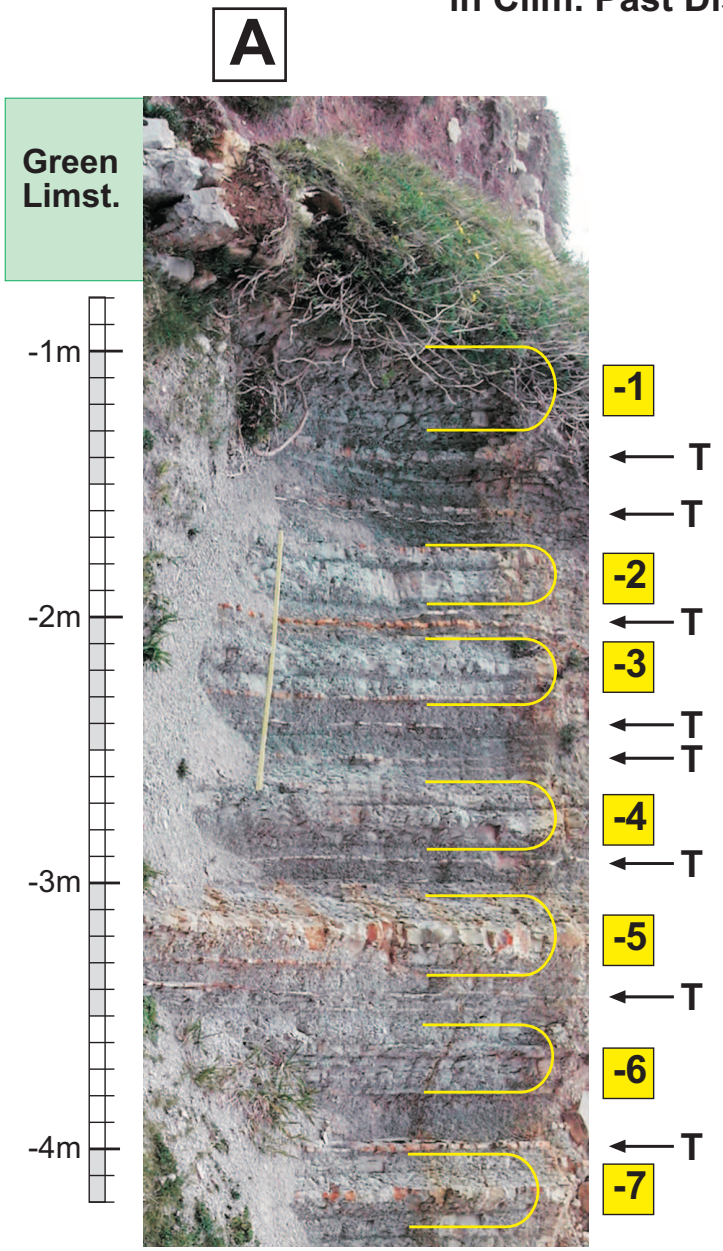
Supplement to: Comment to the manuscript by Dunkley Jones et al 2017 in Clim. Past Discuss. (https://doi.org/10.5194/cp-2017-131)



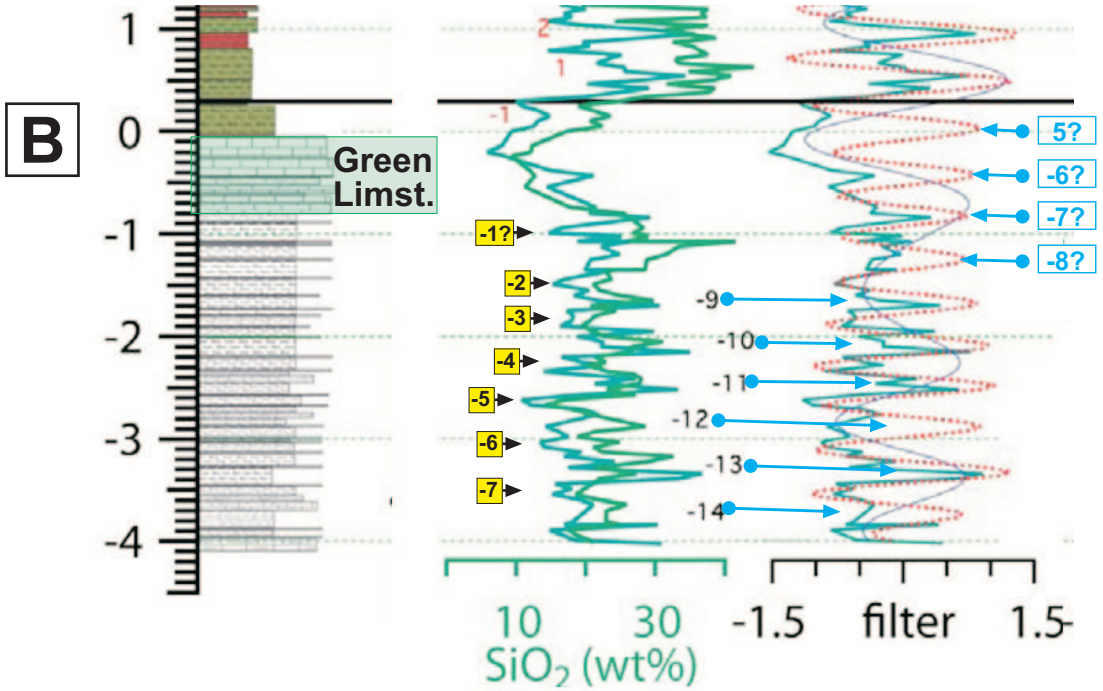


Figure 1. (A) Actual field view of the segment of the section underlying the green limestone at the Zumaia section. The limestone parts of the visible marl/limestone couplets are delineated in yellow, and numbered in boxes. Some turbidite beds are also indicated (T).

(B) Sediment geochemistry data for the Zumaia section presented by Dunkley Jones et al 2017 (simplified from their Fig. 2). From left to right: lithological log; SiO_2 weight percent and Si/Fe ratio based on weight percents of oxides (SiO_2/Fe_2O_3) from bulk sediment XRF analyses; -9 to -14, pre-PETM precession cycles numbered in black; Si/Fe ratios with Gaussian filters of the dominant cycles 0.45m (red) and 1m (blue).

Information added to the simplified figure: yellow boxes = tentative correlation of limestone parts in A and the SIO_2 W% spikes; blue arrows = tentative correlation of Dunkley Jones´s pre-PETM precession cycles -9 to -14 and filtered 0.45m Si/Fe cycles; -5 to -8 in blue boxes = denote filtered 0.45 m cycles, not numbered in the original figure.

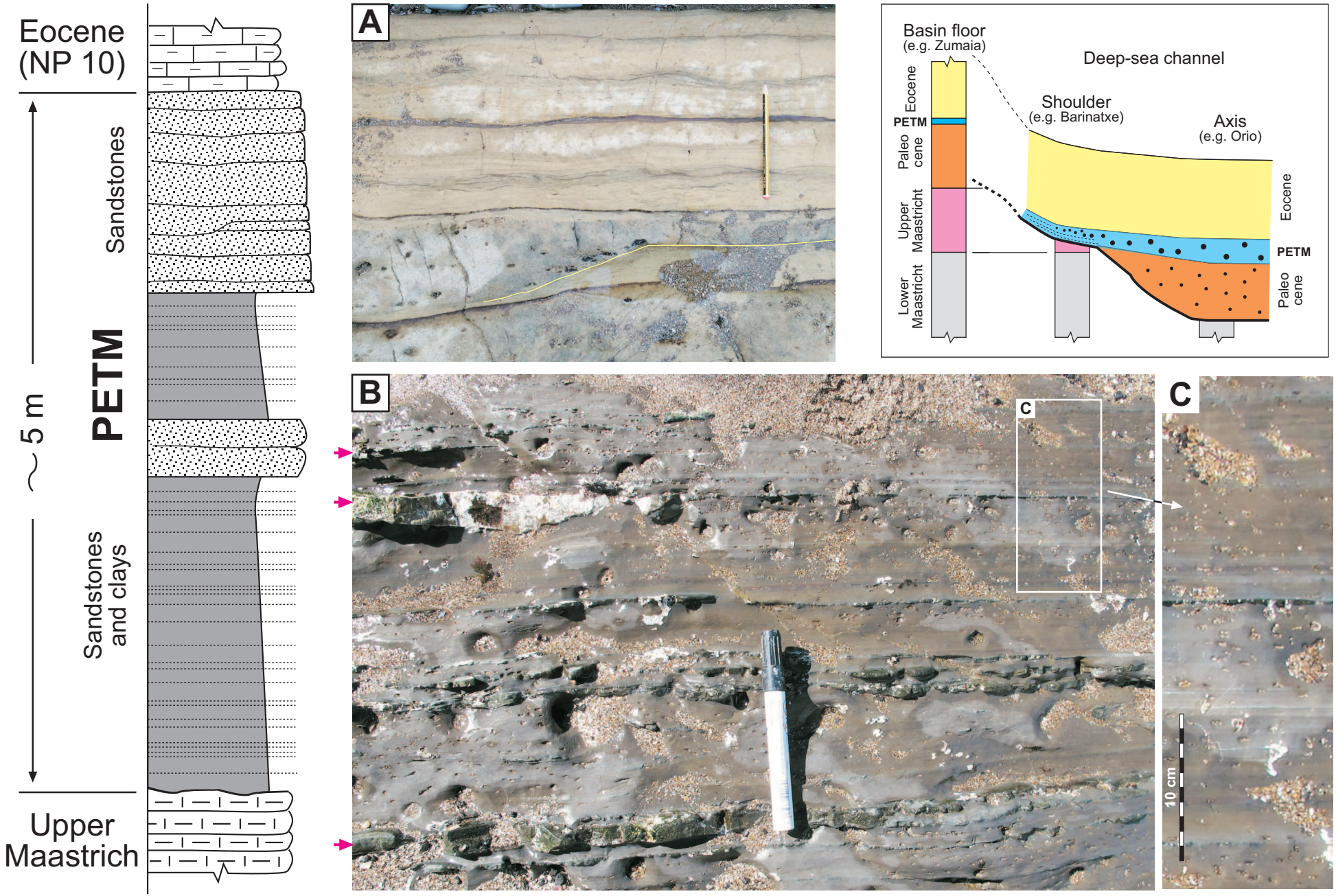


Figure 2: Simplified log and field images of the PETM interval at the Barinatxe section, Basque Basin. (A) coarse-grained facies (B, C). fine-grained facies (scales = 18 and 14 cm respectively). Note internal erosion in A (yellow line), lateral variations in sand/clay proportion in B (purple arrows) and multiple depositional events in B and C. Inset = Cartoon illustrating three main PETM depositional subenvironments in the Basque Basin.

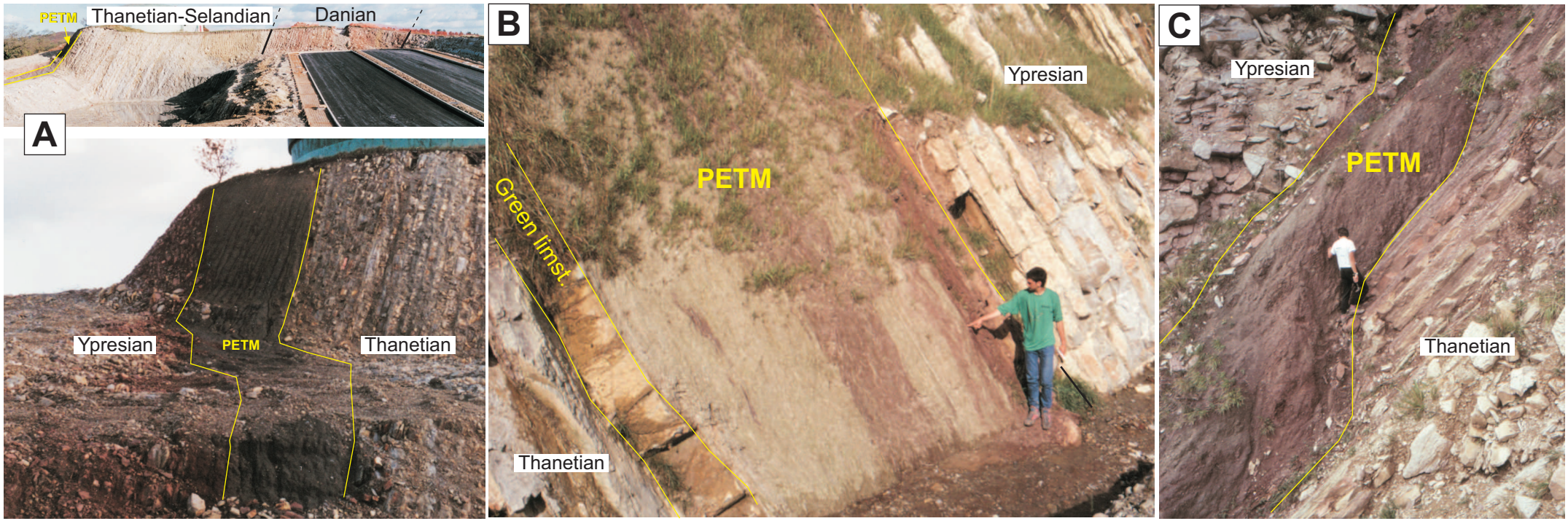


Figure 3: The different colour of the PETM fine grained siliciclastic unit (FSU) according to its weathering degree.

(A) General view and close up of a temporary outcrop created in 2008 for the building of a hospital near the University of the Basque Country. Note that, like at the Barinatxe section, in this fresh outcrop the FSU has dark grey colour.

(B) The East Trabakua pass section. This section was created during the construction of a new Bi 633 road, in the east side of the Artibai river valley, to the North of the Trabakua pass. The colour of the FSU was originally dark grey but it changed to brown (with red bands) after two or three years, as shown in the image. This photo was acquired in July 1992, today the section has got overgrown with vegetation and is no longer visible.

(C) In long exposed outcrops, like in the West Trabakua pass section near the old Bi 633 road, in the west side of the Artibai river valley, the FSU has a reddish color similar to the one it exhibits at Zumaia.

For actual location and geological setting of the two Trabakua pass sections see Fig. 8 of Pujalte et al. 2015.