

IMPORTANCE OF STRATIGRAPHIC GAPS AT THE K/T BOUNDARY IN VARIOUS ENVIRONMENTS OF THE SOUTH OF FRANCE.

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In the South of France, the Maastrichtian and Paleocene facies are marine (Western/Central Pyrenees, Corsica) or continental (Eastern Pyrenees, Provence). Almost everywhere, the succession is interrupted by one (or several) stratigraphic gap(s), variable in amplitude, in the Lowermost Paleocene. Western French Pyrenees. The iridium-level is only evidenced along the Atlantic coast [where Maastrichtian and Paleocene correspond to basin/outershelf facies (Ammonite-bearing marls then mudstones, containing planktonic Foraminifera), without significant gap (P0, Pa ?) at the K/T boundary] and in the Central Pyrenees where shelf facies is less deep and richer in benthics but the gap is longer (P1a, P1b). Between those two regions, the gap corresponds to the lack of P1a but, below, Mayaroensis-marls seem never eroded and Ir-level not deposited. The K/T boundary gaps can be related to a drastic sea level fall, induced by eustacy and/or by the uplift of a folded realm to the East.

Eastern Pyrenees. Ir-level is not evidenced within a transitional series of fluvatile reddish marls and lacustrine limestones. This series include 6 erosional / paleokarstic surfaces corresponding together to a whole gap of 1.8 My. They could be correlated to sea level falls in the western marine realm which separate the successive depositional sequences of this interval. Corsica. Located within marine conglomerates, K/T beds are only known to the South (Calcina). They directly overlie Jurassic. The K/T boundary corresponds to the first appearance of P1b/P1c planktonics and the gap of P1a is induced by tectonics.