2007 S REF-ID: 1607-7962/GRA/EGU2007-A-09698. MIETTO P., BURATTI N., CIRILLI S., DE ZANCHE V., GIANOLLA P., MANFRIN S., NICORA A., PRETO N., RIGO M., ROGHI G., (2007) - NEW CONSTRAINTS FOR THE LADINIAN-CARNIAN BOUNDARY IN THE SOUTHERN ALPS. SUGGESTIONS FOR GLOBAL CORRELATIONS. NEW MEXICO MUSEUM OF NATURAL HISTORY AND SCIENCE BULLETIN, V. 41, PP. 275-281. NICORA A., BALINI M., BELLANCA A., BERTINELLI A., BOWRING S.A., DI STEFANO P., DUMITRICA P., GUAIUMI C., GULLO M., HUNGERBUEHLER A., LEVERA M., MAZZA M., MCROBERTS C.A., MUTTONI G., PRETO N., RIGO M., (2007) - THE CARNIAN/NORIAN BOUNDARY INTERVAL AT PIZZO MONDELLO (SICANI MOUNTAINS, SICILY) AND ITS BEARING FOR THE DEFINITION OF THE GSSP OF THE NORIAN STAGE. ALBERTIANA, V. 36, PP. 102-129. PRETO N., HINNOV L.A., MIETTO P., VISONA' D., FURIN S., RIVA A., (2007) - THE LATEMAR CONTROVERSY: MORE QUESTIONS THAN ANSWERS. EPITOMES, V. 2, P. 153, RIMINI.
84.	2007	F	
85.	2007	F	
86.	2007	F	
87.	2007	F	
88.	2007	F	
89.	2007	F	

Project 4

Summary of research products:

	2003	2004	2005	2006	2007	Total
A1	1	0	1	5	3	10
A2	0	1	2	0	1	4
B1	0	0	2	0	0	2
B2	0	1	1	6	0	8
F	3	1	0	1	2	7
Total	4	3	6	12	6	

List of research products:

1.	2003	A1	FRISIA S., BORSATO A., PRETO N., MCDERMOTT F. (2003) - EFFECTS OF SOLAR FORCING AND NORTH ATLANTIC OSCILLATION ON HOLOCENE ALPINE CLIMATE RECORDED IN STALAGMITES GROWTH RATE VARIATIONS. EARTH AND PLANETARY SCIENCE LETTERS, 216, 411-424.
2.	2005	B1	CAPRARO L., ASIOLI A., BACKMAN J., BERTOLDI R., CHANNELL J.E.T., MASSARI F., RIO, D. (2005) - CLIMATIC PATTERNS REVEALED BY POLLEN AND OXYGEN ISOTOPE RECORDS ACROSS BRUNHES-MATUYAMA BOUNDARY IN THE CENTRAL MEDITERRANEAN (SOUTHERN ITALY), IN HEAD, M.J., AND GIBBARD, P.L. EDS., EARLY-MIDDLE PLEISTOCENE TRANSITIONS: THE LAND-OCEAN EVIDENCE: GEOLOGICAL SOCIETY, LONDON, SPECIAL PUBLICATION 247, 159-182.
3.	2005	B1	FERRETTI, P., SHACKLETON, N.J., HALL, M. A. AND RIO, D., 2005. EARLY-MIDDLE PLEISTOCENE DEEP CIRCULATION IN THE WESTERN SUBTROPICAL ATLANTIC: SOUTHERN HEMISPHERE MODULATION OF THE NORTH ATLANTIC OCEAN. JOURNAL OF THE GEOLOGICAL SOCIETY, V. 247, PP.131-145, SPECIAL PUBLICATION.
4.	2005	A1	RAVAZZI C., PINI R., BREDA M., MARTINETTO E., MUTTONI G., CHIESA S., CONFORTINI F., EGLI R. (2005) - THE LACUSTRINE DEPOSITS OF FORNACI DI RANICA (LATE EARLY PLEISTOCENE, ITALIAN PRE-ALPS): STRATIGRAPHY, PALAEOENVIRONMENT AND GEOLOGICAL EVOLUTION. QUATERNARY INTERNATIONAL, 131 (1), 35-58.
5.	2006	A1	MONTAGNA P., MCCULLOCH M., TAVIANI M., MAZZOLI C., VENDRELL B. (2006) - PHOSPHORUS IN COLD-WATER CORALS AS A PROXY FOR SEAWATER NUTRIENT CHEMISTRY. SCIENCE, 312, 1788-1791.
6.	2007	A1	CANALI G., CAPRARO L., DONNICI S., RIZZETTO F., SERANDREI-BARBERO R., TOSI L., (2007) - VEGETATIONAL AND ENVIRONMENTAL CHANGES IN THE EASTERN VENETIAN COASTAL PLAIN (NORTHERN ITALY) OVER THE PAST 80,000 YEARS. PALAEOCLIMATOLOGY, PALAEOGEOGRAPHY, PALAEOECOLOGY, 253, 300-316.
7.	2007	A1	MONTAGNA P., MCCULLOCH M., MAZZOLI C., SILENZI S., ODORICO R. (2007) - THE NON-TROPICAL CORAL CLADOCORA CAESPITOSA AS THE NEW CLIMATE ARCHIVE FOR THE MEDITERRANEAN SEA: HIGH-RESOLUTION (~ WEEKLY) TRACE ELEMENT SYSTEMATICS. QUATERNARY SCIENCE REVIEWS, 26, 441-462.
8.	2007	A1	MUTTONI G., RAVAZZI C., BREDA M., PINI R., LAJ C., KISSEL C., MAZAUD A., GARZANTI E., (2007) - MAGNETOSTRATIGRAPHIC DATING OF AN INTENSIFICATION OF GLACIAL ACTIVITY IN THE SOUTHERN ITALIAN ALPS DURING MARINE ISOTOPE STAGE 22. QUATERNARY RESEARCH, 67 (1), 161-173.
9.	2003	F	MONTAGNA P., GAGAN M., MCCULLOCH M., SCOTT-GAGAN H., ANTONIOLI F., SILENZI S., MAZZOLI C. (2003) - CLIMATE VARIABILITY OF THE LAST MILLENNIUM REVEALED BY HIGH-RESOLUTION STABLE ISOTOPE RECORD IN AN ITALIAN SPELEOTHEM (NW SARDINIA). ANU ANNUAL REPORT.
10.	2003	F	MONTAGNA P., MCCULLOCH M., MAZZOLI C., SILENZI S., ODORICO R. (2003) - GEOCHEMICAL COMPOSITION OF CORAL (CLADOCORA CAESPITOSA) FROM THE NORTHERN ADRIATIC SEA AND ITS RELATION TO SEA SURFACE TEMPERATURE. GEOITALIA, 4° FORUM FIST, BELLARIA, ITALY, SEPTEMBER 16-18, 575-576.
11.	2003	F	PRETO N., FRISIA S., BORSATO A., MCDERMOTT F., SPÖTL C., (2003) - EVIDENCE OF LATE HOLOCENE SOLAR INFLUENCE ON ALPINE CLIMATE FROM SPELEOTHEMS. THE XVI INQUA CONGRESS, JULY 23 - 30, 2003, RENO, NEVADA USA.
12.	2004	F	MONTAGNA P., MCCULLOCH M., MAZZOLI C., SILENZI S. (2004) - B/CA, SR/CA, U/CA AND MG/CA RATIOS OF A ON-TROPICAL CORAL (CLADOCORA CAESPITOSA) FROM THE NORTHERN ADRIATIC SEA (MEDITERRANEAN SEA) AND THEIR RELATIONSHIP TO SEA SURFACE TEMPERATURE. 10 TH INTERNATIONAL CORAL REEF SYMPOSIUM, OKINAWA, JAPAN, JUNE 28-JULY 2.
13.	2006	F	MONTAGNA P., MCCULLOCH M., MAZZOLI C., SILENZI S., SCHIAPARELLI S. (2006) - LI/CA RATIOS IN THE MEDITERRANEAN NON-TROPICAL CORAL CLADOCORA CAESPITOSA AS A POTENTIAL PALEOTHERMOMETER. EUROPEAN GEOSCIENCE UNION, GENERAL ASSEMBLY 2006, VIENNA, AUSTRIA, APRIL 2-7.
14.	2007	F	MONTAGNA P., MAZZOLI C., MCCULLOCH M., SILENZI S., TAVIANI M.

			(2007) - HIGH-RESOLUTION NATURAL ARCHIVES OF CLIMATE CHANGE IN THE MEDITERRANEAN: FROM SHALLOW- TO DEEP-WATER ENVIRONMENTS. GEOITALIA, 6 ^o FORUM FIST, RIMINI, ITALY, SEPTEMBER 12-14.
15.	2007	F	MONTAGNA P., SILENZI S., MCCULLOCH M., MAZZOLI C., TAVIANI M. (2007) - HIGH-RESOLUTION CLIMATE ARCHIVES OF THE MEDITERRANEAN: INFERENCES FROM SHALLOW- TO DEEP-WATER ENVIRONMENTS. 9 TH INTERNATIONAL CONFERENCE ON PALEOCEANOGRAPHY, THE FUTURE OCEAN: PERSPECTIVES FROM THE PAST, SHANGHAI, CHINA, SEPTEMBER 2-7.
16.			ARCTIC OCEAN
17.	2004	B2	BACKMAN, J., MORAN, K., EVANS, D., AND THE EXPEDITION 302 PROJECT TEAM, 2004. ACEXARCTIC CORING EXPEDITION: PALEOCEANOGRAPHIC AND TECTONIC EVOLUTION OF THE CENTRAL ARCTIC OCEAN. IODP SCI. PROSP., 302, DOI:10.2204/IODP.SP.302.2004.
18.	2004	A2	BACKMAN, J., MORAN, K., THE IODP LEG 302 EXPEDITION SCIENTISTS (2005) - IODP LEG 302 - ARCTIC CORING EXPEDITION (ACEX). POLARFORSKNINGSSEKRETARIATETS ÅRSBOK 2004.
19.	2005	A2	BACKMAN, J., MORAN, K., MCINROY, D., AND THE IODP LEG 302 EXPEDITION SCIENTISTS (2005) - IODP EXPEDITION 302, ARCTIC CORING EXPEDITION (ACEX): A FIRST LOOK AT THE CENOZOIC PALEOCEANOGRAPHY OF THE CENTRAL ARCTIC OCEAN. SCIENTIFIC DRILLING 1, 12-17, DOI:10.2204/IODP.SD.1.02.2005.
20.	2005	A2	BACKMAN, J., MORAN, K., MCINROY, D., AND THE IODP LEG 302 EXPEDITION SCIENTISTS, 2005. IODP EXPEDITION 302, ARCTIC CORING EXPEDITION (ACEX): A FIRST LOOK AT THE CENOZOIC PALEOCEANOGRAPHY OF THE CENTRAL ARCTIC OCEAN. SCIENTIFIC DRILLING 1, 12-17, DOI:10.2204/IODP.SD.1.02.2005.
21.	2005	B2	EXPEDITION 302 SCIENTISTS, (2005) - ARCTIC CORING EXPEDITION (ACEX): PALEOCEANOGRAPHIC AND TECTONIC EVOLUTION OF THE CENTRAL ARCTIC OCEAN. IODP PREL. REPT., 302, DOI:10.2204/IODP.PR.302.2005.
22.	2006	B2	BACKMAN, J., MORAN, K., MCINROY, D.B., MAYER, L.A., AND THE EXPEDITION 302 SCIENTISTS, 2006. PROC. IODP, 302: EDINBURGH (INTEGRATED OCEAN DRILLING PROGRAM MANAGEMENT INTERNATIONAL, INC.), DOI:10.2204/IODP.PROC.302.2006.
23.	2006	A1	BRINKHUIS H., SCHOUTEN S., COLLINSON M.E., SLUIJS A., SINNINGHE-DAMSTÉ J.S., DICKENS G.R., HUBER M., CRONIN T.M., ONODERA J., TAKAHASHI K., BUJAK J.P., VAN DER BURGH J.M., STEIN R., MATTHIESSEN J., ELDRETT J.S., HARDING I.C., SANGIORGI F., DE LEEUW J.W., LOTTER A.F., RIO, D., AND IODP LEG 302 EXPEDITION SCIENTISTS (2006) - EPISODIC FRESH SURFACE WATERS IN THE EARLY EOCENE ARCTIC OCEAN AND ADJACENT SEAS. NATURE 441, 606-609.
24.	2006	B2	EXPEDITION 302 SCIENTISTS, 2006. EXPEDITION 302 SUMMARY. IN BACKMAN, J., MORAN, K., MCINROY, D.B., MAYER, L.A., AND THE EXPEDITION 302 SCIENTISTS, PROC. IODP, 302: EDINBURGH (INTEGRATED OCEAN DRILLING PROGRAM MANAGEMENT INTERNATIONAL, INC.), DOI:10.2204/IODP.PROC.302.101.2006.
25.	2006	B2	EXPEDITION 302 SCIENTISTS, 2006. METHODS. IN BACKMAN, J., MORAN, K., MCINROY, D.B., MAYER, L.A., AND THE EXPEDITION 302 SCIENTISTS, PROC. IODP, 302: EDINBURGH (INTEGRATED OCEAN DRILLING PROGRAM MANAGEMENT INTERNATIONAL, INC.), DOI:10.2204/IODP.PROC.302.103.2006.
26.	2006	B2	EXPEDITION 302 SCIENTISTS, 2006. SITES M0001-M0004. IN BACKMAN, J., MORAN, K., MCINROY, D.B., MAYER, L.A., AND THE EXPEDITION 302 SCIENTISTS, PROC. IODP, 302: EDINBURGH (INTEGRATED OCEAN DRILLING PROGRAM MANAGEMENT INTERNATIONAL, INC.), DOI:10.2204/IODP.PROC.302.104.2006.
27.	2006	B2	JAKOBSSON, M., FLODÉN, T., AND THE EXPEDITION 302 SCIENTISTS, 2006. EXPEDITION 302 GEOPHYSICS: INTEGRATING PAST DATA WITH NEW RESULTS. IN BACKMAN, J., MORAN, K., MCINROY, D.B., MAYER, L.A., AND THE EXPEDITION 302 SCIENTISTS, PROC. IODP, 302: EDINBURGH (INTEGRATED OCEAN DRILLING PROGRAM MANAGEMENT INTERNATIONAL, INC.), DOI:10.2204/IODP.PROC.302.102.2006.
28.	2006	B2	MOORE, T.C., AND THE EXPEDITION 302 SCIENTISTS, 2006. SEDIMENTATION AND SUBSIDENCE HISTORY OF THE LOMONOSOV RIDGE. IN BACKMAN, J., MORAN, K., MCINROY, D.B., MAYER, L.A., AND THE EXPEDITION 302 SCIENTISTS, PROC. IODP, 302: EDINBURGH (INTEGRATED OCEAN DRILLING PROGRAM MANAGEMENT INTERNATIONAL, INC.), DOI:10.2204/IODP.PROC.302.105.2005.
29.	2006	A1	MORAN K, BACKMAN J, BRINKHUIS H, CLEMENS SC, CRONIN T, DICKENS GR, EYNAUD F, GATTACCECA J, JAKOBSSON M, JORDAN RW, KAMINSKI M, KING J, KOC N, KRYLOV A, MARTINEZ N, MATTHIESSEN J, MCINROY D, MOORE TC, ONODERA J, O'REGAN M, PALIKE H, REA B, RIO D, SAKAMOTO T, SMITH DC, STEIN R, ST JOHN K, SUTO I, SUZUKI N, TAKAHASHI K, WATANABE M, YAMAMOTO M, FARRELL J, FRANK M,

			KUBIK P, JOKAT W, KRISTOFFERSEN Y. (2006) - THE CENOZOIC PALAEOENVIRONMENT OF THE ARCTIC OCEAN. NATURE 441, 601-605.
30.	2006	A1	PAGANI M., PEDENTCHOUK N., HUBER M., SLUIJS A., SCHOUTEN S., BRINKHUIS H., SINNINGHE DAMSTÉ J.S., DICKENS G.R., BACKMAN J., CLEMENS S., CRONIN T., EYNAUD F., GATTACCECA J., JAKOBSSON M., JORDAN R., KAMINSKI M., KING J., KOC N., MARTINEZ N.C., MATTHIESSEN J., MCINROY D., MOORE T.C., MORAN K., O'REGAN M., ONODERA J., PÁLIKE H., REA B., RIO D., SAKAMOTO T., SMITH D.C., STEIN R., ST JOHN K.E.K., SUTO I., SUZUKI N., TAKAHASHI K., WATANABE M., YAMAMOTO M. (2006) - ARCTIC HYDROLOGY DURING GLOBAL WARMING AT THE PALAEOCENE-EOCENE THERMAL MAXIMUM. NATURE 442, 671-675.
31.	2006	A1	SLUIJS A., SCHOUTEN S., PAGANI M., WOLTERING M., BRINKHUIS H., SINNINGHE DAMST J.S., DICKENS G.R., HUBER M., REICHART G.-J., STEIN R., MATTHIESSEN J., LOURENS L.J., PEDENTCHOUK N., BACKMAN J., MORAN K., CLEMENS S., CRONIN T., EYNAUD F., GATTACCECA J., JAKOBSSON M., JORDAN R., KAMINSKI M., KING J., KOC N., MARTINEZ N.C., MCINROY D., MOORE T.C., O'REGAN M., ONODERA J., PÁLIKE H., REA B., RIO D., SAKAMOTO T., SMITH D.C., ST JOHN K.E.K., SUTO I., SUZUKI N., TAKAHASHI K., WATANABE M., YAMAMOTO M. (2006) - SUBTROPICAL ARCTIC OCEAN TEMPERATURES DURING THE PALAEOCENE/EOCENE THERMAL MAXIMUM. NATURE 441, 610-613.
32.	2007	A2	DICKENS, G.R., KOELLING, M., SMITH, D.C., SCHNIEDERS, L., AND THE IODP EXPEDITION 302 SCIENTISTS, 2007. RHIZON SAMPLING OF PORE WATERS ON SCIENTIFIC DRILLING EXPEDITIONS: AN EXAMPLE FROM THE IODP EXPEDITION 302, ARCTIC CORING EXPEDITION (ACEX). SCI. DRILL. 4, 22-25, DOI:10.2204/IODP.SD.4.08.2007