
State of palynostratigraphical knowledge of the Paleozoic-Mesozoic transition in the Western peri-Tethyan domain

José B. Diez^{*1,2}, Sylvie Bourquin³, Raúl De La Horra⁴, José Barrenechea⁵, and José López-Gómez⁵

¹Departamento de Xeociencias Mariñas e Ordenación do Territorio, Universidade de Vigo, Vigo, Spain
– Espagne

²Centro de Investigación Mariña, Universidade de Vigo (CIM-UVIGO), 36310 Vigo – Espagne

³Univ. Rennes, CNRS, Géosciences Rennes – UMR CNRS 6118, F-35000 Rennes – CNRS :
UMRCNRS6118, Géoscience Rennes – France

⁴Departamento de Geodinámica, Estratigrafía y Paleontología, Facultad de Geología, Universidad Complutense de Madrid, C/José Antonio Novais 12, 28040 Madrid – Espagne

⁵Instituto de Geociencias (UCM, CSIC), C/Doctor Severo Ochoa 7, E-28040 Madrid – Espagne

Résumé

The definition of the Permian-Triassic boundary in the Western peri-Tethyan domain based on palynological data presents features and problems. The records reported for Southern Europe (Spain, France and Italy) and North Africa (Morocco and Algeria) show a palynostratigraphic coherence for this time interval, which allows a convincing correlation in the study area. In addition, these data have enabled us to observe specific differences in the biozones of these regions compared with the Germanic Basin located further north. This latitudinal difference and disposition of the Variscan Ranges remains could be one explanation. At present, the palynostratigraphic dating of sections of the North of the Iberian Peninsula is very advanced, those corresponding to the South of France and North of Italy are in the publication phase, and some studies in Morocco are in the development phase.

However, attention can be paid to the following issues. The middle-upper Permian palynological assemblages called "Thuringian" (*i.e.* continental stage), pose serious problems when translating into the international stratigraphic ages of the Lonpingian and Guadalupian. We are re-studying these assemblages in an attempt to generate a new palynostratigraphic scale. We have observed that some taxa present different biozones to those conventionally assigned to them. For example, *Lueckisporites virkkiae* has already been reported for the Kungurian (*i.e.* "Thuringian") in the village of Sotres (Asturias, Spain).

The lack of a clear definition of the Lonpingian palynozones makes it impossible to date the base of the sedimentary gap for which the Permian-Triassic limit is absent. Similarly, no palynology data has been found for the Induan-lower Olenekian interval that would correspond to the period of survival after the late Permian extinction. However, an upper Olenekian palynological record from was found at Palanca del Noves (Lerida, Spain, Eastern Pyrenees) that would confirm the existence of levels of the same age in the Catalan Coastal Ranges,

*Intervenant

inferred by palaeomagnetism. Subsequently, the appearance of palynological assemblages of the Anisian age is consistent throughout the study area. Which indicates the recovery of the floras after the great biological crisis.

Mots-Clés: Permian, Triassic, End Permian Extinction, Paleopalynology