



Integrated stratigraphy of the Bottaccione section at Gubbio, central Italy: a classical Paleocene Tethyan setting revisited

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The Upper Cretaceous to Paleocene succession cropping out along the Bottaccione section (Gubbio, central Italy) represents a classical Tethyan setting that served as a standard for the construction of the geomagnetic polarity time scale. Available biomagnetostratigraphy suggests that the Paleocene interval of the Bottaccione section is condensed relative to other outcrops in the area. Moreover, the thickness of individual magnetochrons compared to other Umbria-Marche successions, suggests that the Bottaccione Paleocene might contain a non-identified stratigraphic gap. However, a new high-resolution integrated stratigraphic record, including bio-, magneto-, chemo-, and cyclostratigraphy, shows that the Bottaccione record is complete and comparable to other successions outcropping in the Umbria-Marche area and oceanic records, although its paleomagnetic signal of is partially corrupted. The recognition of orbitally forced sedimentary cycles together with the availability of a well preserved carbon isotope profile makes the Bottaccione outcrop a potential reference section for comparison with already available record of carbon cycle alterations in the Early-Middle Paleocene and an auxiliary setting for the development of an astrochronological time scale in the Paleocene.