



Preliminary data about planktonic foraminifera assemblages: Paleotemperature record and Heinrich events from Galicia continental slope

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Gravity core GeoB-11035 (2000 mbsl, 505 cm length) was retrieved from the continental slope, 65 km offshore the Galician coast during the cruise P-342 on board of the R/V Poseidon. The lithology of the core is mainly composed by grey to olive carbonate mud with fine to medium sandy carbonate particles. A preliminary sampling along the whole core of one sample every 16 cm (a total of 40 samples) allow us to depict a general biostratigraphy based on planktonic foraminifera as well as an approach to climate events recorded in the NW Iberian margin. The chronostratigraphy of the core has been established by three AMS-14C analyses, foraminifera data and sedimentary features, as mainly the record of ice rafted debris at certain levels interpreted as Heinrich Events. At least 300 individuals of planktonic foraminifera per sample (>150 μm) have been counted in order to define the assemblages. Census counts have been used to estimate the paleotemperature record applying the Modern Analog Technique (MAT). Eighteen species have been identified, although only two species, *Neogloboquadrina pachyderma* (Ehrenberg) and *Globigerina bulloides* (d'Orbigny) account for more than 70% of the total assemblage. *N. pachyderma* (left coiling) displays three prominent peaks at 95, 350, and 488 cm coinciding with high amounts of lithic grains. These three events have been correlated with Heinrich Events H1, H4 and H5. One additional terrigenous peak, interpreted as H3, is recorded at 215 cm. For

the moment H2 has not been identified, probably due to the low sampling resolution. Paleo-SST reconstruction agrees with the previous interpretations. Warmest surface waters (at around 13°C), recorded at the core top, identifies the Holocene (0-50 cm). Relatively high temperatures are also recorded between H1 and H4 and during a short interval just below the H4. Minimum temperature values (6-8°C) appear at 60-140 cm, 300-380 cm and from 410 cm to core bottom, the intervals where polar planktonic faunas and detritic components show high values. According to the above data, most of the core GeoB-11035 registers the MIS 2. The Holocene represents a short interval and the core base probably records the upper MIS 3.